

National Skills Bulletin 2019



National Skills Council

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National Skills Bulletin 2019

A Report by the Skills and Labour
Market Research Unit (SLMRU) in SOLAS
on behalf of the National Skills Council

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Foreword by the Minister for Education and Skills

The National Skills Bulletin 2019 is the fifteenth in an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in SOLAS and the third to be produced on behalf of the National Skills Council (NSC). Labour market intelligence has a vital role to play in informing skills policy development in Ireland, and the analysis presented here forms an essential tool in our country's continued efforts to align the skills of the population with the skills needs of the labour market.

During 2018, the labour market continued to improve: employment grew with an additional 63,000 persons at work compared to the previous year, and the number of unemployed persons declined by 20,400. In terms of occupations, the greatest increases in employment were observed for those in professional and skilled trades, with chefs and construction workers in big demand.

Inward migration continued to exceed outward migration, resulting in positive net migration of 33,800 persons – that's 10,600 more than in 2017. When we consider the fact that the number of employment permits issued has also increased – up by a fifth year-on-year – it is evident that Ireland remains an attractive location for many workers.

While shortages in high skilled occupations continue to persist, often in niche areas and requiring a significant level of experience, labour shortages are becoming more prominent as the labour market tightens. Labour shortages arise in situations where employers find it difficult to attract and retain employees, with pay and conditions often the main contributing factors.

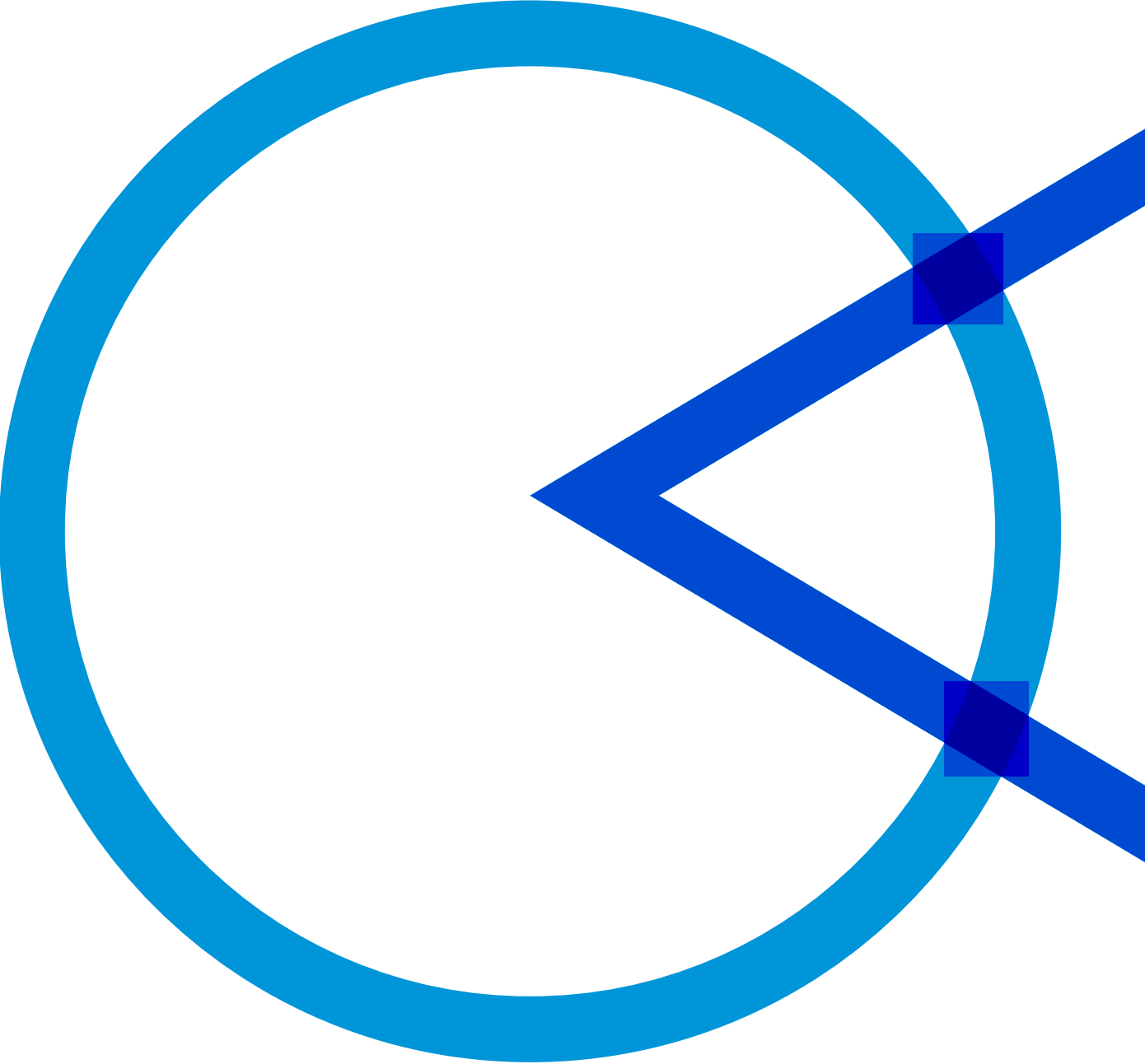
With the likely impact of Brexit yet to be fully understood, the National Skills Bulletin provides an excellent insight into the current standing of the workforce which will assist with any education and training interventions that may be required into the future.

Joe McHugh T.D.

Minister for Education and Skills

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Executive Summary

The National Skills Bulletin 2019 is the fifteenth in an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in SOLAS and the third to be produced on behalf of the National Skills Council (NSC). It presents 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 in the Irish and EU labour market from the EEA); it also aims to inform career guidance advisors, students and other individuals making career and educational choices.

For the most part, the analysis presented in the Bulletin is based on data held in the SLMRU National Skills Database; it spans 95 occupational groups and examines a range of labour market indicators.

Irish Labour Market in 2018

Ireland continued to experience a strengthening labour market during 2018 with further improvements in a number of labour market indicators:

- the labour force increased by 43,000 (annual average)
- employment increased by over 63,000 (annual average)
- the employment rate increased by one percentage points to 68.7% (annual average)
- the participation rate increased by 0.2 percentage points to 62.2% (annual average)
- the number of persons in part-time employment who were underemployed declined by almost 7,000 in the year since quarter 4 2017
- the unemployment level declined by 20,400 (annual average)
- the unemployment rate declined by one percentage points to 5.8% (annual average)
- the long-term unemployment rate declined by 0.4 percentage points to 2.1% (quarter 4)
- the broad unemployment measure (combining unemployed and part-time underemployed persons) declined by 1.1 percentage points to 9.9% (quarter 4)
- inward migration continued to exceed outward migration resulting in positive net migration of 33,800 persons in 2018, an increase of 10,600 persons since 2017
- the total number of redundancies declined to below 3,000, compared to 77,000 in 2009.

Despite this, there remain areas that may require monitoring, including

- the dependency rate continued to increase, primarily related to an increase in the old age (those over 65 years) dependency rates
- in terms of those aged 15-24 years, the youth unemployment rate remained high at 12.0% in quarter 4 2018 while the NEET rate (not in employment, education or training) was at 9.1%; although the youth unemployment rate declined marginally (by 0.2 percentage points) between quarter 4 2017 and quarter 4 2018, the NEET rate saw an increase of 0.3 percentage points
- hourly earnings increased across all sectors in the year since quarter 4 2017
- despite a 30% increase in gross value added (GVA) in the ICT sector since 2017, employment numbers fell in the sector in the year since quarter 4 2017.

Sectoral Employment

In quarter 4 2018, the wholesale/retail sector was the largest employer followed by health and industry.

Between quarter 4 2017 and quarter 4 2018, employment decreased in agriculture, other NACE activities, industry and the ICT sector. All other sectors observed an increase in employment over this time period. The strongest growth, in relative terms, was in the administrative support sector (13%).

Employment by Broad Occupation

Between quarter 4 2017 and quarter 4 2018, employment grew by over 50,000. This recent growth in employment has resulted in an increase in:

- full-time workers
- employees (self-employed numbers declined)
- employed persons with a third level education (31,500 additional persons employed)
- the Dublin and Mid-East region, accounting for 70% of national employment growth.

Between quarter 4 2017 and quarter 4 2018, the majority of occupations observed an increase in employed persons with the exception of farmers, managers, personal services occupations and administrative workers. Those employed in professional and skilled trades roles observed the greatest increase with 23,300 and 16,600 additional persons respectively.

Unemployment by Broad Occupation

The numbers unemployed in Ireland stood at 128,800 in quarter 4 2018, representing a decline of 15,200 since quarter 4 2017. Of this decline, most

- related to males; as such, the unemployment rate for males and females was on a par at 5.4% for the first time since quarter 1 2005
- was related to those aged 25-54 years; the numbers unemployed aged under 25 remained almost unchanged, leading to an increase of three percentage points in the share of those unemployed aged under 25
- was attributed to those with less than third level education; despite a slight increase in the number of unemployed persons with third level education, their unemployment rate remains the lowest at 3.7%.

Between quarter 4 2017 and quarter 4 2018, the number of unemployed persons decreased for almost all occupations with the exception of those previously employed in administrative and associate professional roles. In quarter 4 2018, the unemployment rate was highest for those previously employed in elementary (6.0%) and sales (5.1%) occupations and lowest for those previously employed in managerial and professional occupations combined (1.7%).

Labour market transitions and recent job hires

There were over 1.1 million transitions occurring in the labour market in 2018, with the highest number occurring for those moving between employment and inactivity. There was a net gain of 41,000 persons moving from unemployment to employment.

The analysis of recent job hires (those hired within the previous three months) provides an indication of the level of job churn occurring, along with examining the profile of persons hired by occupational group. In 2018, there were almost 450,000 recent job hires (based on a summing up of the four quarters). Those employed in elementary occupations (92,000) accounted for the highest number of recent job hires, followed by professional (66,000) and sales (60,000) occupations.

The profile of persons recently hired varies across occupational group. For elementary occupations, those recently hired in 2018 were primarily:

- young (53% were aged 15-24)
- had attained higher secondary/FET education (53%)
- were in part-time roles (58%)
- employed in the accommodation and food services sector (51%).

Those recently hired in 2018 in professional occupations primarily:

- held third level qualifications (92%)
- were aged 25-34 years (40%)
- were in full-time positions (83%)
- employed in the education, health, ICT and professional activities sectors.

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

Approximately 11,300 new employment permits were issued in 2018, a 20% increase on the previous year. New permits issued for critical skills accounted for over half (52%) of all new permits in 2018, with a further 34% for general permits and 7% for intra-company transfers.

The number of permits issued has been growing in recent years for most sectors, particularly in the health and ICT sectors. In 2018, the ICT sector accounted for 36% of all new permits issued, with the health sector accounting for 30%. In terms of occupations, professionals accounted for almost three quarters of all new permits issued, for positions including software engineers/developers, doctors, nurses, engineers and financial analysts.

Vacancies

In 2018, vacancies advertised through IrishJobs.ie were mostly concentrated in professional and associate professional occupations; newly advertised vacancies through DEASP Jobs Ireland were concentrated in skilled trades, elementary, and associate professional occupations.

The SLMRU Recruitment Agency Survey from April 2019 indicated that the number of mentions of difficult-to-fill (DTF) vacancies continues to increase. Professional occupations (mostly IT programmers, but also engineers, accountants, doctors etc.) accounted for the majority of all DTF mentions; there were also frequent mentions across all occupational groups, particularly for technician posts, multilingual sales and customer care.

Occupational employment outlook and shortages¹

While shortages exist for a number of occupations across all sectors of the economy, many of these are small in magnitude and in particular niche areas requiring a number of years' experience.

Science & Engineering Occupations

While the supply of graduates in science and engineering has, in the main, increased over the last number of years, these people are sought after across a variety of other sectors (e.g. education, finance, public administration). The demand for skills in the science and engineering occupations, while likely to be relatively small in number in many cases, is driven chiefly by high-tech and related industries. The strong presence of research, development and innovation (RDI) activities in Ireland means that these skills are also required for R&D project manager roles.

Shortages in these occupations were primarily in niche areas and required a high level of experience.

Job titles where shortages were identified included:

- scientists (chemists, biochemists)
- engineers (electrical, chemical, automation, validation, mechanical/manufacturing, EHS (Environmental Health and Safety), process, quality control, design)
- technicians (quality control, process).

¹The term 'shortage' in this report refers only to a situation where 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).

IT Occupations

Overall employment growth in this occupational group has grown above the national average over the previous five years, driven by particularly strong growth for programmers and technicians. Demand for IT skills extends beyond the ICT sector and is increasingly a requirement across other traditional job titles including engineering, business analysts, designers etc. Although graduate output from the education system has grown considerably in recent years, the skillsets for these occupations are continually evolving and the international competition for these skills continues to result in shortages.

Shortages were identified for:

- software developers/engineers (including DevOps)
- web developers (UX/UI), IT architects (systems, solutions, technical), test/systems/network/security engineers
- technicians (technical support, systems/database administrators) with language skills.

Business & Financial Occupations

Business and financial skills are required across a range of economic sectors. Those working in these roles tend to be highly educated and engaged full-time. While employment growth was below average, the high number of persons employed means that employment opportunities will arise due to replacement demand alone. As recognised in the Government's international financial services strategy (2019)², the future demand for business and financial skills is likely to be affected by the impact of Brexit and by changes in the nature of the tasks required to fulfil these roles due to technological change.

Shortages were identified for:

- business intelligence, business/risk analysts
- financial analysts
- data analysts.

In addition, shortages were identified for accountants with experience (e.g. in regulation and compliance); these shortages are considered to be niche and require industry specific experience. Issues were also identified for data scientists although the numbers employed were too small to allow reliable analysis.

Healthcare Occupations

While shortages are arising for a number of health professional occupations, employment in healthcare depends on government funding; as such, there are a number of other areas for which shortages do not exist, despite significant demand for services. The demand for health services continues to grow, due to factors resulting from population growth.

Shortages were identified for:

- specialist doctors and general practitioners
- nurses (staff, registered, clinical nurse managers, advanced nurse practitioners)
- radiographers.

Education Occupations

Employment for these occupations is driven both by government funding and the demographic profile of the population. The fall in the number of children born in recent years will mean a lower demand for primary school teachers. On the other hand, the second level school population is expected to peak in 2024-2025; this will result in increased demand at second level within the next ten years, and later at third level as this cohort moves up through the education system. In addition, government initiatives in areas such as early childhood education and lifelong learning will impact on the demand for these occupations.

Although there have been issues for some schools in recruiting teachers for specific subjects, no shortages have been identified.

² *International Financial Services Strategy 2025 - Ireland for Finance*, Department of Finance, 2019.

Social & Care Occupations

Changing demographics are the primary driver of employment for these occupations. Government initiatives including the extension of the ECCE scheme, commitments to increase the quality of childcare provision, and incentives to increase female labour force participation may offset the decline in demand for childcare workers due to demographic factors (i.e. fall in the number of 0-4 year-olds in the population). Conversely, Ireland's aging population will drive the demand for care workers.

Attracting and retaining care workers have been identified as an issue for this group. Demand for this occupation is expected to grow in the medium term due to aging demographics.

Legal & Security Occupations

There was very little employment growth in these occupations over the five years examined and there was no evidence in the analysis of difficulties sourcing candidates.

Construction Occupations

Construction employment has grown strongly in recent years; most of the growth related to commercial sector activity. The skills mix in this sector is evolving with the increased use of off-site construction methods and other technology advances. The government's Climate Action Plan will increase demand for some occupations such as carpenters, due to plans for significant retrofitting of homes. Future demand for skills will depend on a number of factors including the roll out of the Climate Action Plan and increased activity in both the residential and commercial sectors.

Shortages have been identified for:

- professionals: civil engineers, construction project managers, quantity surveyors
- skilled trades: carpenters, glaziers, steel erectors/fixers, curtain wallers
- operatives: scaffolders, pipe layers.

Other Craft Occupations n.e.c.

While employment has been below average, shortages have been identified. With the exception of electricians, the shortage for these skills relates to a small number of specific areas in manufacturing.

Shortages have been identified for

- welders (e.g. TIG/MIG)
- toolmakers, CNC programmers and fitters (e.g. mechanical/ maintenance)
- electricians.

Issues have been identified in sourcing meat deboners for the food sector.

Agriculture & Animal Care Occupations

Employment in these occupations fell in the five-year period examined. However, issues have been identified by employers through the Department of Agriculture, Food and the Marine in attracting and retaining persons in the areas of horticulture (e.g. fruit and mushroom pickers) and dairy farming. As such, a quota of employment permits has been issued for this sector in order to address the labour shortages that are occurring.

Employers have identified potential labour shortages in the following occupations:

- mushroom pickers, fruit pickers
- dairy farming.

Hospitality Occupations

The accommodation and food services sector, for which the majority of employment in these occupations occurs, has experienced significant growth in recent years. Recent job hires far outnumbered employment growth in 2018 indicating that job churn is a significant factor for these occupations. In terms of future outlook, any fallout from Brexit that impacts on tourism in Ireland will have direct implications for the demand for these skills.

Shortages have been identified for chefs (executive, head chefs, sous chefs, chefs de partie).

Arts, Sports & Tourism Occupations

Employment growth in these occupations is likely to be linked to Ireland's strong economic performance in recent years; growth in the demand for these occupations (e.g. beauty therapists) will be dependent on a thriving tourism sector as well as on the level of disposable incomes for individuals in Ireland.

Although shortages have not been identified, there are indications that employers are having difficulties recruiting animators.

Transport & Logistics Occupations

While the transport sector accounts for more than half of all those working in this occupation, other sectors include industry, wholesale/retail and construction. Drivers (e.g. truck, taxi, bus, mobile machine), make up more than four fifths of those working in these occupations. Those working in the transport sector are likely to be affected by the impact of Brexit in terms of the import and export of goods. Additional skills may be required in the areas of customs clearance and documentation, depending on the nature of the UK's withdrawal from the EU³. In addition, technological changes and automation of processes will result in a need for enhanced digital skills across all occupations in this field.

Shortages have been identified for

- construction site drivers
- HGV drivers (relates to labour shortages)

In addition, issues have been identified for

- logistics managers
- freight forwarders, supply chain administrators/planners (junior roles).

Administrative & Secretarial Occupations

The impact of technology is likely to affect the number of people required for administrative roles. Job churn is also a factor, as evidenced by the high volume of recent job hires. However, job opportunities will continue to arise as replacement (due to retirement, etc.) for such a large occupation, translating into job vacancies.

Sales, Marketing & Customer Service Occupations

These occupations span a range of skills levels, from sales assistants to marketing executives. As such, the outlook varies significantly. Sales occupations for which shortages have been identified tend to be associated with a demand for foreign language skills, most often in IT related activities.

A shortage of those with **language skills** have been identified for:

- sales executives in the ICT sector
- marketing specialists (including digital)
- contact centre agents, customer service representatives.

Shortages have also been identified for product/account managers.

Operatives & Elementary Occupations n.e.c.

Many of these occupations are particularly likely to be impacted by the automation of manufacturing processes. Job churn is a significant factor, as evidenced by the high number of recent job hires. There also remains a ready supply with a high number of available job seekers who were previously employed in these occupations. However, no shortages have been identified.

³ Addressing the Skills Needs Arising from the Potential Trade Implications of Brexit, EGFSN, 2018.

Introduction

The National Skills Bulletin 2019 is the fifteenth in an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in SOLAS and the third to be produced on behalf of the National Skills Council (NSC). It presents an overview of the Irish labour market at occupational level.

The Bulletin aims to assist policy formulation in the areas of employment, education/training, immigration (particularly the sourcing of skills which are in short supply in the Irish and EU labour market from the EEA); it also aims to inform career guidance advisors, students and other individuals making career and educational choices.

Changes to the CSO's Labour Force Survey

In quarter 3 2017, the CSO introduced a new Labour Force Survey (LFS), replacing the Quarterly National Household Survey (QNHS). As a result, there is a break in the time series for data before and after quarter 3 2017. For this reason, when examining employment change, the analysis presented for each five-year time period (quarter 4 2013 – quarter 4 2018) needs to be interpreted with caution.

Occupation-related data

Occupations are classified using the Standard Occupational Classification (SOC 2010). 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.

Each occupation is examined in terms of the following:

- employment level and recent employment trends; the analysis is based on the data from the Central Statistics Office (CSO) Labour Force Survey; when interpreting the employment 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) ⁴
 - the trend analysis covers the five-year period 2013-2018, unless otherwise specified; growth over this period is calculated in terms of the annualised growth rate, sometimes referred to as the 'average annual growth rate' for ease of reading (although the two terms are not technically identical)
- an employment profile (i.e. age, gender, nationality, employment type and education level); the analysis is based on the LFS data for quarter 4 2018
- job ready job seekers registered with the Public Employment Service (PES) (Department of Employment Affairs and Social Protection (DEASP)); these are persons seeking employment who were previously employed in a specific occupation and are self-declared as job ready; the data refers to quarter 1 2019
- unemployment rate; the analysis is based on the LFS data for quarter 4 2018
- vacancies advertised through the Department of Employment Affairs and Social Protection's (DEASP) Jobs Ireland vacancy portal (i.e. the Public Employment Service (PES)) and IrishJobs.ie (a private on-line vacancy advertising service) in 2018
- the level of difficulty in filling vacancies; the analysis is based on data from the SLMRU Recruitment Agency Survey conducted in April 2019
- the number of new employment permits issued to non-EEA nationals by the Department of Business, Enterprise and Innovation (DBEI)

⁴ By examining the change in the level of employment one can assess the net result of total job creation and job losses. If an increase in the employment level was observed between two time points, it implies that more jobs were created than lost over that period – this is referred to as 'net job creation'; conversely, if a decrease in the employment level was observed, it implies that more jobs were lost than created.

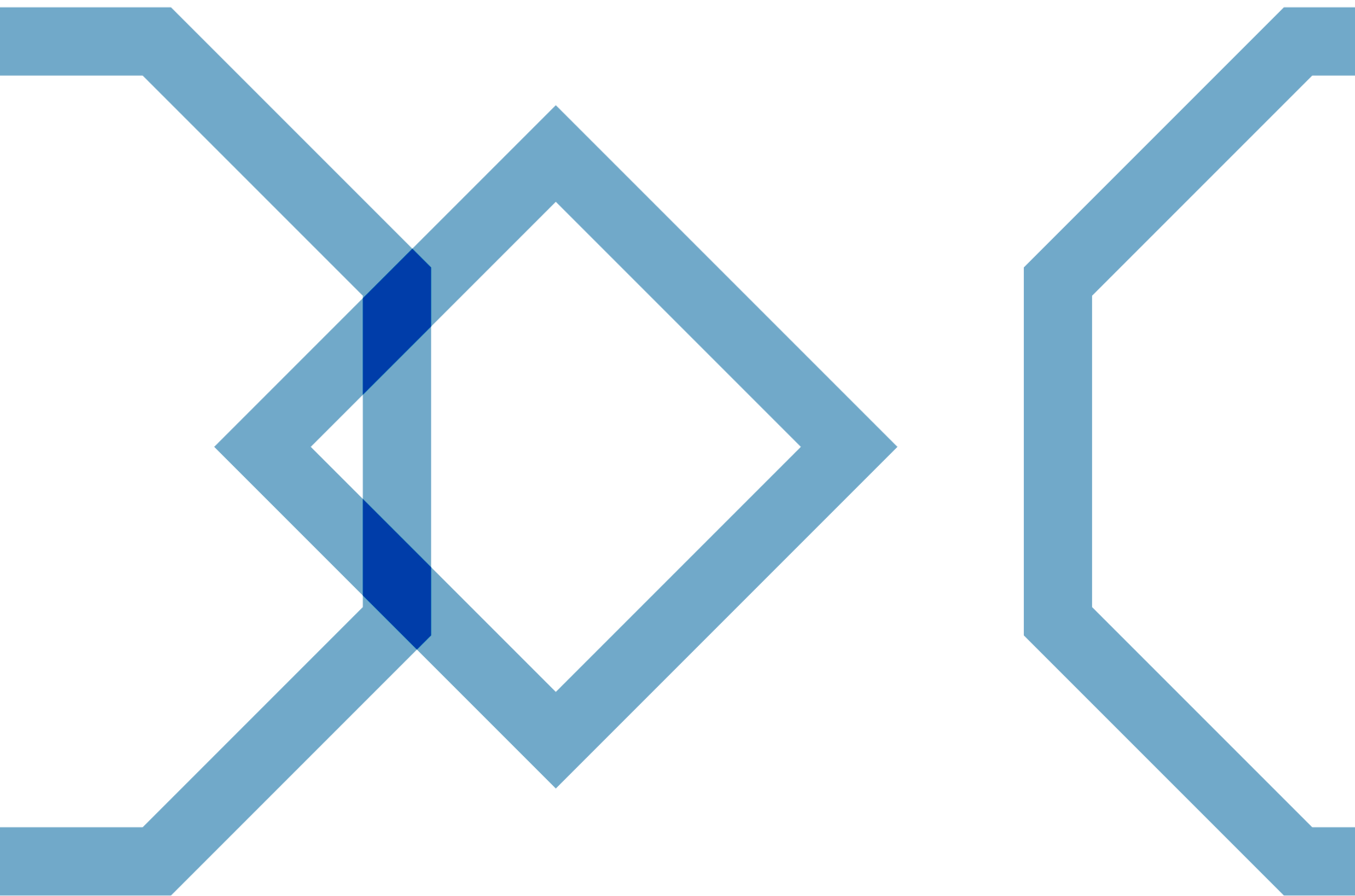
- the current balance between demand and supply⁵; the analysis is based on all of the above data and other available information (e.g. feedback from the Regional Skills Fora managers); the occupations for which shortages⁶ have been identified are highlighted and comments are made regarding the nature of the shortage (e.g. niche area); while the aim is to identify occupations for which shortages exist, further research is necessary to identify the cause and magnitude of these shortages and to recommend the appropriate (if any) policy response.

The National Skills Bulletin 2019 is structured as follows:

- Section 1: sets the Irish labour market within the context of recent trends and developments in the macroeconomy and presents an overview of the economic and employment outlook for Ireland
- Section 2: examines trends in key labour market indicators (employment, unemployment and the labour force) and the composition of national employment (gender, age, nationality, education etc.)
- Section 3: examines employment trends in economic sectors (quarter 4 2018 is compared with the same period in 2013 and 2017)
- Section 4: analyses employment trends by broad occupational group (i.e. employment growth and the composition of employment)
- Section 5: examines recent trends in Irish unemployment (levels and rates) and the characteristics of the unemployed population (i.e. gender, age, educational attainment, nationality, occupation and sector)
- Section 6: presents analysis of labour market transitions between unemployment, employment and economic inactivity and an analysis of recent job hires in 2018 in terms of age, education level, sector and occupation
- Section 7: examines the inflow of labour from non-EEA countries through the various employment permit schemes
- Section 8: provides an overview of trends and the types of vacancies advertised through the DEASP Jobs Ireland vacancy portal and IrishJobs.ie; it also reports the findings of the April 2019 SLMRU Recruitment Agency Survey on difficult-to fill-vacancies
- Section 9: provides labour market indicators for 97 occupations presented in 16 occupational groups and highlights occupations in short supply.

⁵Forecasts of shortages are not provided, unless implicit in the available data.

⁶The term 'shortage' in this report refers only to the situation where 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).



Section 1

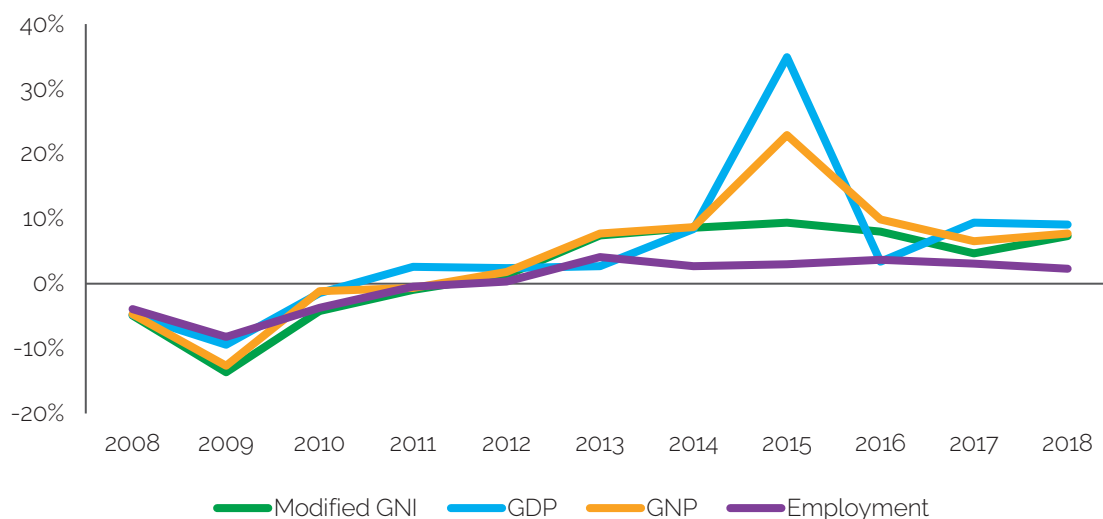
Macroeconomic Context

Economic growth

The Irish economy grew by 9.1% in gross domestic product (GDP) terms in 2018 compared to 2017, bringing GDP to over €324 billion, 64% above the pre-crisis peak reached in 2007. Gross national product (GNP) increased by 7.7% in 2018⁷. Modified Gross National Income (GNI), is an indicator that was recommended by the Economic Statistics Review Group and is designed to exclude globalisation effects that are disproportionally impacting the measurement of the size of the Irish economy⁸. As measured by Modified GNI, the Irish economy showed positive growth of 7.3% between 2017 and 2018, a significant increase on the 4.7% recorded a year previous (Figure 1.1).

Strong growth in Ireland in 2018 was achieved through a continued recovery in the domestic economy.

Figure 1.1 GDP, GNP, Modified GNI (at current market prices) and Employment, Annual Change, 2008-2018



Source: SLMRU (SOLAS) analysis of CSO data

Growth components

In 2018, net exports increased, albeit at a more moderate rate than 2017. Personal consumption, which makes up nearly half of domestic demand increased by 3.0%, while capital investment increased by 9.8% during the year. Total domestic demand increased by 3.9% in 2018.

In line with strong growth in disposable income, solid consumer confidence and modest inflation during the year, there was an increase in personal consumer spending. Both GDP and GNP growth forecasts have been revised downwards for 2019 and 2020, to 3.9% and 3.3% for GDP and 3.7% and 3.1% for GNP⁹.

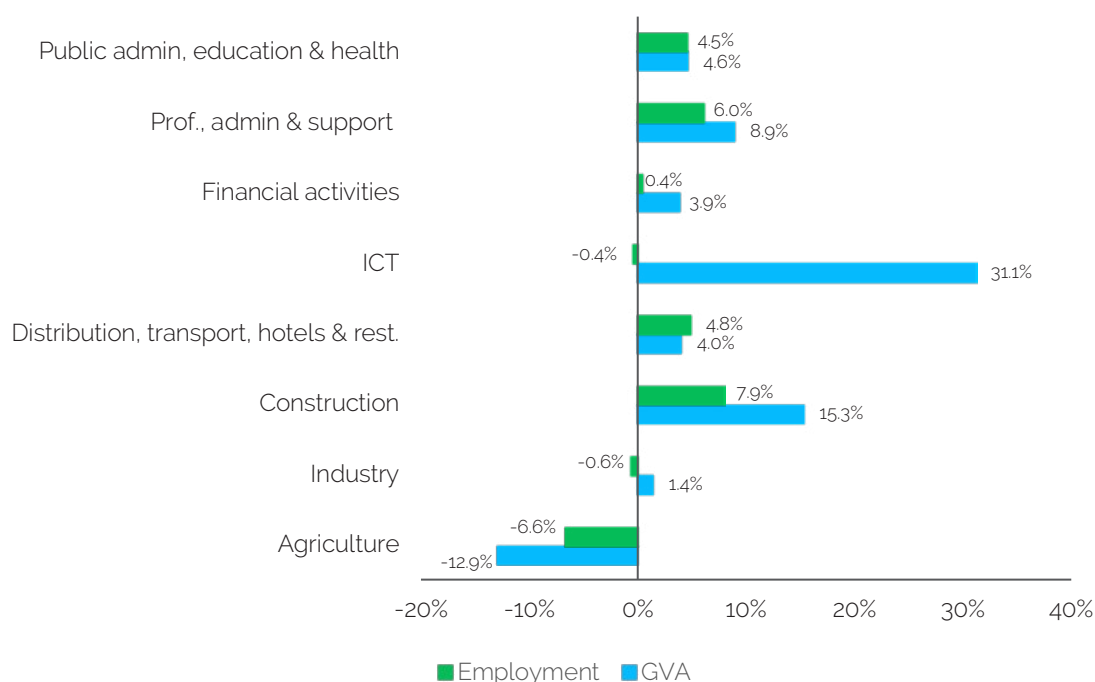
At a sectoral level, output growth was driven by a strong increase in gross value added (i.e. output) in the information and communication (ICT) and construction sectors (see Figure 1.2). Gross value added in 2018 increased by over 30% in the ICT and over 15% in the construction sector compared to 2017, although the ICT sector experienced negative employment growth over the year.

⁷ CSO, Statistical Release, 11 July 2019.

⁸ CSO, National Income and Expenditure 2018.

⁹ Department of Finance, Stability Programme Update 2019.

Figure 1.2 Annual Percentage Change in Gross Value Added & Employment, 2017-2018



Source: SLMRU (SOLAS) analysis of CSO data

Note: Gross Value Added is seasonally adjusted and chain linked annually and referenced to 2016.

Foreign direct investment

Ireland's stock of inward FDI decreased from €798bn in 2016 to €744bn in 2017 but (at 253% of GDP) remains high in comparison to other EU countries. Despite a decrease of €54bn in the stock of FDI into Ireland between 2016 and 2017, the high levels of investment show the highly globalised nature of the Irish economy¹⁰.

Many FDI projects provide benefits such as significant capital investment, job creation and increased exports. According to the IDA, €5.7 billion was invested in capital projects in 2018. Over 10% of total employment in Ireland is accounted for by FDI companies.

In terms of attractiveness as an FDI location, A.T. Kearney's Foreign Direct Investment Confidence Index placed Ireland in 19th place in 2018. Ireland's vulnerability to Brexit is observed, but strong substitutability as an FDI location post-Brexit is also favourably noted.

In 2018, there was also strong growth among the indigenous firms. Between 2017 and 2018, total employment in Enterprise Ireland (EI) client companies increased to over 215,200 jobs, adding 18,850 net jobs to the economy¹¹.

¹⁰ CSO, FDI in Ireland 2017, 13 June 2019.

¹¹ Enterprise Ireland, 2018 End of Year Statement.

Competitiveness

The 2019 IMD Global Competitiveness Yearbook rankings saw Ireland move up five places in overall competitiveness from 12th in 2018 to 7th place among 63 countries benchmarked.

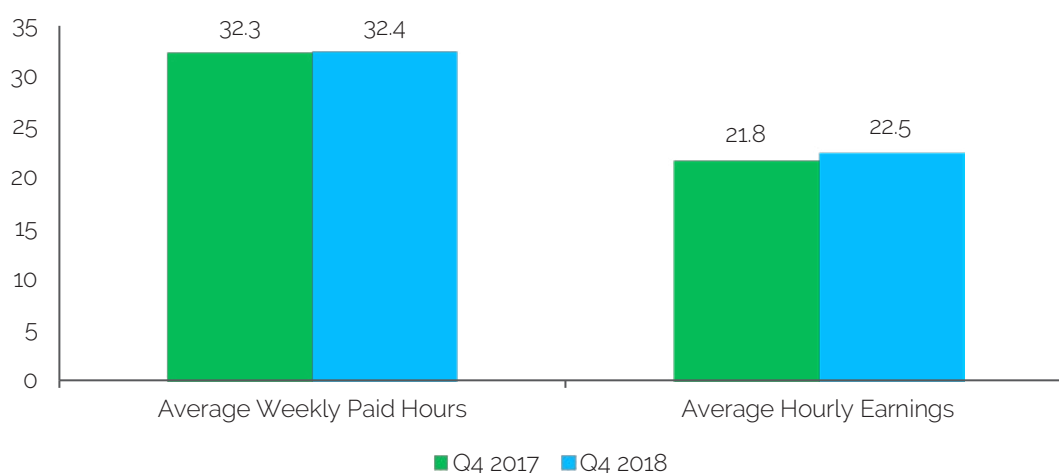
In its Competitiveness Challenge 2018 report, the National Competitiveness Council (NCC) commented that Ireland is facing a significant loss of competitiveness as the economy heats up amidst rising prices and living costs. The council notes that in spite of external risks, Ireland's overall economic performance and competitiveness remains strong. It stressed that the overall economic performance and government finances are dependent on a small number of firms in a small number of sectors. This narrow base has masked underperforming firms and low productivity growth in many areas.

Labour productivity in Ireland has been strong compared to that of the Eurozone. Real labour productivity growth (per person employed) was 4.5% in 2018, against the Eurozone average of 0.9% and the UK average of 0.2% for the same period¹².

Hours worked and earnings

Figure 1.3 presents the average weekly paid hours and average hourly earnings for the overall economy. In quarter 4 2018, the number of average weekly paid hours was 32.4, which was 6 minutes more than one year previously. In quarter 4 2018, average hourly earnings were €22.50, which was 70 cent more than in quarter 4 2017. Economy-wide averages may hide changes across sectors.

Figure 1.3 Average Weekly Paid Hours & Average Hourly Earnings

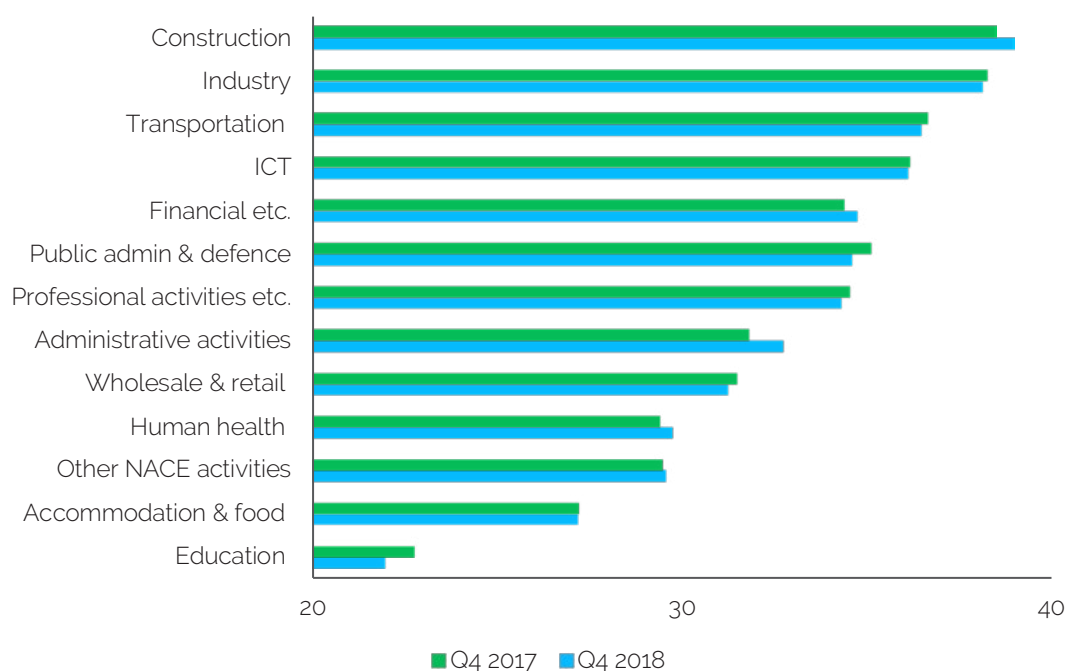


Source: CSO, Earnings, Hours and Employment Costs Survey

Figure 1.4 presents average weekly paid hours by broad sector. In quarter 4 2018, construction had the highest average weekly hours paid at 39.0. This was followed by industry (38.1 hours), transportation (36.5 hours) and ICT (36.1 hours). The least hours worked within a week was in the education sector (22.0 hours), followed by the accommodation and food sector (27.2 hours).

¹² Eurostat, Labour productivity per person employed, 2018.

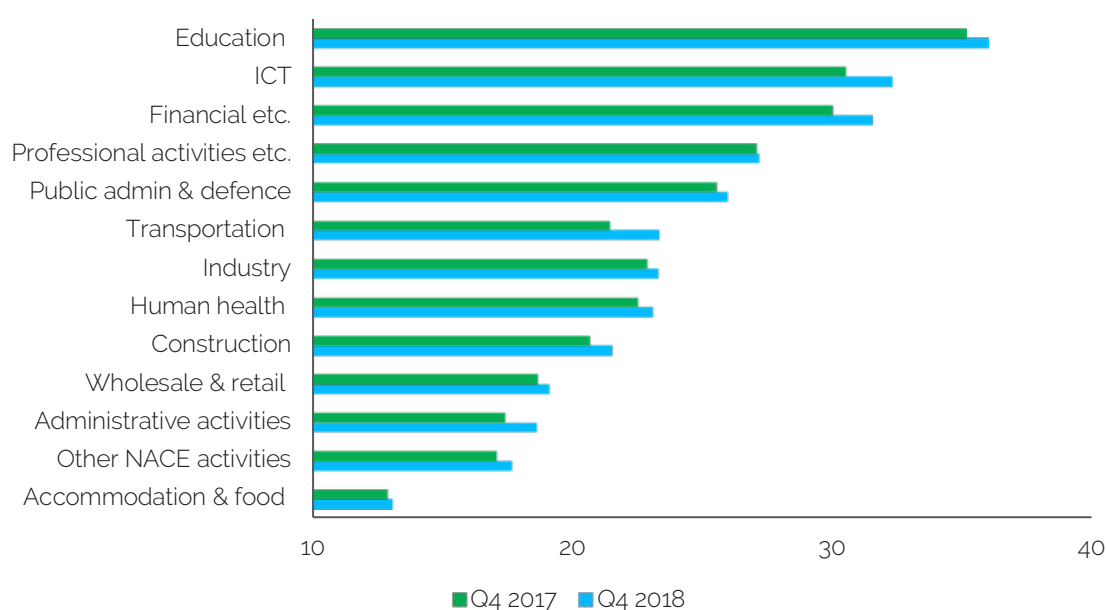
Figure 1.4 Average Weekly Paid Hours by Sector



Source: CSO, Earnings, Hours and Employment Costs Survey

In 2018, hourly earnings were highest in the education sector, at €36.00 per hour and lowest in the accommodation and food sector, at €13.10 per hour (Figure 1.5). This ranking is in line with previous years. Hourly earnings increased across all sectors during the year, with the highest hourly earnings growth rates on an annual basis recorded in transportation, followed by administrative activities and ICT.

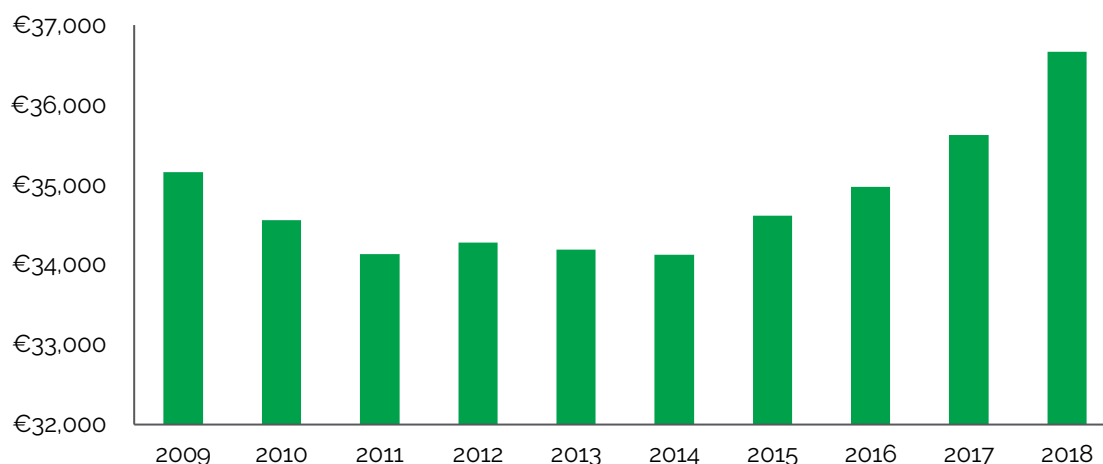
Figure 1.5 Average Hourly Earnings by Sector



Source: CSO, Earnings, Hours and Employment Costs Survey

As the Irish economy nears full employment, 2018 saw a significant increase in the average total earnings across all employment status (full-time and part-time). The average total earnings per person was €36,700 for the year, a 3% increase on 2017 (Figure 1.6).

Figure 1.6 Average Total Earnings per Person (excluding irregular earnings), 2009-2018



Source: CSO, Earnings, Hours and Employment Costs Survey

Redundancies

In 2018, 2,845 redundancies were registered with the DEASP, the lowest level since their peak in 2009. The annual number of redundancies has remained low in recent years, in stark contrast to the three-year period from 2009 to 2011 when over 185,000 redundancies were registered.

Global outlook

Global economic growth is forecast to decline to 3.3% in 2019 from 3.6% in 2018. The outlook for many countries is challenging, with a projected decline in growth in 2019 for 70% of the global economy. Growth in advanced economies is expected to slow gradually, as the impact of the recent expansionary fiscal policy in the US diminishes. Growth in emerging market economies is forecast to stabilize at 5% in 2019, with large variances evident between countries.¹³

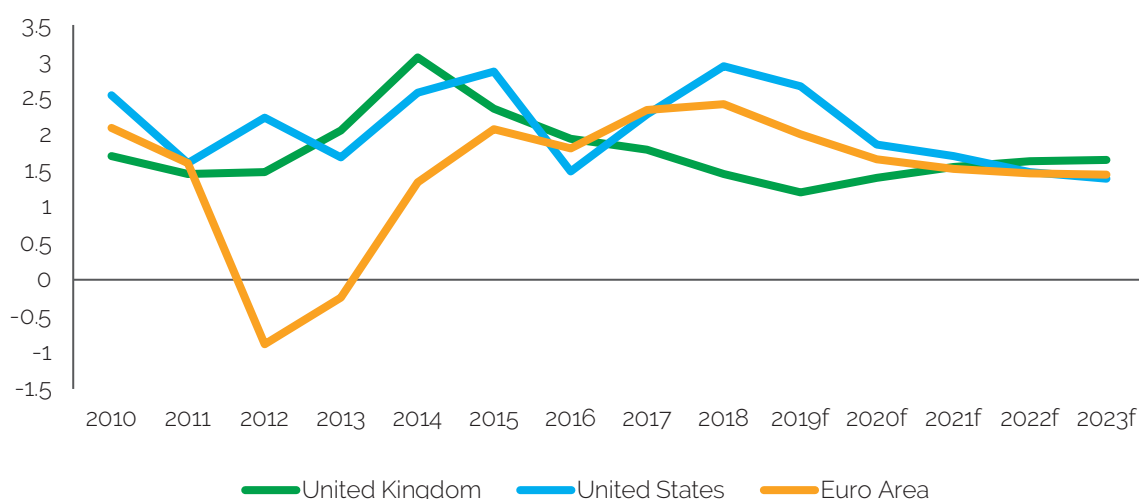
For Ireland, any risks to growth in the Eurozone, the UK or the US have a more direct impact, as these countries are its main trade and investment partners. Growth forecasts for the US were revised downwards slightly to 2.3% and 1.9% for 2019 and 2020, respectively. The UK economy grew by 1.4% in 2018, with growth forecast at 1.2% and 1.4% for 2019 and 2020, respectively. The Brexit withdrawal agreement is likely to have a negative impact on UK economic growth in the short term, whether a deal is agreed upon or not.

The outlook is less positive for several Eurozone countries when compared to the previous year, with Germany, France, Italy and Spain all having their growth forecasts revised downwards. Ireland, along with Austria, Greece, Slovenia, Cyprus and Malta, has had its growth forecast revised slightly upwards.

Figure 1.7 presents the medium-term IMF growth projections of the major trading partners for Ireland. The economies of the three main trading partners are expected to grow moderately over the medium-term. The US and UK economies are both expected to grow at an average annual GDP rate of 1.6% from 2020-2023. The Euro area is expected to grow at an average of 1.5% over the same period.

¹³ IMF World Economic Outlook, April 2019.

Figure 1.7 GDP at Constant Prices



Source: IMF

The medium-term growth forecast in advanced economies is projected to decline to 1.5%, in line with modest potential growth. In developing and emerging market economies growth is projected to stabilize at about 5% over the medium term, reflecting a further strengthening in growth in commodity exporters.

World growth slowed to 3.6% in 2018, with global economic activity slowing notably in the second half of the year. Adverse global trade relations between the US and China and weak consumer and business confidence in the euro area were factors in the slowdown.¹⁴

Additional economic indicators

Residential Property Prices

Residential property prices in Ireland increased by 2.3% in the year to July 2019. In Dublin, residential property prices decreased by 0.2%, with house prices falling by 0.5% and apartment prices increasing by 0.9% over the period. Residential prices in the rest of Ireland (excluding Dublin) were 4.8% higher over the period¹⁵.

Government borrowing costs

Ireland's 10-year bond yield has remained, on average, below 1.0% over the past two years, keeping Ireland's cost of borrowing at historically low levels. The bond has performed strongly relative to the Euro area 10-year benchmark bond and the UK 10-year Gilt since 2015. Low borrowing costs can facilitate increased investment.

Inflation

In June 2019, the Euro area annual inflation rate was 1.3%, down from 2.0% a year earlier, while the annual inflation rate for Ireland was 1.1%¹⁶. Inflation levels in the Euro area have remained well below 2.0% since November 2018. The European Central Bank medium term target inflation rate is below but close to 2%.

¹⁴ IMF World Economic Outlook, April 2019.

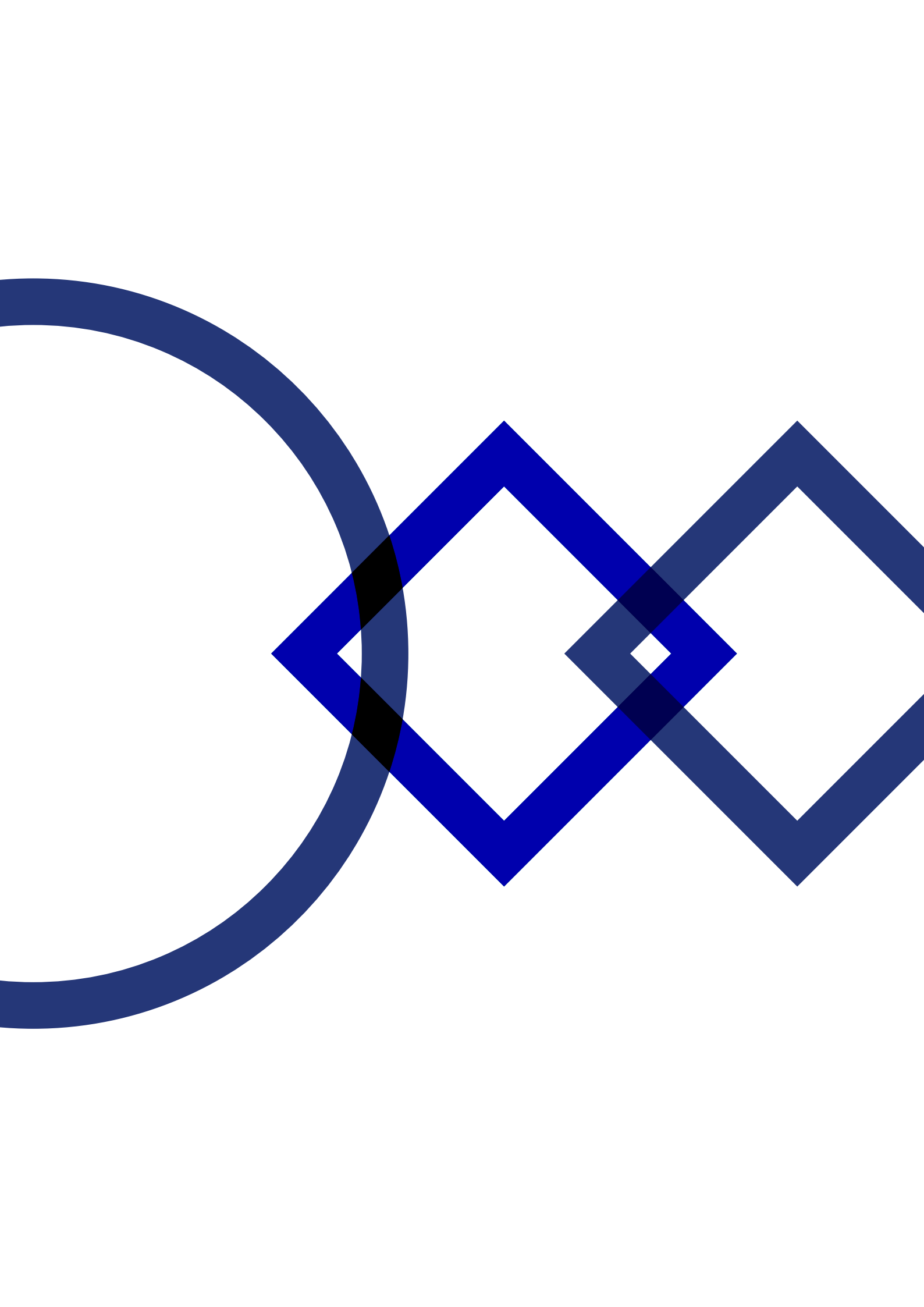
¹⁵ CSO, Residential Property Price Index, July 2019.

¹⁶ Eurostat, Harmonised Index of Consumer Prices (HICP), June 2019.

Currency

The euro has appreciated considerably against sterling since the Brexit referendum result in June 2016. On the back of an increased risk of a no-deal Brexit scenario, high levels of volatility persist in foreign exchange markets. Sterling looks likely to remain weak against all major currencies.

A stronger euro relative to sterling can have an adverse impact on Ireland's exports, tourism and competitiveness in the short term. This could lead to lower levels of demand for skills in sectors most exposed to currency fluctuation.



Section 2

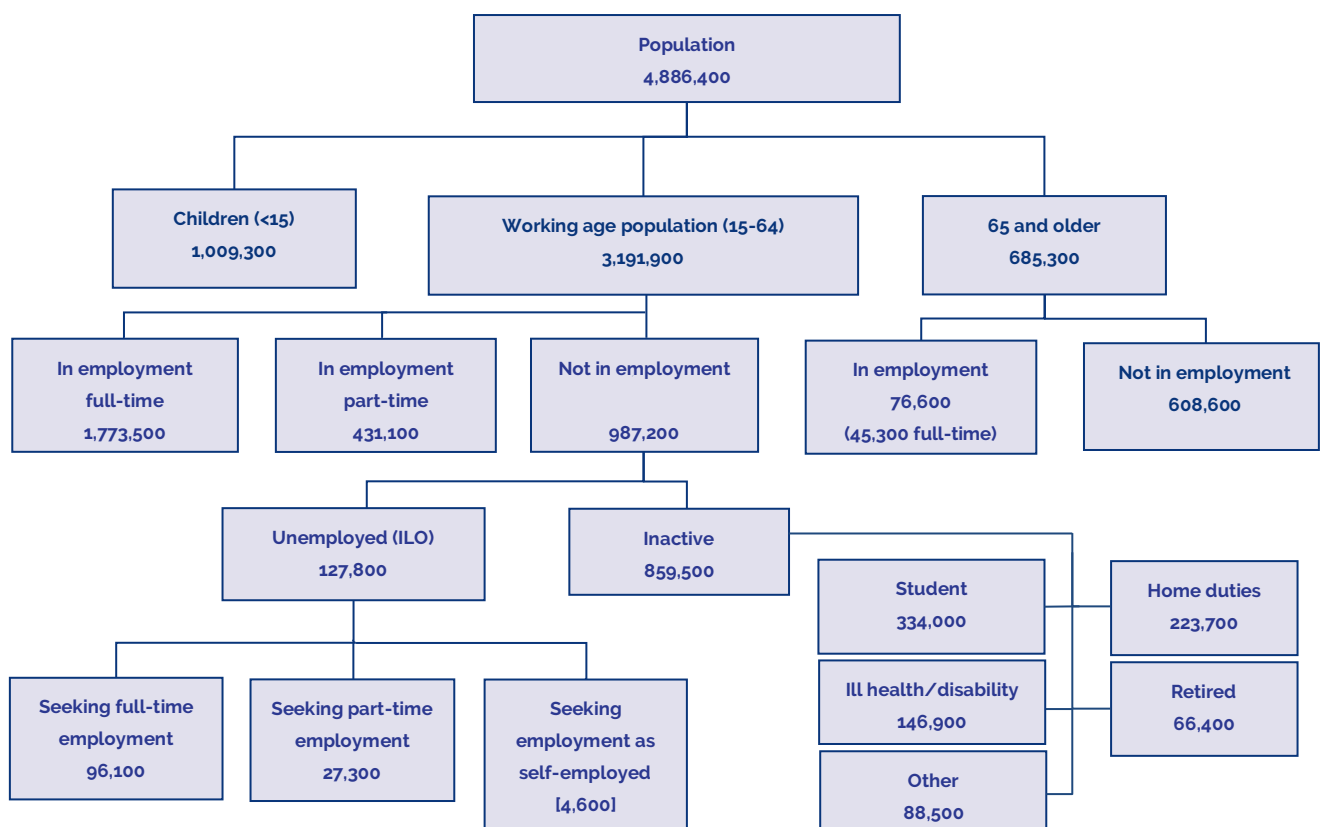
Labour Market Overview

2.1 Population: Labour Market Status

In quarter 4 2018, Ireland's population was estimated at 4.8 million persons, 60,000 more than in quarter 4 2017 (Figure 2.1).

In quarter 4 2018, the working age population (aged 15-64) was 3.19 million, which was 36,500 more than in quarter 4 2017. Compared to quarter 4 2017, employment for that age group increased (full-time employment increased, while part-time employment remained almost static), and the number not in employment (unemployed or economically inactive) decreased. The number of children (persons younger than 15 years) was 1.0 million (similar to the number observed in quarter 4 2017), while the number of persons aged 65 and older was 685,300. Those aged 65 and over was the fastest growing age cohort of the population (in both absolute and relative terms (22,500 or 3.4%). The number of persons in employment in that age group was 76,600 (on par with that observed in quarter 4 2017).

Figure 2.1 Population by Labour Market Status (ILO defined), Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

Note: Discrepancies are due to rounding.
[] brackets indicate small numbers and should be treated with caution

In quarter 4, 2018, the total age dependency rate¹⁷ (youth and older age) was 53.1% (almost the same as in quarter 4 2017). Over the same period, the youth age dependency rate decreased by 0.4 percentage points to 31.6%, while the older age dependency rate increased by 0.5 percentage points to 21.5% (Table 2.1).

In quarter 4 2018, 2.2 million persons of working age were in employment (50,500 more than in quarter 4 2017), while almost one million persons of working age were not in employment (14,000 less than in quarter 4 2017). Of the working age population not in employment, 127,800 were unemployed and 859,500 were economically inactive.¹⁸ Compared to quarter 4 2017, the number of unemployed persons decreased (almost 15,000, or 10.4%), while the number of economically inactive persons remained almost static.

Within the economically inactive group of the working age population in quarter 4 2018, there were:

- 334,000 students – 6,700 more than in quarter 4 2017
- 223,700 persons engaged in home duties – 14,000 less than in quarter 4 2017
- 66,400 retired persons – 1,700 less than in quarter 4 2017
- 146,900 persons were inactive due to ill health/disability – 3,600 more than in quarter 4 2017
- 88,500 persons were inactive for other reasons, 6,200 more than in quarter 4 2017; of those inactive for other reasons, 12,900 were discouraged workers – broadly similar to the number observed in quarter 4 2017.

In quarter 4 2018, the inactivity rate of the working age population¹⁹ was 26.9%, 0.3 percentage points lower than in quarter 4 2017. The economic dependency ratio²⁰ of 1.03 remained unchanged for the same period (Table 2.1).

Table 2.1 Dependency and Inactivity Rates (Quarter 4)

	2017	2018
Total dependency rate (0-14 and 65+)	53.0%	53.1%
Youth dependency rate (0-14)	32.0%	31.6%
Old age dependency rate (65+)	21.0%	21.5%
Inactivity rate (15-64)	27.2%	26.9%
Economic dependency ratio	1.03	1.03

Source: SLMRU (SOLAS) analysis of CSO data

¹⁷ The age dependency rate compares the non-working age population to those of working age.

¹⁸ Economically inactive are defined as persons who are not in employment or unemployed (actively seeking employment).

¹⁹ The inactivity rate is the proportion of the population that is not in the labour force. The inactivity rate for the 15-64 age group (headline inactivity rate) is lower than the general inactivity rate.

²⁰ The economic dependency ratio compares the total population not in the labour force to the number of those who are in the labour force.

2.2 Labour Market and Related Indicators

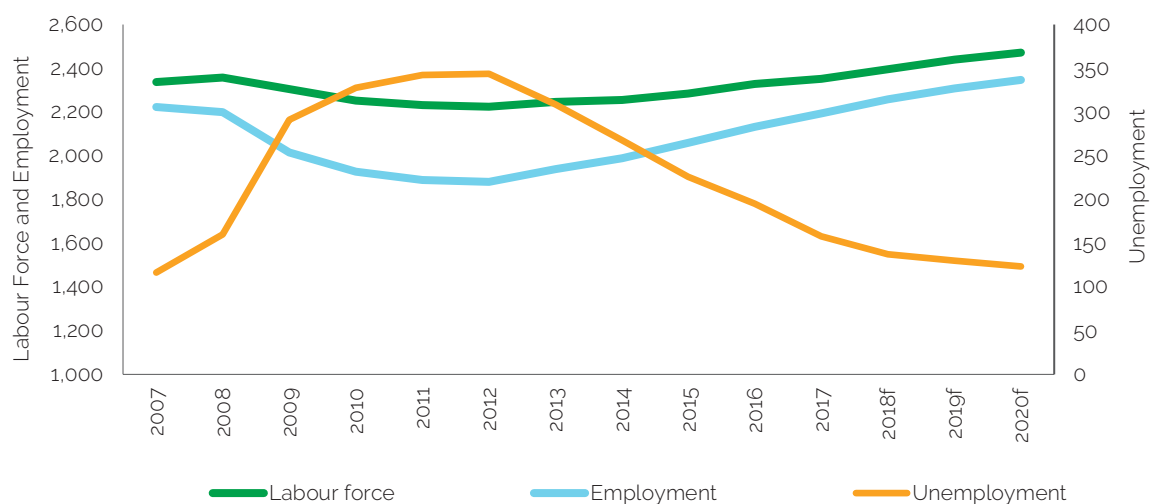
In 2018, the number of persons in the labour force was 2.4 million (annual average). Compared to 2017, this represents an increase of 43,000 persons or 1.8% (Figure 2.2). In 2018, the labour force participation rate measured 62.2%, remaining almost at the 2017 rate (Table 2.2). Further expansion is expected, with the Central Bank of Ireland projecting labour force increases of 1.8% in 2019 and 1.3% in 2020, reaching 2.47 million by 2020 (Figure 2.2).

In 2018, there were 2.26 million persons in employment (annual average), an additional 63,400 persons compared to 2017, a new peak for the Irish economy. In 2018, the employment rate was 68.7%, a one percentage point increase compared to 2017 (Table 2.2). Employment is predicted to expand, with the Central Bank of Ireland projecting growth of 2.1% in 2019 and 1.7% in 2020, bringing the level to 2.35 million in 2020.

In 2018, there were 137,500 persons unemployed (annual average), which was 20,400 (or 13%) less than in 2017. Further declines are expected in 2019 and 2020, with the level averaging 123,600 in 2020 (Figure 2.2).

In 2018, the unemployment rate decreased to 5.8% (annual average) from 6.8% in 2017. The Central Bank of Ireland is projecting that the rate will decline further, to an average of 5.4% in 2019 and 5% in 2020. In June 2019, the seasonally adjusted unemployment rate was 4.5%, unchanged from May 2019 and below 5.9% estimated in June 2018.

Figure 2.2 Labour Force, Employment & Unemployment (000s), Annual Averages



Source: SLMRU (SOLAS) analysis of CSO data; Central Bank of Ireland, Quarterly Bulletin (April 2019)

Table 2.2 Participation, Employment and Unemployment Rates (Annual Averages)

	Participation rate (%) (15+)	Employment rate (%) (15-64)	Unemployment rate (%) (15-74)
2010	62.6	61.0	14.6
2011	62.0	60.0	15.4
2012	61.7	59.9	15.5
2013	62.0	61.7	13.8
2014	61.8	63.2	11.9
2015	61.9	64.8	10.0
2016	62.2	66.4	8.4
2017	62.0	67.7	6.8
2018	62.2	68.7	5.8

Source: CSO

In quarter 4 2018, the long-term unemployment rate (i.e. those unemployed for one year or longer) declined to 2.1%, from 2.5% recorded in quarter 4 2017 (Table 3.3). Those rates compare with the peak of 9.8% observed in quarter 1 2012. In quarter 4 2018, 50,100 persons were classified as long-term unemployed, almost 10,000 persons less than in quarter 4 2017. Over the same period, the share of long-term unemployed of total unemployment declined from 43% to 40%.

The broad unemployment measure (combining those unemployed and part-time underemployed) declined to 9.9% in quarter 4 2018 from 11% in quarter 4 2017 (Table 2.3).

In quarter 4 2018, the youth unemployment rate (i.e. persons aged 15 to 24) was 12%, almost unchanged compared with quarter 4 2017. While the quarter 4 2018 rate represents a remarkable improvement on the exceptionally high rate of 33.4% recorded in quarter 2 2012, the number of youths unemployed remains high at almost 34,000. Over the same period, the NEET rate (the share of 15 to 24 year olds who are not in employment, education or training) remained close to 9% (Table 2.3).

Table 2.3 Other Unemployment Indicators, Quarter 4 2018

	Long term UE rate (%) (15-74)	Broad UE rate (%) (15-74)	Youth UE rate (%) (15-24)	NEET* rate (%) (15-24)
Quarter 4 2017	2.5	11.0	12.2	8.8
Quarter 4 2018	2.1	9.9	12.0	9.1

Source: SLMRU (SOLAS) analysis of CSO data

*Not in employment, education or training; ILO defined; there is a discrepancy between ILO and PES (self-declared principal economic status) measure of participation in education with the former used in the NEET rate potentially overstating the non-participation in the case of Ireland.

Since 2015, inward migration has exceeded outward migration, resulting in positive net migration (Table 2.4). In 2018, net inward migration was 34,000, the highest level recorded since 2008, and 14,200 higher than in 2017. Between 2012 and 2018, inward migration increased by 33,000 while outward migration decreased by 26,700.

Table 2.4 Migration Estimates (000s)

Year	Inward	Outward	Net migration
2012	57.3	83.0	-25.7
2013	62.7	81.3	-18.7
2014	66.5	75.0	-8.5
2015	75.9	70.0	5.9
2016	82.3	66.2	16.2
2017	84.6	64.8	19.8
2018	90.3	56.3	34.0

Source: CSO

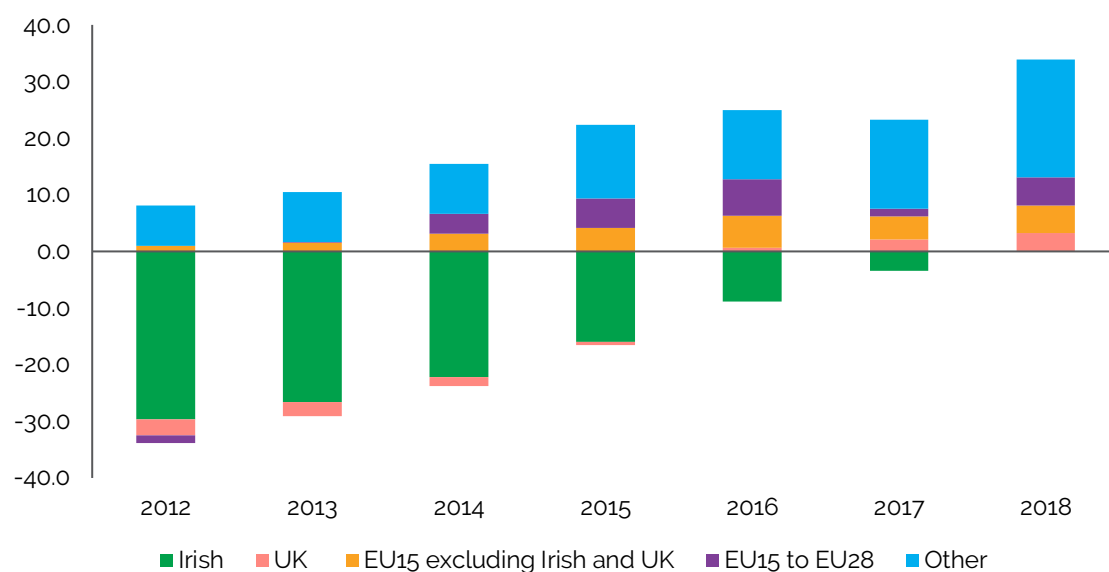
Note: 2016 is based on Census of Population.

EU nationals (including Irish) accounted for 66% of all immigrants and 82% of all emigrants. Irish nationals accounted for 31% of immigrants and 50% of all emigrants (the largest share among emigrants). The opposite was the case for non-EU nationals who accounted for 34% of all immigrants and 18% of all emigrants.

In 2018, Irish nationals experienced net inward migration for the first time since 2009 (although the number is small). Since 2012, net inward migration has been positive for non-EU nationals, and remained strong (increasing from 23,200 in 2017 to 33,800 in 2018).

In 2018, net migration was positive for all age groups and comprised mostly of those aged 25 to 44 (i.e. the prime working age group). A total of 76% of immigrants were in this age group, compared to 72% for emigrants. In terms of educational attainment, 62% of immigrants had a third level qualification, compared to 53% for emigrants. In terms of economic status, net migration was positive for those at work (+20,800).

Figure 2.3 Net Migration Estimates 2012-2018 by Nationality (000s)



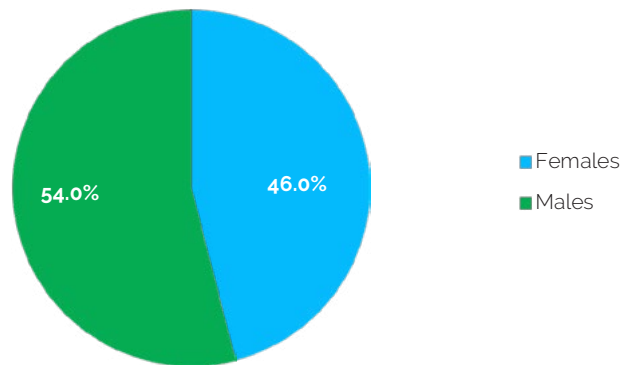
Source: CSO

Note: 2011 and 2016 based on Census of Population.

2.3 Employment Composition

In quarter 4 2018, there were 2.28 million persons in employment (aged 15 or older). Males accounted for 54% (1.23 million persons). The gender distribution of employment has not changed compared to quarter 4 2017 (Figure 2.4).

Figure 2.4 Employment by Gender, Quarter 4 2018

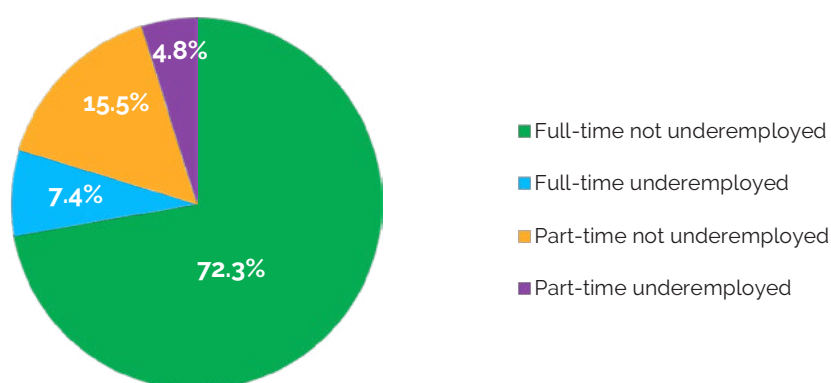


Source: SLMRU (SOLAS) analysis of CSO data

In quarter 4 2018, full-time employment accounted for 79.7% (1.81 million persons) of total employment. Of those working full-time, 10% (168,800 persons) were underemployed (wished to work more hours and were available). Of the 462,500 persons who worked part-time, 23% were underemployed (Figure 2.5).

Between quarter 4 2017 and quarter 4 2018, full-time employment increased by 48,200 persons, while part-time employment increased by 2,300 persons. Over the same period, the number of persons in full-time employment who were underemployed declined by 11,200 to 168,800, while the number in part-time employment who were underemployed declined by 6,900 to 108,500.

Figure 2.5 Employment by Employment Type, Quarter 4 2018

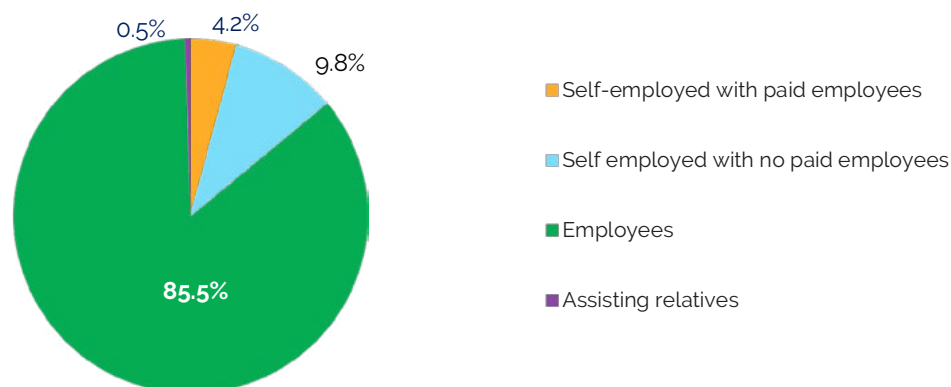


Source: SLMRU (SOLAS) analysis of CSO data

In quarter 4 2018, 85.5% (1.95 million persons) in employment were employees (of which, 1% were employees on Government supported employment schemes). Those self-employed accounted for 14% (319,600 persons), of which 70% were self-employed with no paid employees. Compared to quarter 4 2017, there were no notable changes in the distribution of employment by employment status.

Employment growth observed between quarter 4 2017 and quarter 4 2018 was predominantly due to growth in the number of employees (an increase of 67,000). The number of persons employed on Government schemes declined marginally. In contrast, the number of self-employed declined by 12,100, while those assisting relatives declined by 4,500.

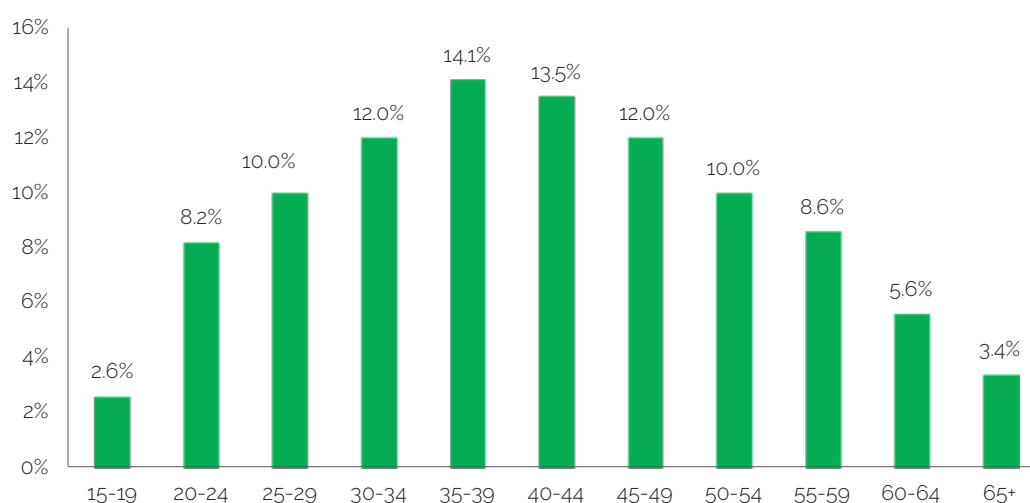
Figure 2.6 Employment by Employment Status, Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

Figure 2.7 presents the age profile of those in employment. In quarter 4 2018, 71.5% of employment was concentrated in the 25-54 age group; those aged under 25 accounted for 10.8% and those aged 55 years and above for 17.6% (Figure 2.7). Between quarter 4 2017 and quarter 4 2018, the age distribution remained broadly similar.

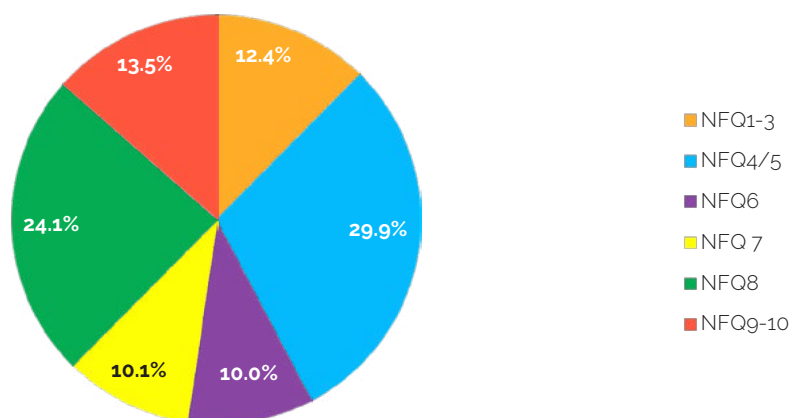
Figure 2.7 Employment by Age, Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

Figure 2.8 presents the education profile of those in employment in Ireland. In quarter 4 2018, 12.4% of persons in employment had at most qualifications at NFQ levels 1-3 (e.g. Junior Certificate); 29.9% had qualifications at NFQ levels 4-5 (e.g. Leaving Certificate); 10% had qualifications at NFQ level 6, while the remainder had the equivalent of ordinary degree level or higher (NFQ 7-10). The education distribution of employment is broadly similar to that observed in quarter 4 2017.

Figure 2.8 Employment by Education (NFQ), Quarter 4 2018

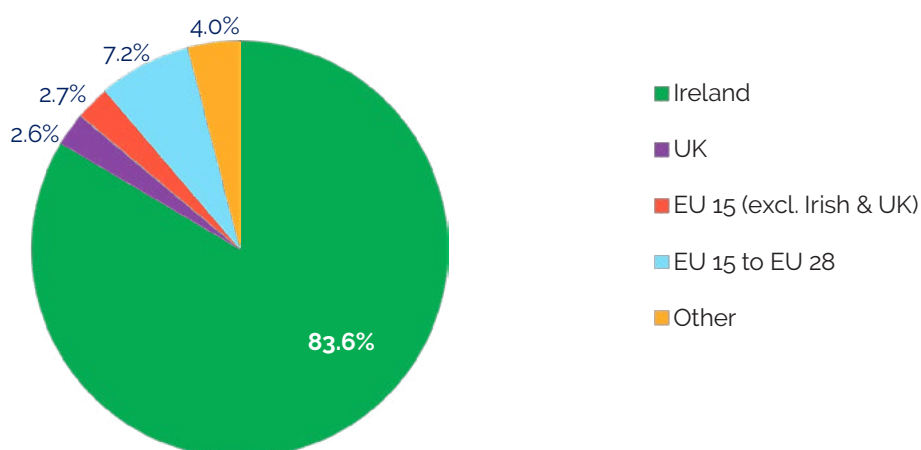


Source: SLMRU (SOLAS) analysis of CSO data

Note: excludes those who did not state their education level

Employment by nationality is presented in Figure 2.9. In quarter 4 2018, non-Irish nationals accounted for 16.4% of total employment, while EU nationals accounted 75.6% of all non-Irish nationals. Between quarter 4 2017 and quarter 4 2018, the distribution of employment by nationality remained broadly unchanged.

Figure 2.9 Employment by Nationality, Quarter 4 2018

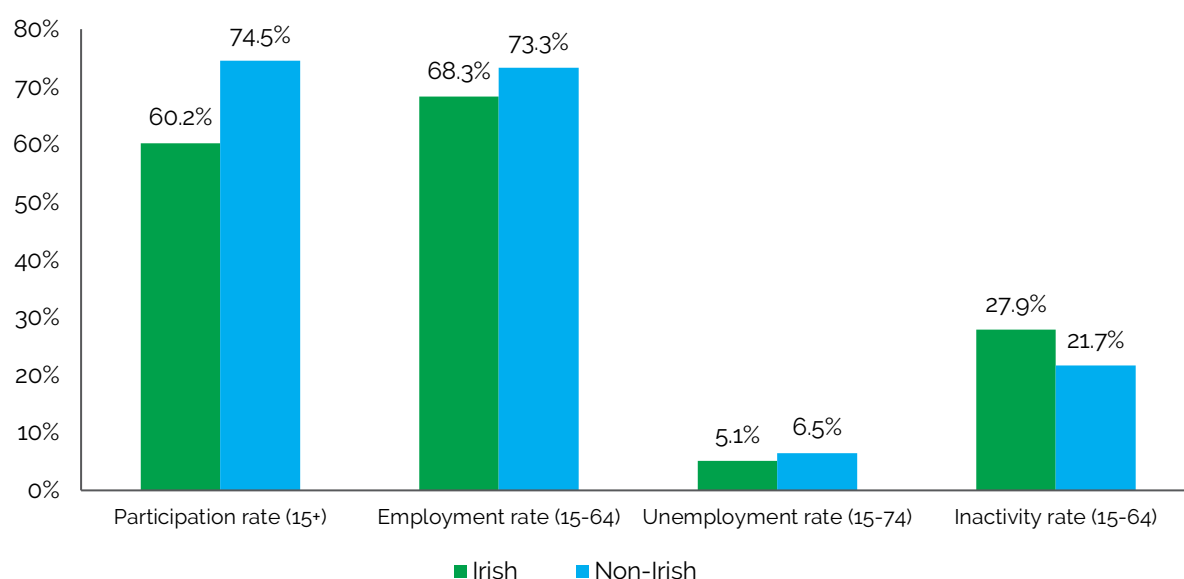


Source: SLMRU (SOLAS) analysis of CSO data

In quarter 4 2018, non-Irish nationals had higher participation and employment rates, broadly similar unemployment rates and lower inactivity rates compared to Irish nationals (Figure 2.10).

Between quarter 4 2017 and quarter 4 2018, the unemployment rate for both Irish and non-Irish nationals declined (0.6 and 1.2 percentage points respectively), while the employment rate for both groups increased (0.4 and 2.7 percentage points respectively). Over the same period, the participation rate for Irish nationals slightly decreased, while it increased for non-Irish nationals (2.7 percentage points). The inactivity rate remained unchanged for Irish nationals, while it decreased by 1.9 percentage points for non-Irish nationals.

Figure 2.10 Participation, Employment, Unemployment and Inactivity Rates by Nationality, Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

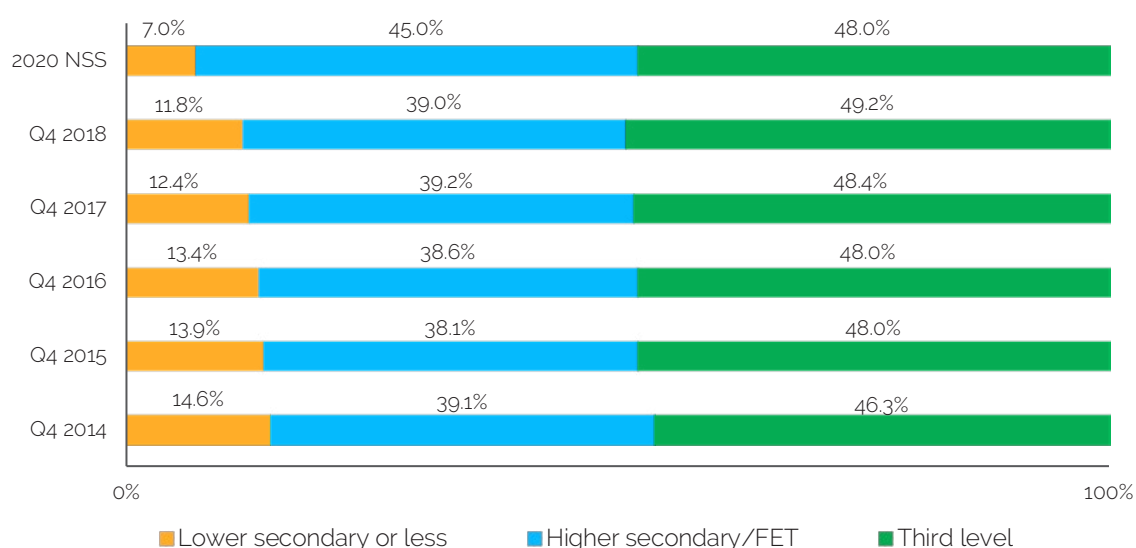
2.4 National Skills Strategy: Progress to Date

Figure 2.11 presents the educational attainment of the labour force (15-64 years) and the targets set out in the 2007 National Skills Strategy (NSS) and carried over in the National Skills Strategy²¹.

Over the period quarter 4 2017 to quarter 4 2018, the share of working age third level graduates in the labour force increased (0.8 percentage points) to 49.2% (exceeding the 48% 2020 NSS target). The share of persons who had attained lower secondary or less qualifications (as their highest level of education) decreased to 11.8% (0.6 percentage points), while the share for those who had attained higher secondary/FET qualifications remained broadly similar to that observed in quarter 4 2017.

The gap to the 2020 target was 6 percentage points for the cohort with higher secondary/FET qualifications, and almost 5 percentage points for those with lower secondary or less qualifications.

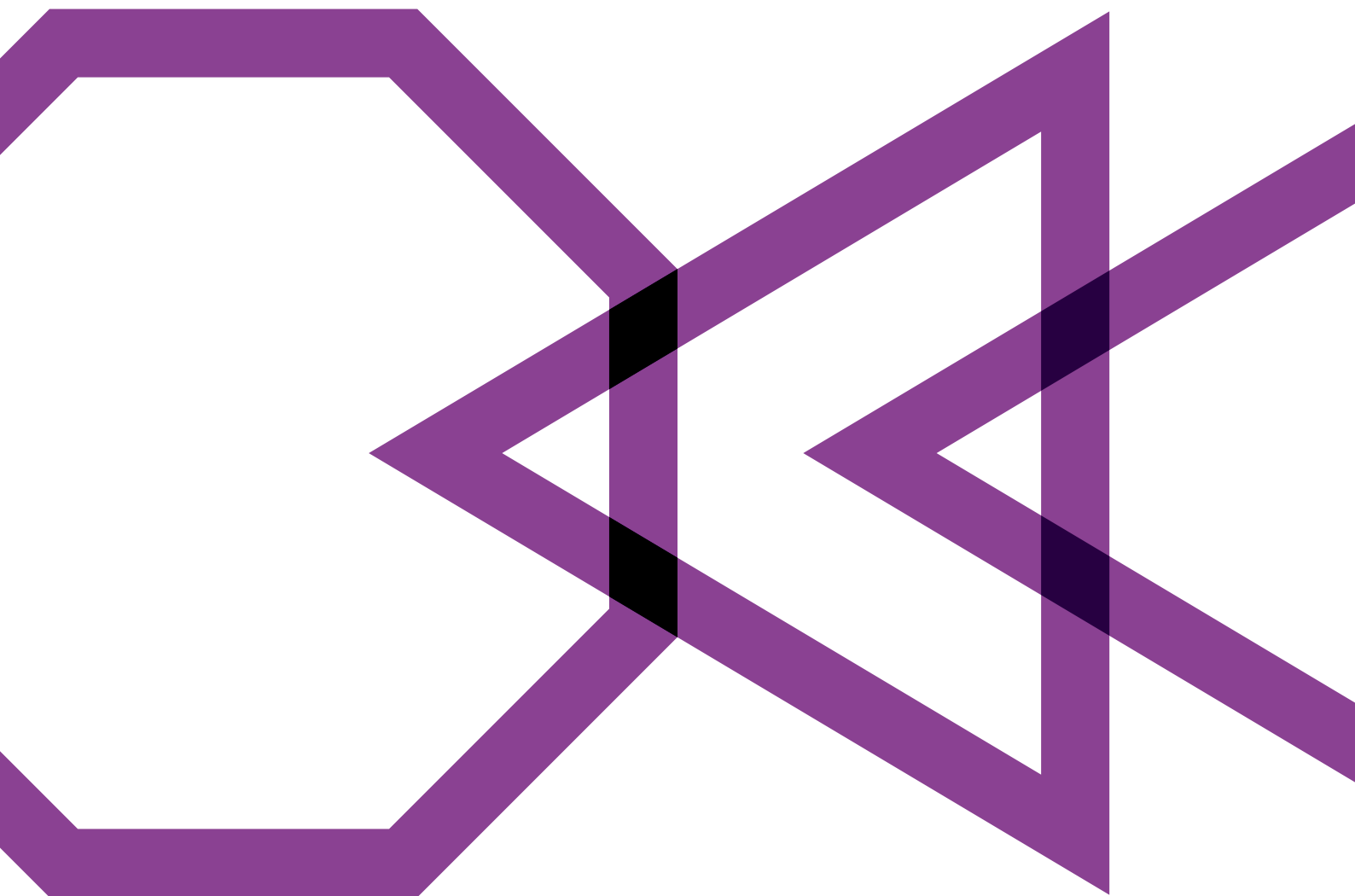
Figure 2.11 Labour Force (15-64 years) by Education (Quarter 4 2018) and the NSS Target



Source: SLMRU (SOLAS) analysis of CSO data

Note: excludes those who did not state their education level

²¹ Ireland's National Skills Strategy 2025, January 2016

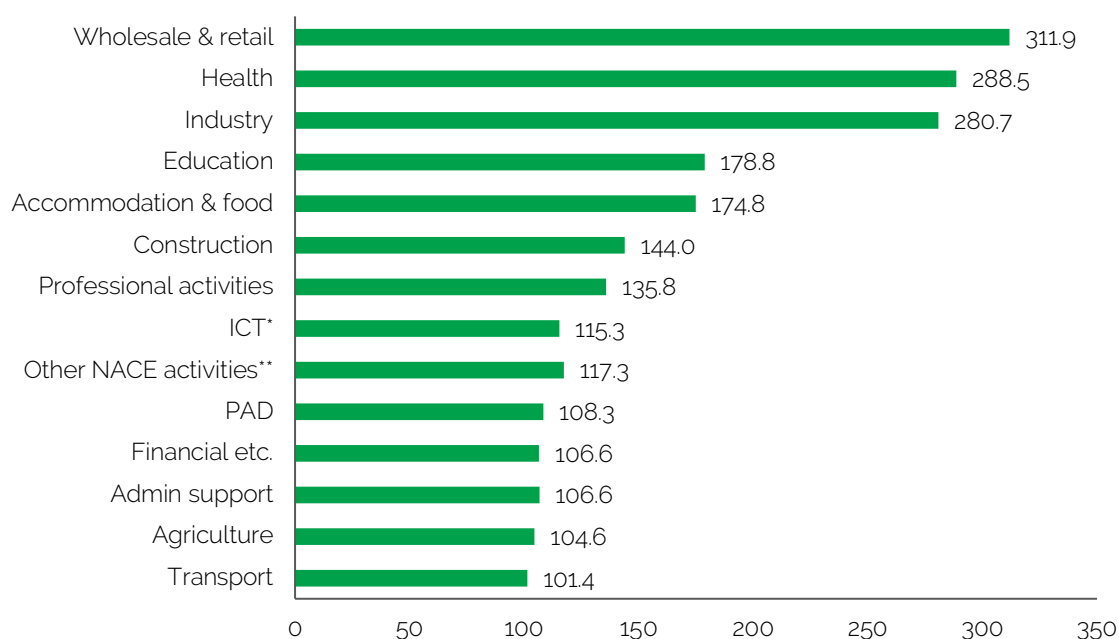


Section 3

Employment by Economic Sector

Figure 3.1 presents national employment by broad economic sector (NACE Rev 2). In quarter 4 2018, the wholesale/retail sector was the largest employer followed by health and industry. These three sectors employed more than a quarter of a million persons each, accounting for 14%, 13% and 12% of national employment respectively.

Figure 3.1 Employment by Sector (000s), Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

Excludes not stated

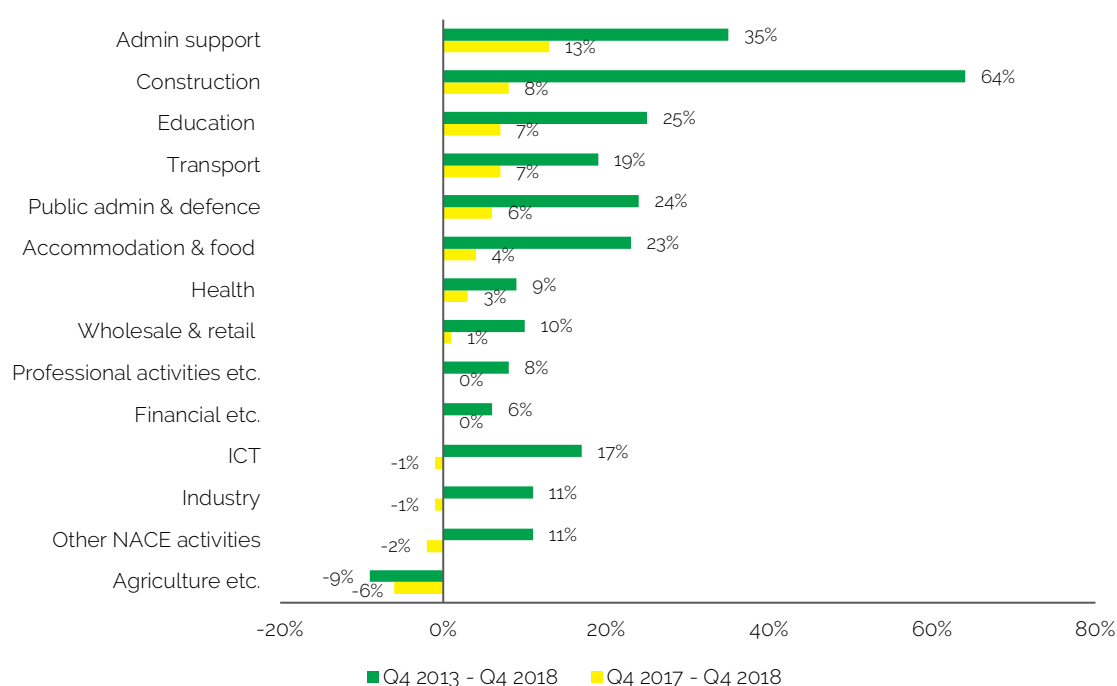
**The information and communication sector includes computer programming, telecommunications, information services, publishing and broadcasting; it does not include ICT equipment manufacturing or the wholesale of computers, computer peripheral equipment and software.

* Other NACE sectors include activities such as entertainment, repair of goods, a range of personal service activities, etc.

Employment growth by sector is presented in Figure 3.2. Between quarter 4 2017 and quarter 4 2018, employment decreased in agriculture and other NACE activities (six percentage points and two percentage points respectively) followed by a one percentage point decrease in both industry and ICT. All other sectors observed an increase in employment over this time period. The strongest growth, in relative terms was in the administrative support sector (13%).

Over the five-year period from quarter 4 2013, all sectors experienced growth with the exception of agriculture (-9%). The strongest growth was recorded in construction at 64%, with an additional 56,000 persons employed, followed by the administrative support sector (27,500 additional persons) and education (36,100 additional persons).

Figure 3.2 Employment Growth by Sector (%)



Source: SLMRU (SOLAS) analysis of CSO data

In this section, we examine economic sectors within four broad categories:

- industry, comprised of manufacturing, utilities and extraction/mining
- construction
- agriculture, forestry and fishing (abbreviated in this document to 'agriculture')
- services, which includes 11 NACE sectors; services are firstly analysed by knowledge intensive services and less knowledge intensive services, followed by a detailed breakdown by individual sector.

Industry

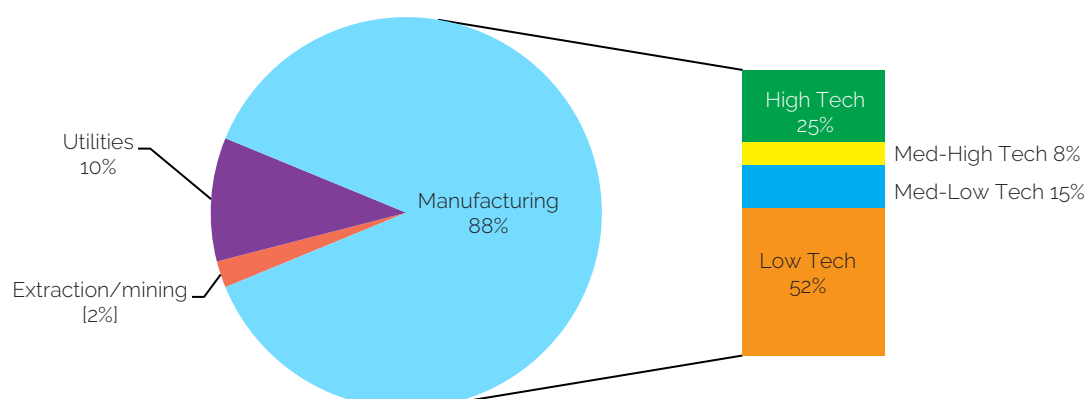
In quarter 4 2018, 281,000 persons were employed in the industrial sector. This accounted for 12.3% of the share of overall total national employment. The industrial sector, between quarter 4 2017 to quarter 4 2018, observed a small decline of 1%. Over the five-year period from quarter 4 2013 to quarter 4 2018, employment in industry increased by almost 30,000 (11% growth).

Figure 3.3 presents industrial employment by sub-sector and technological intensity. In quarter 4 2018, 88% of industrial employment was in manufacturing (245,200), with utilities and extraction/mining accounting for 10% and 2% respectively. For the same time period, in terms of technological intensity²², low technology manufacturing accounted for 52% of manufacturing employment (128,900), followed by high (25%), medium-high (8%) and medium-low technology (15%).

Between quarter 4 2017 and quarter 4 2018, high technology and medium-high technology employment observed an increase in employment of 5% and 4% respectively, with medium-low and low technology jobs observing a decrease in employment of 5% and 2% respectively. Of those employed in high technology manufacturing in quarter 4 2018, two thirds were in pharmaceuticals, accounting for 42,300 persons, a similar level to that of quarter 4 2017.

²² High technology: pharmaceuticals, computers, etc. (NACE 21,26); Medium-high: chemicals, electrical equipment, machinery, medical instruments, etc. (NACE 20,27-30); Medium-low: petroleum products, rubber and plastic, other non-metallic mineral products, fabricated metal products etc. (NACE 19,22-25,33); Low technology: food, beverages, textiles, leather, wood, paper, printing, etc. (NACE 10-18,31,32).

Figure 3.3 Industrial Employment by Sector and Technological Intensity, Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

Numbers in brackets are small and should be treated with caution

Construction

In quarter 4 2018, construction accounted for a 6% share of national employment with 144,000 persons employed in the sector. Of the total employment in the construction sector, 53% were in specialised construction activities (e.g. bricklaying, scaffolding, construction equipment renting), 37% in construction of buildings and the remainder in civil engineering. Between quarter 4 2017 and quarter 4 2018, construction grew with an additional 10,600 persons employed in the sector and a growth rate of 8% for the same time period. The absolute growth over this period relates primarily to employment in the construction of buildings. Over the five-year period from quarter 4 2013 to quarter 4 2018, construction had the strongest growth rate when compared to all other sectors (64%).

Agriculture, forestry and fishing

In quarter 4 2018, 105,000 persons were employed in agriculture, representing 4.6% of national employment. Employment in agriculture has been falling in recent years from 115,500 persons employed in quarter 4 2013 to 104,600 persons in quarter 4 2018. Of the total employment in agriculture, 95% was in crop and animal production with the remainder in forestry and fishing.

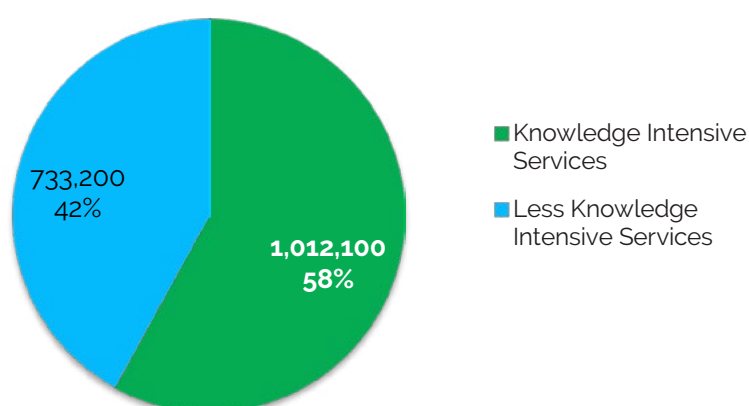
Services

In quarter 4 2018, 1.7 million persons were employed in service related activities, accounting for almost three quarters of national employment. The composition of employment in services in terms of knowledge intensity is presented in Figure 3.4. Of the total services employment, 58% (1,012,100) was in knowledge intensive services – KIS²³ (ICT, financial, legal, accounting, engineering, R&D, education, health and arts), and the remainder was in less knowledge intensive services – LKIS²⁴ (wholesale & retail, warehousing & transport, accommodation & food, office administration, real estate, travel, etc.). While both knowledge intensive services and less knowledge intensive services observed growth between quarter 4 2017 and quarter 4 2018, KIS observed a greater increase at 3.2% in comparison to 2.7% observed by LKIS.

²³ KIS NACE Rev 2: 50, 51, 58-66, 69-75, 78, 80, 84-93

²⁴ LKIS NACE Rev 2: 45-47, 49, 52, 53, 55, 56, 68, 77, 79, 81, 82, 94-99

Figure 3.4 Services Sector Employment, Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

Wholesale and retail

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
311,900	13.7%	72% - retail trade 16% - wholesale trade 12% - motor trade	1%	10%
Between quarter 4 2017 and quarter 4 2018, the motor trade sub-sector experienced the greatest growth of almost 30%.				

Accommodation and food services

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
174,800	7.7%	71% - food & beverage services 29% - accommodation	4%	23%
Most growth in employment in the most recent period (quarter 4 2017 and quarter 4 2018) related to food and beverages services.				

Professional, scientific and technical activities

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
135,800	6.0%	26% - engineering activities* 35% - legal and accounting 12% - other professional scientific & technical activities Remainder includes: scientific R&D, advertising and management consultancy	0%	8%
*including architectural activities and technical testing				

Financial, insurance and real estate services

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
106,600	4.7%	56% - financial services (e.g. banking) 22% - insurance Remainder includes: auxiliary and real estate activities	0%	6%

Transportation and storage

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
101,400	4%	51% - land transport 22% - warehousing 12% - postal activities	7%	19%

Information and communications (ICT)

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
115,300	5.1%	66% - computer programming Remainder includes: broadcasting, publishing & motion picture production	-1%	17%

Administrative and support service activities

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
106,600	4.7%	43% - buildings & landscape services 16% - office administrative activities & security activities Remainder includes: employment activities, travel services and renting/leasing	13%	35%

Health and social work

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
288,500	12.6%	58% - human health activities 29% - social work activities 13% - residential care activities	3%	9%

Education

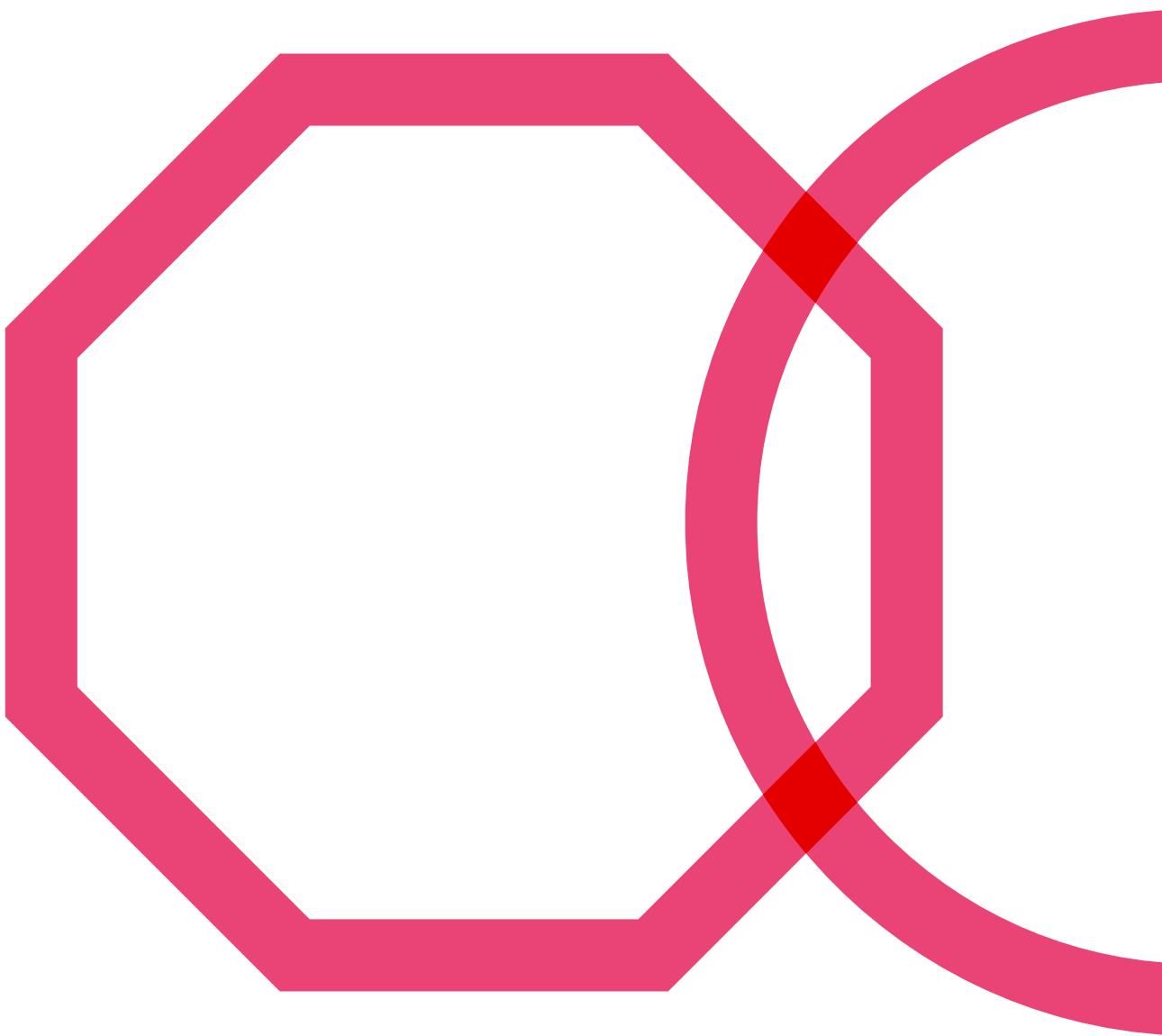
Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
178,800	7.8%	-	7%	25%

Public administration and defence (PAD)

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
108,300	4.7%	-	6%	24%

Other NACE activities

Employment Q4 2018	% share of total employment Q4 2018	Sub-Sectors	% growth Q4 2017-2018	% growth Q4 2013-2018
117,300	5.1%	31% - personal services 23% - sports activities 16% - activities of membership of organisations Remainder includes: cultural, gambling, domestic etc. activities	-2%	11%



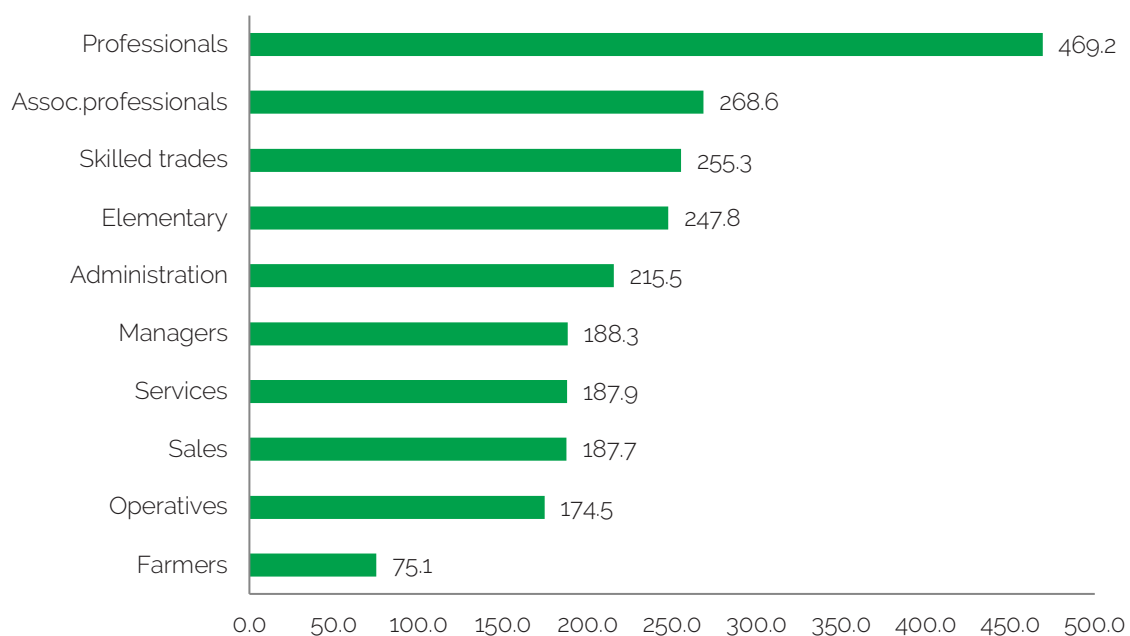
Section 4

Employment by broad occupation

4.1 Employment

Employment by broad occupational group is presented in Figure 4.1. In this section, farmers are presented as an occupation separately from other skilled trades. In quarter 4 2018, professionals had the highest level of employment at 469,000, followed by associate professionals (269,000). Half of all persons employed worked as managers, professionals, associate professionals or administrative workers. Skilled tradespersons accounted for 11.2% of all persons employed while operatives accounted for 10.9% and farmers accounted for 3.3% of all persons employed.

Figure 4.1 Employment by Broad Occupational Group (000s), Quarter 4 2018



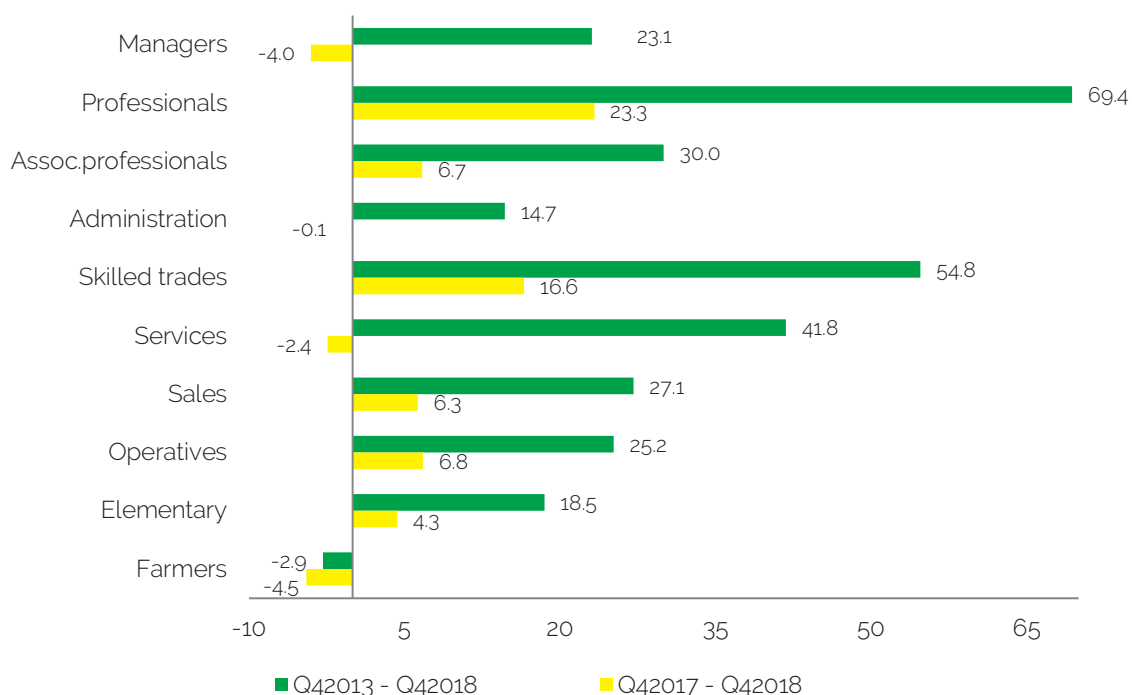
Source: SLMRU (SOLAS) analysis of CSO data

4.2 Employment Growth

Employment growth by broad occupational group is presented in Figure 4.2. Between quarter 4 2017 and quarter 4 2018, the majority of occupations observed an increase in employed persons with the exception of farmers, managers, personal services occupations and administrative workers. Professionals observed the greatest increase in terms of absolute numbers with an additional 23,300 persons employed, followed by skilled trades occupations with an additional 16,600 persons employed for the same time period.

Between quarter 4 2013 and quarter 4 2018 professionals, skilled trades and personal services occupations had the greatest increases in employed persons over the five-year period.

Figure 4.2 Employment Growth by Broad Occupational Group (000s), Quarter 4 2018



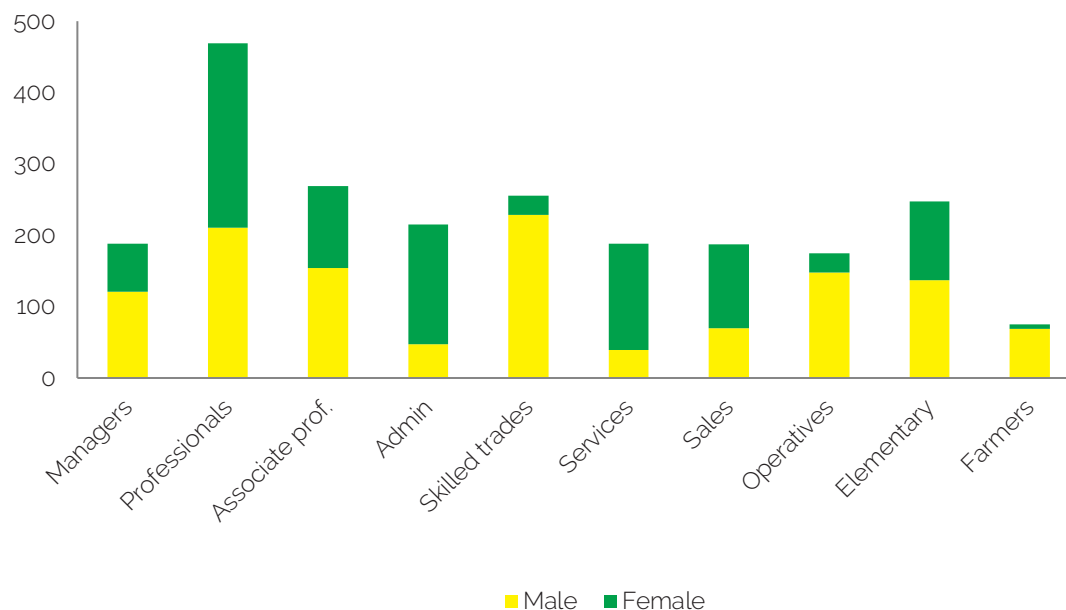
Source: SLMRU (SOLAS) analysis of CSO data

4.3 Employment by Gender and Age

Employment by gender for broad occupations is presented in Figure 4.3. In terms of numbers in quarter 4 2018, most females were employed in the professional, administrative and services occupations. Males accounted for the highest share of employment in skilled trades, operatives and managerial occupations. The gender distribution was closest to balanced for elementary and professional occupations.

Between quarter 4 2017 and quarter 4 2018, growth for males in terms of persons employed was primarily in professional roles and skilled trades. Females observed growth across all occupations with the exception of managers. The greatest increase for females was observed in associate professionals (8,900 persons).

Figure 4.3 Employment by Gender and Broad Occupational Group (000s), Quarter 4 2018

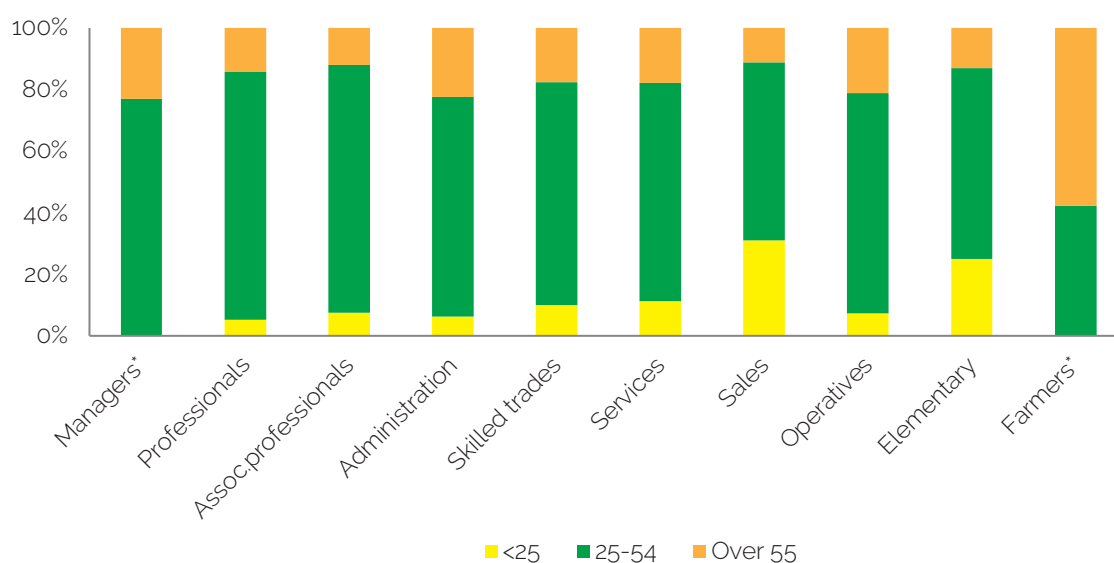


Source: SLMRU (SOLAS) analysis of CSO data

Figure 4.4 presents the age distribution of employment by broad occupational groups. In quarter 4 2018, employment in all occupational groups was greatest in the 25-54 age cohort, with the exception of farmers. Sales had the greatest share of persons aged under 25, followed by elementary workers. Just over half of all farmers were aged over 55.

Between quarter 4 2017 and quarter 4 2018, professionals, associate professionals, skilled trades and sales occupations observed increases across all three age groups; professional occupations saw the greatest increases in each of the three age groups. Employment of persons aged between 25 and 54 and over 55 years increased by approximately 20,000 persons each, almost double the increase of those aged under 25.

Figure 4.4 Employment by Age and Broad Occupational Group (%), Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

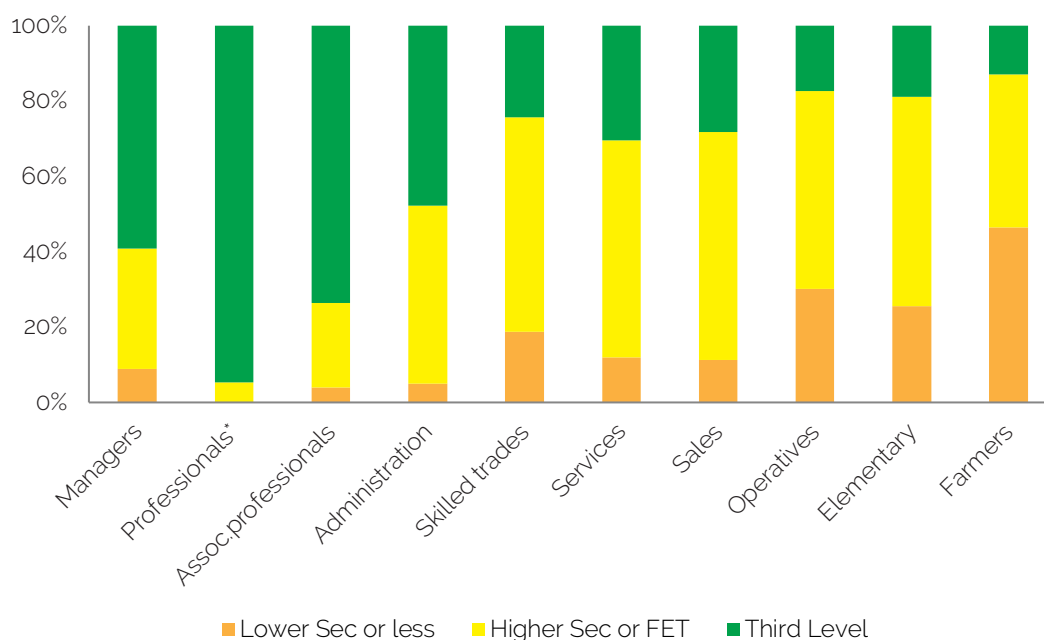
*Numbers for farmers and managers under 25 years were too small to report.

4.4 Employment by Education

Figure 4.5 presents the educational distribution of employment by broad occupation groups. In quarter 4 2018, at 95%, professionals had the highest share of third level graduates followed by associate professionals (74%) and managers (59%). Almost half of all administrative workers had a third level education (48%). Farmers and operatives had the highest share of persons with a lower secondary or less level of education.

Between quarter 4 2017 and quarter 4 2018, employed persons with a third level education observed the greatest increase in terms of numbers (31,500 additional persons employed); those with a lower secondary or less education was the only group to observe a decrease in numbers (of almost 4,500 persons). Across all occupations, employment increased for those persons with higher secondary or FET education, with the exception of associate professionals. The increase in employment for those with third level education was primarily focused in professional and associate professional roles.

Figure 4.5 Employment by Education and Broad Occupational Group (%), Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

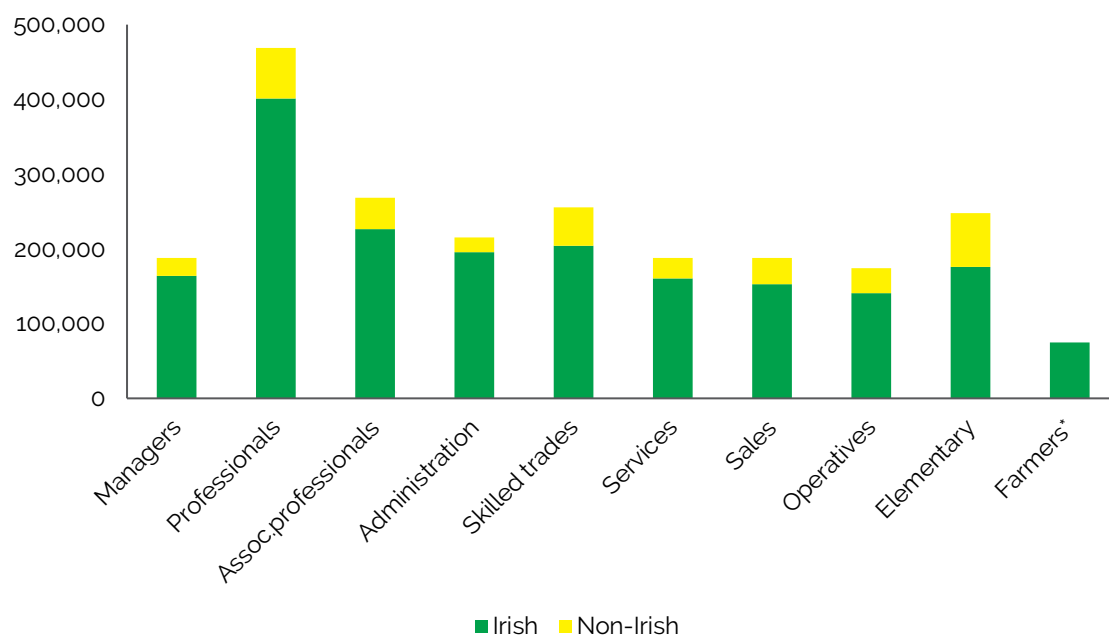
*Number of professionals with lower secondary or less education was too small to report

4.5 Employment by Nationality

The distribution of employment in broad occupational groups by nationality is presented in Figure 4.6. In quarter 4 2018, elementary and professional occupations had the highest number of non-Irish nationals employed at 72,000 and 68,000 persons respectively, followed by skilled trades workers at 51,000. had the highest share of non-Irish nationals at 29% and 20% respectively. Administrative occupations had the lowest number of non-Irish national workers, excluding farmers, accounting for a 9% share of employment in the occupation.

Between quarter 4 2017 and quarter 4 2018, the number of non-Irish nationals increased across a number of occupations with operatives and associate professionals observing the greatest increase of three and 2.6 percentage points respectively. Irish nationals observed an increase of three percentage points for skilled tradespersons.

Figure 4.6 Employment by Nationality and Broad Occupational Group (%), Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

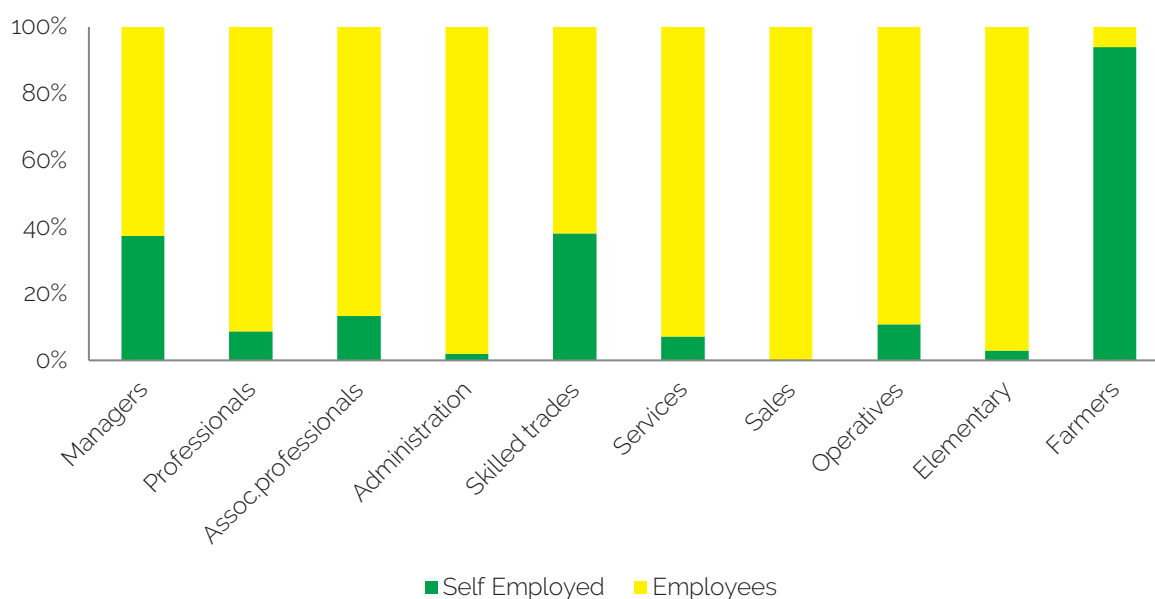
*Number of farmers who were non-Irish nationals was too small to report

4.6 Employment Status

Figure 4.7 presents employment in broad occupational groups by employment status. In quarter 4 2018, with the exception of farmers, the majority of all workers were employees. After farmers, the greatest share of self-employed persons was skilled trades workers (38%) and managers (37%).

In terms of absolute numbers, persons working as employees observed an increase of over 67,000, while self-employed persons and those assisting a relative declined by 12,000 and 4,000 respectively, between quarter 4 2017 and quarter 4 2018. The share of persons working as employees increased across all occupations with the exception of managers and service workers. The number of self-employed persons declined across almost all occupations over this period, particularly for those in professional and operative roles.

Figure 4.7 Employment by Employment Status* and Broad Occupational Group (%), Quarter 4 2018

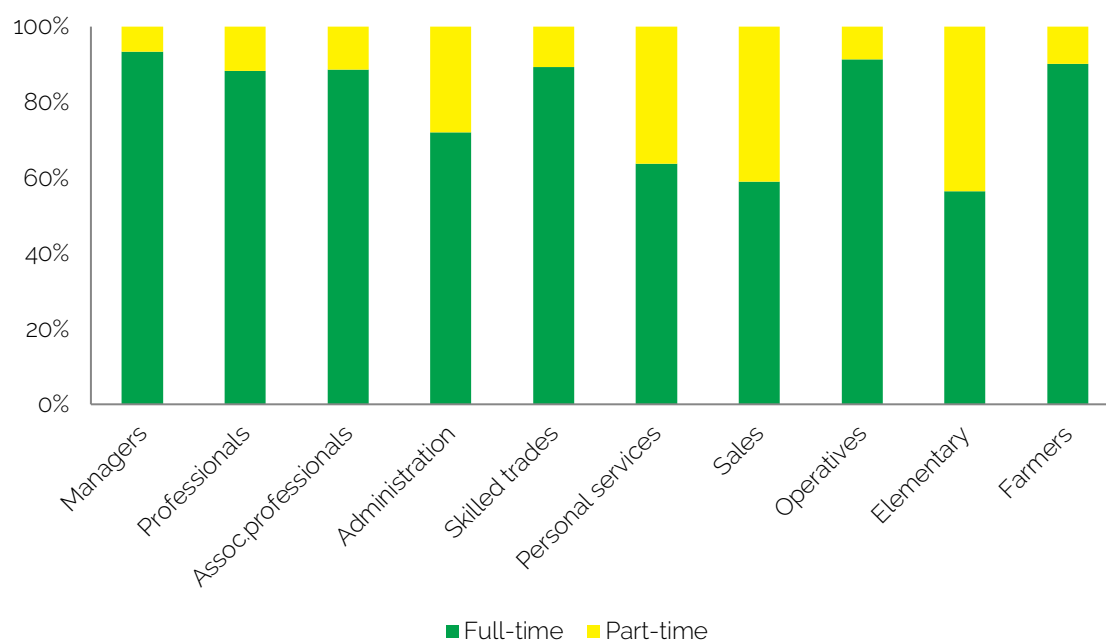


Source: SLMRU (SOLAS) analysis of CSO data

*Excludes those assisting relatives and on employment schemes

Figure 4.8 presents the breakdown of employment in broad occupational groups by full-time and part-time work. In quarter 4 2018, the majority of workers across all occupational groups were in full-time employment. Elementary occupations had the greatest share of part-time workers (44%), followed by sales persons (41%) and service workers (36%). Managers had the greatest share of full-time workers (93%).

Figure 4.8 Full-time and Part-time Employment by Broad Occupational Group (%), Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

Between quarter 4 2017 and quarter 4 2018, the share of persons working full-time remained relatively unchanged. In terms of absolute numbers, there was an increase in persons in full-time employment across almost all occupations with the exception of managers and administrative workers. The number of persons working as full-time professionals observed the greatest increase (+23,000).

4.7 Employment by Region²⁵

Figure 4.9 presents the regional distribution of employment in broad occupational groups. In quarter 4 2018, Dublin and the Mid-East accounted for at least 31% of employment in each occupational group, with the exception of farmers. The majority of white collar workers (managers, professionals, associate professionals and administrative workers) were located in Dublin and the Mid-East. The Border, Midlands and West (BMW) region accounted for the largest share of operative workers (32%).

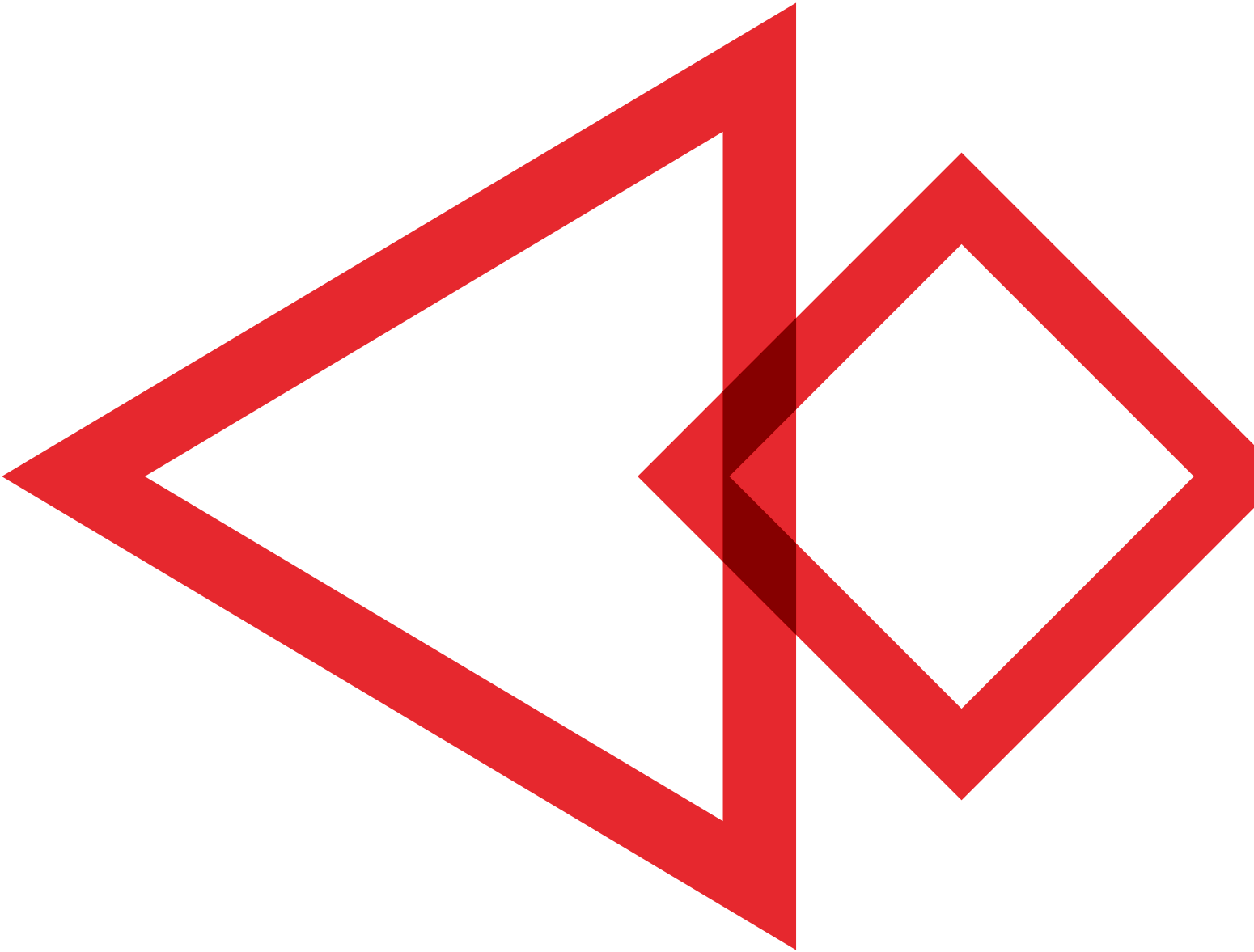
The Dublin and Mid-East region accounted for 70% of national employment growth over the period quarter 4 2017-quarter 4 2018, with growth predominantly in professional, skilled trades and elementary occupations. Employment growth in the BMW region was primarily in professional and skilled trades occupations. For the southern region (Mid-West, South East and South West), employment growth was driven by particularly strong increase in skilled trades; however, this was partly offset by declines in other occupations notably elementary and administrative occupations. In terms of absolute numbers, skilled trades were the only occupation to observe an increase in persons employed across all regions.

Figure 4.9 Employment by Region and Broad Occupational Group (%), Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

²⁵ For presentation purposes, the Border, Midlands and Western regions were grouped into the BMW region while the Dublin and Mid-East region were grouped into the Dublin & Mid-East region.



Section 5

Unemployment

5.1 Unemployment and Unemployment Rate

The unemployment levels and unemployment rates for each quarter 4 over the period 2005-2018 are presented in Figure 5.1. The number of unemployed persons has fallen since the peak in quarter 4 2011 by approximately 211,000 persons. In quarter 4 2018, there were 128,800 persons looking for employment, a decline of 15,200 since quarter 4 2017.

In quarter 4 2018, the unemployment rate was 5.4%, a decline of almost ten percentage points on the rate in quarter 4 2011. While unemployment numbers in this chapter refer to those aged 15 years and above, the unemployment rates refer to those aged 15-74 years.

Figure 5.1 Unemployment Levels (000s) and Unemployment Rate (%), Quarter 4



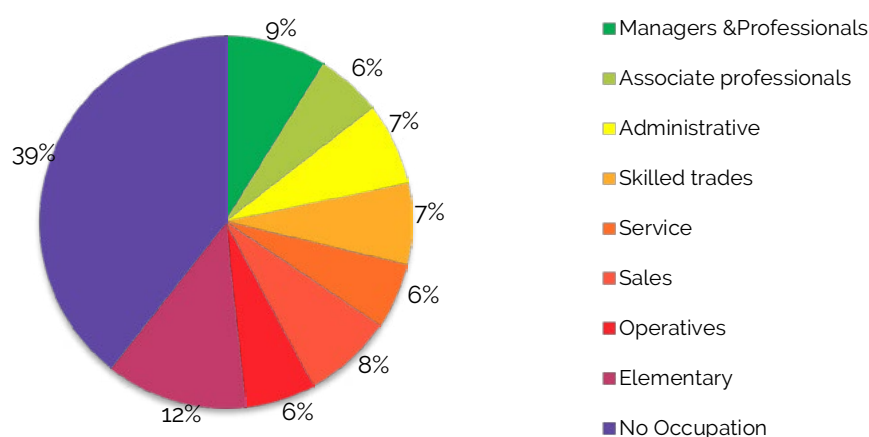
Source: SLMRU (SOLAS) analysis of CSO data

5.2 Unemployment by Occupation

Figure 5.2 presents the distribution of unemployment by broad occupational groups. Unemployed persons who did not state their previous occupation (e.g. looking for work for the first time, entering employment from inactivity) accounted for over 39% of all unemployed persons. Of these, approximately half were aged between 15-24 years and almost three quarters were unemployed for less than a year. In quarter 4 2018, the greatest share of unemployed persons who stated a previous occupation had previously worked in elementary occupations (12%), managers/professionals (9%) and sales (8%).

Between quarter 4 2017 and quarter 4 2018, the number of unemployed persons decreased for almost all occupations with the exception of those previously employed in administrative and associate professional's roles. In terms of absolute numbers, those previously working in sales observed the greatest decline of 4,500 persons, followed by those previously working in skilled trades (4,200 persons).

Figure 5.2 Unemployment by Previous Occupation (%), Quarter 4 2018

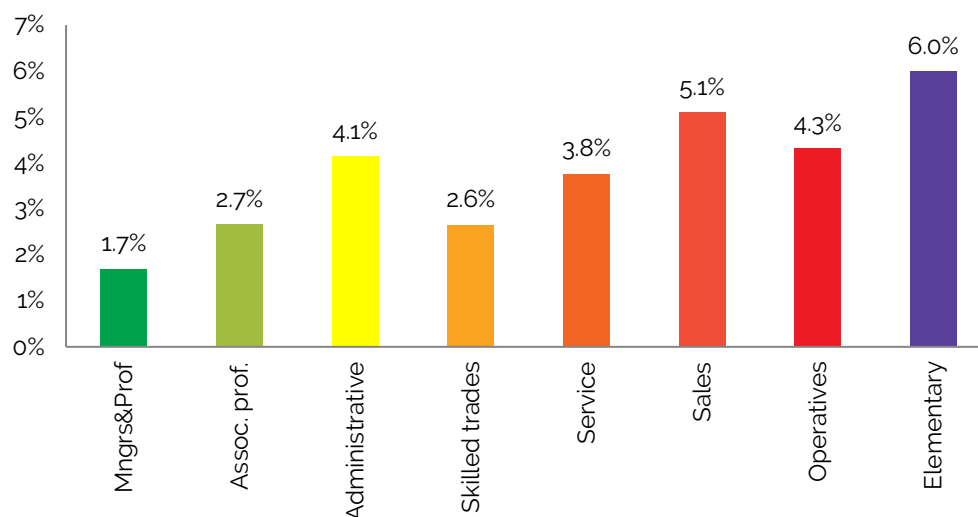


Source: SLMRU (SOLAS) analysis of CSO data

The unemployment rate by broad occupation is presented in Figure 5.3. In quarter 4 2018, elementary workers had the highest unemployment rate at 6% followed by sales workers (5.1%). Managers and professionals combined had the lowest unemployment rate at 1.7%.

Between quarter 4 2017 and quarter 4 2018, the unemployment rates for those previously employed as administrative workers and associate professionals increased marginally (by 0.4 and 0.2 percentage points respectively). The unemployment rate declined for all other occupations.

Figure 5.3 Unemployment Rate by Previous Occupation (%), Quarter 4 2018



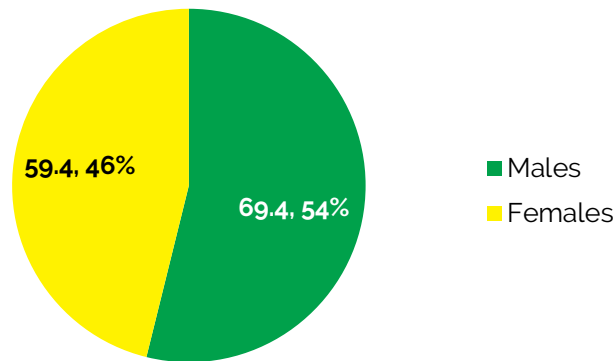
Source: SLMRU (SOLAS) analysis of CSO data

Note: Excludes persons who did not state their previous occupation.

5.3 Unemployment by Gender

The gender distribution of unemployed persons is presented in Figure 5.4. In quarter 4 2018, the share of unemployed males, at 54%, was marginally greater than unemployed females. Between quarter 4 2017 and quarter 4 2018, the fall of 15,200 in the numbers unemployed was almost entirely due to a fall in the number of unemployed males (which fell by 14,000).

Figure 5.4 Unemployment by Gender, Quarter 4 2018 (000s; %)

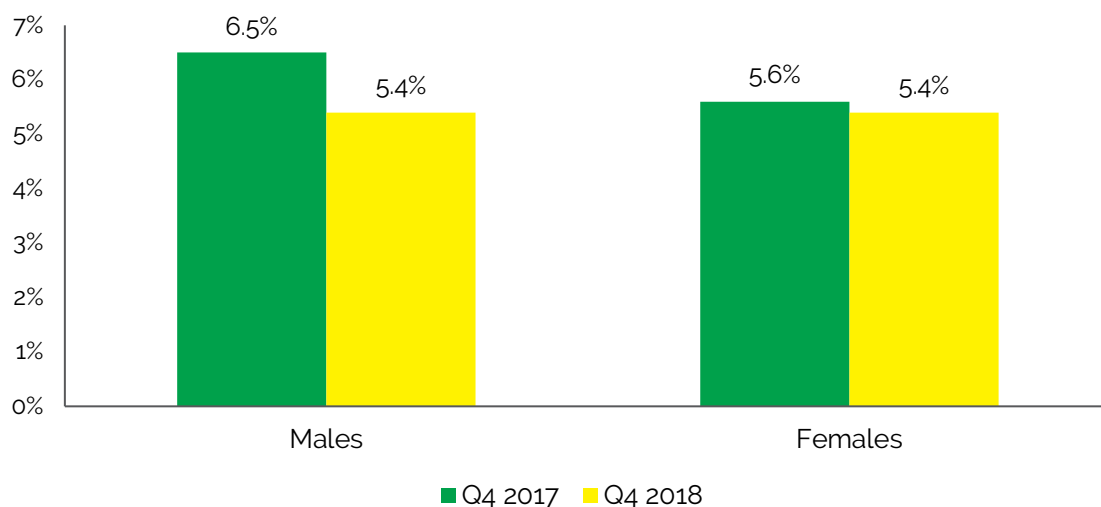


Source: SLMRU (SOLAS) analysis of CSO data

Figure 5.5 presents the unemployment rates for females and males. In quarter 4 2018, the unemployment rate for males and females was the same at 5.4% each. This is first time since quarter 1 2005 that they have been on a par.

Between quarter 4 2017 and quarter 4 2018, both males and females observed a decline in unemployment rates with males observing a greater decline of 1.1 percentage points.

Figure 5.5 Unemployment Rate by Gender, Quarter 4 2017 & Quarter 4 2018



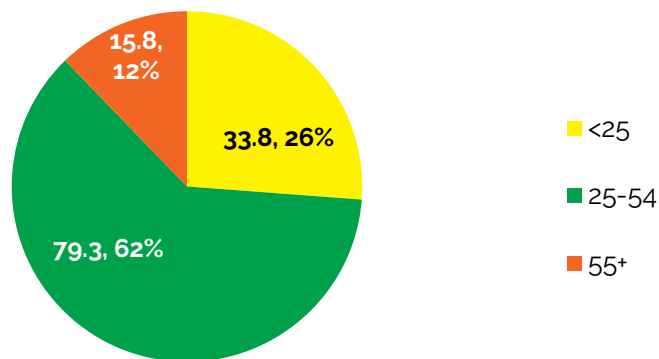
Source: SLMRU (SOLAS) analysis of CSO data

5.4 Unemployment by Age

The age distribution of unemployed persons is presented in Figure 5.6. In quarter 4 2018, at 62%, the greatest share of unemployed persons was aged 25-54 (79,300), followed by 33,700 unemployed persons aged under 25 (at 26%).

Between quarter 4 2017 and quarter 4 2018, the decline of 15,200 in the numbers unemployed was primarily due to a drop in those in the 25-54-year-old cohort; the number of unemployed persons aged under 25 years remained almost unchanged. This has resulted in a growth of three percentage points in the share of under 25s amongst the unemployed.

Figure 5.6 Unemployment by Age Group, Quarter 4 2018 (000s; %)

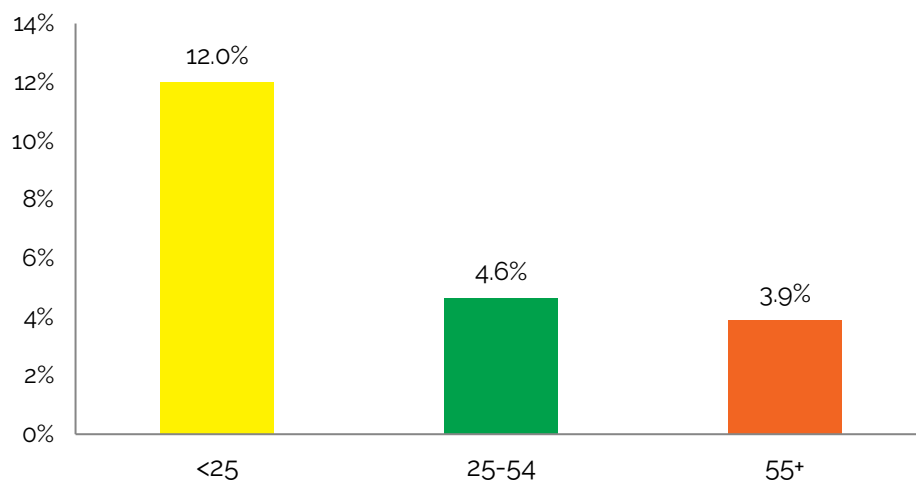


Source: SLMRU (SOLAS) analysis of CSO data

*Excludes not stated

Unemployment rates by age are presented in Figure 5.7. In quarter 4 2018, the unemployment rate for those aged under 25 was 12%, more than double the unemployment rates of persons aged 25-54 (4.6%). Between quarter 4 2017 and quarter 4 2018, the unemployment rate for all age cohorts decreased; persons aged 55 years and above observed the greatest relative change with a decrease of 1.1 percentage points.

Figure 5.7 Unemployment Rate by Age Group, Quarter 4 2018



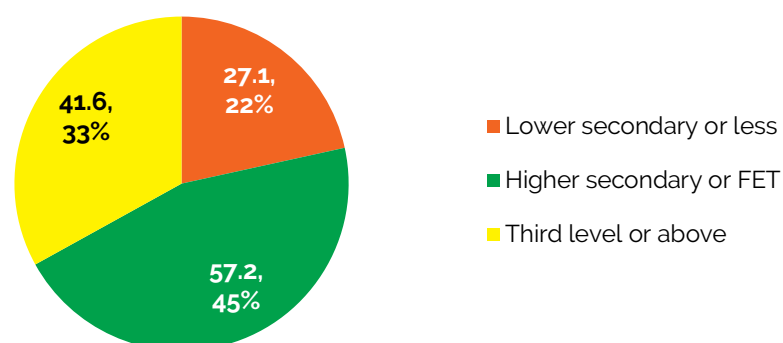
Source: SLMRU (SOLAS) analysis of CSO data

5.5 Unemployment by Education

Figure 5.8 presents unemployment by education. In quarter 4 2018, 45% of all persons unemployed had higher secondary or FET qualifications with 22% of all unemployed persons having lower secondary education or less.

Between quarter 4 2017 and quarter 4 2018, the number of unemployed persons with higher secondary or FET education observed the greatest decrease of approximately 11,700 persons, followed by those with lower secondary or less education (-5,700). The number of unemployed third level graduates increased slightly.

Figure 5.8 Unemployment by Education, Quarter 4 2018 (000s, %)



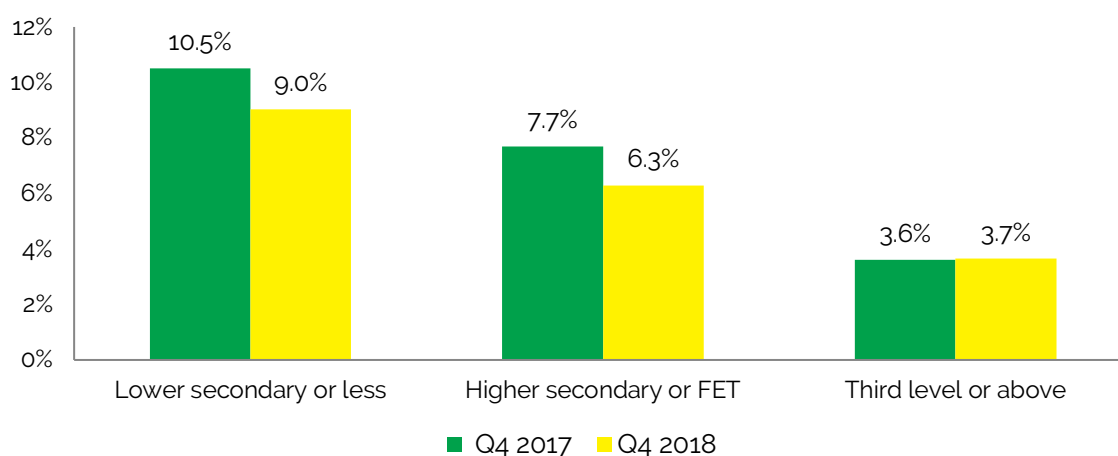
Source: SLMRU (SOLAS) analysis of CSO data

*Excludes not stated

Figure 5.9 presents unemployment rates by education. In quarter 4 2018, persons with a lower secondary or less education had the highest unemployment rate at 9%. Third level graduates had the lowest unemployment rate at 3.7%.

Between quarter 4 2017 and quarter 4 2018, the unemployment rate decreased for persons with a higher secondary/FET education and a lower secondary or less education (1.4 and 1.5 percentage points respectively). Persons holding a third level qualification observed a marginal unemployment rate increase (0.1 percentage points).

Figure 5.9 Unemployment Rate by Education, Quarter 4 2017 & Quarter 4 2018



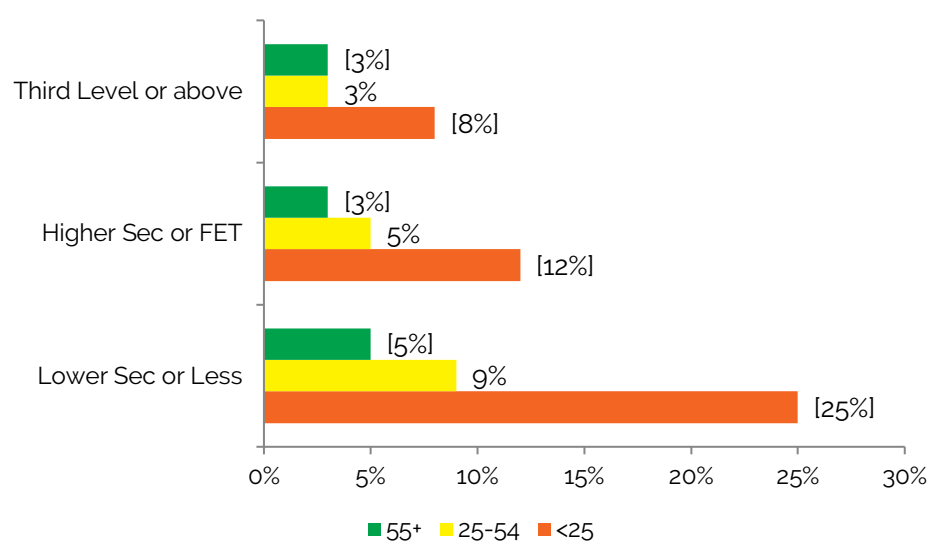
Source: SLMRU (SOLAS) analysis of CSO data

*Excludes not stated

Figure 5.10 presents unemployment rates by education and age. In quarter 4 2018, persons aged under 25 were most at risk of unemployment regardless of education attainment: they had the highest unemployment rates regardless. Third level graduates had the lowest unemployment rates for all age cohorts.

Between quarter 4 2017 and quarter 4 2018, unemployment rates increased (one and two percentage points respectively) for persons aged under 25 with a higher secondary/FET education or a third level qualification. There was no change in the unemployment rate for those under 25 with a lower secondary education or less, although the rate remained considerably higher than any other age cohort or level of education. The largest relative change related to those aged 25-54 with a three percentage point decline in the unemployment rate for persons with a lower secondary education or less.

Figure 5.10 Unemployment Rate by Education and Age, Quarter 4 2018



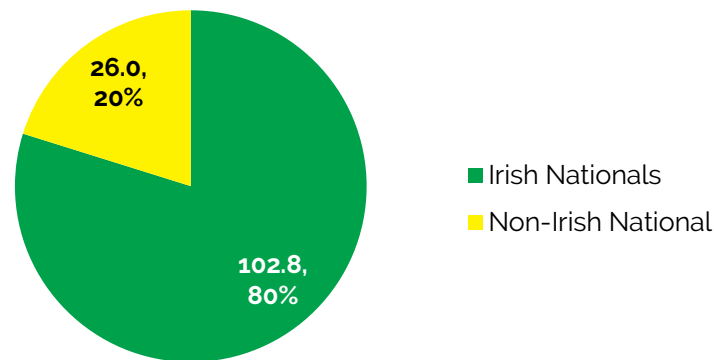
Source: SLMRU (SOLAS) analysis of CSO data

Numbers in brackets are small and should be treated with caution

5.6 Unemployment by Nationality

The distribution of unemployment by nationality is presented in Figure 5.11. In quarter 4 2018, Irish nationals accounted for 80% of total unemployment. Between quarter 4 2017 and quarter 4 2018, the decrease in persons unemployed was greater for Irish nationals at 12,500 when compared to non-Irish nationals (2,700). However, the overall shares remained unchanged over this period.

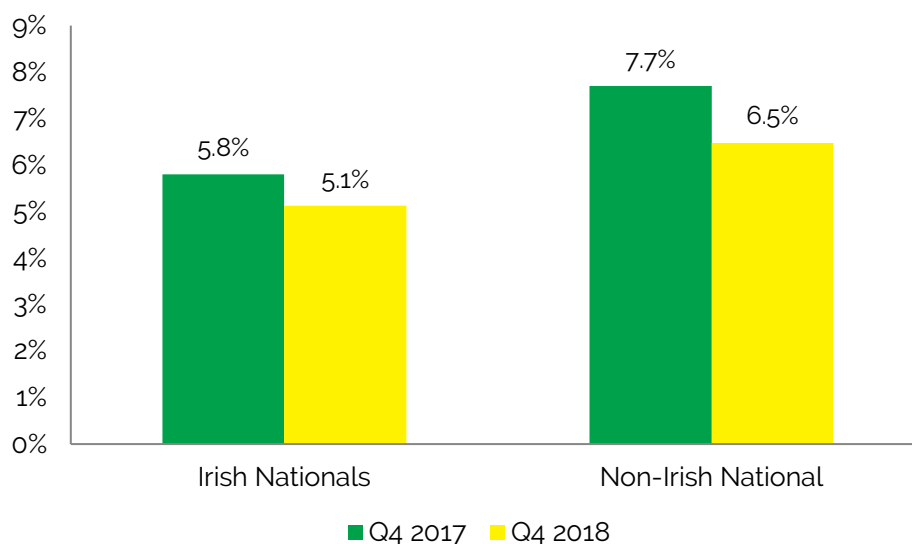
Figure 5.11 Unemployment by Nationality, Quarter 4 2018 (000s; %)



Source: SLMRU (SOLAS) analysis of CSO data

Figure 5.12 presents unemployment rates for Irish and non-Irish nationals. In quarter 4 2018, the unemployment rate for non-Irish nationals (6.5%) was higher than that of Irish nationals (5.1%). Between quarter 4 2017 and quarter 4 2018, the unemployment rates of Irish and non-Irish nationals declined, with non-Irish nationals observing the greatest decline of 1.2 percentage points.

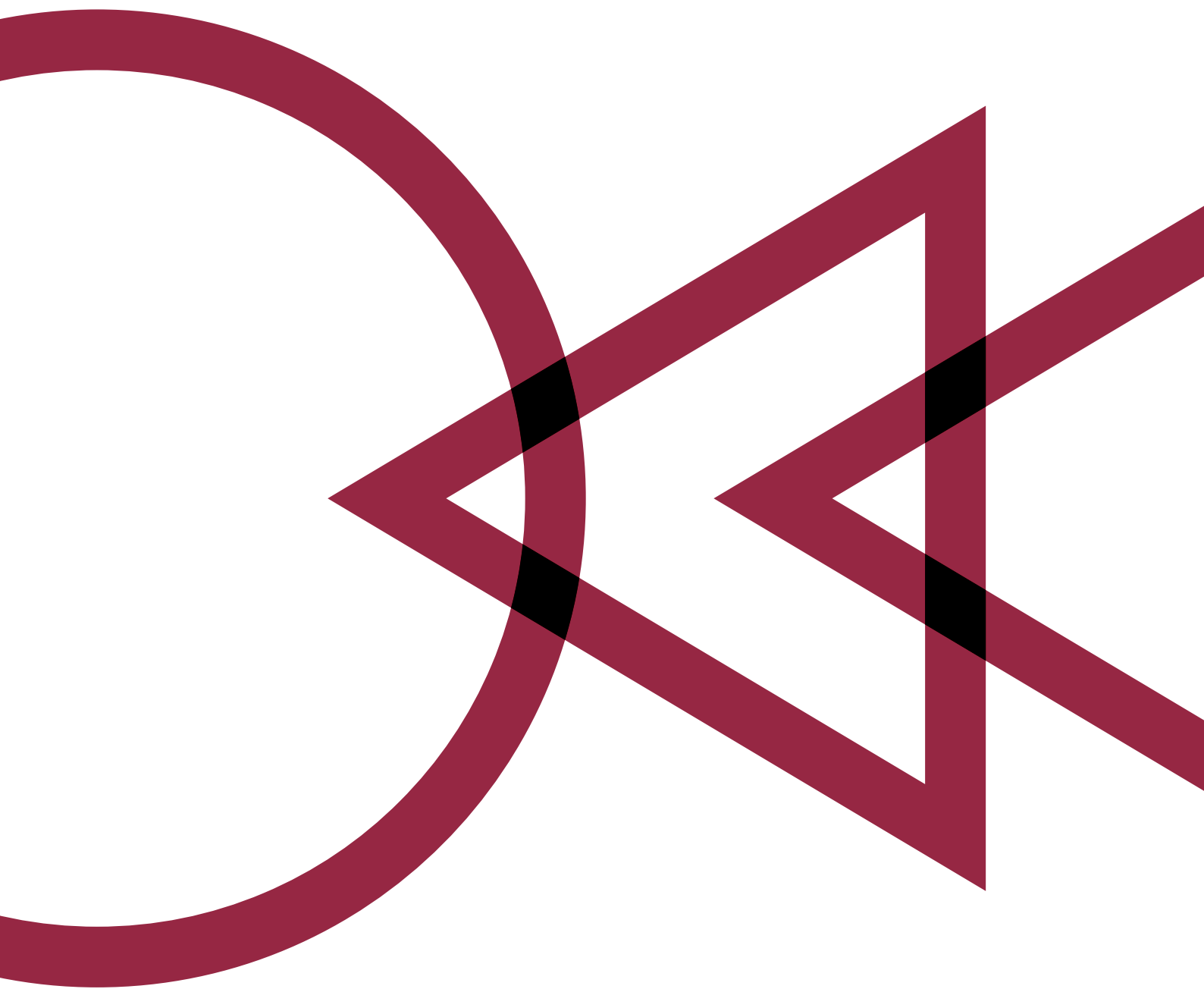
Figure 5.12 Unemployment Rate by Nationality, Quarter 4 2017 & Quarter 4 2018



Source: SLMRU (SOLAS) analysis of CSO data

5.7 Unemployment by Sector

As the number of unemployed persons has fallen significantly in recent years, reporting of unemployment by previous sector has now become too small to report for the majority of sectors. In quarter 4 2018, of those who stated the previous sector of employment, the largest number of unemployed persons was for those previously employed in wholesale and retail, at 12,000 persons, followed by accommodation & food (9,000) and industry (8,800).



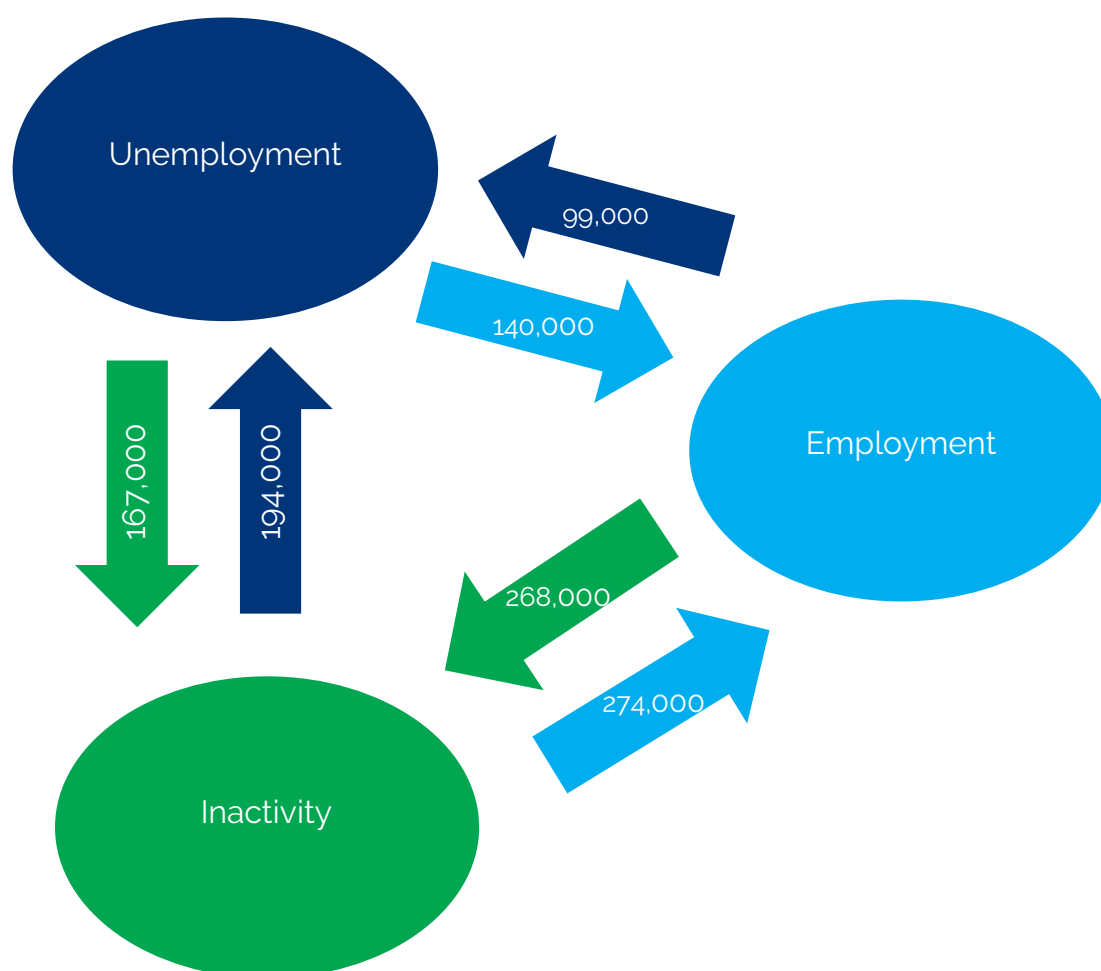
Section 6

Labour Market Transitions and Recent Job Hires

6.1 Transitions

Due to challenges arising from the introduction of the new Labour Force Survey, along with the break in series that occurred at this time (Quarter 3 2017), an analysis of transitions in the labour market at occupational level has not been possible for this edition. However, Figure 6.1 provides information on overall transitions occurring in the labour market in 2018, based on data from Eurostat. There were over 1.1 million transitions occurring in the labour market in 2018, with the highest number occurring for those moving between employment and inactivity, with an employment net gain of 6,000; the movement of students between part-time work and studies is thought to contribute strongly to these transitions. There was a net gain of 41,000 persons moving from unemployment to employment.

Figure 6.1 Labour Market Transitions, 2018 (Sum of four quarters)

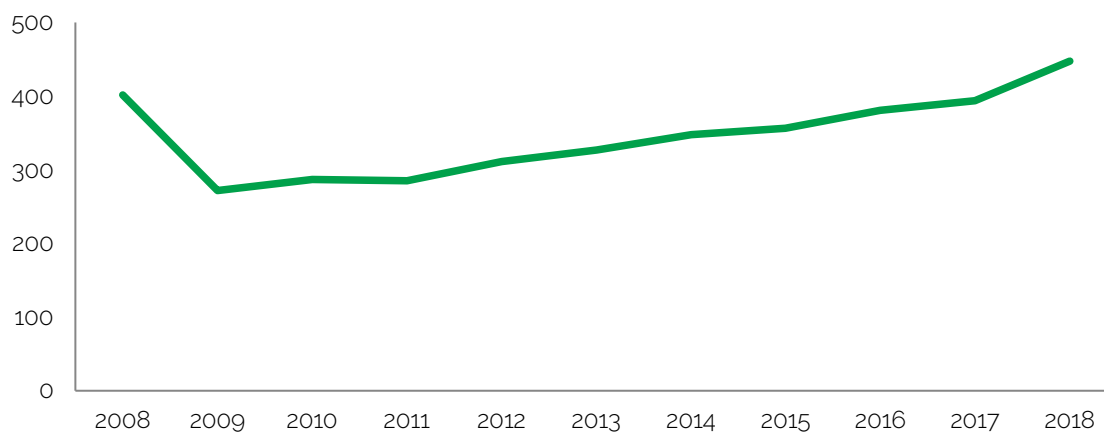


Source: Eurostat

6.2 Recent job hires

Recent job hires refers to those who commenced employment in the previous three months; for reporting purposes, the four quarters of each year are summed. As indicated in Figure 6.2 below, the number of recent job hires has been increasing steadily since 2009. In 2018, there were almost 450,000 recent job hires, an increase of 54,000 on the previous year.

Figure 6.2: Recent Job Hires in Ireland by Year (000s)



Source: Eurostat

Key findings:

Of those recently hired in 2018

- 52% were male
- 66% were hired for full-time positions
- two-thirds were for those aged less than 35 years (Figure 6.3)
- in terms of education level (Figure 6.4):
 - 44% held a third level qualification
 - 42% were for those with higher secondary education or less
 - 14% held a post-secondary qualification
- the wholesale & retail sector along with the accommodation & food sector accounted for the highest number of recent job hires (Figure 6.5)
- recent job hires were primarily in elementary, professional and sales occupations (Figure 6.6)
- the most frequently mentioned occupations included
 - catering assistants, waiters and bar staff (combined account for 10% of all recent job hires)
 - sales assistants (9% of total)
 - other administrative occupations, cleaners and elementary construction occupations (combined accounting for 9%).

Figure 6.3: Recent Job Hires by Age, 2018

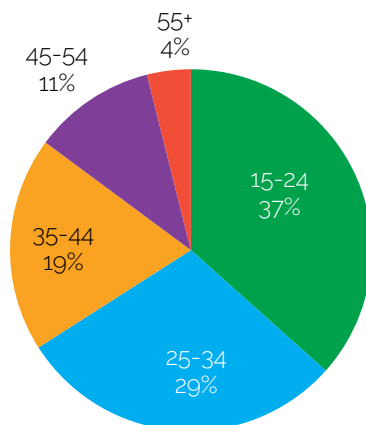
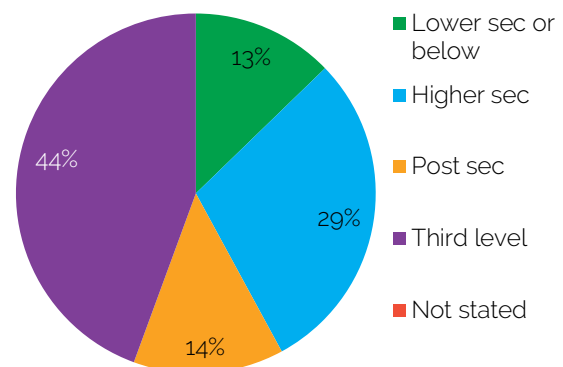


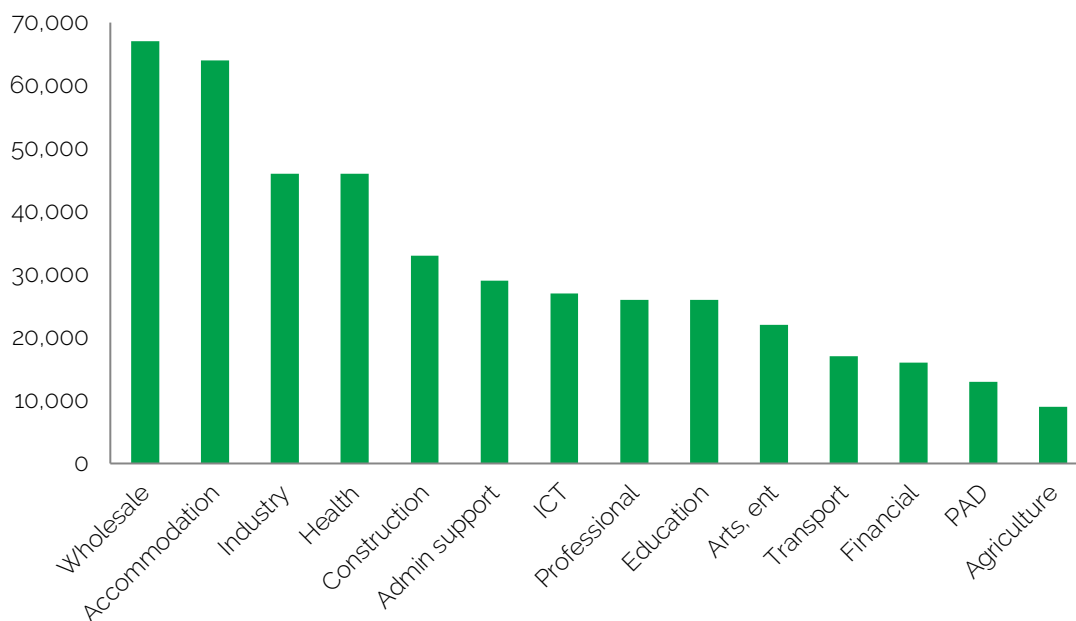
Figure 6.4 Recent Job Hires by Education, 2018*



Source: SLMRU (SOLAS) analysis of CSO data

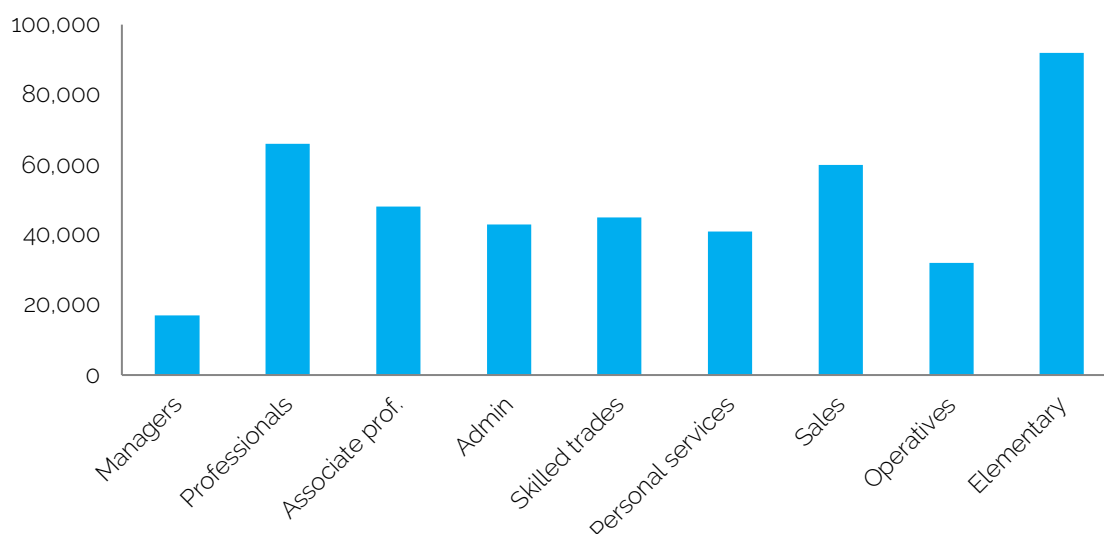
*Excludes not stated

Figure 6.5: Recent Job Hires by Sector, 2018



Source: SLMRU (SOLAS) analysis of CSO data

Figure 6.6: Recent Job Hires by Occupation, 2018



Source: SLMRU (SOLAS) analysis of CSO data

Managers (17,000 recent job hires):

- only a 4% share of total recent hires
- 73% of new hires held a third level qualification
- managers had the oldest age profile with two thirds aged 35 years and above
- at 90%, this occupational group had the highest share of new hires that were for full-time roles.

Professionals (66,000 recent job hires):

- professionals accounted for 15% of total recent hires
- this occupational group had the highest share of new hires that held a third level qualification at 92%
- they were represented across all age groups, although the largest share (40%) was for those aged 25-34 years
- 83% of recent hires were for full-time positions, compared to 66% for the overall total
- in terms of sectors, new hires was concentrated in education, health, ICT and professional activities.

Associate professionals (48,000 recent job hires):

- associate professionals accounted for 11% of total recent hires
- three quarters held a third level qualification
- the age profile was similar to that of professionals, with the largest share for those aged 25-34 years (at 43%)
- 85% of new hires were for full-time roles
- the ICT sector accounted for over a fifth of recent hires.

Administrative (43,000 recent job hires):

- 10% of total recent hires were for administrative roles
- just over a half (51%) held a third level qualification
- recent hires were spread across all age groups
- approximately three quarters of roles were full-time
- in terms of sectors, public administration and defence accounted for the highest share of new hires at 19%.

Skilled trades (45,000 recent job hires):

- accounted for 10% of recent job hires
- only 17% of recent hires held a third level qualification with the majority (61%) holding of a higher secondary education or FET qualification
- recent hires were almost equally represented across all of the age groups
- 84% of recent hires were for full-time roles
- the construction sector accounted for the highest share of recent hires at 38%, followed by accommodation and food services (relating to chefs) and industry, combined accounting for a further third.

Personal services (41,000 recent job hires):

- personal services accounted for 9% of recent job hires
- almost a half (48%) had attained a higher secondary/FET education, with a further third who held a third level qualification
- 62% were aged 15-34; this occupational group had the highest share of new hires who were aged 45 years and above (at 22% compared to 15% for all occupations)
- 54% of new hires were for part-time roles, the highest share of all occupations
- care workers, childminders and hairdressers combined accounted for over half of recent hires
- the health sector accounted for the highest share of recent hires, at 44%.

Sales and customer services (60,000 recent job hires):

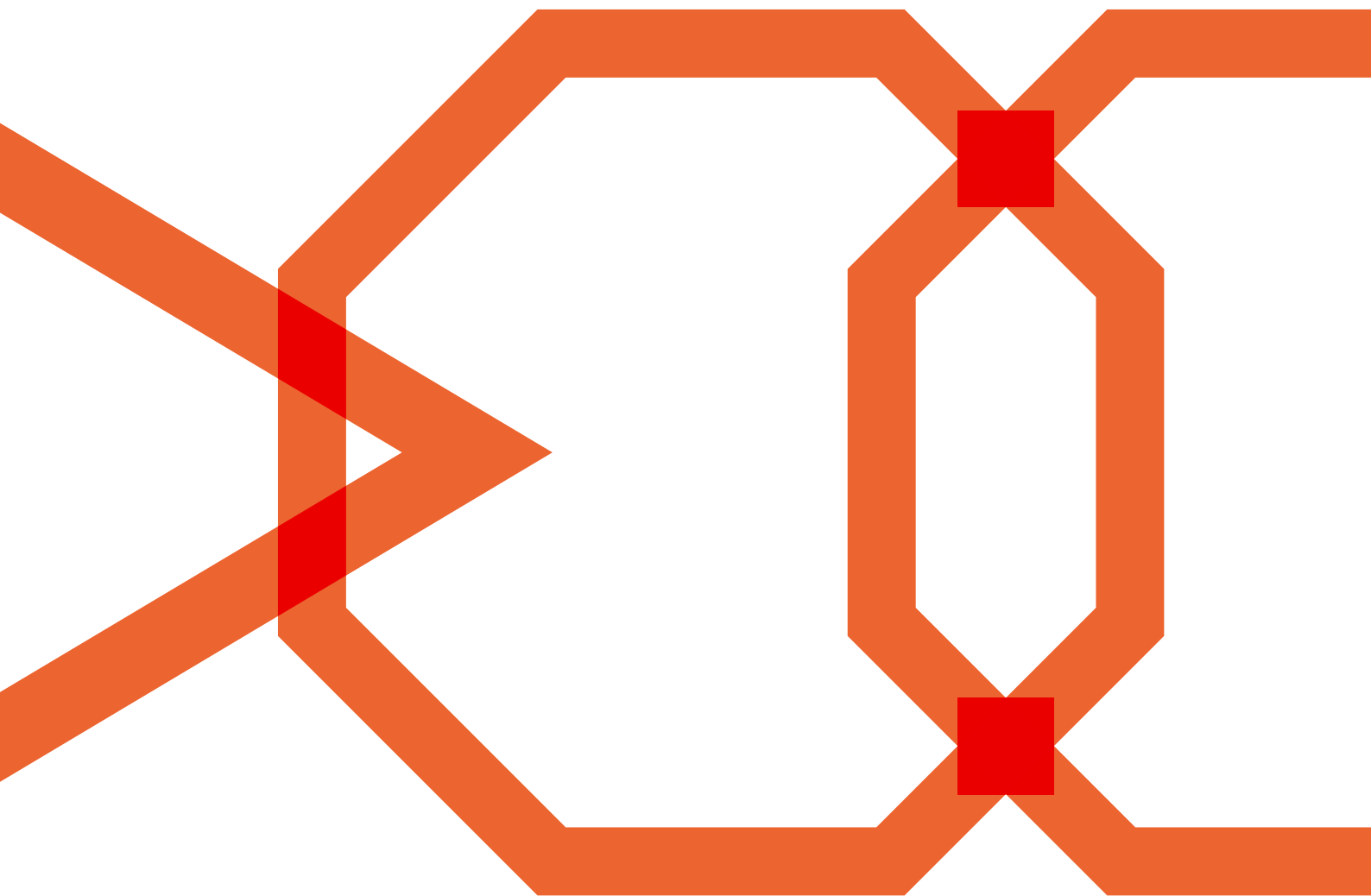
- this occupational group accounted for 13% of recent hires
- 58% of those hired in these occupations held a higher secondary/FET education, with a further 29% holding a third level qualification
- this group had by far the youngest age profile, with 62% aged 15-24 years and only 7% aged 45 years or above
- less than half (47%) of positions were for full-time roles
- three quarters of recent hires were for roles in the wholesale and retail sector, with most hires relating to retail sales assistants.

Operatives (32,000 recent job hires):

- this occupational group accounted for 7% of recent job hires
- over half (57%) of those recently hired held a higher secondary/FET education qualification
- 21% of recent hires were for those aged 45 years or above, the second highest share of all occupational groups
- 83% of recent hires were for full-time roles
- almost a half (48%) were employed in industry (e.g. process operatives) with transport accounting for the second highest share at approximately a fifth (e.g. drivers).

Elementary (92,000 recent job hires):

- at 21%, this occupational group accounted for the highest share of recent hires in 2018
- in terms of education level, 53% held higher secondary/FET education, 25% had attained lower secondary education or less, with a further 19% having attained a third level qualification
- those employed in these occupations tended to be young, with 53% aged 15-24 years
- 58% of recent hires were for part-time roles
- the accommodation and food services sector accounted for by far the highest share of recent hires, at 51% (e.g. waiters, bar staff, kitchen assistants), with administrative services, construction, industry and wholesale and retail combined accounting for a further third.



Section 7

Employment Permits

7.1 Introduction

An employment permit is a requirement for all non-EEA nationals who wish to take up employment in Ireland (unless an exemption applies). An analysis of the occupations for which employment permits are issued allows policymakers to ascertain the areas where employers are having difficulty in sourcing suitably qualified candidates from the Irish and EU labour market.

In order to attain an employment permit, an individual must have a valid job offer from a prospective Irish employer who has proved there were no Irish or EA nationals available to fill the post. The Employment Permit Act in 2014 introduced nine classes of employment permits as detailed below:

- **Critical skills:** designed to attract highly skilled people into the labour market and take up residence in the State.
- **General:** designed to attract non-EEA nationals for occupations which are experiencing a labour or skills shortage in roles that pay at least €30,000* per year.
- **Intra-company transfer:** designed to facilitate the transfer of key personnel, senior management and trainees who are non-EEA nationals from an overseas branch of a multinational corporation to its Irish branch. The annual salary of the applicant must be at least €40,000 and the person must have been with the parent company for at least 12 months prior to the application.
- **Dependent/partner/spouse:** primarily used to support the attractiveness of Ireland as a location of employment for potential and current critical skills employment permit holders and researchers, it permits the dependents, civil partners, and spouses of certain categories of employment permit holder to live in Ireland and apply for an employment permit to work in the State.
- **Contract for services:** where a foreign undertaking has won a contract to provide services to an Irish entity, this permit is designed to facilitate the transfer of non-EEA employees to work on the contract in Ireland.
- **Reactivation:** this permit is designed to facilitate foreign nationals with a valid Employment Permit to work legally again if they fell out of the system or have been badly treated or exploited in the workplace.
- **Sport and cultural:** designed for the employment of foreign nationals with the relevant qualifications, skills, experience or knowledge for the development, operation and capacity of sporting and cultural activities.
- **Internship:** facilitates the employment of foreign nationals who are full-time students, enrolled in a third level institution outside the State, for the purpose of gaining work experience.
- **Exchange agreement:** facilitates the employment of foreign nationals pursuant to prescribed agreements or other international agreements to which the State is a party.

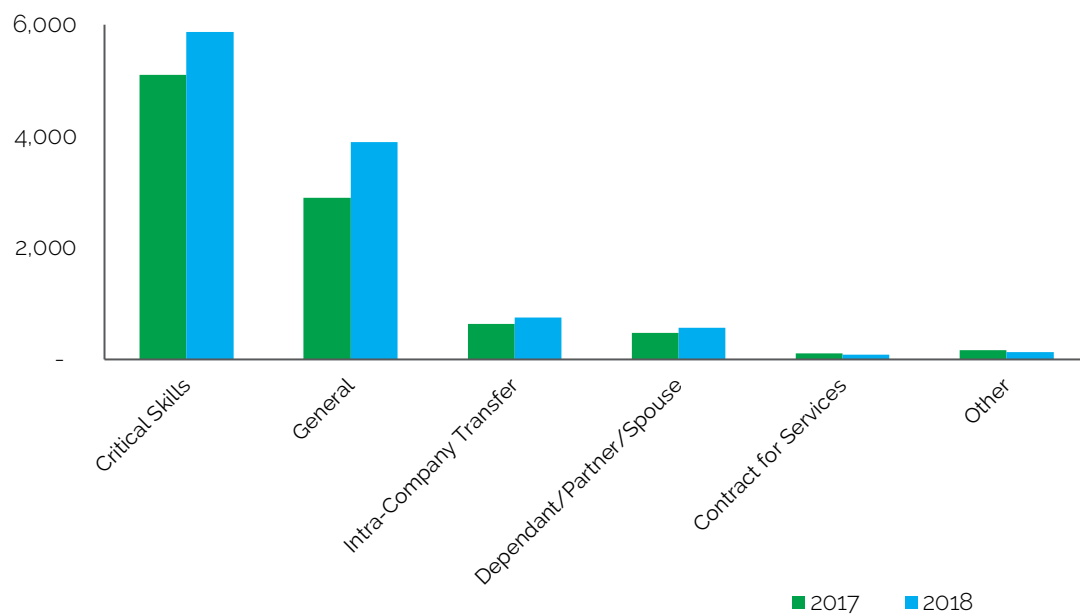
** some exceptions apply*

7.2 Overall Trends

Approximately 11,300 new employment permits were issued in 2018 as employers continue to source skills from abroad; this is a 20% increase on the previous year (Figure 7.1). New permits issued for critical skills accounted for over half (52%) of all new permits in 2018, with a further 34% for general permits and 7% for intra-company transfers.

General permits, which rose by 34%, accounted for more than half the growth in new permits issued since 2017. This was due to an increase in the number of permits issued for those employed in the agriculture, forestry and fishing sector, which showed a substantial increase in the number of permits since 2017. The increase was as a result of new regulations which came into effect in May 2018 that allowed employers and prospective employees to apply for a general employment permit for horticulture workers, meat processing operatives and dairy farm assistants.

Figure 7.1 New Employment Permits by Type, 2017-2018

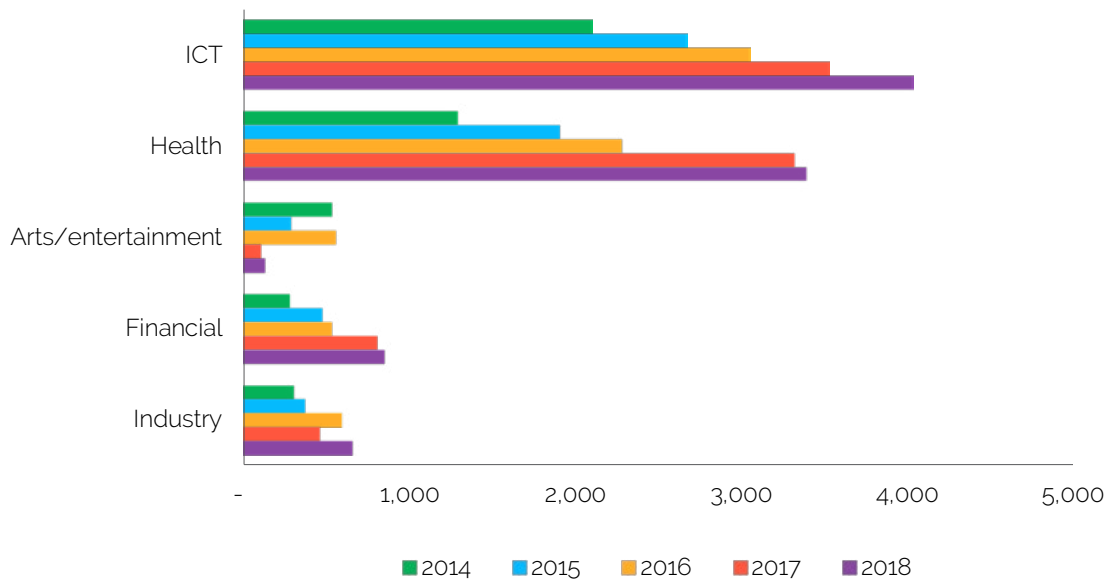


Source: DBEI

7.3 Employment Permits by Sector

Figure 7.2 illustrates a breakdown of new employment permits issued by sector. The number of permits issued has increased for most sectors in recent years, particularly in the health and ICT sectors. In 2018, the ICT sector accounted for 36% of all new permits issued with the health sector accounting for 30%.

Figure 7.2: New Employment Permits for Selected Sectors*, 2014-2018



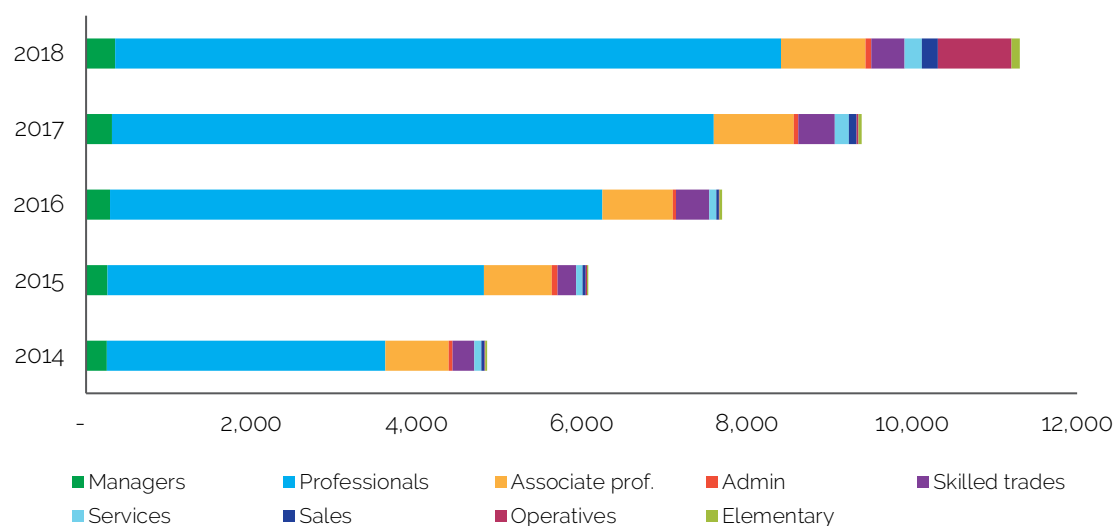
Source: DBEI

*In 2018, these five selected sectors account for 80% of all new permits issued.

7.4 Employment Permits by Occupation

Professional occupations accounted for the majority of new permits issued in each year between 2014 and 2018 (Figure 7.3). They also accounted for three quarters of the growth in the number of new permits issued over this time period. The increase in the number of new permits issued for operative roles between 2017 and 2018 relates primarily to meat processing operatives.

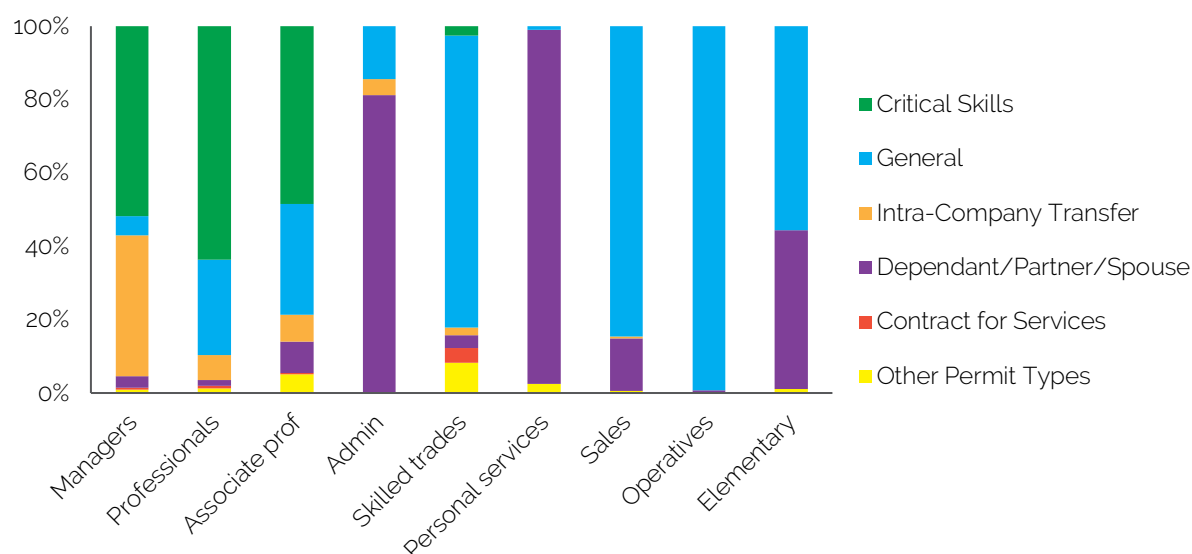
Figure 7.3 New Employment Permits by Broad Occupation, 2014-2018



Source: DBEI

The type of permit issued varies across occupational group (Figure 7.4). Over half of the new permits issued for managers, professionals and associate professionals were for critical skills permits; the majority of permits issued for skilled trades and operatives were general permits, while the majority of permits issued in personal services and administrative occupations related to dependents/partner/spouse permits (Figure 7.4).

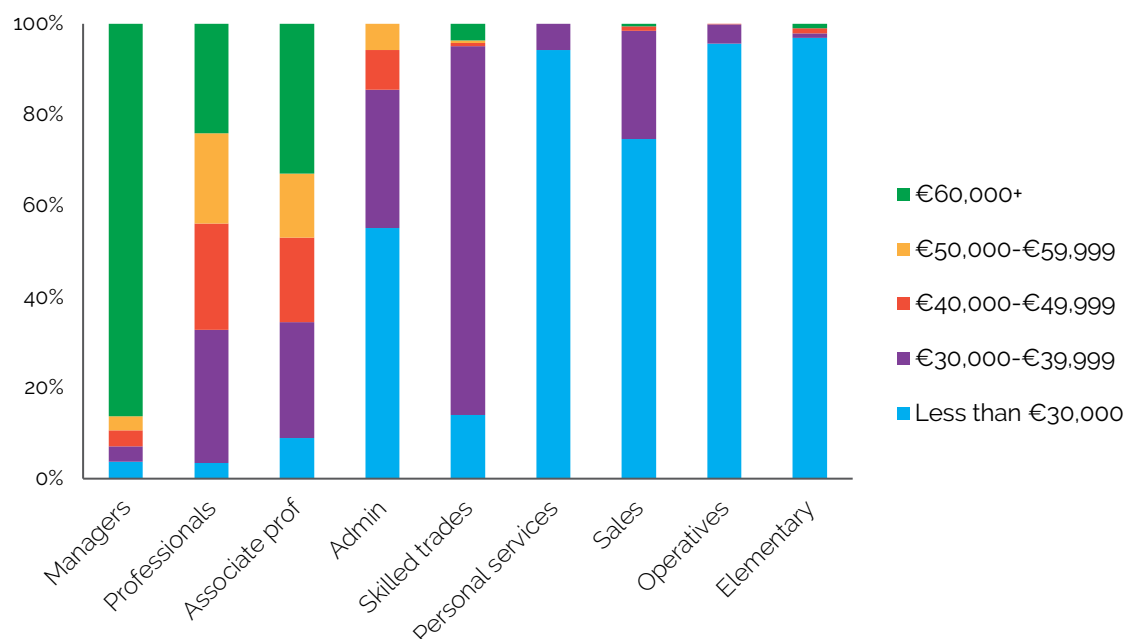
Figure 7.4 New Employment Permits by Permit Type, 2018



Source: DBEI

Of those new permits issued for managers, 86% were for roles which offered a salary of €60,000 or above; 44% of permits were for professionals with a salary of €50,000 or above (Figure 7.5). Almost all new permits issued in personal services and elementary occupations had a salary of less than €30,000 but the numbers were small and mostly related to dependants and spouse permits. The majority of operatives also had a salary of less than €30,000.

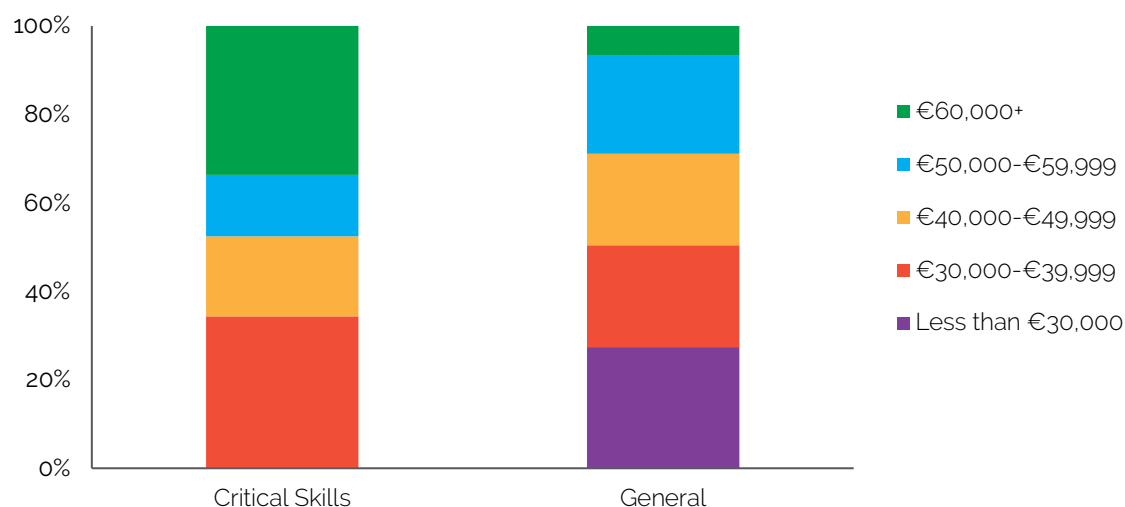
Figure 7.5 New Employment Permits by Occupation and Salary, 2018



Source: DBEI

Of the critical skills permits issued in 2018, a third were for salaries of €30,000-€39,999 with a further third for salaries of €60,000 or above (Figure 7.6). Of the general permits issued, 27% were for salaries of less than €30,000.

Figure 7.6 New Employment Permits Type by Salary, 2018



Source: DBEI

Managers

- **Overall:** new employment permits for managerial positions accounted for 3% of all permits issued in 2018
- **Type:** critical skills accounted for over a half (52%) of the new permits issued for this occupation with a further 39% for intra-company transfers
- **Salary:** 89% of new permits issued had a salary of €50,000 or more, by far the occupation with the largest share of permits offering salaries at this level
- **Sector:** employment permits were primarily issued for positions in IT (29%), financial services (21%) and industry (22%)
- **Nationality:** over half (53%) of all permits issued for managers were for those originating from the USA
- **Occupations:** new employment permits were most frequently issued for
 - vice presidents/CEOs/CFOs, directors and managers in financial services
 - directors in marketing and business development
 - directors and managers in IT
 - HR/operations managers.

Professionals

- **Overall:** new employment permits for professionals accounted for almost three quarters (71%) of total permits issued in 2018
- **Type:** permits were primarily related to critical skills (64%) and general permits (26%)
- **Salary:** over half (53%) of new permits issued were for a salary of between €30,000–€49,999 with a further 44% with a salary of €50,000 or more
- **Sector:** permits were mainly issued for positions in IT (41%), the health sector (39%) and financial services (8%)
- **Nationality:** almost two thirds (63%) of all new permits for professionals were issued to persons from India, the Philippines, Pakistan and Brazil
- **Occupations:** new employment permits were most frequently issued for
 - IT: software engineers/developers, network engineers, IT business analysts/project managers, test (analysts, engineers), architects (software, systems, technical, solutions), UX/UI designers, systems engineers, data scientists, market specialists
 - health: medical doctors including senior house officers and registrars (primarily general but also in emergency medicine, orthopaedics and anaesthetics), nurses, radiographers
 - financial: accountants, auditors, analysts (financial, risk, IT, business)
 - industry: engineers (e.g. process, automation, electrical, design), scientists, quality assurance specialists, technicians (e.g. process automation).

Associate Professionals & Technical

- **Overall:** new employment permits for associate professionals accounted for 9% of total permits issued in 2018
- **Type:** at 49%, critical skills permits accounted for the highest share of new permits issued followed by general employment permits, at 30%
- **Salary:** 34% of new permits issued had a salary of less than €40,000 with a further 47% with a salary of €50,000 or more

- **Sector:** over a half (55%) of new permits issued were for the ICT sector, with a further 11% for arts, entertainment and sport, with 10% in financial services
- **Nationality:** persons from India and the USA accounted for over a third (36%) of all new permits issued for this occupational group
- **Occupations:** new employment permits were most frequently issued for
 - sales & marketing: primarily account strategists/managers (with languages) but also marketing specialists, business development and online sales managers, inside sales reps and sales executives with languages
 - financial analysts, auditors, account managers
 - IT: technical support
 - recruitment consultants, animators, sports professionals.

Administrative and Secretarial

- **Overall:** with 69 permits, administrative positions accounted for less than 1% of total new permits issued in 2018
- **Type:** permits for this occupational group were primarily for dependents/partners/spouses
- **Salary:** 86% of new permits issued had a salary of less than €40,000
- **Sector:** new permits were primarily in the arts and financial sectors
- **Occupations:** financial and general administration.

Skilled trades

- **Overall:** new employment permits issued for those in skilled trades accounted for 4% of total permits issued in 2018
- **Type:** the majority (83%) of new permits issued were general employment permits
- **Salary:** the majority (95%) of permits issued were for employment with a salary of less than €40,000
- **Sector:** almost three quarters (74%) of all new permits issued were for the accommodation and food services sector, with a further 5% in agriculture and 9% in the industry sector
- **Nationality:** persons from India, China and Malaysia accounted for over a half (55%) of all new permits issued for this occupational group
- **Occupations:** new permits were most frequently issued for
 - chefs: three quarters of new permits issued for skilled trades were for chefs (including ethnic cuisine, chef de partie, sous and head chefs)
 - meat deboners
 - CNC programmers.

Personal Services

- **Overall:** new permits issued for those in caring occupations accounted for 2% of total permits in 2018
- **Type:** the majority (97%) of permits issued for this occupational group were issued for dependents/partner/spouses
- **Salary:** over 94% of new permits issued had a salary of less than €30,000
- **Nationality:** persons from India and the Philippines accounted for the majority (89%) of all new permits issued for this occupational group

- **Occupations:** the majority (90%) of permits were most frequently issued for healthcare assistants.

Sales and Customer Services

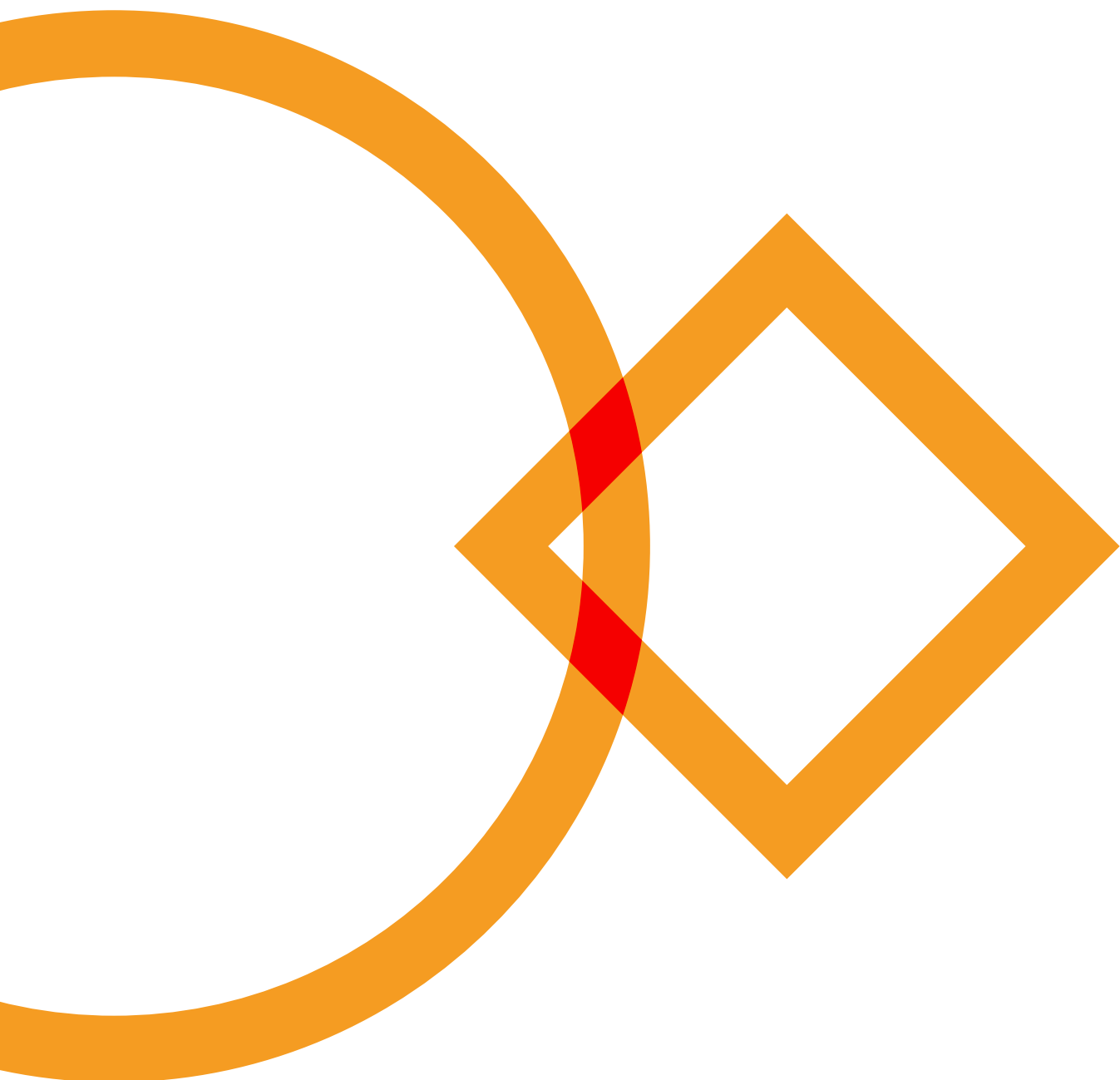
- **Overall:** new employment permits issued for those in sales related occupations accounted for 2% of total permits issued in 2018; permits were most frequently issued for customer service occupations within the general employment permits
- **Salary:** almost three quarters (74%) of new permits issued had a salary of less than €30,000
- **Sector:** 42% of new permits issued were for the ICT sector, 28% in arts, entertainment and other services with a further 14% in the financial sector
- **Nationality:** persons from Japan and Turkey accounted for over half (56%) of all new permits issued for this occupational group.

Operatives

- **Overall:** new employment permits for operatives accounted for 8% of total permits issued in 2018; the majority (99%) of permits issued for this occupational group were issued for general employment permits and almost 96% had a salary of less than €30,000
- **Sector:** the majority (87%) of new permits issued were for the agriculture sector, with a further 8% in industry
- **Nationality:** persons from Brazil and the Ukraine accounted for the majority (86%) of all new permits issued for this occupational group
- **Occupations:** new permits were most frequently issued for general and meat processing operatives, and HGV drivers.

Elementary Occupations

- **Overall:** at 97 permits issued, new employment permits for elementary occupations accounted for 1% of total permits issued in 2018; the majority (97%) had a salary of less than €30,000 with over half (56%) of the permits issued within the agriculture sector.



Section 8

Vacancies

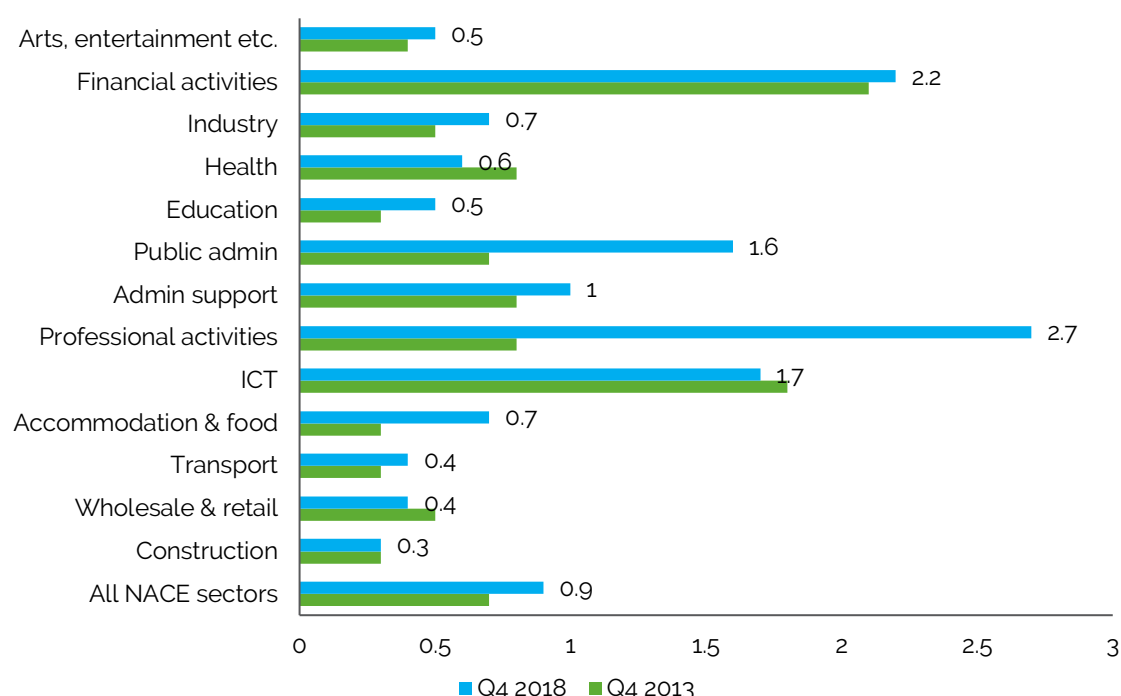
The Vacancy Overview 2018 report provides a detailed analysis of vacancies occurring in Ireland. The report examines two sources of vacancy data, namely the Public Employment Service (PES) vacancy data (from Department of Employment Affairs and Social Protection's vacancy portal Jobs Ireland) and a private online recruitment agency (IrishJobs.ie). Other indicators are also examined, including the CSO vacancy rates by sector, recent job hires and the results of the Recruitment Agency Survey conducted in-house. This section provides a summary of this analysis with a focus on vacancies at occupational level.

8.1 CSO vacancy rates

The CSO's Earnings, Hours and Employment Costs Survey (EHECS) examines the number of open vacancies businesses have at the end of each quarter. There were 17,000 vacancies reported in quarter 4 2018, representing a job vacancy rate²⁶ of 0.9%; the number of vacancies has been increasing since quarter 4 2013 where 10,600 vacancies were reported giving a rate of 0.7%.

Figure 8.1 presents the vacancy rates by sector for quarter 4 2013 and quarter 4 2018. The professional activities sector recorded the highest rate in quarter 4 2018 at 2.7%. This sector also experienced the largest gain since quarter 4 2013. The lowest vacancy rates were recorded for the construction, wholesale and retail and transportation and storage sectors, at between 0.3% and 0.4% in quarter 4 2018.

Figure 8.1: CSO Vacancy Rate by Sector, Quarter 4 2013 and Quarter 4 2018



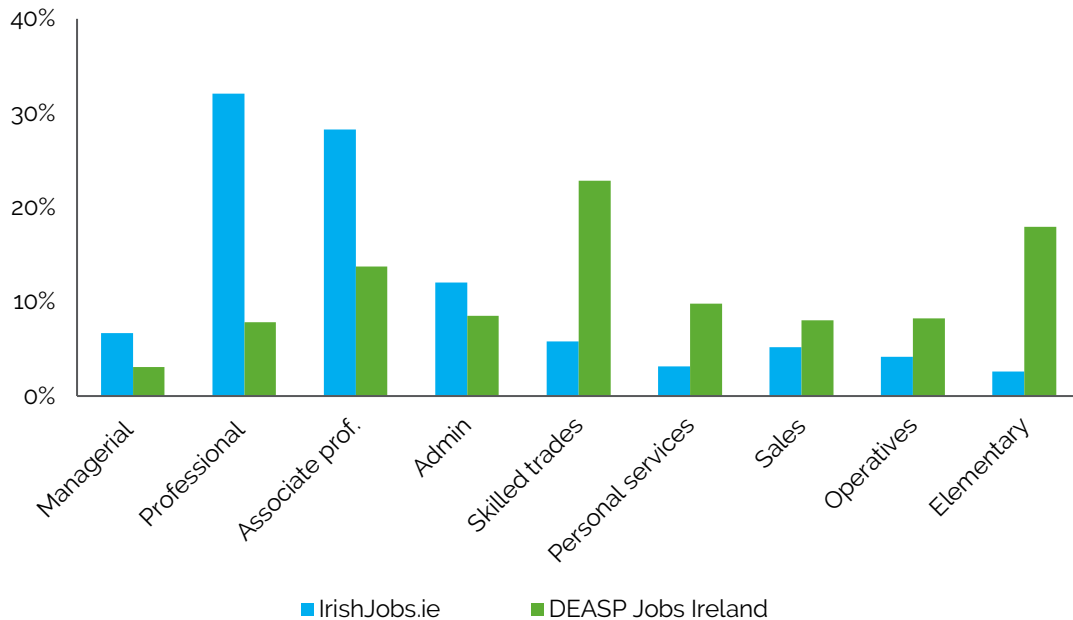
Source: CSO EHECS

²⁶ The job vacancy rate, as detailed in the CSO Earnings, Hours and Employment Costs Survey (EHECS), measures the proportion of total posts that are vacant as a proportion of total occupied posts combined with job vacancies.

8.2 Vacancies by Occupation

In 2018, vacancies advertised through IrishJobs.ie were mostly concentrated in professional and associate professional occupations (Figure 8.2). On the other hand, newly advertised vacancies through DEASP Jobs Ireland were primarily in skilled trades, elementary, and associate professional occupations.

Figure 8.2 Vacancies by Occupational Group (%), 2018



Source: IrishJobs.ie and DEASP Jobs Ireland

Table 8.1: Summary of main job titles notified through DEASP Jobs Ireland, 2018

DEASP Jobs Ireland		IrishJobs.ie
Managers	<ul style="list-style-type: none"> Hotel and restaurant, store 	<ul style="list-style-type: none"> Production, operations, engineering, financial, HR, health & safety Retail/store, procurement/supply chain, marketing
Professionals	<ul style="list-style-type: none"> Software developers/engineers, network planners/engineers Higher education lecturers (across all disciplines), English language teachers Engineers (including project, quality, and design) Nurses (primarily staff) Project managers (across sectors including construction) Structural/civil/site engineers, quantity surveyors, architects Accountants (including part-qualified) 	<ul style="list-style-type: none"> Software engineers/developers (with java, .NET, Front End, DevOps, Oracle PL/SQL) Other IT (systems analysts/engineers, technical architects, test/network/security engineers, IT project managers) Engineering: project, process, quality, product, design, regulatory affairs, EHS, electrical, building services/facilities Science: microbiologists, QA and QC chemists, scientists (R&D, process, analytical, medical) Construction: quantity surveyors, project managers, civil/site engineers Business & finance: business/risk analysts, project managers, compliance/regulatory reporting, financial accountants, data scientists Nurses: staff and clinical nurses across all areas Medical practitioners (registrars, SHOs, orthopaedic), radiographers, pharmacists, medical scientists, psychologists, social workers, physiotherapists, dieticians, speech and language therapists
Associate professionals	<ul style="list-style-type: none"> Sales representatives (including field and inside sales), sales executives, account managers Marketing specialists (including digital), business development executives IT technical support (with languages), systems administrators Technicians: (field service, manufacturing, CAD) Recruitment consultants, HR advisors, employment advisors Other: interpreters, graphic designers, accounting technicians, massage/spa therapists, fundraisers 	<ul style="list-style-type: none"> Business/financial: analysts (business, financial, data, quality assurance), managers (account, audit, fund accounting, tax), compliance officers, claims officers (with languages), underwriters, transfer agents Sales and marketing: sales representatives/executives (including field and inside sales), business/product development managers, marketing executives Supply chain planners/analysts/co-ordinators, production planners, buyers, procurement specialists HR: business partners, generalists, advisors and recruiters; learning and development specialists IT: tech support (with language skills), administrators (systems, database), graphic designers (including UX/UI), technical writers Other technicians: laboratory, quality, process, automation, CAD, electrical Other: health and safety officers, community/youth worker
Administrative	<ul style="list-style-type: none"> Office administrators/assistants Receptionists (including hotel), secretaries, personal assistants 	<ul style="list-style-type: none"> Financial: payroll/pensions administrators, fund accountants, accounts payable/receivable, accounts assistants, bookkeepers, financial administrators, credit controllers

	<ul style="list-style-type: none"> Accounts assistants/bookkeepers, payroll administrators Stocktakers (mostly part-time) 	<ul style="list-style-type: none"> Administrators (office, HR), quality officers, receptionists, PAs/executive assistants, legal/company/medical secretaries Logistics/transport co-ordinators, document controllers, project schedulers/planners, planners (warehouse/materials), sales/purchasing admin
Skilled trades	<ul style="list-style-type: none"> Chefs: chef de partie, sous, head chefs, and commis; also ethnic chefs, mainly Indian and Chinese Butchers (retail/food processing), deboners/trimmers Electricians, carpenters (including shuttering carpenters and kitchen fitters), plumbers Mechanics (car, HGV), panel beaters, spray painters Welders (MIG/TIG), fitters (mechanical, maintenance), CNC programmers/operators, fabricators (steel, sheet metal), service engineers, toolmakers Other trades: cabinet makers, bricklayers/stone masons, painters, roofers/tilers, steel fixers/erectors, plasterers 	<ul style="list-style-type: none"> Engineering technicians (maintenance, mechanical, instrumentation, engineering shift, calibration), validation engineers Maintenance technicians/fitters Chefs (e.g. chef de partie, commis, head and sous), catering managers Construction site supervisor
Personal services	<ul style="list-style-type: none"> Care workers (relates to those providing care in both the home and in nursing homes), healthcare assistants Childcare workers, childminders Other personal services: hairdressers/barbers, pet care assistants, beauty therapists, nail technicians, housekeepers 	<ul style="list-style-type: none"> Care workers, healthcare assistants
Sales & customer service	<ul style="list-style-type: none"> Sales assistants (retail, counter, deli) Customer services representatives (with languages), call centre agents 	<ul style="list-style-type: none"> Customer service representatives and collections agents (with languages); call/contact centre agents Retail sales assistants, telesales agents
Operatives	<ul style="list-style-type: none"> Production operatives (including meat processing) Drivers: artic, HGV, rigid, machine drivers/operators, forklift Other drivers: delivery, van, bus and coach drivers Other operatives: scaffolders (both basic and advanced), tyre fitters, pavers 	<ul style="list-style-type: none"> Production and manufacturing operatives, quality control supervisors Drivers (delivery, van, rigid, artic, HGV)
Elementary	<ul style="list-style-type: none"> Security guards (including retail and static) Cleaners, accommodation assistants Catering assistants, kitchen porters, waiting staff, bar persons Warehouse operatives, general operatives in food production, construction labourers, car valetors 	<ul style="list-style-type: none"> Warehouse operatives, general operatives in manufacturing Kitchen and catering assistants Security guards, cleaners

Source: DEASP Jobs Ireland/IrishJobs.ie

8.3 Recruitment Agency Survey (April 2019)

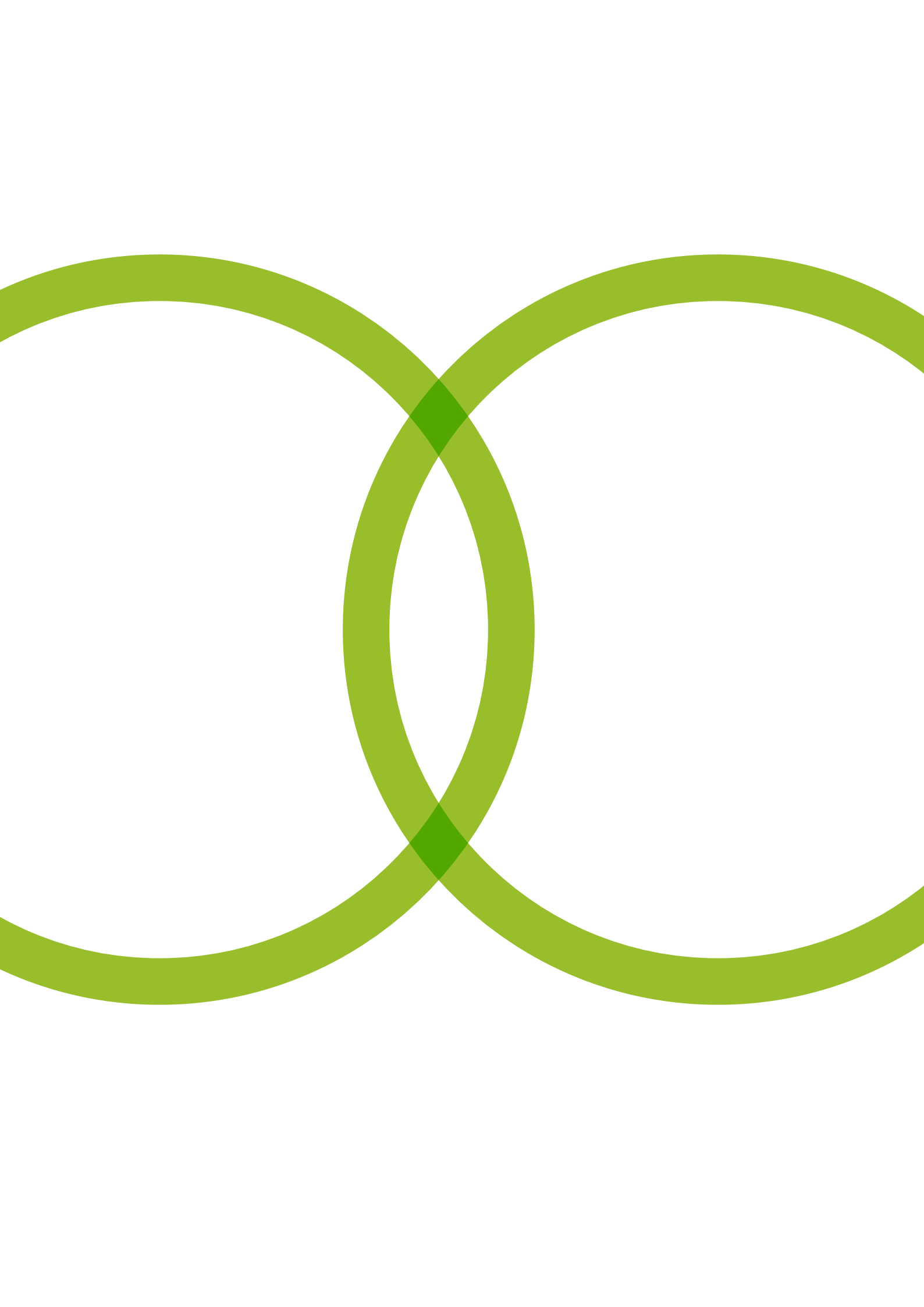
The Skills and Labour Market Research Unit (SLMRU) in SOLAS conducts a recruitment agency survey every six months to gather recruitment agencies views on vacancies which in their experience are proving difficult to fill.

Table 8.2: Summary of main job titles identified as difficult to fill, April 2019

Managers	— Logistics, supply chain
	— Project managers (construction/IT)
	— Production managers (MedTech/biopharma)
	— Tax managers
	— Restaurant managers
	— Quality assurance managers
	— Quality control managers
	— Software managers
Professionals	— Software developers: web, Python, UX/UI, cloud, mobile, full stack, front end with skills in Java, JavaScript, Scala, Angular JS, C++, .Net, PHP, Ruby on Rails, Hadoop
	— Other IT: engineers (network, automation, DevOps), test, security analysts, Blockchain
	— Data architects, data scientists, big data analysts, (e.g. Hadoop, Pig, Cassandra, SQL), IT project managers (e.g. scrum master)
	— Engineering: process, design, quality control/quality assurance (including standards, compliance and regulatory affairs) EHS (environmental health and safety), automation, validation, chemical, manufacturing, mechanical, electrical, electronic
	— Data analytics (e.g. DB mining, statistics) and business intelligence analytics (including BI solutions)
	— Business & finance: management accountants, tax specialists, regulatory accountants, newly qualified accountants, part qualified accountants, practice accountants, financial controllers, fund accountants, accountants with language skills, internal audit
	— Quantity surveyors, building services/site engineers/civil engineers/BIM coordinator
	— Nurses (staff, oncology, renal, intensive care/theatre, elderly care)
	— Medical practitioners (GPs, Locum GPs, senior doctors, junior doctors), radiologists
Associate professionals	— Sales and marketing: technical sales, sales with languages, sales executives
	— Supply chain junior roles, supply chain with languages, planners (mid-management)
	— HR generalists and specialists
	— IT technicians: tech support (with language skills, especially German, Nordic languages and French)
	— Other technicians: quality assurance/control, clean room technician, manufacturing technician
Administrative	— Receptionists, accounts payable, payroll, accounts assistants, administration, medical secretaries
	— Procurement/supply chain/logistics administrative roles (many junior roles), freight forwarders
Skilled trades	— Welders: TIG, MIG, ARC
	— Construction craft: steel erectors/ fixers, electricians, pipe layers, curtain wallers (outer covering of buildings), carpenters (niche – shuttering), fitters & glaziers
	— Chefs
	— Meat deboners

	<ul style="list-style-type: none"> — CNC programmers
Personal services	<ul style="list-style-type: none"> — Carers: homecare roles/nursing home care roles
Sales & customer service	<ul style="list-style-type: none"> — Telesales/telemarketing (multilingual, especially German, Nordic languages, Dutch) — Customer service/care/representatives and collections specialists (with/without languages)
Operatives and Elementary	<ul style="list-style-type: none"> — Drivers: artic, HGV (E+, CI license), forklift drivers, reach truck, site dump drivers — Manufacturing, process, production, ground workers (in construction), warehouse operatives

Source: Recruitment Agency Survey, April 2019



Section 9

Occupational Employment Profiles

This section provides a statistical analysis of employment at occupational level. Employment profiles are provided for over 95 occupations²⁷. The occupations were based on the Standard Occupational Classification (SOC) 2010; in cases where estimated employment was too small to report for statistical reasons, two or more occupations were merged. All of the occupations were then grouped into 16 occupational groups. In general, occupations that were associated with the same sector of employment or occupations with similar duties were grouped together. The occupational groups were as follows:

- science and engineering occupations
- ICT occupations
- business and financial occupations
- healthcare occupations
- education occupations
- social and care occupations
- legal and security occupations
- construction occupations
- other craft occupations
- agriculture and animal care occupations
- hospitality occupations
- arts, sports and tourism occupations
- transport and logistics occupations
- administrative and secretarial occupations
- sales, marketing and customer service occupations
- operative and elementary occupations (labourers).

For each of the occupations, an analysis was conducted using the following indicators:

- **Employment:** An annual average of employment figures over the four quarters in 2018.
- **Females:** The percentage of females employed in an occupation (based on quarter 4 2018 data from the LFS).
- **Full-time:** The percentage of persons who work full-time in an occupation (based on quarter 4 2018 data from the LFS).
- **Unemployment rate:** The unemployment rate was calculated by dividing the number of unemployed persons aged 15 to 74 in the occupation by the sum of the number of employed and unemployed persons aged 15 to 74 in that occupation. As only persons who stated their previous occupation were included in the calculations, the estimates may underestimate the true unemployment rate for an occupation. This indicator was only reported in a small number of occupations as the data was too small to report in most instances. (Based on quarter 4 2018 data from the LFS).
- **Aged 55 years and over:** A higher than average share of persons aged 55 years and over indicates a higher expected retirement rate in the short to medium-term (based on quarter 4 2018 data from the LFS).
- **Non-Irish nationals:** A higher than average proportion of non-Irish nationals in an occupation indicates employers' reliance on sourcing skills/labour from abroad to fill vacancies (based on quarter 4 2018 data from the LFS).
- **Third level qualifications:** The percentage of persons who have attained a third level qualification (based on quarter 4 2018 data from the LFS).
- **Employment growth:** The annualised rate of employment growth for the period 2013-2018.
- **Employment permits:** issued to non-EEA nationals in 2018. This is an indicator of the demand for skills that could not be met from domestic or EEA sources. (Based on 2017 data from the Department of Business, Enterprise and Innovation).
- **Recruitment Agency Survey:** presents the results of the SLMRU (SOLAS) Recruitment Agency

²⁷ The number of occupations analysed has been reduced from over 130 in previous editions of the Bulletin due to stricter reporting restrictions introduced in the Labour Force Survey. Appendix B details the new categorisation of occupations

Survey conducted in April 2019. The occupations with mentions of difficult-to-fill vacancies reported by recruitment agencies are indicated by an 'X'.

In addition to these demand indicators, the supply of skills was approximated using the expected output from the formal education and training system. Supply data at occupational level was 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). Also, for the majority of occupations, there are no mandatory qualification requirements. Thus, the intention is not to provide an exact quantification of the supply for each occupation but rather to obtain a general approximation. It should be noted that it is possible that individuals do not work in the occupations for which they are educated/trained. In addition, estimates of supply also included job ready job seekers.

By comparing estimates of demand and supply, an indication of potential shortage was derived.

Shortages were defined using the following categories:

- – for occupations for which there are no shortages
- – where there is an insufficient number of individuals who had the required level of educational attainment, skills set and/or experience to meet the required labour market demand and/or where there is an insufficient number of individuals available to take up employment opportunities in a particular occupation
- – indicates that there is no overall current shortage, but some issues (e.g. geographical mobility, high turnover), or potential future shortages, have been identified.

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 EEA. Consequently, there may not be a shortage from a European perspective.

Where possible, a distinction is made between 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 the demand for a particular skill, 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 results also indicate the specific job titles within the occupation that are experiencing shortages because the shortages, in most cases, do not relate to all of the job titles linked to an occupation. For example, shortages for business sales executives relate to those employed as account strategists and inside sales representatives and are primarily for job roles in the ICT sector.

The purpose of this bulletin is solely to identify occupations for which shortages exist, without quantifying them. The identification of the cause and magnitude of these shortages and the appropriate (if any) policy response requires further research. The EGFSN's research programme includes a number of such studies.

9.1 Science & Engineering Occupations

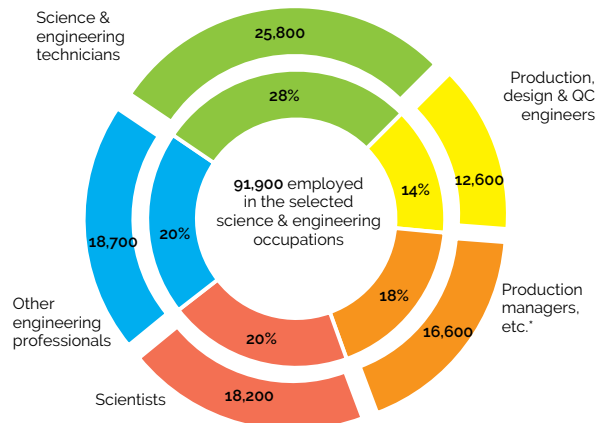
Overall employment: Approximately 91,900 persons (67% male) were employed in the selected science and engineering occupations, representing 4.1% of the national workforce

- **Sector:** 51% of overall employment was concentrated in industry, followed by 20% in professional service activities
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 27,300 (7.3% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for other engineering professionals (16.6%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 82%. The share of employees aged 55 and over was 12%, below the national average of 17%.
- **Education:** Those who had attained third level qualifications (80%) was significantly above the national average share (48%), while a further 15% had attained a higher secondary/FET qualification
- **Full-time/part-time:** Over 96% of science and engineering workers were in full-time employment
- **Nationality:** The share of non-Irish workers was slightly below the national average of 16%, while 86% of workers were Irish nationals

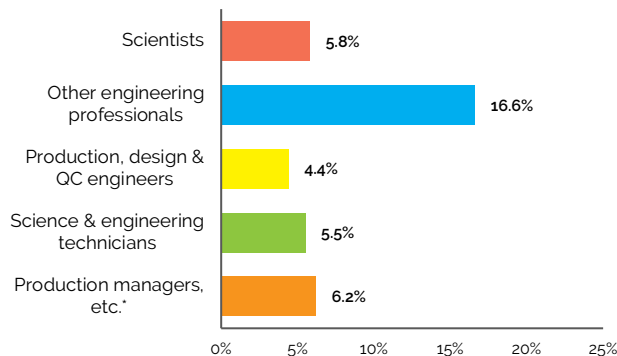
Overall outlook for these occupations:

While the supply of graduates in science and engineering has, in the main, increased over the last number of years, these people are sought after across a variety of other sectors (e.g. education, finance, public administration). The demand for skills in the science and engineering occupations, while likely to be relatively small in number in many cases, is driven chiefly by high-tech and related industries, with specialist skills sets requiring extensive experience, often in niche areas. The strong presence of research, development and innovation (RDI) activities in Ireland means that these skills are also required for R&D project manager roles.

Numbers employed, 2018



Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 27,300 (7.3% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Occupation	Economic summary	Shortage	Occupation shortage details
Scientists	With approximately 5,000 third level graduates per year, supply from the education system appears to be sufficient. However, demand is arising for roles that require a high level of experience and/or in niche areas.	● Niche Experience	<ul style="list-style-type: none"> Chemists Biochemists
Production, design & QC engineers	Job vacancies in this category appear frequently and have been noted as difficult to fill. Demand is mostly for roles requiring sector-specific experience (e.g. medium-high, high-tech and food/beverage manufacturing), although this is likely to be small in number given the number of people employed.	● Experience	<ul style="list-style-type: none"> Process Quality control Design
Other engineering professionals (e.g. mechanical, electrical and electronic engineers)	Employment growth in this occupational group was above average ²⁸ . Vacancies in these occupations are frequently cited as difficult to fill although the demand is likely to be small in number given the size of the employment stock. While the supply from the education system appears to be growing, demand is mostly for roles requiring sector-specific experience (e.g. medium-high, high-tech and food/beverage manufacturing).	● Niche Experience	<ul style="list-style-type: none"> Electrical Chemical Automation Validation Mechanical/manufacturing EHS
Science & engineering technicians	Employment growth was above the national average; however, recent job hires analysis suggests that many of the job openings arising for this occupation are due to turnover. The demand is largely for roles in high tech manufacturing especially for those with experience.	●	<ul style="list-style-type: none"> Quality control Process
Production managers in manufacturing	While no shortages have been identified in this area, strong employment growth would indicate job opportunities exist for experienced personnel.	●	

**For detailed table see Appendix A*

²⁸ Any annual change may relate to the break in the data series in the Labour Force Survey that occurred in Q3 2017, and should therefore be treated with caution.

9.2 ICT Occupations

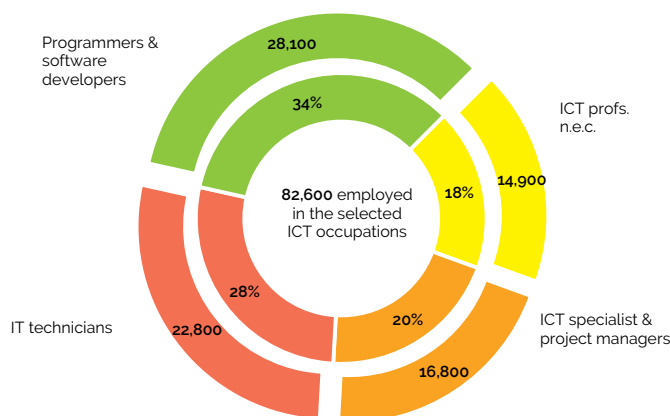
Overall employment: Approximately 82,600 persons (79% male) were employed in the selected ICT occupations, representing 3.7% of the national workforce

- **Sector:** 64% of overall employment was concentrated in the ICT sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 15,600 (4.3% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for IT technicians (13.2%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 89%
- **Education:** Those who had attained third level qualifications (85%) was significantly above the national average share (48%), while a further 12% had attained a higher secondary/FET qualification
- **Full-time/part-time:** Over 97% of ICT workers were in full-time employment
- **Nationality:** The share of non-Irish workers was well above the national average of 16%, while 70% of workers were Irish nationals

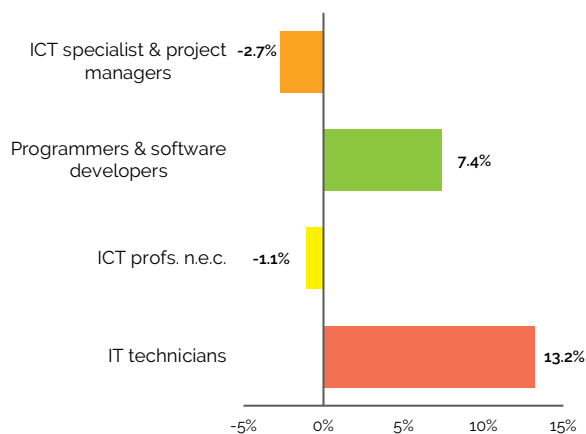
Overall outlook for this occupational group:

Overall employment growth in this occupational group has grown above the national average over the previous five years, driven by particularly strong growth for programmers and technicians. Demand for IT skills extends beyond the ICT sector and is increasingly a requirement across other traditional job titles including engineering, business analysts, designers etc. Although graduate output from the education system has grown considerably in recent years, the skillsets for these occupations are continually evolving and the international competition for these skills continues to result in shortages.

Numbers employed, 2018







Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 15,600 (4.3% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

Occupation	Economic summary	Shortage	Occupation shortage details
ICT specialist & project managers	Despite a fall in employment, and with no shortages identified in this area, job opportunities exist for experienced personnel.		
Programmers & software developers	This is an occupation in high demand, with strong employment growth, a high volume of vacancies and evidence that employers are having difficulties filling vacancies. The type of specific areas in demand is detailed in the Recruitment Agency Survey analysis in Chapter 8.		<ul style="list-style-type: none"> — Software developers — Software engineers (including DevOps)
ICT profs. n.e.c.	Although employment has been declining in this occupation in recent years, there have been increases in related occupations (such as business analysts). There is evidence of difficulties in filling vacancies in certain roles within this occupation.		<ul style="list-style-type: none"> — Web developers (UX/UI) — IT architects (systems, solutions, technical) — Test/systems/network/security engineer
IT technicians	Employment growth continues to be strong for this occupation, with the highest rate of growth amongst the IT occupations. Less than two-thirds of those employed were Irish, most likely related to the foreign language requirements for a large number of these roles.	 Language skills	<ul style="list-style-type: none"> — Technical support — Systems/database administrators

*For detailed table see Appendix A

9.3 Business & Financial Occupations

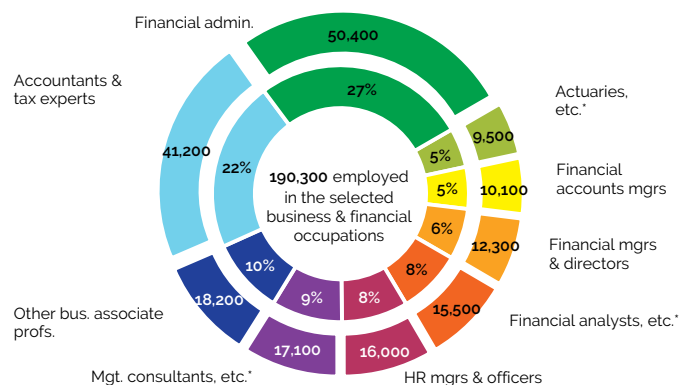
Overall employment: Approximately 190,300 persons (55% female) were employed in the selected business & financial occupations, representing 8.4% of the national workforce

- **Sector:** These occupations are employed across all sectors with 35% of overall employment concentrated in the financial sector and a further 19% in the professional services sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 19,000 (2.1% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for management consultants, etc. (12.7%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 81%. The share of employees aged 55 and over was 14%, below the national average of 17%.
- **Education:** Those who had attained third level qualifications (79%) was significantly above the national average share (48%) while a further 17% had attained a higher secondary/FET qualification
- **Full-time/part-time:** Over 87% of business & financial workers were in full-time employment
- **Nationality:** The share of non-Irish workers was below the national average of 16%, while 88% of workers were Irish nationals

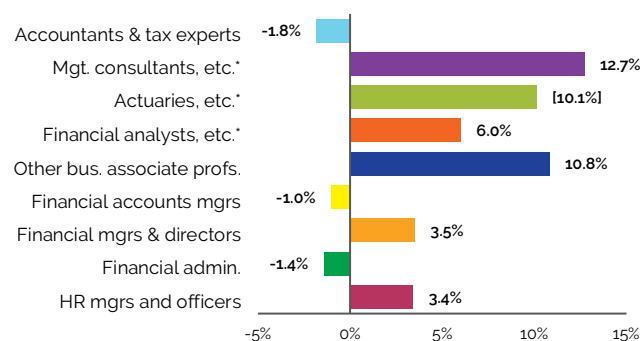
Overall outlook for these occupations:

Business and financial skills are required across a range of economic sectors. Those working in these roles tend to be highly educated and engaged full-time. While employment growth was below average, the high number of persons employed means that employment opportunities will arise due to replacement demand alone. As recognised in the Government's international financial services strategy (2019)²⁹, the future demand for business and financial skills is likely to be affected by the impact of Brexit and by changes in the nature of the tasks required to fulfil these roles due to technological change.

Numbers employed, 2018



Average growth rates (%) 2013-2018












Between 2013 and 2018, overall employment increased by 19,000 (2.1% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Numbers in square brackets are small and should be treated with caution

²⁹ International Financial Services Strategy 2025 - Ireland for Finance, Department of Finance, 2019.

Occupation	Economic summary	Shortage	Occupation shortage details
Accountants & tax experts	Declines in employment levels are expected to continue as some tasks become automated, although replacement demand for such a large occupation will continue to translate into job opportunities. Any issues in sourcing suitable candidates relate to those with experience in the areas of tax, regulation and finance.		— Accountants with experience (e.g. in regulation and compliance)
Mgt. consultants, bus. analysts & project managers	Employment growth was strong for this occupation with demand relating primarily to roles in the IT and financial sectors.		— Business intelligence — Business/risk analysts
Actuaries, economists & statisticians; other business profs.	Although the number employed is too small to allow reliable analysis for this occupation, there are strong indications that employers are having particular difficulty in filling vacancies for data scientists. Due to the size of employment, however, any shortages are likely to be small in number.		— Data scientists
Financial analysts and insurance underwriters	Employment growth was almost double that of the national average for this occupation and there has been a high volume of vacancies.		— Financial analysts
Financial accounts managers	While this occupation features in the vacancy analysis, no indications of shortages have been identified.		
Other bus. associate profs. (e.g. financial /accounting technicians, estimators, valuers)	Employment growth was strong for this group with indications that employers are finding it difficult to fill vacancies. Demand appears to relate primarily to the IT and financial sectors.		— Data analysts
Financial managers & directors	Employment growth was slightly higher than the national average, although no evidence of shortages exists at present.		
Financial admin.	With over 50,000 persons employed, job opportunities are likely to continue in this occupation, despite a fall in overall employment, in areas such as fund accountants, accounts payable/receivable and payroll. This occupation had almost 10,000 recent job hires in 2018 indicating a high level of churn is occurring. Employment totals are expected to continue to fall in the coming years due to the impact of outsourcing and automation in these roles.		
HR managers and officers	The recovery in the economy and growth in employment has led to a stronger demand for HR managers and officers. While the number of people working as HR managers and officers has risen, there is currently no evidence of a shortage for this occupation. Nonetheless, demand is increasing for those with sector specific knowledge (e.g. finance).		

*For detailed table see Appendix A

9.4 Healthcare* Occupations

Overall employment: Approximately 128,300 persons (77% female) were employed in the selected healthcare occupations, representing 5.7% of the national workforce

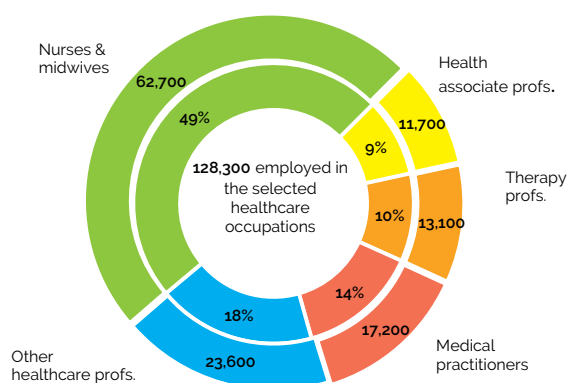
- **Sector:** 89% of overall employment was concentrated in the health sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 10,900 (1.8% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for other therapy professionals (11.1%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 78%. The share of employees aged 55 and over was in line with the national average of 17%.
- **Education:** Those who had attained third level qualifications (93%) was significantly above the national average share (48%), while 5% had attained a higher secondary/FET qualification
- **Full-time/part-time:** Over 80% of healthcare workers were in full-time employment
- **Nationality:** The share of non-Irish workers was slightly below the national average of 16%, while 86% of workers were Irish nationals

Overall outlook for these occupations:

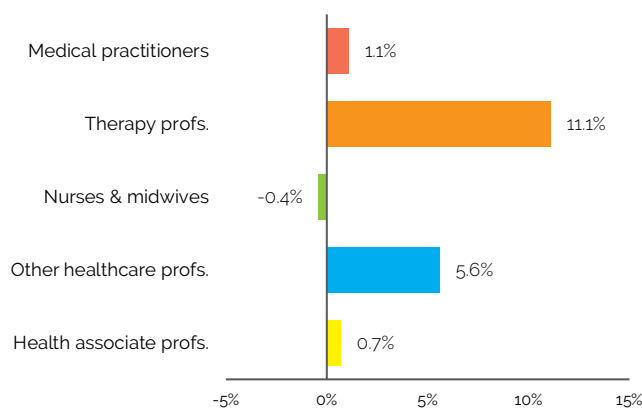
While shortages are arising for a number of health professional occupations, employment in healthcare depends on government funding; as such, there are a number of other areas for which shortages do not exist, despite significant demand for services. The demand for health services continues to grow, due to factors resulting from population growth.

* Carers are examined in Chapter 9.6 (Social & Care Occupations)

Numbers employed, 2018








Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 10,900 (1.8% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

Occupation	Economic summary	Shortage	Occupation shortage details
Medical practitioners	Due to international demand for these skills, job opportunities will continue to arise. This occupation accounted for 14% of all new employment permits issued in 2018.		<ul style="list-style-type: none"> — Specialist doctors — General practitioners
Therapy profs.	While demand has remained strong, there is no evidence of a shortage of therapists (including physiotherapists, occupational, speech and language).		
Nurses & midwives	The shortage of nurses continues, despite a decline in employment. Nurses accounted for 13% of all new employment permits in 2018, indicating that employers are experiencing difficulties in recruiting and retaining qualified nurses.		<ul style="list-style-type: none"> — Staff/registered — Clinical nurse managers — Advanced nurse practitioners
Other healthcare profs. (e.g. pharmacists, psychologists, dentists, radiographers, vets, & health services managers)	There is a shortage of radiographers, and while demand is strong for many healthcare professionals, with strong employment growth, there is no evidence of shortage at present.		<ul style="list-style-type: none"> — Radiographers
Health associate profs.	While no shortages exist, demand is evident for dieticians and cardiac physiologists.		

*For detailed table see Appendix A

9.5 Education Occupations

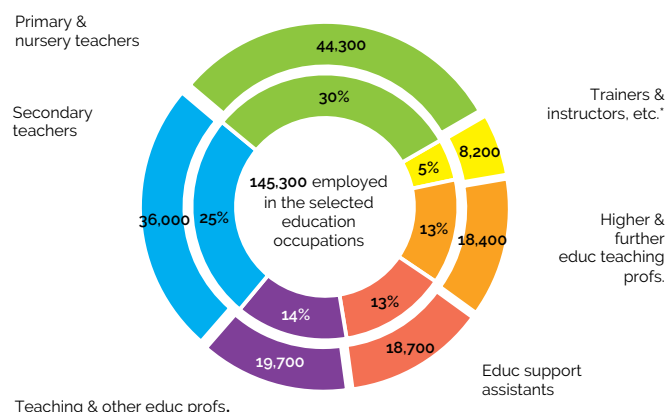
Overall employment: Approximately 145,300 persons (73% female) were employed in the selected education occupations, representing 6.4% of the national workforce

- **Sector:** 93% of overall employment was concentrated in the education sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 22,100 (3.4% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for higher and further education teaching professionals (11.5%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 77%. The share of employees aged 55 and over, at 18%, was slightly above the national average of 17%.
- **Education:** Those who had attained third level qualifications (86%) was significantly above the national average share (48%), while 12% had attained a higher secondary/FET qualification
- **Full-time/part-time:** Over 83% of education workers were in full-time employment
- **Nationality:** The share of non-Irish workers was well below the national average of 16%, while 93% of workers were Irish nationals

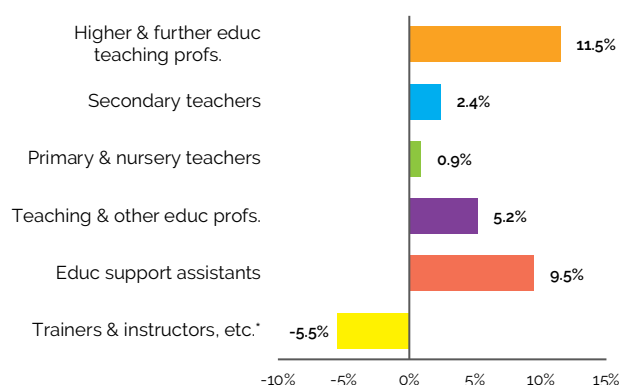
Overall outlook for these occupations:

Employment for these occupations is driven both by government funding and the demographic profile of the population. The fall in the number of children born in recent years will mean a lower demand for primary school teachers. On the other hand, the second level school population is expected to peak in 2024-2025; this will result in increased demand at second level within the next ten years, and later at third level as this cohort moves up through the education system. In addition, government initiatives in areas such as early childhood education and lifelong learning will impact on the demand for these occupations.

Numbers employed, 2018









Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 22,100 (3.4% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Occupation	Economic summary	Shortage	Occupation shortage details
Higher & further education teaching profs.	There is no shortage of higher and further education teaching professionals. However, some employers have experienced difficulties in recruiting staff with sufficient expertise in specialised areas.		
Secondary teachers	For some schools, difficulties are arising in sourcing suitably qualified teachers for certain subjects. The Teacher Supply Action Plan (DES 2018) recognises particular challenges in recruiting staff with expertise in Irish, maths, physics, chemistry, IT, modern languages and home economics.		— Secondary teachers
Primary & nursery teachers	Demand for primary and nursery teachers is expected to decline in line with the decrease in the relevant age cohort.		
Teaching & other educational profs.	No shortages have been identified for this occupation.		
Educational support assistants	Employment growth was above average for this occupation, with levels expected to remain strong in the coming years primarily due to the recent introduction of almost 800 new special needs assistant (SNA) posts from September 2019.		
Trainers & instructors, career guidance	No shortages have been identified for this occupation.		

**For detailed table see Appendix A*

9.6 Social & Care Occupations

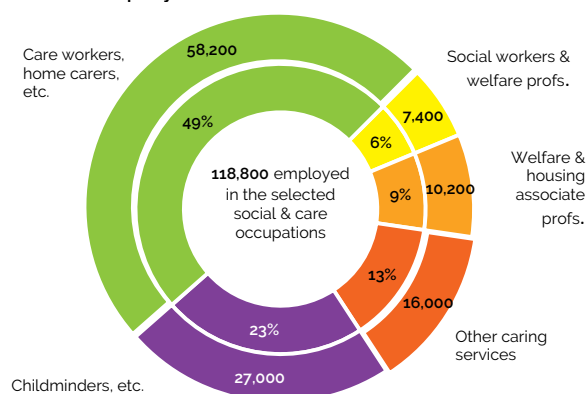
Overall employment: Approximately 118,800 persons (82% female) were employed in the selected social & care occupations, representing 5.3% of the national workforce

- **Sector:** 82% of overall employment was concentrated in the health sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 19,900 (3.7% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for other caring services (13%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 72%. The share of employees aged 55 and over, at 19%, was slightly above the national average of 17%.
- **Education:** The share of persons employed in the selected social & care occupations who had attained higher secondary/FET qualifications was 51%, above the national average share of 37%. Those who had attained third level qualifications (39%) was below the national average share (48%).
- **Full-time/part-time:** Over 66% of social & care workers were in full-time employment
- **Nationality:** The share of non-Irish workers was below the national average of 16%, while 87% of workers were Irish nationals

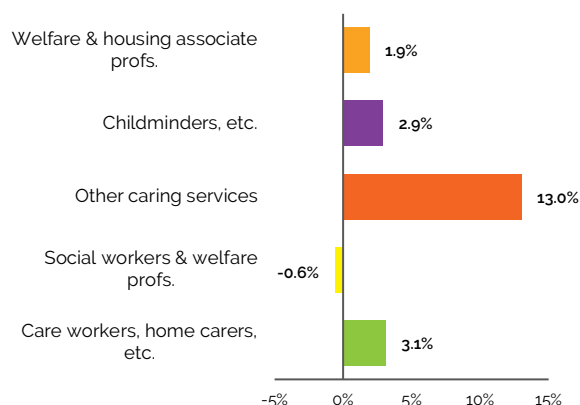
Overall outlook for these occupations:

Changing demographics is the primary driver of employment for these occupations. Government initiatives including the extension of the ECCE scheme, commitments to increase the quality of childcare provision, and incentives to increase female labour force participation may offset the decline in demand for childcare works due to demographic factors (i.e. fall in the number of 0-4-year-olds in the population). Conversely, Ireland's aging population will drive the demand for care workers.

Numbers employed, 2018



Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 19,900 (3.7% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

Occupation	Economic summary	Shortage	Occupation shortage details
Welfare & housing associate profs.	No shortages have been identified for this occupation.	●	
Childminders, etc.	Employment growth was below average for this occupation and it featured strongly in the recent job hires analysis indicating that churn is an issue.	●	
Social workers & welfare profs.	While no shortages were identified, demand is evident for social work services in Ireland.	●	
Care workers, home carers, etc.	Employment growth in this occupation is in line with the national average. Many are employed in part-time roles; the recent job hire analysis and the high number of job ready jobseekers previously employed in this occupation indicate that churn is a significant factor in this occupation. Demand for this occupation is expected to grow in the medium term due to aging demographics.	●	— Care workers
Other caring services	Employment growth has been strong for this occupation with demand relating to healthcare assistants, primarily employed in hospitals. While no shortages have been identified, difficulties may emerge should this growth rate be sustained in the longer term.	●	

*For detailed table see Appendix A

9.7 Legal & Security Occupations

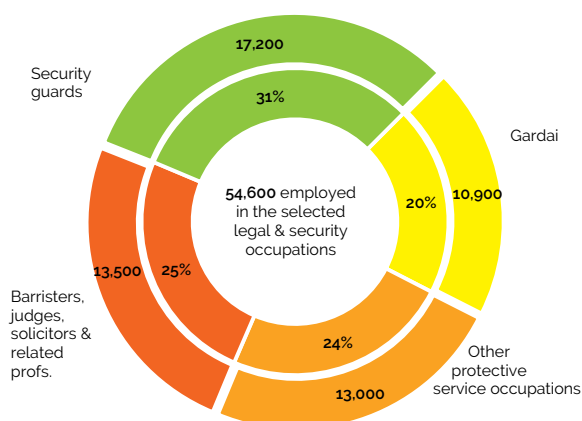
Overall employment: Approximately 54,600 persons (73% male) were employed in the selected legal & security occupations, representing 2.4% of the national workforce

- **Sector:** 43% of overall employment was concentrated in the public administration and defence (PAD) sector, while administrative services and professional activities combined accounted for a further 41%
- **Employment growth (5-year):** Between 2013 and 2018, employment growth was below the national average (3.1%) for all of the occupations in this group while the strongest rate of employment growth was observed for security guards (2.2%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 80%. The share of employees aged 55 and over was 14%, below the national average of 17%.
- **Education:** The share of persons employed in the selected legal & security occupations who had attained higher secondary/FET qualifications was 34%, slightly below the national average share of 37%. Those who had attained third level qualifications (57%) was above the national average share (48%).
- **Full-time/part-time:** Over 91% of legal & security workers were in full-time employment
- **Nationality:** The share of non-Irish workers was below the national average of 16%, while 89% of workers were Irish nationals

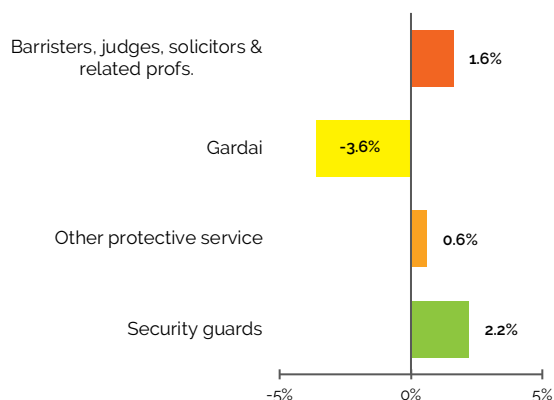
Overall outlook for these occupations:

There was very little employment growth in these occupations over the five years examined and there was no evidence in the analysis of difficulties sourcing candidates.

Numbers employed, 2018



Average growth rate (%) 2013-2018



Between 2013 and 2018, overall employment increased by 1,000 (0.4% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

Occupation	Economic summary	Shortage	Occupation shortage details
Barristers, judges, solicitors & related profs.	No shortages have been identified for this occupation.	●	
Gardai	The decline in employment for this occupation relates to the period between 2013 and 2014 with employment remaining steady in recent years. No shortages have been identified for this occupation.	●	
Other protective service occupations (e.g. army personnel, fire/ prison service officers)	No shortages have been identified for this occupation.	●	
Security guards	Employment growth for this occupation was below the national average. No shortages have been identified for this occupation.	●	

**For detailed table see Appendix A*

9.8 Construction Occupations

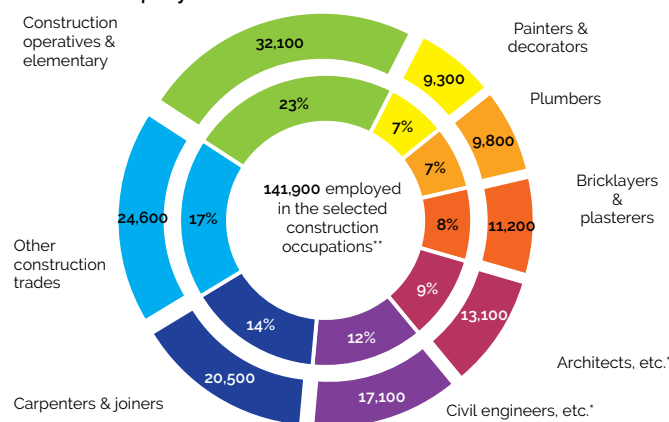
Overall employment: Approximately 141,900 persons (94% male) were employed in the selected construction occupations, representing 6.3% of the national workforce

- **Sector:** 69% of overall employment was concentrated in the construction sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 34,000 (5.6%) on average annually (compared to 3.1% nationally). The strongest rate of employment growth was observed for civil engineers, etc. (10.6%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 76%. The share of employees aged 55 and over was in line with the national average of 17%.
- **Education:** The share of persons employed in the selected construction occupations who had attained higher secondary/FET qualifications was 46%, above the national average share of 37%. Those who had attained third level qualifications (27%) was well below the national average share (48%).
- **Full-time/part-time:** Over 90% of construction workers were in full-time employment
- **Nationality:** The share of non-Irish workers was slightly below the national average of 16%, while 86% of workers were Irish nationals

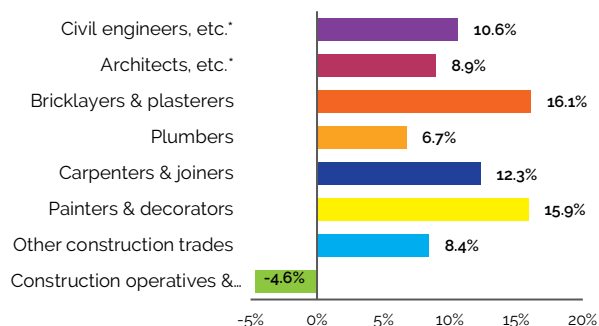
Overall outlook for these occupations:

Construction employment has grown strongly in recent years; most of the growth related to commercial sector activity. The skills mix in this sector is evolving with the increased use of off-site construction methods and other technology advances. The government's Climate Action Plan will increase demand for some occupations such as carpenters due to plans for significant retrofitting of homes. Future demand for skills will depend on a number of factors including the roll out of the Climate Action Plan and increased activity in both the residential and commercial sectors.

Numbers employed, 2018



Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 34,000 (5.6%) on average annually compared to 3.1%

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

**Construction related technicians included in total but numbers too small to report

Occupation	Economic summary	Shortage	Occupation shortage details
Civil engineers & construction project managers	Employment growth was strong in this occupation. Shortages are emerging although the numbers required are likely to be small. With declining output from the education and training system, the number of graduates is not expected to be enough to meet growing demand. These shortages could therefore be exacerbated in future years.	●	<ul style="list-style-type: none"> — Civil engineers — Construction project managers
Architects & town planners, architectural technologists, & surveyors	Overall demand for these skills is likely to be limited in volume due to the small size of this occupational group. However, employers have indicated that they are experiencing difficulty in sourcing quantity surveyors. In addition, there is a strong demand for those with building information modelling (BIM) skills.	●	<ul style="list-style-type: none"> — Quantity surveyors
Bricklayers & plasterers	Although beginning to grow, the number of new apprentice registrations remains relatively small compared to the boom years and difficulties could emerge in the medium term should residential activity increase significantly. On the other hand, the employment permit system has been opened (since 2019) to both bricklayers and plasterers, and there remain a significant number of job ready job seekers who were previously employed in these occupations. The high employment growth rate should be treated with caution ³⁰ .	●	
Plumbers	The growth observed in employment in this occupation has been driven by commercial sector activity. Any increase in residential construction activity will lead to further demand for plumbers. Apprenticeship registrations are growing steadily (doubling over the last four years).	●	
Carpenters & joiners	Employment has grown strongly annually since 2013, primarily related to commercial activity. The number of new apprentice registrations has continued to grow, although this is unlikely to be sufficient to meet demand. Shortages are likely to persist as increased demand for carpenters in residential activity is expected (both new builds and retrofitting activities).	●	<ul style="list-style-type: none"> — Carpenters
Painters & decorators	While this occupation has experienced employment growth, there is no evidence of shortages, with a large number of job ready jobseekers who were previously employed as painters.	●	
Other construction trades	Growth in employment has been driven by commercial sector activity with employment growing strongly since 2014; there are indications that employers are finding it difficult to fill vacancies for certain roles.	●	<ul style="list-style-type: none"> — Glaziers — Steel erectors/fixers — Curtain wallers
Construction operatives & elementary	Most employment for these roles relates to labourers. Overall employment levels have fallen steeply in recent years. There remains a high share of job ready job seekers who were previously employed in this occupation and there are signs of a high level of turnover. However, demand for scaffolders and pipe layers is evident although numbers employed are too small to report.	●	<ul style="list-style-type: none"> — Scaffolders — Pipe layers

³⁰For detailed table see Appendix A

³⁰ Any annual change may relate to the break in series in the LFS data that occurred in quarter 3, 2017, and should therefore be treated with caution.

9.9 Other Craft Occupations n.e.c.

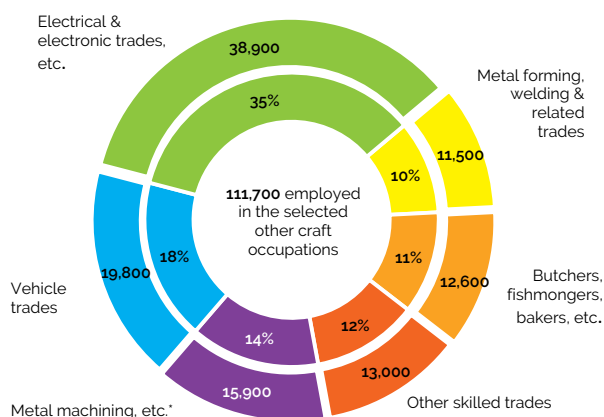
Overall employment: Approximately 111,700 persons (93% male) were employed in the selected other craft occupations n.e.c., representing 4.9% of the national workforce

- **Sector:** 40% of overall employment was concentrated in the industry sector, followed by the wholesale/retail and construction sectors combined accounting for a further 38%
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 10,900 (2.1% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for metal forming, welding & related trades (9.8%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 70%. The share of employees aged 55 and over, at 18%, was slightly above the national average of 17%.
- **Education:** The share of persons employed in the selected other craft occupations n.e.c. who had attained higher secondary/FET qualifications was 60%, well above the national average share of 37%. Those who had attained third level qualifications (25%) was well below the national average share (48%).
- **Full-time/part-time:** Over 93% of other craft workers were in full-time employment
- **Nationality:** The share of non-Irish workers was above the national average of 16%, while 81% of workers were Irish nationals

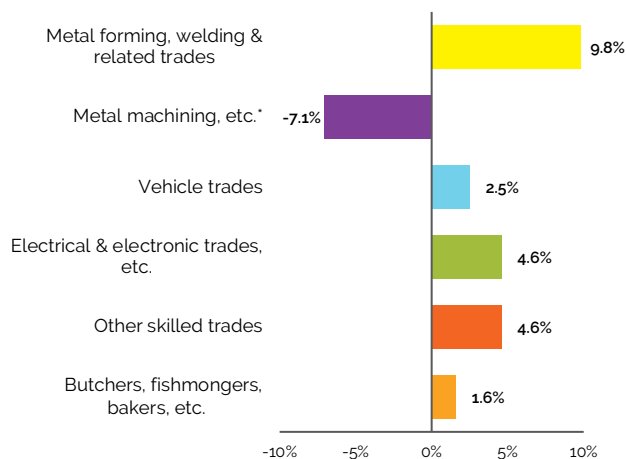
Overall outlook for these occupations:

While employment has been below average, shortages have been identified. With the exception of electricians, the demand for these skills relates to a small number of specific areas in manufacturing.

Numbers employed, 2018









Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 10,900 (2.1% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Occupation	Economic summary	Shortage	Occupation shortage details
Metal forming, welding & related trades	This occupation continues to grow strongly. Employers have indicated a significant difficulty in sourcing suitably qualified welders.		— Welders (e.g. TIG/MIG)
Metal machining, fitting & instrument making trades	Employers have indicated a difficulty in sourcing skills in this area across numerous manufacturing sub-sectors, despite an overall decline in employment and increases in provision in the education/training system. Given the relatively small size of this occupation, the size of the shortage is unlikely to involve large numbers.		— Toolmakers — CNC programmers — Fitters (e.g. mechanical/maintenance)
Vehicle trades	There is evidence of increased demand for heavy vehicle mechanics. Intake on the apprenticeship programme has increased in recent years to meet this demand.		
Electrical & electronic trades, etc.	Electricians are employed in both the construction sector and in industry. Employment growth is above the national average for this occupation. However, recent job hires exceed the level of growth in 2018, indicating some job churn is occurring. The number of registrations for apprenticeships has been increasing steadily in recent years, although it remains below the pre-recession level. As such, employers are indicating difficulties in filling vacancies which may lead to difficulties in the short-term issues.		— Electricians
Other skilled trades (e.g. printers, furniture makers, and textile trades)	Employment has remained relatively unchanged in recent years with no indication of shortages identified.		
Butchers, fishmongers, bakers etc.	Employment growth has been below the national average in this occupation. However, issues in attracting and retaining deboners for the meat processing sector persist.	 Labour	— Deboners

**For detailed table see Appendix A*

9.10 Agriculture & Animal Care Occupations

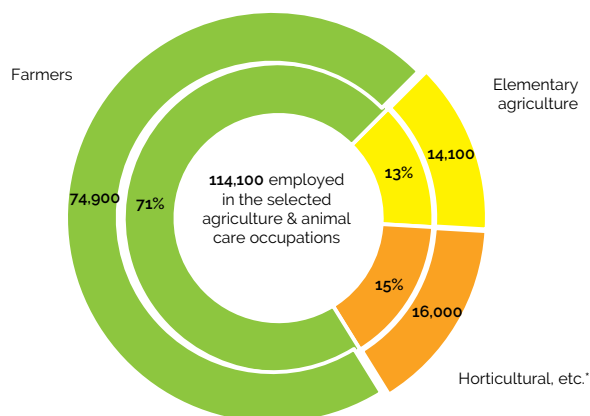
Overall employment: Approximately 114,100 persons (88% male) were employed in the selected agriculture & animal care occupations, representing 5.1% of the national workforce

- **Sector:** 85% of overall employment was concentrated in the agriculture sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment decreased by 0.3% on average annually during the period
- **Age:** The 25-54 age group accounted for 46% of persons employed. Almost half of those employed were aged 55 and above, more than twice the national average of 17%.
- **Education:** These occupations had the highest share of persons employed with a lower secondary education or less, at 42% compared to 12% nationally. Only 16% had attained a third level qualification.
- **Full-time/part-time:** Over 81% of agriculture & animal care workers were in full-time employment
- **Nationality:** The share of non-Irish workers was well below the national average of 16%, while 96% of workers were Irish nationals

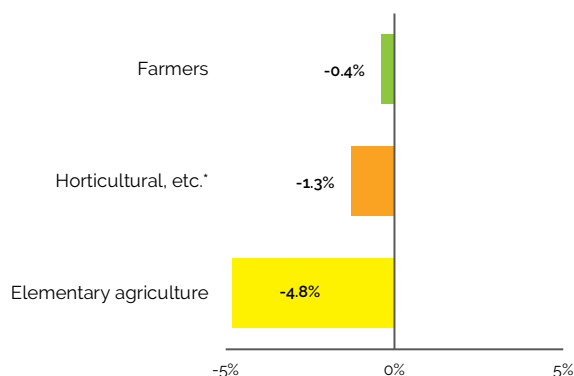
Overall outlook for these occupations:

Employment in these occupations fell in the five-year period examined. However, issues have been identified by employers through the Department of Agriculture, Food and the Marine in attracting and retaining persons in the areas of horticulture (e.g. fruit and mushroom pickers) and dairy farming. As such, a quota of employment permits has been issued for this sector in order to address the labour shortages that are occurring.

Numbers employed, 2018



Average growth rates (%) 2013-2018





Between 2013 and 2018, overall employment decreased by 1,500 (-3% on average annually compared to a 3.1% increase nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Animal carers & pest controllers and managers in horticulture, agriculture and fishing included in total, but numbers too small to report

Occupation	Economic summary	Shortage	Occupation shortage details
Managers in horticulture, agriculture and fishing	Employment figures for this occupation are too small to report and derive any analysis.		
Farmers	Employment numbers have been declining for farmers in recent years. No skills issues have emerged in relation to this occupation.		
Horticultural, agricultural & fishing trades n.e.c.	Gardeners account for the largest share of employment in this occupational group. While the data does not point to any shortages, employers are indicating significant issues with sourcing labour; as such, employment permits are being issued, albeit for a restricted number.	 Labour	<ul style="list-style-type: none"> — Mushroom pickers — Fruit pickers
Elementary agriculture	Employment numbers for this occupation have fallen since 2013, although the levels have remained stable in recent years. The Department of Agriculture, Food & Marine have indicated that employers are having significant issues with sourcing labour; as such, employment permits are being issued, albeit for a restricted number ³¹ .	 Labour	<ul style="list-style-type: none"> — Dairy farming
Animal carers & pest controllers	Employment figures for this occupation are too small to report and derive any analysis.		

³¹For detailed table see Appendix A

³¹ <https://dbe.gov.ie/en/News-And-Events/Department-News/2019/July/24072019.html>

9.11 Hospitality Occupations

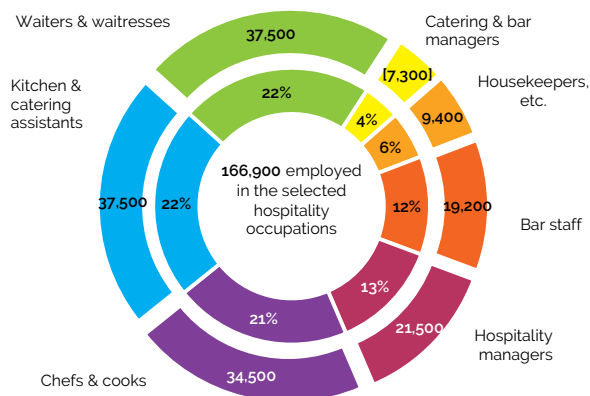
Overall employment: Approximately 166,900 persons (56% female) were employed in the selected hospitality occupations, representing 7.4% of the national workforce

- **Sector:** 86% of overall employment was concentrated in the accommodation and food sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 42,400 (6.0% on average annually compared to 3.1% nationally)
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 62%. The share of workers under 25 and was 27%, significantly above the national average of 10%.
- **Education:** The share of persons employed in the selected hospitality occupations who had attained higher secondary/FET qualifications was 52%, well above the national average share of 37%. Those who had attained third level qualifications (29%) was well below the national average share (48%).
- **Full-time/part-time:** Over 59% of hospitality workers were in full-time employment, this being the lowest share of all the occupational groups
- **Nationality:** The share of non-Irish workers, at 31%, was significantly above the national average of 16%, while 69% of workers were Irish nationals
- **Unemployment:** In quarter 4 2018, the unemployment rate for hospitality workers (aged 15-74) was 5.3% (compared to the national rate of 5.4%).

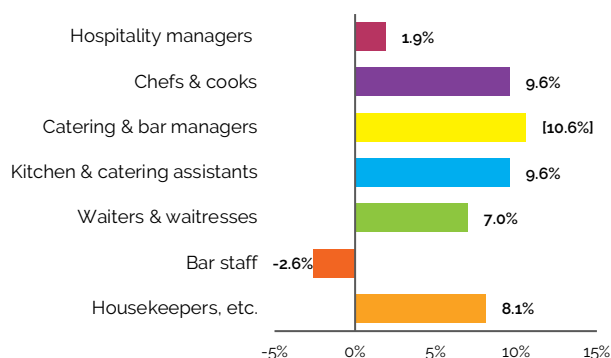
Overall outlook for these occupations:

The accommodation and food services sector, for which the majority of employment in these occupations occurs, has experienced significant growth in recent years. Recent job hires far outnumbered employment growth in 2018 indicating that job churn is a significant factor for these occupations. In terms of future outlook, any fallout from Brexit that impacts tourism in Ireland will have direct implications for the demand for these skills.

Numbers employed, 2018



Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 42,400 (6.0% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

Numbers in square brackets are small and should be treated with caution

Occupation	Economic summary	Shortage	Occupation shortage details
Hospitality managers	Employment growth was below average for this occupation. No evidence of shortages has been identified.	●	
Chefs & cooks	Employment growth was high for this occupation; while chefs are employed across a variety of sectors, issues in attracting chefs relate to the hospitality sector. Employment permits have been expanded and new apprenticeship programmes have been introduced to help address the shortage.	●	<ul style="list-style-type: none"> — Executive chefs — Head chefs — Sous chefs — Chefs de partie
Catering & bar managers	Employment numbers for this occupation are too small to derive any analysis.	●	
Kitchen & catering assistants	Employment growth has been strong for these occupations; however, churn is also a significant factor resulting in an over-representation in the vacancy data. While demand has grown, no specific qualification is required to fill the majority of vacancies in these roles and, therefore, supply can be drawn from the total working age population. A high number of job seekers who were previously employed in these occupations remain. Also, the majority of those employed in these occupations are in part-time roles.	●	
Waiters & waitresses		●	
Bar staff	The employment numbers working as bar staff has declined in recent years. The majority are employed in part-time positions. The high number of recent job hires, despite overall employment declines indicates that turnover is a significant factor.	●	
Housekeepers & caretakers, etc.	Employment growth in this occupation was above the national average; however, no shortages have been identified.	●	

*For detailed table see Appendix A

9.12 Arts, Sports & Tourism Occupations

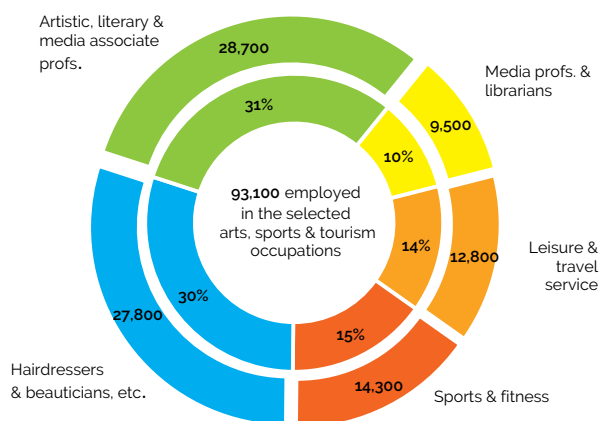
Overall employment: Approximately 93,100 persons (61% female) were employed in the selected arts, sports & tourism occupations, representing 4.1% of the national workforce

- **Sector:** 57% of overall employment was concentrated in the arts & entertainment sector
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 16,800 (4.1% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for leisure & travel service occupations (7.4%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 74%. The share of employees aged 55 and over was 9%, well below the national average of 17%.
- **Education:** The share of persons employed in the selected arts, sports & tourism occupations who had attained higher secondary/FET qualifications was in line with the national average share of 37%. Those who had attained third level qualifications (54%) was above the national average share (48%).
- **Full-time/part-time:** Over 68% of arts, sports & tourism workers were in full-time employment
- **Nationality:** The share of non-Irish workers was in line with the national average of 16%, while 84% of workers were Irish nationals

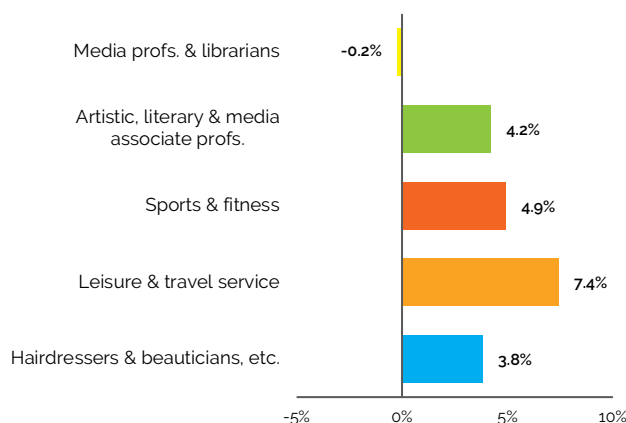
Overall outlook for these occupations:

Employment growth in these occupations is likely to be linked to Ireland's strong economic performance in recent years; growth in the demand for these occupations (e.g. beauty therapists) will be dependent on a thriving tourism sector as well as on the level of disposable incomes for individuals in Ireland.

Numbers employed, 2018








Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 16,800 (4.1% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

Occupation	Economic summary	Shortage	Occupation shortage details
Media profs. & librarians	No shortages have been identified for this occupation.		
Artistic, literary & media associate profs.	Although the data does not allow for a detailed analysis, employers have highlighted difficulties in sourcing suitably qualified staff to work in animation. As a result, a postgraduate level apprenticeship for a CGI Technical Artist for animation, games and VFX has been introduced.		— Animators
Sports & fitness occupations	Employment growth in this occupation has been above the national average, although no shortages have been identified in this area.		
Leisure & travel service occupations	Employment growth in this occupation has been above the national average. However, part-time roles account for almost a half of all employed. The recent job hires also outnumber growth in this occupation indicating that job churn is occurring.		
Hairdressers & beauticians, etc.	Employment growth in this occupation was slightly above the national average. Part-time roles account for over two fifths of all employed. The recent job hires also outnumber growth in this occupation indicating that job churn is occurring. There is a relatively large number of learners enrolled in FET sector training for these occupations.		

**For detailed table see Appendix A*

9.13 Transport & Logistics Occupations

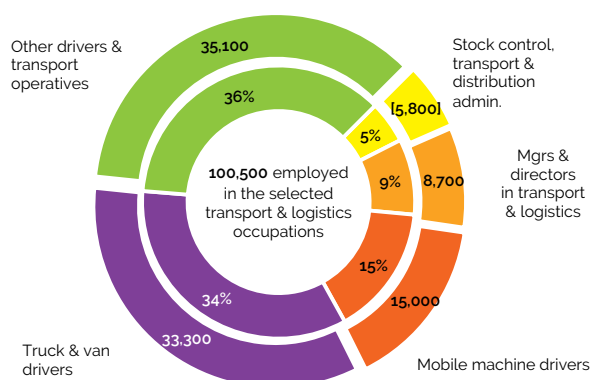
Overall employment: Approximately 100,500 persons (94% male) were employed in the selected transport & logistics occupations, representing 4.4% of the national workforce

- **Sector:** 53% of overall employment was concentrated in the transport sector with industry and wholesale/retail combined accounting for a further 28%
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 13,700 (3.0% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for mobile machine drivers & operatives (6.3%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 69%. The share of employees aged 55 and over was 27%, well above the national average of 17%.
- **Education:** The share of persons employed in the selected transport & logistics occupations who had attained higher secondary/FET qualifications was 50%, above the national average share of 37%. One third of persons had a lower secondary education qualification or less.
- **Full-time/part-time:** Over 88% of transport & logistics workers were in full-time employment
- **Nationality:** The share of non-Irish workers was below the national average of 16%, while 86% of workers were Irish nationals

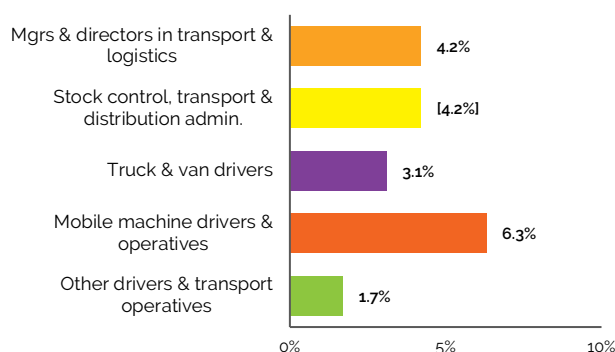
Overall outlook for these occupations:

Drivers make up more than four fifths of those working in these occupations. Those working in the transport sector are likely to be affected by the impact of Brexit in terms of the import and export of goods. Additional skills may be required in the areas of customs clearance and documentation, depending on the nature of the UK's withdrawal from the EU. In addition, technological changes and automation of processes will result in a need for enhanced digital skills across all occupations in this field.

Numbers employed, 2018



Average growth rates (%) 2013-2018








Between 2013 and 2018, overall employment increased by 13,700 (3.0% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

Numbers in square brackets are small and should be treated with caution

Aircraft pilots, ship officers and air traffic controllers included in overall total but numbers too small to report

Occupation	Economic summary	Shortage	Occupation shortage details
Managers & directors in transport & logistics	Employment growth since 2013 was above average for this occupation, although declines occurred since 2017. While no shortage has been identified, demand is arising in niche areas, particularly due to the impact of technology and the evolving skillsets required as a result. Two new apprenticeships have been introduced (supply chain manager/specialist) at third level which may alleviate potential recruitment difficulties.		— Logistics managers
Stock control, transport & distribution admin. occupations	The numbers employed in this occupation are too small to allow for detailed analysis. While it was not possible to identify if shortages exist, in the event of Brexit, there will be an increased demand for those with the skills to ensure compliance in the areas of customs duties, controls, and tariffs (which the new logistics associate apprenticeship is designed to address). A limited number of employment permits have been allocated for this occupation as a result ³² .		— Freight forwarders — Supply chain administrators/planners (junior roles)
Truck & van drivers	Employers have identified difficulty in sourcing and retaining qualified HGV drivers, despite a high number of job ready job seekers who were previously employed in this occupation. Regional issues may also be a factor.	 Labour shortage	— HGV drivers
Mobile machine drivers & operatives	Employment growth for this occupation has been driven by the construction sector. Although there were job ready job seekers previously employed in this occupation, shortages are occurring in a small number of areas.		— Construction site drivers
Other drivers & transport operatives	Most of those employed in this occupation are working as taxi, bus and coach drivers. No shortages have been identified in this occupation.		

**For detailed table see Appendix A*

³² <https://dbe.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Latest-updates/>

9.14 Administrative & Secretarial Occupations

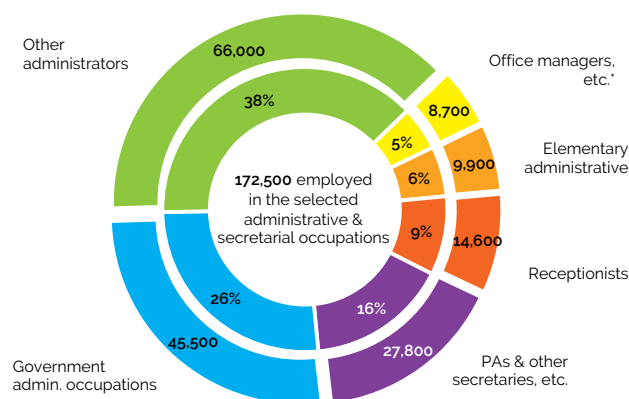
Overall employment: Approximately 172,500 persons (77% female) were employed in the selected administrative & secretarial occupations, representing 7.6% of the national workforce

- **Sector:** These occupations are employed across all sectors, with employment concentrated in PAD (26%), health (14%), along with professional activities and transport, both of whom had an 8% share
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 24,700 (3.1% on average annually in line with the national average). The strongest rate of employment growth was observed for government administrative occupations (7.4%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 71%. The share of employees aged 55 and over was 23%, above the national average of 17%.
- **Education:** The share of persons employed in the selected administrative & secretarial occupations who had attained higher secondary/FET qualifications was 49%, well above the national average share of 37%. Those who had attained third level qualifications (44%) was below the national average share (48%).
- **Full-time/part-time:** Over 72% of administrative & secretarial workers were in full-time employment
- **Nationality:** The share of non-Irish workers was below the national average of 16%, while 91% of workers were Irish nationals

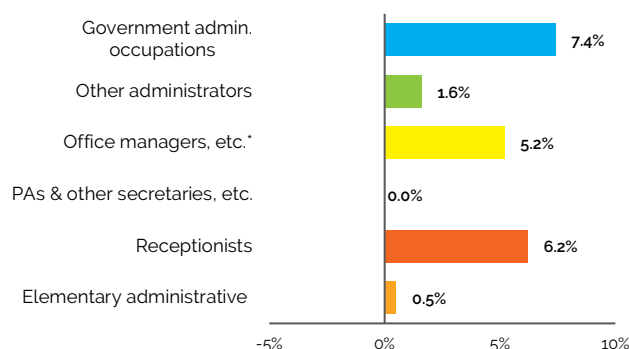
Overall outlook for these occupations:

The impact of technology is likely to affect the number of people required for administrative roles. Job churn is also a factor, as evidenced by the high volume of recent job hires. However, job opportunities will continue to arise as replacement (due to retirement, etc.) for such a large occupation, translating into job vacancies.

Numbers employed, 2018



Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 24,700 (3.1% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Occupation	Economic summary	Shortage	Occupation shortage details
Government admin. occupations	No shortages have been identified for this occupation.	●	
Other administrators	Employment in this occupation occurs across a number of sectors including industry, wholesale/retail and health. Employment growth was below average, there are a high number of job ready job seekers previously employed in this occupation and the high number of recent job hires would indicate turnover is an issue.	●	
Office managers & supervisors administrative occupations	No shortages have been identified for this occupation.	●	
PAs & other secretaries, etc.	No shortages have been identified for this occupation.	●	
Receptionists	Employment growth was above average for this occupation although no indication of shortages has been identified.	●	
Elementary administrative	Employment in this occupation relates primarily to postal workers and couriers. Employment growth was below average over the previous five years.	●	

*For detailed table see Appendix A

9.15 Sales, Marketing & Customer Service Occupations

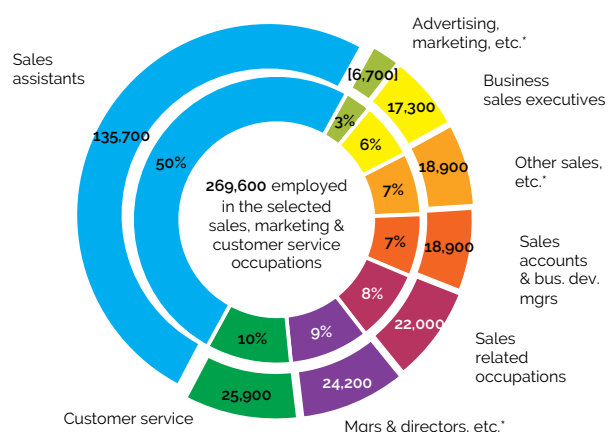
Overall employment: Approximately 269,600 persons (56% female) were employed in the selected sales, marketing & customer service occupations, representing 11.9% of the national workforce

- **Sector:** 67% of overall employment was concentrated in the wholesale/retail sector, followed by ICT, industry and the administrative services sectors
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 29,400 (2.3% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for sales related occupations (9.5%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 66%. The share of employees aged under 25 was 22%, significantly above the national average of 10%.
- **Education:** The share of persons employed in the selected sales, marketing & customer service occupations who had attained higher secondary/FET qualifications was 49%, well above the national average share of 37%. Those who had attained third level qualifications (38%) was below the national average share (48%).
- **Full-time/part-time:** Over 69% of sales, marketing & customer service workers in were in full-time employment
- **Nationality:** The share of non-Irish workers was slightly above the national average of 16%, while 83% of workers were Irish nationals

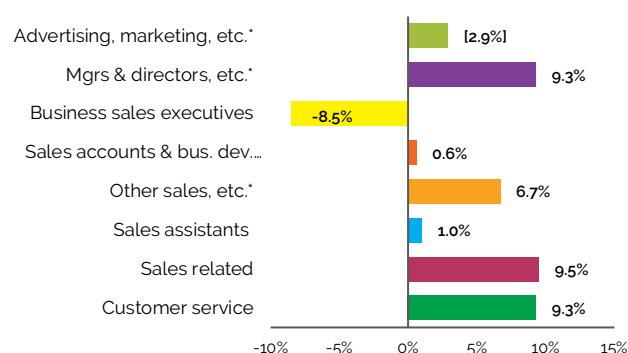
Overall outlook for these occupations:

These occupations span a range of skills levels, from sales assistants to marketing executives. As such, the outlook varies significantly. Sales occupations for which shortages have been identified tend to be associated with a demand for foreign language skills, most often in IT related activities.

Numbers employed, 2018



Average growth rates (%) 2013-2018



Between 2013 and 2018, overall employment increased by 29,400 (2.3% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Numbers in square brackets are small and should be treated with caution

Occupation	Economic summary	Shortage	Occupation shortage details
Advertising, marketing & sales directors	The numbers employed in this occupation are too small to allow for detailed analysis.	●	
Managers & directors in retail & wholesale	Employment in this occupation was well above the national average. However, there are several entry routes to this occupation and those employed are equally likely to have a third level qualification as a higher secondary/FET education. No shortages have been identified.	●	
Business sales executives	While the majority of those in this occupation are employed in the wholesale and retail sector, demand, and indeed shortages, primarily relates to those employed in the ICT sector, with language skills a key factor. Overall employment numbers have fallen in recent years.	● Languages	— Sales executives in the ICT sector
Sales accounts & bus. dev. Managers	Employment levels in this occupation have fallen in recent years. Any shortages for this occupation refer to the ICT sector and, therefore, only relate to a subsection of employment.	●	— Product/account managers
Other sales & marketing assoc. prof.	While the majority of those in this occupation are employed in the wholesale and retail sector, demand, and indeed shortages, primarily relates to those employed in the ICT sector, with language skills a key factor.	● Languages	— Marketing specialists (including digital)
Sales assistants	With 135,000 persons employed, this occupation will continue to offer job opportunities due to replacement demand alone. Half of those working are in part-time roles and job churn is a significant factor. There is a large number of job ready job seekers, who had previously worked in this occupation.	●	
Customer service occupations	Shortages in this occupation relate to those employed in contact centres and are specific to those with language skills. Recent job hires far outweigh employment growth in this occupation, indicating that job churn is a significant factor.	● Languages	— Contact centre agents — Customer service representatives
Sales related occupations n.e.c.	This occupation relates to those primarily employed in the wholesale/retail sector, with no indication of shortages.	●	

*For detailed table see Appendix A

9.16 Operatives & Elementary Occupations n.e.c.

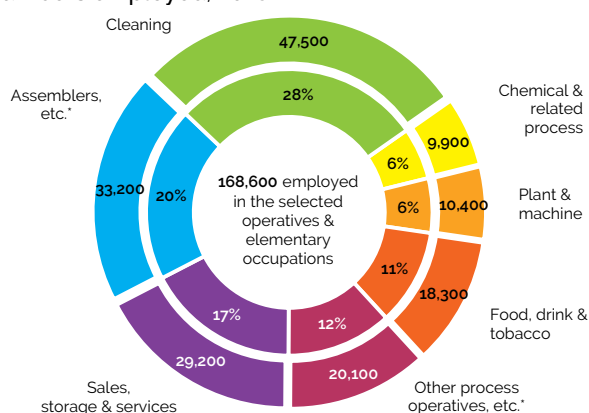
Overall employment: Approximately 168,600 persons (61% male) were employed in the selected operatives & elementary occupations n.e.c., representing 7.5% of the national workforce

- **Sector:** 51% of overall employment was concentrated in the industry sector, with administrative services and wholesale/retail combined accounting for a further 26%
- **Employment growth (5-year):** Between 2013 and 2018, overall employment increased by 23,100 (3.0% on average annually compared to 3.1% nationally). The strongest rate of employment growth was observed for chemical & related process occupations (11.1%) during the period.
- **Age:** The 25-54 age group accounted for the majority of persons employed, at 72%. The share of employees aged 55 and over was 15%, below the national average of 17%.
- **Education:** The share of persons employed in the selected operatives & elementary occupations n.e.c. who had attained higher secondary/FET qualifications was 51%, well above the national average share of 37%. Almost one quarter of persons had a lower secondary education qualification or less.
- **Full-time/part-time:** Over 75% of operatives & elementary occupations n.e.c. workers were in full-time employment
- **Nationality:** The share of non-Irish workers was well above the national average of 16%, while 68% of workers were Irish nationals

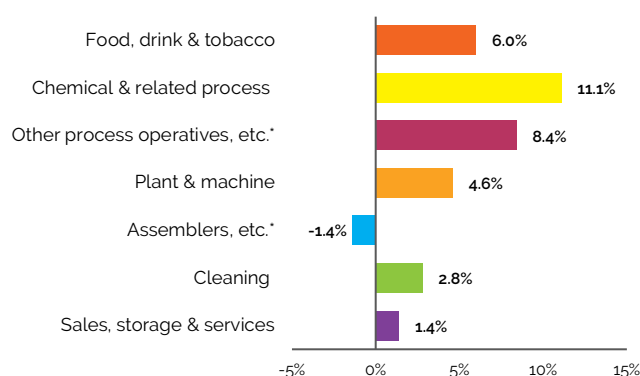
Overall outlook for these occupations:

Many of these occupations are particularly likely to be impacted by the automation of manufacturing processes. Job churn is a significant factor, as evidenced by the high number of recent job hires. There also remains a ready supply with a high number of available job seekers who were previously employed in these occupations.

Numbers employed, 2018



Average growth rates (%) 2013-2018



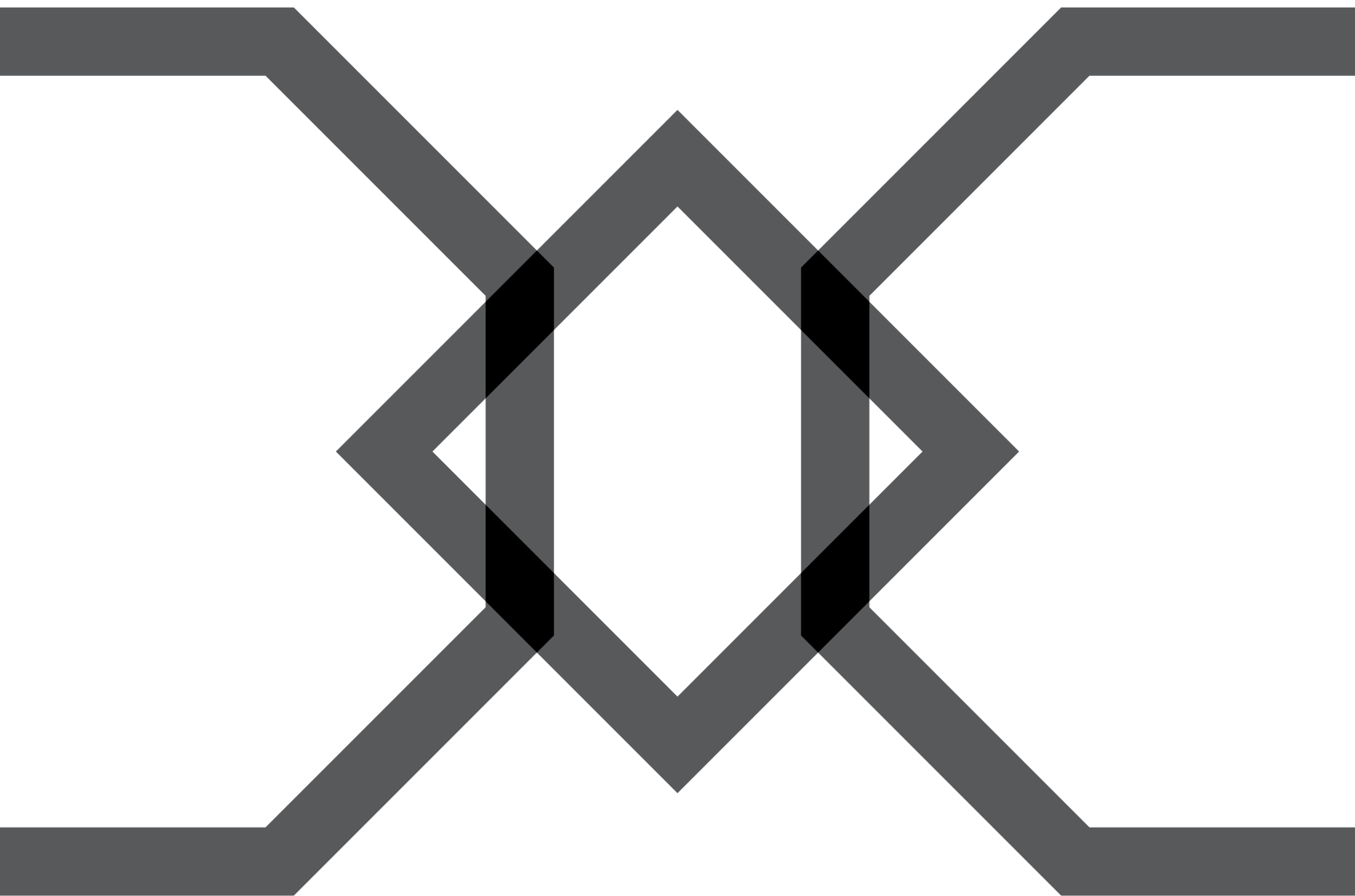
Between 2013 and 2018, overall employment increased by 23,100 (3.0% on average annually compared to 3.1% nationally).

Source: SLMRU (SOLAS) analysis of CSO data

*See detailed occupation description in table overleaf

Occupation	Economic summary	Shortage	Occupation shortage details
Food, drink & tobacco	There is demand for operatives in the food processing sector, with a large number of employment permits issued in 2018. However, there is no indication of shortage, as job churn and attractiveness of the occupation remain issues.	●	
Chemical & related process	Employment opportunities in this occupation are driven by both high-tech manufacturing and the food industry. Although the employment growth rate is strong, automation may have an impact on this occupation in the medium term.	●	
Other process operatives & process plant occupations (e.g. packers, bottlers and elementary process plant ops.)	Although employment growth has been strong, there is a high number of job ready job seekers who had previously been employed in this occupation. Recent job hires also outweigh job growth, indicating that job churn is a significant factor.	●	
Plant & machine operatives (e.g. quarry workers, energy and sewerage plant operatives)	No indication of shortages was evident for this occupation.	●	
Assemblers & routine operatives	Employment declined for this occupation, with no evidence of shortages emerging.	●	
Cleaning	The majority of those employed in this occupation were female and in part-time roles; over a quarter were aged 55 years or older. Recent job hires analysis shows that job churn is a feature for this occupation.	●	
Sales, storage & services	Employment in this group refers primarily to those in elementary storage roles; no difficulty in sourcing personnel has been observed, with job churn a factor.	●	






**For detailed table see Appendix A*







Appendix A:

Demand and Supply Indicators by Occupational Group










9.1 Science & Engineering Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Chemical, biological & physical scientists	18,200	[54%]	92%		77%	98%	5.8%	90	X	 Niche Experience
Other engineering professionals	18,700	-	99%		90%	80%	16.6%	282	X	 Niche Experience
Production, design & QC engineers	12,600	-	96%		83%	89%	4.4%	312	X	 Experience
Science & engineering technicians	25,800	32%	97%		92%	77%	5.5%	17	X	
Production managers in manufacturing, mining and energy	16,600	[25%]	98%		91%	66%	6.2%	37		
Total	91,900	33%	96%	12%	87%	83%	7.3%	738		

9.2 ICT Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
ICT specialist & project managers	16,800	[31%]	99%		74%	89%	-2.7%	382	X	
Programmers & software developers	28,100	-	100%		62%	96%	7.4%	1,517	X	
ICT profs. n.e.c.	14,900	-	93%		80%	84%	-1.1%	1,500	X	
IT technicians	22,800	[24%]	95%		66%	70%	13.2%	73	X	 Language skills
Total	82,600	21%	97%	[5%]	68%	87%	4.3%	3,472		

9.3 Business & Financial Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Accountants & tax experts	41,200	47%	95%	[13%]	93%	94%	-1.8%	249	X	
Mgt. consultants, bus. analysts & project managers	17,100	45%	94%		86%	90%	12.7%	472		
Actuaries, economists & statisticians; other business profs.	9,500	-	90%		82%	92%	[10.1%]	37	X	
Financial analysts and insurance underwriters	15,500	50%	89%		84%	82%	6.0%	41		
Other bus. associate profs.	18,200	46%	88%		82%	84%	10.8%	85	X	
Financial accounts managers	10,100	[58%]	96%		79%	76%	-1.0%	23		
Financial managers & directors	12,300	[40%]	92%		85%	86%	3.5%	76	X	
Financial admin. occupations	50,400	75%	75%	21%	93%	56%	-1.4%	31	X	
HR managers and officers	16,000	69%	90%		90%	85%	3.4%	69	X	
Total	190,300	55%	88%	15%	88%	80%	2.1%	1,083		

9.4 Healthcare Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Medical practitioners	17,100	43%	92%		69%	100%	1.1%	1,541	X	●
Therapy profs.	13,100	83%	78%		87%	92%	11.1%	5		●
Nurses & midwives	62,700	87%	81%	17%	80%	96%	-0.4%	1,504	X	●
Other healthcare profs.	23,600	72%	82%	[17%]	94%	94%	5.6%	83		●
Health associate profs.	11,700	73%	71%		85%	67%	0.7%	12	X	●
Total	128,300	77%	82%	17%	82%	95%	1.8%	3,145		

9.5 Education Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Higher & further education teaching profs.	18,400	55%	79%	[28%]	80%	96%	11.5%	43		●
Secondary teachers	36,000	67%	87%	[15%]	97%	97%	2.4%			●
Primary & nursery teachers	44,300	85%	85%	[12%]	97%	94%	0.9%	5		●
Teaching & other educational profs.	19,700	59%	74%	[19%]	91%	88%	5.2%	6		●
Educational support	18,700	95%	81%	[23%]	95%	41%	9.5%	1		●
Trainers & instructors, career guidance	8,200	[53%]	89%		89%	[60%]	-5.5%	2		●
Total	145,300	73%	83%	18%	93%	86%	3.4%	57		

9.6 Social & Care Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Welfare & housing associate profs.	10,200	79%	[61%]		86%	82%	1.9%	4		●
Childminders, etc.	27,100	99%	55%		81%	[30%]	2.9%	4		●
Other caring services	16,000	69%	72%		84%	[35%]	13.0%	104	X	●
Social workers & welfare profs.	7,400	[52%]	89%		95%	[85%]	-0.6%	1		●
Care workers, home carers, etc.	58,200	83%	64%	22%	90%	27%	3.1%	78		●
Total	118,800	82%	65%	19%	87%	38%	3.7%	191		







9.7 Legal & Security Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Barristers, judges, solicitors & related profs.	13,500	[56%]	93%		96%	99%	1.7%	10		●
Gardai	10,900	-	100%		100%	85%	-3.6%			●
Other protective service occupations	13,000	-	95%		100%		0.6%			●
Security guards	17,200	-	85%		69%		2.2%			●
Total	54,600	27%	92%	14%	88%	55%	0.4%	10		






9.8 Construction Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Civil engineers & construction project managers	17,100		98%		91%	69%	10.6%	26	X	●
Architects & town planners, architectural technologists & surveyors	13,100	[35%]	90%		88%	96%	8.9%	16	X	●
Bricklayers & plasterers	11,200		89%		90%		16.1%			●
Plumbers	9,800		99%		97%		6.7%			●
Carpenters & joiners	20,500		88%		88%		12.3%		X	●
Painters & decorators	9,300		87%		93%		15.9%			●
Other construction trades	24,600		95%		81%		8.4%	1	X	●
Construction operatives & elementary	32,100		77%	[22%]	84%		-4.7%		X	●
Total	137,800	6%	89%	17%	87%	28%	5.3%	48		

9.9 Other Craft Occupations n.e.c.

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Metal forming, welding & related trades	11,500		95%		86%		9.8%	2	X	
Metal machining, fitting & instrument making trades	16,000		99%		95%	[40%]	-7.1%	43	X	 Niche
Vehicle trades	19,800		94%	[22%]	81%	[19%]	2.5%	5		
Electrical & electronic trades, etc.	38,900		96%	18%	85%	35%	4.6%	18	X	
Other skilled trades	13,000		82%		80%		4.6%	1		
Butchers, fishmongers, bakers etc.	12,600		92%		61%		1.6%	22	X	 Labour
Total	111,700	7%	94%	19%	82%	26%	2.1%	91		

9.10 Agriculture & Animal Care Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Managers in horticulture, agriculture and fishing	[4,000]	-	-					2		
Farmers	74,900	8%	90%	56%	99%		-0.4%			
Horticultural, agricultural & fishing trades n.e.c.	16,000	-	73%		76%	13%	-1.3%		X	 Labour
Elementary agriculture	14,100	-	[53%]		93%		-4.8%	55	X	 Labour
Animal carers & pest controllers	[5,000]	-	[73%]		[87%]			1		
Total	114,100	12%	82%	43%	94%	15%	-1.2%	58		






9.11 Hospitality Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Hospitality managers	21,500	41%	92%	[22%]	76%	44%	1.9%	4	X	●
Chefs & cooks	34,500	39%	79%	[12%]	60%	40%	9.6%	317	X	●
Catering & bar managers	[7,300]	-	[91%]		[78%]		10.6%			●
Kitchen & catering assistants	37,500	63%	54%		61%	25%	9.6%	20		●
Waiters & waitresses	37,500	82%	29%		71%	[21%]	7.0%	2	X	●
Bar staff	19,200	[30%]	[35%]		89%		-2.6%	1	X	●
Housekeepers & caretakers, etc.	9,400	[82%]			[58%]		8.1%	9	X	●
Total	166,900	56%	59%	10%	68%	31%	5.1%	353		

9.12 Arts, Sports & Tourism Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Media profs. & librarians	9,500	[52%]	89%		88%	77%	-0.2%	15		●
Artistic, literary & media associate profs.	28,700	47%	77%	[14%]	80%	80%	4.2%	123		●
Sports & fitness occupations	14,300	[46%]	72%		88%	[53%]	5.0%	32		●
Leisure & travel service occupations	12,800	[55%]	[57%]		73%	[45%]	6.9%	3		●
Hairdressers & beauticians, etc.	27,800	87%	87%		85%	[24%]	3.8%	5		●
Total	93,100	61%	68%	10%	82%	55%	4.1%	178		









9.13 Transport & Logistics Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Male	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Managers & directors in transport & logistics	8,700		91%		88%		4.2%	9	X	
Stock control, transport & distribution admin. occupations	[5,800]		[87%]		[81%]		1.2%	2	X	
Truck & van drivers	33,300		92%	22%	78%		3.1%	39	X	 Labour shortag
Mobile machine drivers & operatives	15,000		97%		87%		6.3%		X	
Other drivers & transport operatives	35,100		82%	41%	92%		1.7%	1		
Total	97,900	6%	89%	26%	85%	15%	1.8%	51		

9.14 Administrative & Secretarial Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Government admin. occupations	45,500	70%	87%	24%	95%	49%	7.4%	1		●
Other administrators	66,000	80%	65%	21%	89%	48%	1.6%	21	X	●
Office managers & supervisors administrative occupations	8,700	74%	87%	-	85%	[63%]	5.2%	1	X	●
PAs & other secretaries, etc.	27,800	96%	59%	29%	94%	34%		8	X	●
Receptionists	14,700	89%	57%	-	81%		6.2%	5	X	●
Elementary administrative	9,900	-	92%	-	98%		0.5%			●
Total	172,600	77%	72%	24%	91%	44%	3.1%	36		

9.15 Sales, Marketing & Customer Service Occupations

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Advertising, marketing & sales directors	6,700		[98%]		[100%]	[76%]	2.9%	51	X	
Managers & directors in retail & wholesale	24,200	41%	92%	[17%]	82%	42%	9.3%	15		
Business sales executives	17,300	[31%]	93%		75%	53%	-8.5%	244	X	 Languages
Sales accounts & bus. dev. managers	18,900	40%	96%		80%	73%	0.6%	97	X	
Other sales and marketing assoc. prof.	18,900	51%	90%		83%	79%	6.7%	208	X	 Languages
Sales assistants	135,700	68%	49%	12%	84%	20%	1.0%	13	X	
Sales related occupations n.e.c.	22,000	41%	88%		79%	43%	9.5%	6		
Customer service occupations	25,900	54%	91%		69%	52%	9.3%	170	X	 Languages
Total	269,600	56%	70%	12%	82%	39%	1.8%	804		

9.16 Operatives & Elementary Occupations n.e.c.

Bulletin description	Number Employed, 2018 (Annual Average)	% Female	% Full-Time	Aged 55 years and over	% Irish Nationals	% Third Level Graduates	Annualised Employment Growth Rate, 2013-2018	New Employment Permits Issued, 2018 (Number)	SLMRU Recruitment Agency Survey	Shortage Indicator
Food, drink & tobacco	18,300	[32%]	92%		60%		6.0%	853	X	●
Chemical & related process	9,900		98%		84%		11.1%			●
Other process operatives and process plant occupations	20,100	[29%]	88%		62%		8.4%	1	X	●
Plant & machine	10,400		93%		79%		4.6%	1		●
Assemblers & routine operatives	33,200	43%	93%		78%	30%	-1.4%	2	X	●
Cleaners	47,500	71%	40%	23%	62%	[14%]	2.8%	14		●
Sales, storage & services	29,200		79%		69%	[20%]	1.4%	4	X	●
Total	168,600	39%	75%	15%	69%	22%	3.0%	875		

Appendix B:

Breakdown of Occupational Groups

Occupational Groups	SOC Description
Science & Engineering Occupations	Chemical, biological & physical scientists
	Chemical scientists
	Biological scientists and biochemists
	Physical scientists
	Social and humanities scientists
	Natural and social science professionals n.e.c.
	Conservation professionals
	Environment professionals
	Research and development managers
	Production, design & QC engineers
	Design and development engineers
	Production and process engineers
	Quality control and planning engineers
	Quality assurance and regulatory professionals
	Environmental health professionals
	Other engineering professionals
	Mechanical engineers
	Electrical engineers
	Electronics engineers
	Engineering professionals n.e.c.
	Science & engineering technicians
	Laboratory technicians
	Electrical and electronics technicians
	Engineering technicians
	Quality assurance technicians
	Planning, process and production technicians
	Science, engineering and production technicians n.e.c.
	Science & engineering technicians
	Laboratory technicians
	Electrical and electronic technicians
	Engineering technicians
	Quality assurance technicians
	Planning, process and production technicians
	Science, engineering and production technicians n.e.c.
	Production managers in manufacturing, mining and energy
	Production managers and directors in manufacturing
IT Professional Occupations	ICT specialist & project managers
	Information technology and telecommunications directors
	IT specialist managers
	IT project and programme managers
	Programmers & software developers
	Programmers and software development professionals

Business and Financial Occupations	ICT profs. n.e.c.
	IT business analysts, architects and systems designers Web design and development professionals Information technology and telecommunications professionals n.e.c.
	IT technicians
	IT operations technicians IT user support technicians
	Accountants & tax experts
	Chartered and certified accountants and taxation experts <i>Taxation Experts</i>
	Mgt. consultants, bus. analysts & project managers
	Management consultants and business analysts Business and financial project management professionals
	Actuaries, economists & statisticians; other business profs.
	Actuaries, economists and statisticians Business and related research professionals Business, research and administrative professionals n.e.c.
	Financial analysts and insurance underwriters
	Brokers Insurance underwriters Finance and investment analysts and advisers
	Other bus. associate profs.
	Estimators, valuers and assessors Importers and exporters Financial and accounting technicians Business and related associate professionals n.e.c. Legal associate professionals
	Financial accounts managers
	Financial accounts managers
	Financial managers & directors
	Financial managers and directors Financial institution managers and directors
	Financial admin. occupations
	Credit controllers Book-keepers, payroll managers and wages clerks Bank and post office clerks Finance officers Financial administrative occupations n.e.c. Pensions and insurance clerks and assistants
	HR managers and officers
	Human resource managers and directors Human resources and industrial relations officers

Healthcare Occupations	Other healthcare profs.
	Psychologists
	Pharmacists
	Opticians (Incl. Dispensing Opticians, old Code 3216)
	Dental practitioners
	Veterinarians
	Medical radiographers
	Podiatrists
	Health professionals n.e.c.
	Health services and public health managers and directors
	Social services managers and directors
	Health care practice managers
	Medical practitioners
	Medical practitioners
	Therapy profs.
	Physiotherapists
	Occupational therapists
	Speech and language therapists
	Therapy professionals n.e.c.
	Nurses & midwives
	Nurses and midwives
	<i>Midwives</i>
	Health associate profs.
	Paramedics
	Dispensing opticians
	Pharmaceutical technicians
	Medical and dental technicians
	Health associate professionals n.e.c.
	Dental nurses
Education Occupations	Higher & further education teaching profs.
	Further and Higher education teaching professionals
	<i>Higher and further education teaching professionals</i>
	Secondary teachers
	Secondary education teaching professionals
	Primary & nursery teachers
	Primary and nursery education teaching professionals
	Teaching & other educational profs.
	<i>Special education teaching professionals</i>
	Senior professionals of educational establishments
	Education advisers and school inspectors
	Teaching, special needs, and other educational professionals n.e.c.
	Educational support assistants
	Teaching assistants
	Educational support assistants

Education Occupations continued	Trainers & instructors, career guidance
	Vocational and industrial trainers and instructors Careers advisers and vocational guidance specialists Driving instructors
Social and Care Occupations	Welfare & housing associate profs.
	Youth and community workers Child and early years officers Housing officers Counsellors Welfare and housing associate professionals n.e.c.
	Childminders, etc.
	Nursery nurses and assistants and playworkers Childminders and related occupations Playgroup leaders
	Other caring services
	Nursing auxiliaries and assistants Ambulance staff (excluding paramedics) Undertakers, mortuary and crematorium assistants
	Social workers & welfare profs.
	Social workers Probation officers Clergy Welfare professionals n.e.c.
	Care workers, home carers, etc.
	Houseparents and residential wardens Care workers and home carers Senior care workers Care escorts
Legal and Security Occupations	Barristers, judges, solicitors & related profs.
	Barristers and judges Solicitors Legal professionals n.e.c.
	Gardai
	Senior police officers Police officers (sergeant and below)
	Other protective service occupations
	Officers in armed forces Senior officers in fire, ambulance, prison and related services NCOs and other ranks Fire service officers (watch manager and below) Prison service officers (below principal officer) Police community support officers Protective service associate professionals n.e.c.

Legal and Security Occupations continued	Security guards
	Security guards and related occupations Parking and civil enforcement occupations School midday and crossing patrol occupations Elementary security occupations n.e.c.
	Civil engineers & construction project managers
	Civil engineers Construction project managers and related professionals Production managers and directors in construction
Construction Occupations	Architects & town planners, architectural technologists, & surveyors
	Architects and town planners (incl. Town planners, old code 2432) <i>Town planners</i> Quantity surveyors Chartered surveyors Chartered architectural technologists
	Construction related technicians
	Building and civil engineering technicians Architectural and town planning technicians Draughtspersons
	Bricklayers & plasterers
	Bricklayers and masons Plasterers
	Plumbers
	Plumbers and heating and ventilating engineers
	Carpenters & joiners
	Carpenters and joiners
	Painters & decorators
	Painters and decorators
	Other construction trades
	Steel erectors Roofers, roof tilers and slaters Glaziers, window fabricators and fitters Construction and building trades n.e.c. Floorers and wall tilers Construction and building trades supervisors
	Construction operatives & elementary
	Elementary construction occupations Scaffolders, staggers and riggers Road construction operatives Rail construction and maintenance operatives Construction operatives n.e.c.

Other Craft Occupations	Metal forming, welding & related trades
	Smiths and forge workers Moulders, core makers and die casters Sheet metal workers Metal plate workers, and riveters Welding trades Pipe fitters
	Metal machining, fitting & instrument making trades
	Metal machining setters and setter-operators Tool makers, tool fitters and markers-out Metal working production and maintenance fitters Precision instrument makers and repairers Air-conditioning and refrigeration engineers
	Vehicle trades
	Vehicle technicians, mechanics and electricians Vehicle body builders and repairers Vehicle paint technicians Aircraft maintenance and related trades Boat and ship builders and repairers Rail and rolling stock builders and repairers
	Electrical & electronic trades, etc.
	Electricians and electrical fitters Telecommunications engineers TV, video and audio engineers IT engineers Electrical and electronic trades n.e.c. Skilled metal, electrical and electronic trades supervisors
	Other skilled trades
	Weavers and knitters Upholsterers Footwear and leather working trades Tailors and dressmakers Textiles, garments and related trades n.e.c. Pre-press technicians Printers Print finishing and binding workers Glass and ceramics makers, decorators and finishers Furniture makers and other craft woodworkers Florists Other skilled trades n.e.c.
	Butchers, fishmongers, bakers etc.
	Butchers Bakers and flour confectioners Fishmongers and poultry dressers
Agriculture & animal care	Managers in horticulture, agriculture and fishing
	Managers and proprietors in agriculture and horticulture Managers and proprietors in forestry, fishing and related services Managers and proprietors in horse-racing and related industries

Agriculture & animal care continued	Farmers
	Farmers
	Horticultural, agricultural & fishing trades n.e.c.
	Horticultural trades Gardeners and landscape gardeners Groundsmen and greenkeepers Skilled workers in horse-racing and related industries Agricultural and fishing trades n.e.c.
	Animal carers & pest controllers
	Veterinary nurses Pest control officers Animal care services occupations n.e.c.
	Agriculture
	Farm workers Forestry workers Elementary occupations in horse-racing and related industries Fishing and other elementary agriculture occupations n.e.c.
Hospitality Occupations	Hospitality managers
	Hotel and accommodation managers and proprietors Restaurant and catering establishment managers and proprietors Publicans and managers of licensed premises
	Chefs & cooks
	Chefs Cooks
	Catering & bar managers
	Catering & bar managers
	Kitchen & catering assistants
	Kitchen & catering assistants
	Waiters & waitresses
	Waiters & waitresses
	Bar staff
	Bar staff
	Housekeepers & caretakers, etc.
	Housekeepers and related occupations Cleaning and housekeeping managers and supervisors
Arts, Sports and Tourism Occupations	Media pros. & librarians
	Librarians Archivists and curators Journalists, newspaper and periodical editors Public relations professionals Advertising accounts managers and creative directors

Arts, Sports and Tourism Occupations continued	Artistic, literary & media associate profs.
	Artists
	Authors, writers and translators
	Actors, entertainers and presenters
	Dancers and choreographers
	Musicians
	Arts officers, producers and directors
	Photographers, audio-visual and broadcasting equipment operators
	Graphic designers
	Product, clothing and related designers
	Sports & fitness occupations
	Leisure and sports managers
	Sports players
	Sports coaches, instructors and officials
	Fitness instructors
	Leisure & travel service occupations
	Sports and leisure assistants
	Travel agents
	Air travel assistants
	Rail travel assistants
	Leisure and travel service occupations n.e.c.
	Leisure and theme park attendants
	Travel agency managers and proprietors
	Hairdressers & beauticians, etc.
	Hairdressers, barbers, beauticians and related occupations
Transport and Logistics Occupations	Managers & directors in transport & logistics
	Managers and directors in transport and distribution
	Managers and directors in storage and warehousing
	Stock control, transport & distribution admin. occupations
	Stock control clerks and assistants
	Transport and distribution clerks and assistants
	Truck & van drivers
	Large goods vehicle drivers
	Van drivers
	Mobile machine drivers & operatives
	Crane drivers
	Fork-lift truck drivers
	Agricultural machinery drivers
	Mobile machine drivers and operatives n.e.c.

Transport and Logistics Occupations continued	Other drivers & transport operatives
	Bus and coach drivers
	Taxi and cab drivers and chauffeurs
	Train and tram drivers
	Marine and waterways transport operatives
	Air transport operatives
	Rail transport operatives
	Other drivers and transport operatives n.e.c.
	Aircraft pilots, ship officers, air traffic controllers
	<i>Air traffic controllers</i>
Administrative and Secretarial Occupations	<i>Aircraft pilots and flight engineers</i>
	<i>Ship and hovercraft officers</i>
	Government admin. occupations
	National government administrative occupations
	Local government administrative occupations
	Officers of non-governmental organisations
	Other administrators
	Records clerks and assistants
	Library clerks and assistants
	Human resources administrative occupations
	Sales administrators
	Other administrative occupations n.e.c.
	Office managers & supervisors administrative occupations
	Office managers
	Office supervisors
	PAs & other secretaries, etc.
	<i>Medical secretaries</i>
	<i>Legal secretaries</i>
	Personal assistants and other secretaries
	Typists and related keyboard occupations
Sales and Customer Service Occupations	Receptionists
	Receptionists
	Elementary administrative
	Postal workers, mail sorters, messengers and couriers
	Elementary administration occupations n.e.c.
	Advertising, marketing & sales directors
	Marketing and sales directors
	Purchasing managers and directors
	Advertising and public relations directors
	Managers & directors in retail & wholesale
	Managers and directors in retail and wholesale
	Business sales executives
	Business sales executives

Sales and Customer Service Occupations continued	Sales accounts & bus. dev. managers
	Sales accounts and business development managers
	Other sales and marketing assoc. prof.
	Buyers and procurement officers Marketing associate professionals Estate agents and auctioneers Conference and exhibition managers and organisers Property, housing and estate managers
	Sales assistants
	Sales and retail assistants, cashiers and checkout operators <i>Retail cash desk and check-out operators</i> Telephone salespersons Pharmacy and other dispensing assistants Vehicle and parts salespersons and advisers
	Sales related occupations
	Collector salespersons and credit agents Debt, rent and other cash collectors Roundspersons and van salespersons Market and street traders and assistants Merchandisers and window dressers Sales related occupations n.e.c. Sales supervisors
	Customer service occupations
	Call and contact centre occupations Telephonists Communication operators Market research interviewers Customer service occupations n.e.c. Customer service managers and supervisors
Operatives & elementary occupations n.e.c.	Food, drink & tobacco
	Food, drink and tobacco process operatives
	Chemical & related process
	Chemical and related process operatives
	Other process operatives and process plant occupations
	Glass and ceramics process operatives Textile process operatives Rubber process operatives Plastics process operatives Metal making and treating process operatives Electroplaters Process operatives n.e.c. Industrial cleaning process occupations Packers, bottlers, canners and fillers Elementary process plant occupations n.e.c.

Operatives & elementary occupations n.e.c. continued	Plant & machine
	Paper and wood machine operatives
	Coal mine operatives
	Quarry workers and related operatives
	Energy plant operatives
	Metal working machine operatives
	Water and sewerage plant operatives
	Printing machine assistants
	Plant and machine operatives n.e.c.
	Assemblers & routine operatives
	Assemblers (electrical and electronic products)
	Assemblers (vehicles and metal goods)
	Routine inspectors and testers
	Weighers, graders and sorters
	Tyre, exhaust and windscreen fitters
	Sewing machinists
	Assemblers and routine operatives n.e.c.
	Cleaning
	Window cleaners
	Street cleaners
	Cleaners and domestics
	Launderers, dry cleaners and pressers
	Refuse and salvage occupations
	Vehicle valeters and cleaners
	Elementary cleaning occupations n.e.c.
	Sales, storage & services
	Shelf fillers
	Elementary sales occupations n.e.c.
	Elementary storage occupations
	Hospital porters
	Other elementary services occupations n.e.c.

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