FÁS

Expert Group on
Future Skills Needs

National Skills Bulletin **2006**

National Skills Bulletin 2006

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

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Executive Summary

The National Skills Bulletin 2006 is the second annual skills bulletin from the Expert Group on Future Skills Needs (EGFSN). The objective of these bulletins is to outline key labour market statistics in order to assist policy formulation in the areas of employment, education and immigration. The Bulletin also aims to provide information for students, career guidance advisors, and other interested parties relating to developments in the labour market.

The main focus of the National Skills Bulletin is the analysis of employment at occupational level. The analysis of each occupation is twofold. Firstly, each occupation is examined in terms of its employment profile, including details on employment levels and growth rates. Secondly, by examining the available indicators on the supply and demand of skills, we comment on the extent to which shortages appear to exist for each occupation. Available indicators include, where applicable, recent employment trends from the Central Statistics Office (CSO); the number of issued work permits/visas/authorisations from the Department of Enterprise, Trade and Employment; an indication of difficulty in filling positions from the monthly FÁS/ESRI Vacancy Survey; and previously published EGFSN reports on skills shortages.

Any shortage is further defined in terms of its characteristics, i.e. skill shortage or labour shortage, expected duration and significance. It is important to note that the analysis does not involve producing forecasts of future shortages. Thus, the report is restricted to the presentation of recent and current shortages and does not attempt to predict shortages that may arise in the future.

Please note that the term 'shortage' in this report refers only to the situation where 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 European Economic Area (EEA). Consequently there may not be a shortage from an EEA perspective.

The National Skills Bulletin is set out as follows:

- Section 1 provides an overview of general labour market trends. This includes economic and employment growth, participation rates, employment by age and education, and migration.
- Section 2 discusses industry employment trends, including employment growth, average earnings and future employment trends.
- Section 3 examines employment by broad occupation under various headings, including employment growth, nationality, earnings, age and education distribution.
- Section 4 focuses on the supply of skills from education and training providers, both public and private.
- Section 5 reports on the number of work permits and visas/authorisations issued to non-EU workers.
- Section 6 examines vacancies by broad occupational group from a number of different sources, including FÁS, the Irish Times and IrishJobs.ie.
- Section 7 provides an analysis of 130 occupations categorised into 17 occupational groupings and draws conclusions regarding the extent to which shortages exist in these occupations.

KEY FINDINGS

Overall employment in Ireland grew from 1.7 million to 1.95 million between 2000 and 2005. However, these additional jobs were not evenly distributed in terms of economic sectors or broad occupational groups.

Economic sectors which grew faster than average included construction, services and healthcare. Employment declined in manufacturing and agriculture over the same period. Within manufacturing almost all the main sub-sectors experienced a fall in employment with the metals and machinery, and textiles and clothing sub-sectors the hardest hit.

Of the broad occupational groups, professional occupations grew the fastest. On the other hand, plant and machinery operatives and farmers experienced a decline in employment.

A key trend identified is the rise in the number of non-Irish nationals in employment. However, there has been a recent decline in the number of workers entering Ireland under the work permit or work visa schemes. Most of the immigrant labour is coming from the new EU accession states. Service occupations as well as professional and associate professional occupations are the occupations for which the most work permits are issued.

The education and training system is a key source of skills in Ireland. Over 120,000 vocational training awards were made in 2005 (with some individuals receiving two or more awards). Approximately 63,000 individuals graduated from third level education (though many will go on to further study). At third level, business/law and arts/humanities account for the most graduates.

There was a noticeable increase in vacancies for production and works managers, software engineers, metal working production and maintenance fitters, chefs and cooks, and

technical and wholesale sales representatives in the first half of 2006 compared to the same period in 2005. Most of these occupations were among the key occupations cited by employers as being difficult to fill in the FÁS/ESRI vacancy survey.

As mentioned above, the key objective of the National Skills Bulletin is to identify shortages. By examining the available indicators on supply and demand of skills we identified occupations where shortages appear to exist. The identified shortages are outlined below and are classified as either skill or labour shortages.

Skill shortages refer to a situation where there is an insufficient number of trained/qualified individuals in the domestic market to meet the demand for an occupation. Labour shortages refer to a situation where there is an insufficient number of individuals willing to take up employment opportunities.

A skills shortage may arise for a number of different reasons. For example, the working conditions may be such that relatively few people with the relevant skills are attracted to the occupation in question. The shortage may also reflect a temporary or a sustained increase in the demand for a particular expertise, or a reduction in the number of students who are acquiring the relevant qualifications.

The most effective way to alleviate a shortage will depend on why 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 increasing the number of student places in the relevant disciplines. If the shortage reflects poor working conditions it may be more effective to improve those conditions than to encourage an increase in the supply of persons with the relevant skills.

It is outside the scope of this bulletin to provide an analysis of why shortages have arisen in certain occupations. However, it is important for policy makers to appreciate that the existence of shortages does not necessarily require a response from Government, either in terms of increasing education or training provision or in terms of increasing immigration.

The purpose of this bulletin is solely to identify occupations where shortages exist. Further study is necessary to identify the cause of these shortages and, consequently, the appropriate policy response. The EGFSN's research programme includes a number of such studies in financial services, ICT and construction.

Skills shortages were identified in the following areas:

Construction

Many of the professional occupations employed within the construction industry continue to be in short supply – civil engineers, architects and quantity surveyors. This is highlighted by the significant number of qualified persons in these occupations that continue to be sourced from non-EU countries under the work visa/authorisation scheme in 2005. In addition, these occupations were frequently cited by employers as being difficult to fill. At technician level, there is evidence of a shortage of architectural and town planning technicians, and building and civil engineering technicians.

There are also shortages of management skills in the construction sector. There was a considerable number of mentions of difficult to fill vacancies for building managers in 2005 and there was also an increase in the number of work permits issued between 2004 and 2005.

Many of the construction trades continue to experience shortages, mainly due to the continued high level of construction activity in Ireland. The trades most noticeably affected are: bricklayers, plasterers, carpenters, scaffolders, and floorers/tilers. While all of these trades have seen a higher uptake in apprentices in the past few years, shortages still persist. Shortages have, however, been addressed to some extent by the inflow of labour from non-domestic supply – a considerable number of work permits were issued for these occupations and the share of non-Irish nationals in the employment stock of these occupations has increased markedly since the expansion of the EU in 2004.

It is expected that shortages will abate in this sector to some extent in the future due to the expected slower growth in activity and an increase in output from the training and education system. A continued increase in the inflow of non-Irish nationals will reduce shortages in some construction occupations.

Financial

The demand for financial skills continues to be strong due to the expansion of existing activities and the diversification within the sector linked to moving up the value chain of financial service provision (e.g. a shift from back to front office activities in international financial services). In addition, continuous changes in the regulatory environment make meeting the skill needs of the financial sector a moving target.

As a result, skill shortages which were identified in a number of financial areas last year have persisted. These include shortages of accountants, actuaries, financial analysts (primarily investment and risk analysts) and underwriters.

Despite a recent increase in education and training provision in some financial areas (e.g. risk management), the number of qualified persons expected to become available for work is still not considered sufficient to meet market demand.

Engineering

There is evidence of a current shortage of certain engineering professionals and technicians in Ireland. Some employers have been experiencing difficulties in recruiting persons in the following engineering occupations: electrical and electronic engineers, planning and quality control engineers, design and development engineers, chemical engineers and engineering technicians.

Shortages in these areas are expected to persist into the future, given the decline in student enrolments in engineering courses in recent years and the expected strong performance of the IT, pharmaceutical (including biotechnology and chemicals) and medical devices industries over the coming years.

Information Technology

There is evidence of a current shortage of software engineers, computer analysts/programmers and computer systems managers. A significant number of work permits/visas were issued to non-EU nationals for these occupations in 2005 and employers are mentioning them as being difficult to fill. Demand for these occupations is expected to be relatively high in the future due to the gradual recovery/upturn of the IT sector in recent years and the resumption of stronger growth in the long-term.

It is expected that the level of graduate output from the third level education system will not match future demand requirements. This trend is underpinned by the decline in the level of student uptake in computing courses since the downturn of the IT sector in 2001: the level of student enrolment in computing courses in both 2004 and 2005 was less than half that of 2000.

Science

The Irish government has invested heavily in the last few years in research in science and recently announced a further large increase in funding. This will lead to the creation of additional postgraduate opportunities in the short to medium term. The number of students studying science at undergraduate level has declined in recent years. If this trend continues, a shortage of research scientists may arise in the future.

Healthcare

There is evidence of shortages in many healthcare occupations. These occupations include medical practitioners, dentists, various types of therapists (including dieticians) and medical radiographers. There are also shortages of nurses and pharmacists.

Increases in demand for the services of these occupations in recent years have not been matched by an increase in the number of graduates from the education system. However, the number of places on courses in medical related areas has increased in recent years. This should ease shortages, in particular in the therapy occupations. While the number of places for medical doctors in Ireland is set to increase in 2006, this will not impact on actual supply in the short-medium term.

There is a shortage of radiographers and the recent increase in training places will not be enough to reverse this. The number of dentists being trained annually has not changed in over 20 years causing problems in this area.

There was a significant shortage of nurses in 2005 due to the lengthening in the training for nurses and the consequent lack of graduates in 2005. The recent slowdown in the growth of the number of nurses employed, indicating a moderation in demand, should partially resolve the issue of shortages, though nurses will still need to be sourced from overseas.

Demand for pharmacists has increased in recent years, leading to a shortage. Graduates from new courses have begun to emerge, but if strong employment growth continues, shortages may persist.

Transport and Logistics

Despite the fact that a new degree programme was recently introduced, there is still anecdotal evidence of a shortage of transport managers. In particular, there is a lack of persons with relevant skills to manage integrated supply chains, specifically in the indigenous sector.

There is also some evidence of a shortage of persons with specialised computer related skills in both the clerical and warehousing functions of this sector.

Information from the work permit data and the results from the difficult to fill vacancy survey suggest that some employers are experiencing difficulties in sourcing heavy goods vehicles (HGV) drivers.

Sales

The results from recent employer surveys suggest that many companies continue to experience difficulties in recruiting high calibre sales personnel with international experience and sales representatives with technical, product and sectoral knowledge.

The analysis also indicates a shortage of marketing skills, especially at managerial level. Key indicators include a significant number of work permits issued and a frequent mention by employers as difficult to source.

Catering

Although the imbalance between demand and supply seems to have abated since 2004, there is still evidence that some employers are having difficulties in sourcing chefs in Ireland. The indicators of potential shortage include the following: the share of non-Irish nationals in this occupation is exceptionally high (21%); a significant number of work permits (1,000) were issued to non-EU nationals chefs in 2005; and some employers are still citing vacancies for chefs as difficult to fill.

Manufacturing

There is evidence of skills shortages in specific manufacturing occupations such as:

- Metal working production and maintenance fitters – there has been a significant number of work permits issued to non-EU nationals and this occupation has been frequently mentioned by employers as difficult to fill
- Sheet metal workers – this occupation has been frequently mentioned by employers as difficult to fill
- Welders – the number of work permits issued for this occupation and the share of non-Irish nationals in the employment stock suggest that many employers are experiencing difficulties in sourcing welders domestically.

Labour shortages were identified in the following areas:

Financial

Currently, Ireland is one of the leading world centres for back office activities in international banking and insurance. This is creating a large demand for financial clerks and credit controllers, resulting in shortages. In particular, shortages exist in fund accounting and administration and shareholders services on the banking side and pension administration and claims processing on the insurance side.

Although financial clerks and credit controllers can be recruited from a variety of sources, ranging from upper secondary school graduates to university graduates from varied fields, the current market situation indicates that the challenge is to attract and retain potential candidates in these positions.

Services

Employment of security guards grew strongly over the period 2000 to 2005. The data highlights significant sourcing of this occupation from non-domestic supply: a significant number of new work permits were issued to non-EU nationals and there was an increase in the share of non-Irish nationals in the employment stock of this occupation. This suggests that employers are having difficulty sourcing security guards from domestic supply.

A similar situation arises with waiters/waitresses. The share of non-Irish nationals in these occupations is high and suggests that these positions are not being filled by domestic supply.

Healthcare

There is evidence of a labour shortage of care assistants / attendants: over 500 work permits were issued to non-EU care assistants in 2005. The growth in the number of elderly, as well as increased participation in the labour force by women, has meant that the demand for care assistants has grown rapidly in recent years and will continue to grow in the future.

Sales

Despite significant recruitment from non domestic sources (particularly from the EU accession states), which is evident in the increased share of non-Irish nationals in the employment stock since 2004 (from 5% to 8.3% in 2005), there is still evidence that some employers are experiencing difficulties in sourcing sales assistants.

Food Manufacturing

There is evidence of a labour shortage of butchers and de-boners. The share of non-Irish nationals in the employment stock and the number of work permits issued suggest that many employers are experiencing difficulties in sourcing workers in this occupation.

Labourers

There is evidence that shortages exist in labourer occupations. The share of non-Irish nationals in these occupations rose from approximately 7% in 2004 to approximately 13% in 2005. In fact almost all the rise in employment was accounted for by non-Irish nationals.

This suggests that Irish persons are generally reluctant to take up jobs as labourers and employers are engaging non-Irish nationals to do this type of work. While this shortage is significant in terms of numbers, it is not a matter of immediate concern as the shortfall is currently being met by an inflow of non-Irish labour.

Comparison with the National Skills Bulletin 2005

In general, recent employment trends have followed the pattern of preceding years. Consequently, at the occupational level, many of the shortages identified in the National Skills Bulletin 2005 have persisted. The skills shortages in healthcare, financial and construction occupations have shown little improvement.

The influx of non-Irish nationals into the labour market has reduced the acuteness of shortages in many occupations. In some cases the influx of non-Irish labour is preventing shortages from arising.

A number of additional shortages, however, have been identified. The shortages at the professional level in the IT sector, identified last year, have begun to impact on the managerial level with computer systems managers now identified as being in short supply. The analysis has also identified an increasing demand for pharmacists leading to shortages. A shortage of labourers (identified in sectors such as construction, sales, and agriculture) is being met by non-Irish nationals.

Conclusion

Through its research programme, the Expert Group on Future Skills Needs (EGFSN) is continually examining the issue of skills shortages. Since the publication of last year's bulletin, the EGFSN has compiled reports on the digital media industry and on management skills in small to medium-sized enterprises.It has also analysed aspects of the education and training system including output trends, in-employment training, and careers information. A forthcoming report details the supply and demand of engineering occupations. The EGFSN is currently examining the skills needs for the construction, information technology, medical devices, and financial sectors.

The National Skills Bulletin 2006 provides a snapshot of the current labour market. However, there also needs to be an overarching strategy with regard to skills development to ensure that Ireland continues to move towards a competitive, knowledge-based economy. The planned development of a National Skills Strategy by the Department of Enterprise, Trade and Employment aims to meet this need. The EGFSN is currently undertaking research to underpin this strategy. This strategy will set out key objectives for the education and training sector for the next decade and beyond.

Section 1

General Labour Market Trends

There were just over 4.1 million persons residing in the Republic of Ireland between March and May 2005 (Figure 1.1). Of these, 2.8 million persons were of working age, 853,000 were younger than 15, and the remainder were 65 and older.

Approximately 1.9 million persons of working age were in employment during this period. Of the 925,000 working age persons who were classified as *not in employment*, approximately 9% were unemployed, while the remainder was economically inactive.

A total of 71,000 persons were seeking full time work. A further 14,500 were searching for part-time work.

Of those who were economically inactive, 40% were engaged in home duties, 37% were students, while 6% were retired. The remainder was marginally attached to the labour market or inactive for other reasons.

Of the 460,000 persons 65 years and older, 38,000 were in employment, while the remainder was either engaged in home duties or retired.

Compared with the same period in 2004, there were an extra 68,000 people of working age in the state with almost 91,000 extra people of working age employed and 23,000 fewer people not in employment.

Between 2000 and 2005, average annual employment growth in Ireland was 3.2%. In 2001/2002, Gross National Product (GNP) growth declined, with a corresponding decline in employment growth, which fell to below 2% in 2002. Since 2002, both economic and employment growth have recovered. The Central Bank forecasts GNP growth of 5.0% in 2006 and 5.5% in 2007. Employment growth is expected to be 3.3% in 2006 and 2.5% in 2007.

Figure 1.1 Population by Labour Status in Quarter 2, 2005

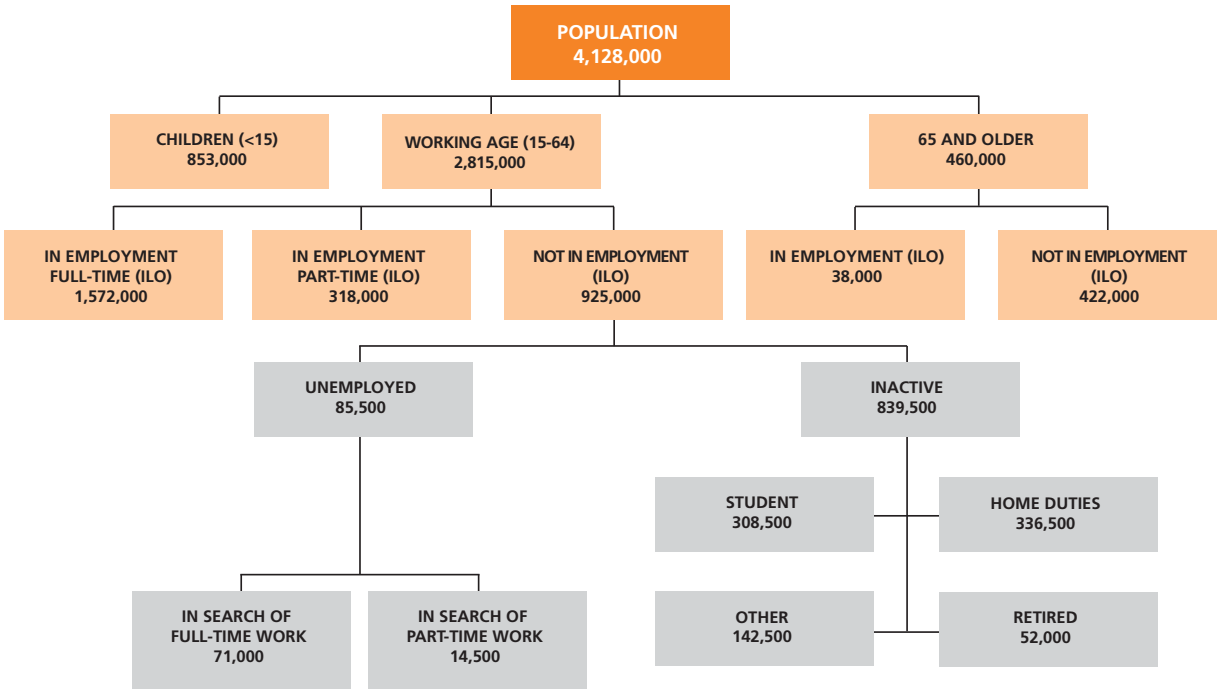


Figure 1.2 Economic and Employment Growth, 2000-2007

2006/07 Central Bank Estimates

Figure 1.3 Labour Force in 000s, 2000-2005

Source: CSO

Between 2000 and 2005, the Irish labour force (see Figure 1.3) grew from approximately 1.77 million to 2.04 million. Over the same period, an extra 260,000 new jobs were created, with the numbers in employment growing from approximately 1.69 million to almost 1.95 million.[1]

At the beginning of the 1990s, the Irish unemployment rate was in double digits. However, by the year 2000, unemployment had fallen to 4.3% and remained at a similar level during the period 2000 to 2005. The latest edition of the FÁS *Quarterly Labour Market Commentary* predicts that the unemployment rate will be approximately 4.4% in 2006.

The participation rate grew from 59.5% in 2000 to 62% in 2005. This equates to an extra 82,000 persons in the labour force. The increase in participation was driven, to a large extent, by an increase in female participation in the labour force.

Table 1.1 Unemployment and Participation Rates, 2000-2005

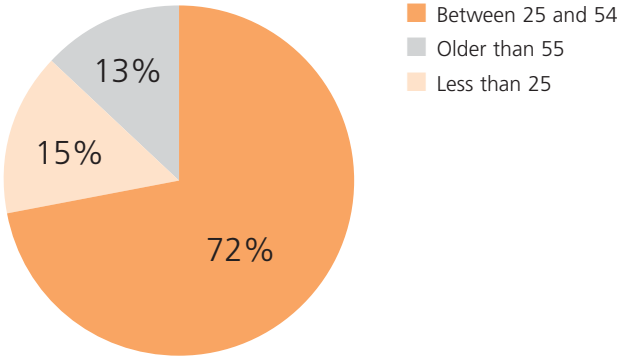
Year	Unemployment Rate	Participation Rate
2000	4.3%	59.5%
2001	3.9%	59.9%
2002	4.4%	60.0%
2003	4.6%	60.2%
2004	4.5%	60.7%
2005	4.4%	62.0%

Source: CSO

[1] *These figures are averaged over the four quarters of each year, while the data in Figure 1.1 refers to Quarter 2 2005 alone.*

Figure 1.4 shows the division of overall employment by age in 2005. A total of 72% of persons employed were aged between 25 and 54, 13% were over the age of 55, and 15% under 25. This reflects a slight aging of the persons in employment as compared to 2000, when the respective figures were 70%, 11% and 19%.

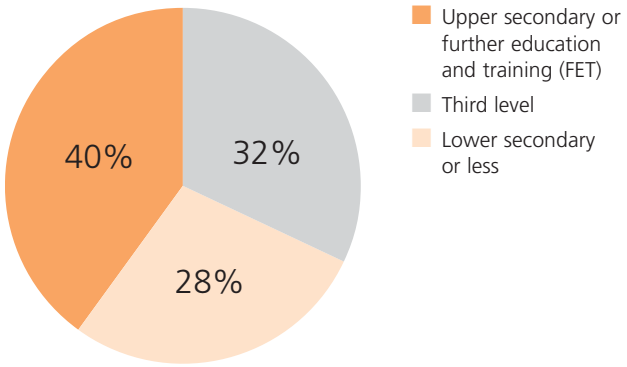
Figure 1.4 Employment by Age, 2005



Source: CSO

Figure 1.5 shows the division of overall employment by the highest level of education achieved. In 2005, 32% of persons employed had achieved third level qualifications (certificate, diploma, degree or above), and 28% had lower secondary education or less. The corresponding figures for 2000 were 25% and 33%, respectively. This represents a shift towards higher education attainment for those in employment.

Figure 1.5 Employment by Education, 2005



Source: CSO

Table 1.2 shows the latest migration estimates from the Central Statistics Office (CSO). The CSO estimates that between 2000 and 2005 inward migration averaged 58,200 annually, reaching 70,000 in 2005. Outward migration fell from 26,600 in 2000 to 16,600 in 2005. Overall, net migration added 215,000 persons to the Irish population between 2000 and 2005. The majority are of working age and participate in the Irish labour force.

Table 1.2 Migration Estimates (000s) 2000-2005

Year	Net migration	Outward migration	Inward migration
2000	26.0	26.6	52.6
2001	32.8	26.2	59.0
2002	41.3	25.6	66.9
2003	29.8	20.7	50.5
2004	31.6	18.5	50.1
2005	53.4	16.6	70.0

Source: CSO

Section 2

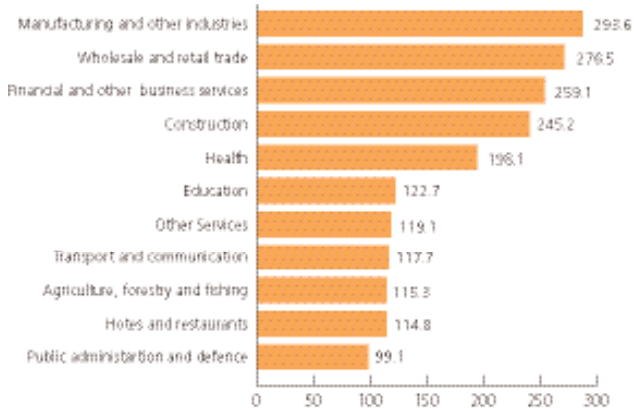
Industry Employment Trends

2.1 EMPLOYMENT

This section examines the sectoral employment trends in the Irish economy. First, employment growth and employment trends are examined in broad sectors. Second, where possible, employment trends in the sub-sectors of each broad sector are examined. Finally, given its importance to the overall economy, the manufacturing sector is examined in greater detail (Section 2.5).

Total employment in 2005 was 1.95 million. This is broken down into ten economic sectors (Figure 2.1). The health and education sector had almost 312,000 persons employed making it the largest sector in terms of employment. This was followed by the manufacturing sector with 293,600 persons employed and the wholesale and retail trade sector with 276,500 persons employed.

Figure 2.1 Employment by Sector in 000s, 2005



Source: CSO

2.2 EMPLOYMENT GROWTH (2000-2005)

Employment in Ireland increased by 259,600 (15.3%) between 2000 and 2005. This equates to an annual average growth rate of 2.9% over the period. However, this growth was not evenly distributed across sectors.

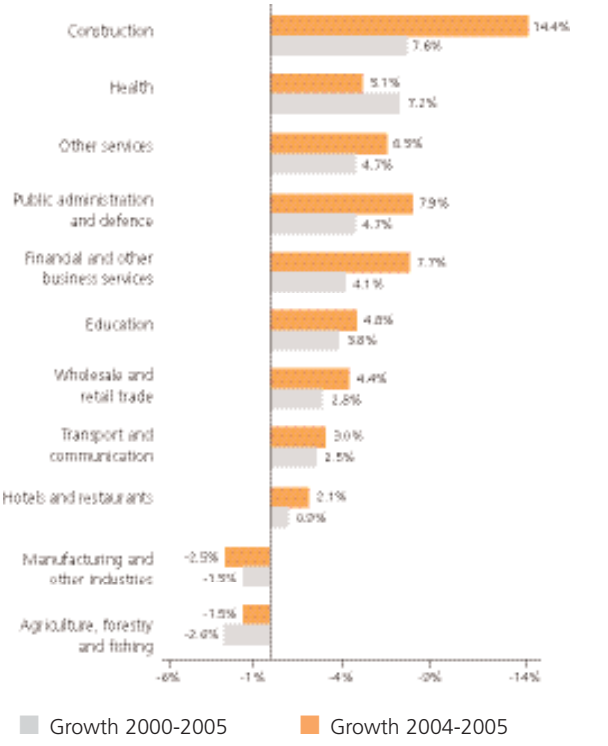
The health and education sector added 76,600 extra employment positions over this period, with the construction sector adding 75,500. At the other end of the scale, manufacturing and other productive industries lost 23,300 jobs while the agriculture, forestry and fishing sector lost 16,300 jobs.

Between 2004 and 2005, the overall employment growth rate was almost 4.7%. Two sectors experienced negative employment growth during this period: agriculture, forestry & fishing and manufacturing & other industries. Employment growth in the construction industry was almost three times the overall growth rate.

2.3 EMPLOYMENT GROWTH BY SECTOR

In this section employment growth in each sector is examined. Differences in employment growth rates in sub-sectors are discussed, where appropriate.

Figure 2.2 Annual Average Employment Growth by Sector, 2000-2005 and 2004-2005 (%)



Source: CSO

Construction

Total employment in this sector reached 245,200 in 2005. Employment grew by 75,500 in the five years to 2005 and by 30,900 in 2005 alone. The annual average increase in employment was 7.6% between 2000 and 2005. Buoyant growth in all segments of the construction sector (e.g. residential, civil engineering and commercial) translated into the highest employment growth of any sector in the economy in the period 2004 to 2005.

Health

There were 198,100 persons employed in the health sector in 2005 and employment grew by 55,500 in the five year period from 2000 to 2005.

Other Services

A total of 119,100 persons were employed in the other services sector in 2005. Employment in this sector grew at an annual average rate of 4.7% between 2000 and 2005. However, between 2004 and 2005, employment growth accelerated to an annual growth rate of 6.5%.

Most of the employment growth occurred in the sub-sector which covers: dry-cleaning; hairdressing & other beauty treatment; funeral & related activities; and physical wellbeing activities.

Public Administration and Defence

A total of 20,400 extra persons were employed in public administration and defence over the period 2000 to 2005. This represents an annual average growth increase of 4.7% between 2000 and 2005. Between 2003 and 2004, there was no growth in employment in this sector. However, between 2004 and 2005 employment grew by 7.9%, representing an extra 7,300 persons employed in one year.

Financial and Other Business Services

A total of 259,100 persons were employed in this sector in 2005 - an increase of 47,100 from 2000. This represents an annual average increase of 4.1%. There was an extra 18,500 persons employed in this sector in 2005 when compared to 2004.

The financial sub-sectors within this broad group employed 86,300 persons in 2005, an increase of 17,600 since 2000. Much of this employment growth has been driven by the strong performance of the international financial services sub-sector.

Education

A total of 122,700 persons were employed in the education sector in 2005. The annual average growth over the period 2000-2005 was 4.8%, accounting for 21,000 new jobs over the period.

Wholesale and Retail Trade

The wholesale and retail trade sector includes the sale and repair of goods. A total of 276,500 persons were employed in this sector in 2005. Overall, 36,100 new jobs were created in this sector between 2000 and 2005 representing an annual average growth rate of 2.8%.

Employment in the retail sales sector grew by 29,500 over the five-year period, 2000 to 2005. This sub-sector accounted for the majority of new jobs in the overall sector. The motor vehicles (sales and repairs) sub-sector gained 3,900 jobs over the five years. The number of persons employed in the wholesale sales sub-sector increased slightly over the period by 2,700.

Transport and Communication

A total of 117,700 persons were employed in this sector in 2005, representing an increase of 13,900 since 2000. This is an annual average increase of 2.5%.

The transport sub-sectors employed 83,400 persons in 2005, an increase of 14,300 since 2000. Land and water transport activities accounted for most of this rise.

The communication sub-sector employed 34,300 persons in 2005 which is relatively unchanged from the number employed in 2000.

Hotels and Restaurants

The number employed in the hotels and restaurants sector rose by 5,300 between 2000 and 2005. However, between 2003 and 2004 approximately 3,500 jobs were lost in this sector, thereby reducing the annual average growth rate to 0.9% over the period. Rising costs and the introduction of the smoking ban in 2004, amongst other issues, may have been factors which led to a decrease in employment in this sector in 2004. However, an additional 2,400 jobs were created in 2005.

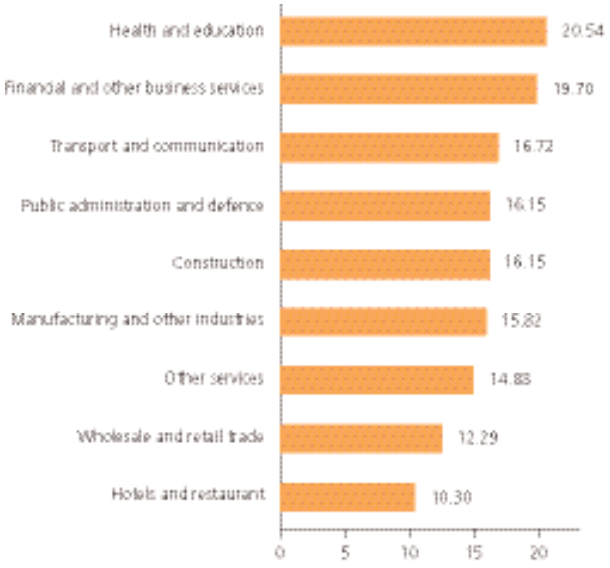
Agriculture, Forestry and Fishing

In 2005, 115,300 persons were employed in this sector, a fall of 16,300 from 2000. The majority of the jobs (15,000) were lost in agriculture. This sector was the poorest performing sector in terms of employment growth, with an annual average growth rate of -2.6% between 2000 and 2005. The decline in employment is mostly associated with the economic viability and succession problems in small farm holdings.

2.4 AVERAGE EARNINGS BY SECTOR

The National Employment Survey 2003[2] gives an indication of the average wage of employees in companies in different sectors (Figure 2.3). Overall average earnings were €16.41 per hour. This varied widely between sectors with the health and education sector having average earnings of €20.54 per hour and the hotels and restaurants sector having average earnings of €10.30. All of these figures refer to 2003 and since this is the first time the survey was undertaken no comparison to other years can be made.

Figure 2.3 Average Earnings by Sector, 2003 (€ per hour)



Source: CSO

2.5 MANUFACTURING AND OTHER PRODUCTIVE INDUSTRIES

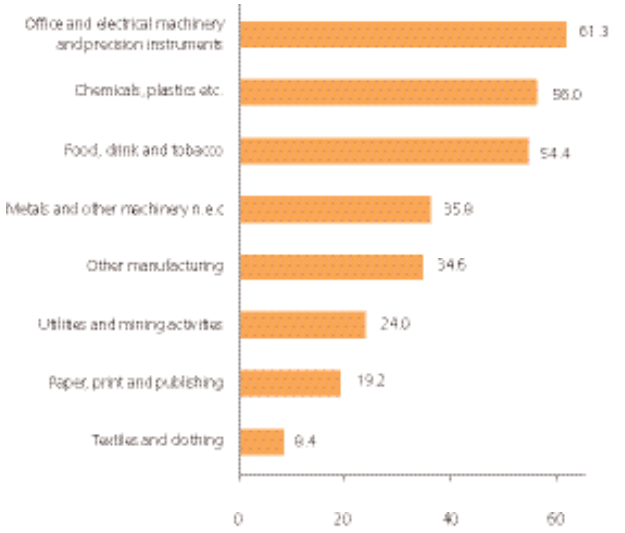
This section looks at the main sub-sectors of manufacturing, examining their employment and employment growth over the five-year period from 2000 to 2005.

Employment

Approximately 15% of the Irish workforce is employed in industry. Moreover, the sector is important as it helps sustain many other sectors of the economy, particularly the services sector. Employment in industry has declined in recent years: after reaching a peak of 321,500 persons employed in 2001, the number employed fell steadily to 293,600 in 2005.

In Figure 2.4 industrial employment is broken down into eight sub-sectors. A total of 21% of industrial employment is in the office and electrical machinery and precision instruments sub-sectors. The chemical & plastics sub-sector and the food, drink & tobacco sub-sector each account for approximately 19% of manufacturing employment. The textiles and clothing sub-sector is the smallest in terms of employment.

Figure 2.4 Employment (000s) by Industrial Sector, 2005



Source: CSO

Employment Growth

Figure 2.5 shows the growth in employment in the different industrial sub-sectors for the five-year period 2000 to 2005 and for the year 2004 to 2005. The sub-sectors within industry experienced varied performances in terms of employment growth.

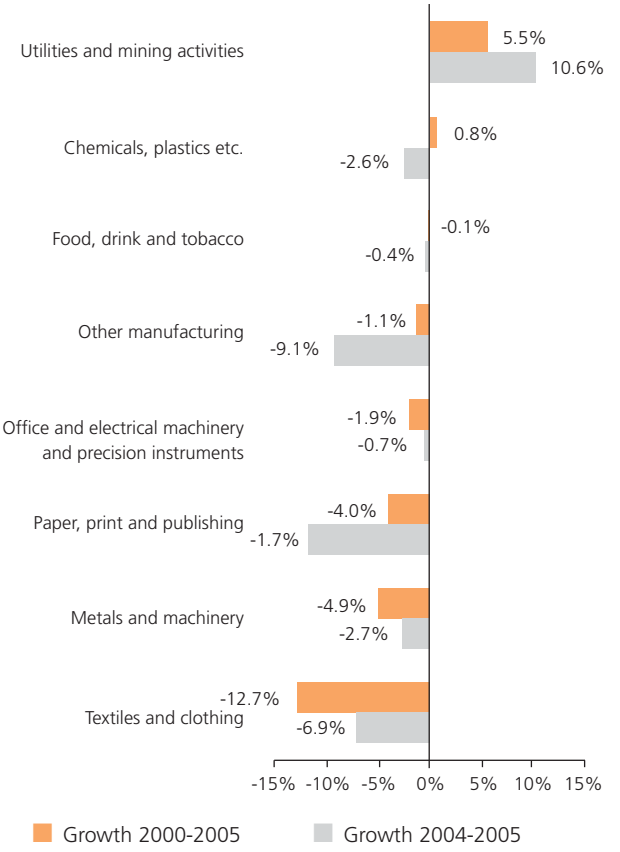
Manufacturing operations associated with traditional industries have declined significantly in recent years. These sectors include: the textiles and clothing sub-sector, the paper, print and publishing sub-sector, and the metals and machinery sub-sector. In addition, Ireland has lost some modern manufacturing operations in the office and electrical machinery sub-sector to lower cost locations.

On the other hand, the chemical, plastics etc. sector saw an increase of 3,000 persons employed between 2000 and 2005. Other sectors which saw increases include the utilities and mining activities sub-sector.

Each of these industrial sub-sectors is examined below.

[2] *This survey was first undertaken in March 2003 and the results were published in May 2006. The survey will be conducted annually from 2006. The agriculture, fishing and forestry sector is not covered by the survey.*

Figure 2.5 Annual Average Employment Growth in Industrial Sectors (%), 2000-2005 and 2004-2005



Source: CSO

Employment Growth by Sub-Sector (2000-2005)

Utilities and Mining Activities

A total of 24,000 persons were employed in the utilities and mining activities sub-sectors in 2005. This was an increase of 5,600 since 2000.

Employment in mining was 9,100 persons in 2005. This is an increase of 2,700 on the number employed in 2000, although much of this increase was experienced between 2004 and 2005. Employment in the utilities sub-sector reached 14,900 in 2005, an increase of 2,900 since 2000. The utilities sub-sector includes the supply of electricity, gas and water as well as recycling.

Chemicals, Plastics etc.

In 2005, 56,000 persons were employed in this sub-sector. This is 2,100 persons more than were employed in 2000. However, between 2004 and 2005 employment fell in this sub-sector by 2.6%.

Within the chemicals, plastics etc. sub-sector, the manufacturing of chemicals has seen a growth in employment of 6,700 between 2000 and 2005. This contrasts with the manufacture of rubber and plastics and the manufacture of other non-metallic mineral products (e.g. glass, ceramics, cement), where employment fell by 2,800 and 1,800 respectively.

Food, Drink and Tobacco

A total of 54,400 persons were employed in the food, drink and tobacco sub-sector in 2005. This is a slight decrease since 2000 when 54,600 persons were employed. The food and drink sub-sector accounts for the majority of the employment in this sub-sector and the numbers employed have not changed significantly in recent years.

Other Manufacturing

Other manufacturing includes the manufacture of wood and furniture, transport equipment and other manufacturing not classified elsewhere. Employment in this sub-sector, at 34,600, is down slightly from its level in 2000 when it stood at 36,500. Between 2004 and 2005 employment in this sub-sector fell by 9.1% with significant falls in employment in both the transport equipment and furniture manufacture sub-sectors.

Office and Electrical Machinery and Precision Instruments

The office and electrical machinery and precision instruments sub-sector was the largest employer in manufacturing in 2005, with 61,300 persons employed. This is a decrease of 6,100 since 2000.

Within the sub-sector, employment in the manufacture of radio, television and communication equipment declined by 11,200 since 2000. Employment in the manufacture of computers and office machinery, at 20,300, recovered in 2005 to its 2002 level, but is still less than its peak of 22,700 in 2001. The numbers employed in the manufacture of precision instruments grew strongly between 2001 and 2004 but experienced a fall of 2,200 between 2004 and 2005.

Paper, Print and Publishing

There were 19,200 persons employed in this sub-sector in 2005. This is a fall of 4,300 from the employment level in 2000. In 2003, employment stood at 24,400 persons, indicating that the decline in employment took place between 2003 and 2005. The numbers employed in the manufacturing of paper and paper products fell by 1,600 between 2003 and 2005. The numbers employed in printing and publishing fell by 2,000 between 2004 and 2005.

Metals and Machinery

This sub-sector is also known as the traditional engineering sector. A total of 35,800 persons were employed in this sub-sector in 2005. It experienced an annual average fall of 4.9% in employment between 2000 and 2005. Much of this decline occurred since 2003.

Textiles and Clothing

Employment in this sub-sector stood at 8,400 in 2005. Employment has almost halved since 2000 across all the sub-sectors within textiles and clothing. The closure of many traditional textile operations has contributed significantly to this decline in employment.

2.6 EXPECTED EMPLOYMENT TRENDS BY SECTOR

In this section we outline employment expectations by sector, based on a monthly survey conducted by the ESRI for FÁS. The survey covers approximately 900 companies across four important economic sectors in the Irish economy: construction, industry, retail, and services. The survey asks, *inter alia*, whether the company expects their workforce to increase, remain the same or decrease during the next 3 or 4 months. Responses to this question are weighed by employment and an employment expectations index is reported each month. If the index is positive, employers, on average, believe they will add jobs in the next few months.

The results from the latest available survey at the time of writing are discussed below[3]. Overall employment expectations for autumn 2006 were positive. Specific sector trends are examined in turn.

Construction

Construction firms expect to increase employment over the next few months. As would be expected construction firms expect to hire additional staff over the summer months. Since the beginning of 2005, construction firms have had positive employment expectations each month.

Industry

Employment expectations in 2005 were positive in the first half of the year, the first time there was an extended period of positive employment expectations in industry since the survey began in 2002. However, towards the end of 2005 employment expectations were negative again but have improved somewhat in 2006.

Retail

Employment expectations in the retail sector were slightly positive at the beginning of 2006 but have become negative since then. Employers in the retail sector expect on average to let go some employees over the next few months.

Services

Employers in the services sector currently have positive employment expectations. Employment in services is expected to increase over the next few months. Employment expectations were negative in the services sector in the first part of the year due to seasonal factors.

[3] *Source: FÁS/ ESRI Monthly Employment Vacancy Survey, June 2006*

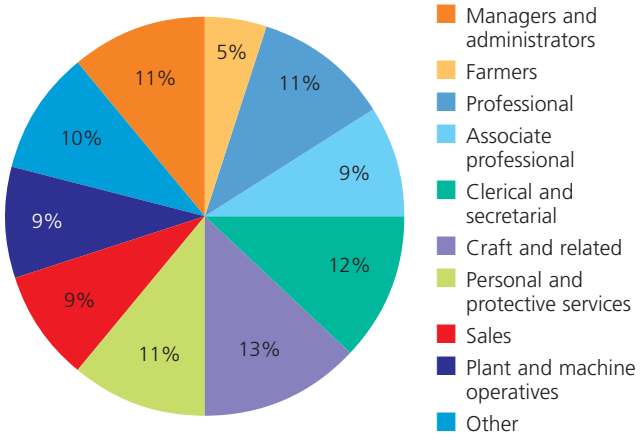
Section 3

Employment by Broad Occupation

3.1 EMPLOYMENT

In this section we examine employment by broad occupational group. Of the total employment of almost 2 million persons in 2005, 20% were classified as professional or associate professional; 14% as craftspersons; and 12% as clerks (Figure 3.1). Since 2004, the share of craftspersons and the share of managers and administrators have declined slightly, while the share of sales and services occupations increased somewhat.

Figure 3.1 Employment by Broad Occupational Group (%), 2005



Source: CSO

Figure 3.2 shows employment levels for 2005 by broad occupational group. With an employment level of 275,400 persons, craft and related occupations is the largest occupational category. Together, professional and associate professional occupations account for almost 386,000 persons employed. There are approximately 242,000 employed in clerical occupations. Just over 222,000 persons were employed as managers and administrators.[4]

Figure 3.2 Numbers Employed by Broad Occupational Group, 2005 (000s)

Source: CSO

3.2 EMPLOYMENT GROWTH (2000-2005)

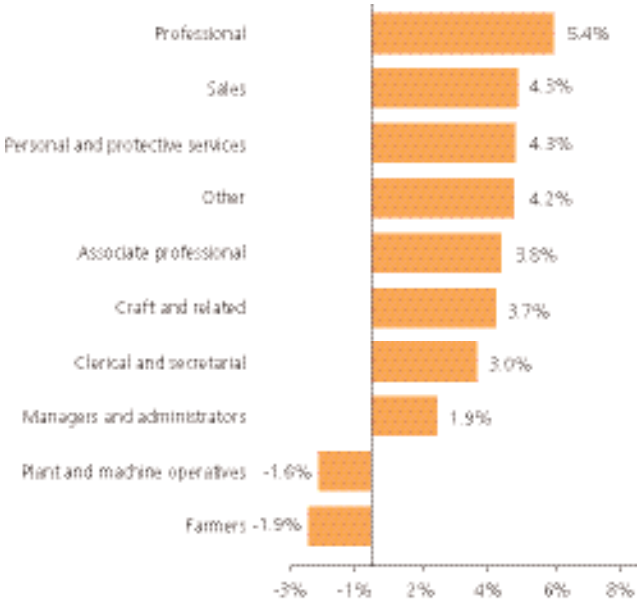
Overall employment grew at an annualised average rate of 2.9% over the period 2000 to 2005. Figure 3.3 provides a breakdown of this growth by broad occupational groups.

Professional occupations had the fastest employment growth of all the occupational groups, with a 5-year annualised growth of 5.4% over the period 2000-2005. Strong growth was also observed for occupations in services and sales. Employment growth accelerated for craft, sales, clerical and other occupations (consisting mostly of labourers in construction and domestics). Due to the strong performance of the construction industry, more than 20,000 posts were created in craft related occupations between 2004 and 2005.

In contrast, the numbers employed as plant and machine operatives declined by 1.6% per annum over the period 2000-2005. In addition, the numbers working as farmers declined at an annualised rate of 1.9% over the same period.

[4] *In the National Skills Bulletin 2005, the managers and administrators occupational group included farm owners and farm managers. Due to the distinctive characteristics and the relatively large size, in terms of numbers employed of this group, it was decided to analyze them separately.*

Figure 3.3 Annual Average Employment Growth by Broad Occupational Group (%), 2000-2005

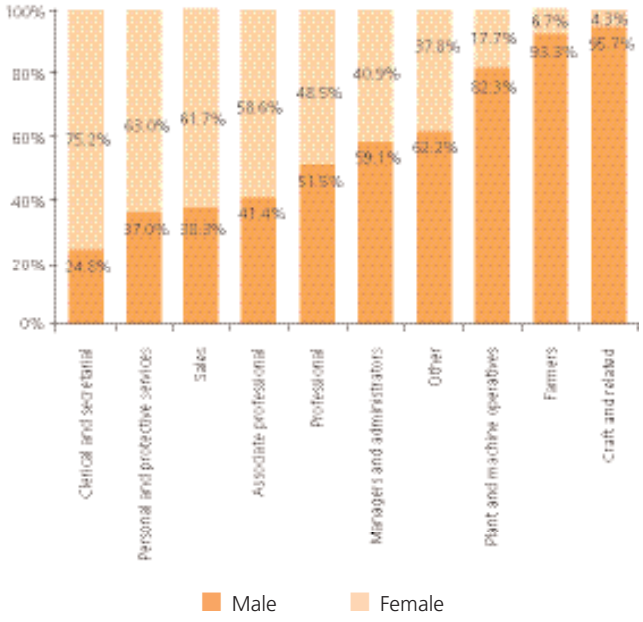


Source: CSO

3.3 EMPLOYMENT BY GENDER

Overall, approximately 57.5% of the workforce in 2005 was male. The gender distribution by broad occupational group is presented in Figure 3.4. There have been only negligible shifts in the gender distribution of employment in broad occupational groups since 2004. Female workers continued to dominate in clerical, sales, services and associate professional occupations. Professionals are almost equally distributed between the genders. Operatives, craftspersons and farmers are predominantly male.

Figure 3.4 Employment by Gender in Broad Occupational Groups (%), 2005



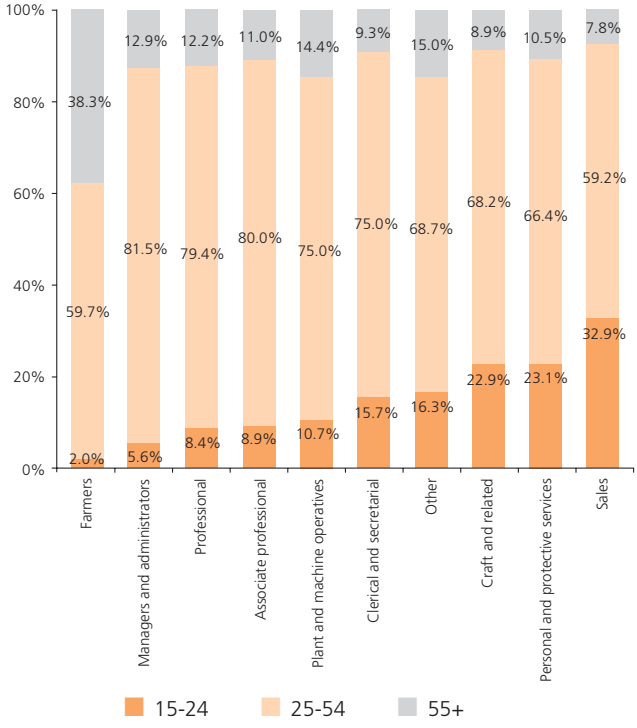
Source: CSO

3.4 AGE PROFILE

The age distribution of the broad occupational groups in 2005 is presented in Figure 3.5. Sales, craft and services occupations had the highest proportion of persons younger than 25. This is partly due to the uptake of sales and services related jobs by students (temporary) and by those who exit the education system at lower levels. The relatively high share of under 25s in craft related occupations is due to the inclusion of apprentices in the employment figures. The relatively small proportion of under 25s in professional and associate professional occupations is related to the fact that these positions tend to be associated with longer periods of study.

Of all occupational groups, the highest share (38%) of over 55s is amongst farmers. This is followed by other occupations (15%) and plant and machine operatives (14%).

Figure 3.5 Employment by Age in Broad Occupational Groups (%), 2005



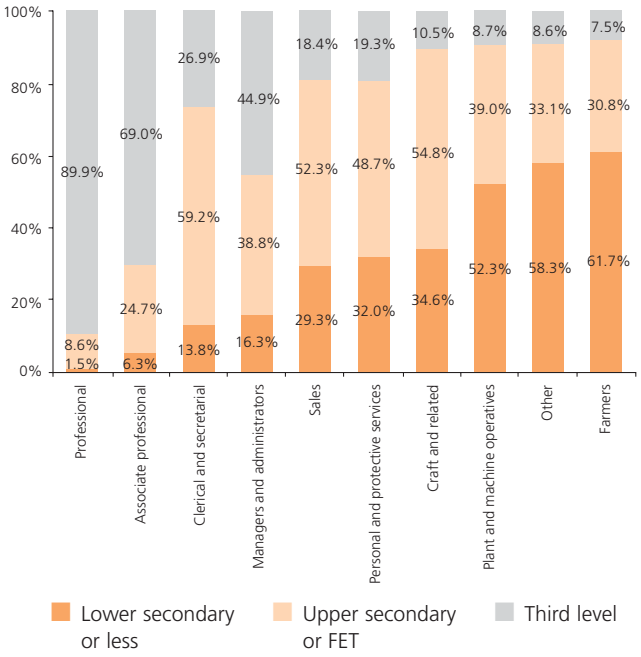
Source: CSO

3.5 EDUCATION PROFILE

The education distribution of employment in broad occupational groups is presented in Figure 3.6. The occupational groups with the highest proportion of third level qualifications are professional and associate professional, with almost 90% and 70%, respectively. On the other hand, more than half of farmers, plant and machine operatives, and labourers (classified mostly as 'other') have attained lower secondary education or less. These three categories also have the lowest share of those employed with third level qualifications.

There was a slight increase in the share of persons with third level education in almost all occupation groups between 2004 and 2005. This continues a trend that has been observed for many years.

Figure 3.6 Employment by Education in Broad Occupational Groups (%), 2005



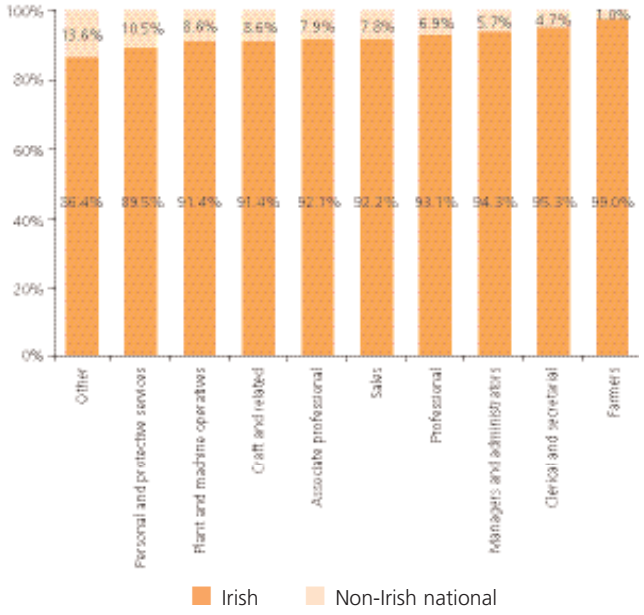
Source: CSO

3.6 NATIONALITY

Employment in broad occupational groups broken down by nationality is shown in Figure 3.7. At 14%, the occupational group classified as 'other', which consists mostly of labourers, has the highest share of non-Irish persons in employment. This is followed by personal and protective services occupations where the share of non-Irish persons in employment was 10%.

The share of non-Irish persons in professional, associate professional, managerial occupations did not change between 2004 and 2005. However, all other occupational groups experienced a rise in the proportion of non-Irish persons employed. This is particularly evident in the case of craftspersons and operatives, where the share of non-Irish persons employed increased from 5% to 9% between 2004 and 2005. Most of this change is a result of a significant inflow of persons from accession states into the Irish labour market since May 2004. Due to the strong growth of the Irish construction industry in recent years, most of this inflow was into construction related jobs (construction craftspersons and labourers).

Figure 3.7 Employment by Nationality in Broad Occupational Groups (%), 2005



Source: CSO

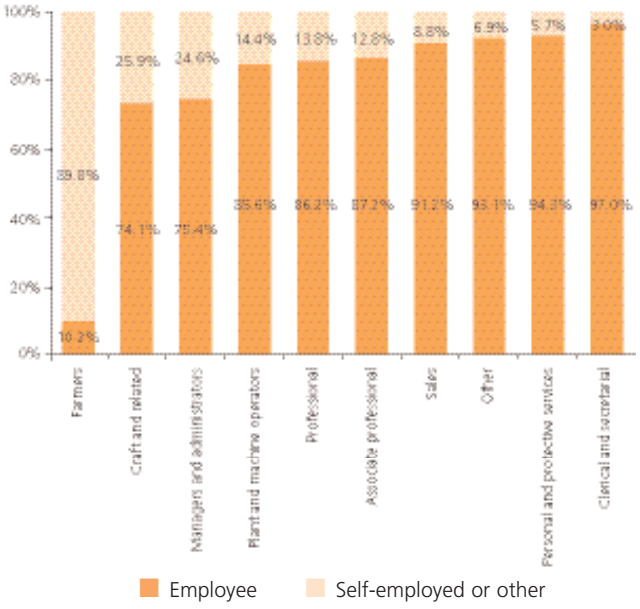
3.7 EMPLOYMENT STATUS

Figure 3.8 shows the employment status of persons in employment by broad occupational group. In almost all occupational groups, a significant majority of persons are employees.

The high share of self-employed persons in managerial occupations is due to a large number of persons who are proprietors of the businesses they manage i.e. publicans, shop owners etc. One quarter of craftspersons are self-employed given that, in many cases, the nature of the job allows for freelance business arrangements (e.g. plumber, painter).

The distribution of employment in broad occupational groups by employment status has remained relatively static over the last several years.

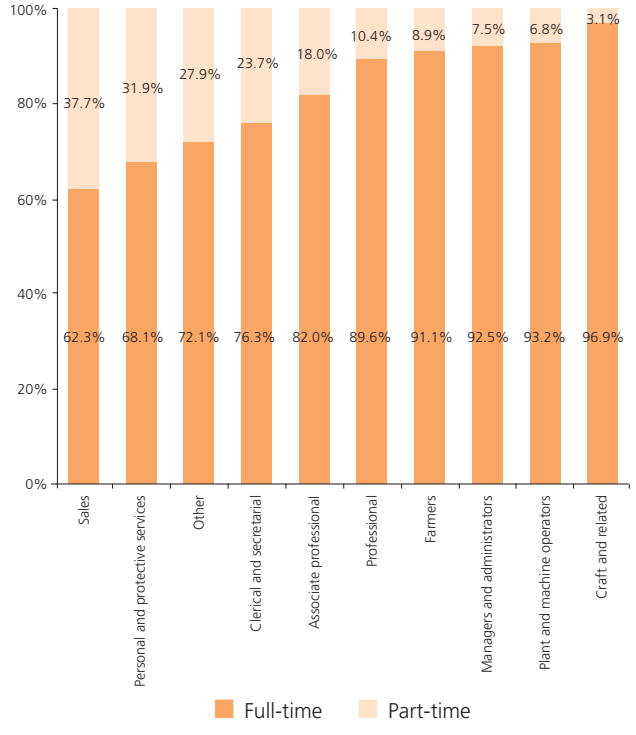
Figure 3.8 Employment by Employment Status in Broad Occupational Groups (%), 2005



Source: CSO

The distribution of employment in broad occupational groups between full and part time employment is shown in Figure 3.9. For all occupational groups, most of those employed worked full time. The occupational groups with the highest proportion of part-time workers are sales, services, 'other' and clerical. Interestingly, sales, services and clerical occupational groups also have the highest proportion of females. The relatively high share of part-time employment in the 'other' category is due to the inclusion in this category of persons working as labourers in domestics (e.g. cleaners) whose services are often required on an hourly, part-time basis.

Figure 3.9 Full Time vs. Part Time Employment in Broad Occupational Groups (%), 2005



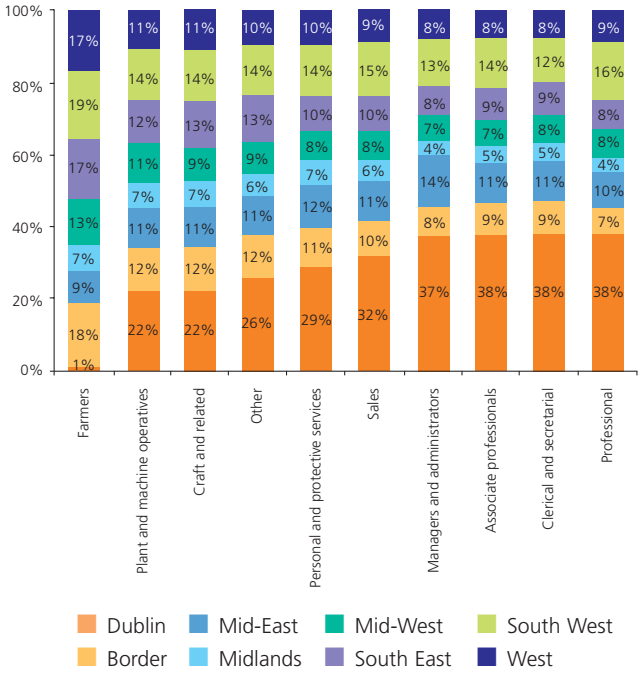
Source: CSO

3.8 REGION

For almost all occupational groups, the regional distribution of employment is skewed towards the Dublin region. Over one third of those employed in clerical, professional and associate professional occupations were living in Dublin in 2005. However, it should be borne in mind that many individuals commute long distances and may live in different regions from where they work. For instance, many residents of the Mid-East region work in Dublin.

Craftspersons and plant operatives are the most evenly distributed occupations across the regions. Farmers, due to the nature of the occupation, are not found to any significant extent in the Dublin region.

Figure 3.10 Employment by Region in Broad Occupational Groups (%), 2005

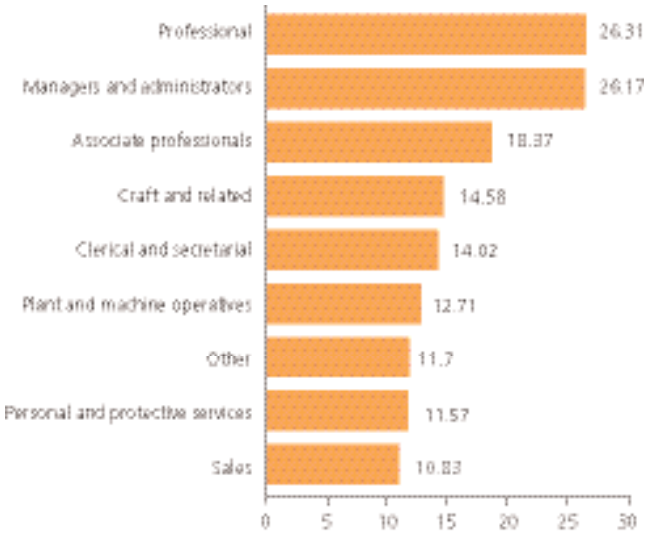


Source: CSO

3.9 EARNINGS

In 2003, the CSO conducted a new survey, the National Employment Survey, in order to provide detailed information on factors influencing the earnings of employees in Ireland.[5] Figure 3.11 presents the findings of this survey in relation to the average earnings (in euros per hour) for broad occupational groups.

Figure 3.11 Average Hourly Earnings By Broad Occupational Group (€ per hour), 2003



Source: CSO, National Employment Survey, 2003

In 2003, the average hourly wage was highest for professionals and managers at just over €26 per hour, while persons employed in sales and services occupations, as well as those employed as labourers, had the lowest average hourly earnings.

[5] *The results of this survey were published for the first time in May 2006. It should be noted that the survey covers employees only and does not include the self-employed or those who own their own businesses. In addition, the agriculture, forestry, and fishing sectors are excluded.*

Section 4

Education and Training

The objective of this section is to provide a brief overview of the supply of skilled labour from education and training providers in Ireland. A more detailed overview can be found in Monitoring Ireland's Skills Supply: Trends in Education/ Training Outputs, an Expert Group on Future Skills Needs publication. Education and training qualifications are classified by levels according to the National Framework of Qualifications (NFQ). There are 10 levels within the framework, which are described below by award type:

Level 1-2:	Level 1 and 2 Certificate
Level 3:	Level 3 Certificate and Junior Certificate
Level 4:	Level 4 Certificate
Level 4/5:	Leaving Certificate
Level 5:	Level 5 Certificate
Level 6:	Advanced/Higher Certificate
Level 7:	Ordinary Bachelor Degree
Level 8:	Honours Bachelor Degree/Higher Diploma
Level 9:	Masters Degree/Post-graduate Diploma
Level 10:	Doctoral Degree

Table 4.1 Shows the estimated number of awards made by public and private education and training providers at various NFQ levels in 2005.[6] Levels 1 and 2 are excluded from this table as no framework qualifications have been made at these levels as yet. PLC courses and courses run by FÁS, Fáilte Ireland and Teagasc are accredited by FETAC. The courses by these providers range from courses of a short duration (i.e. a number of days) to those of longer duration (i.e. apprenticeships). The awards shown in Table 4.1 are a combination of major, minor and special purpose awards. The number of course participants who receive Records of Achievement (ROA) is also included in the table.

4.1 JUNIOR AND LEAVING CERTIFICATE

In 2005, 57,000 Junior Certificate awards were made at level 3 of the NFQ. The Leaving Certificate spans levels 4 and 5 in the NFQ with a total of 57,400 awards made in 2005. Approximately 3,400 of these awards were for Applied Leaving Certificates. There were a further 40,000 Leaving Certificate Established awards and 14,000 awards for the Leaving Certificate Vocational Programme.

4.2 FURTHER EDUCATION AND TRAINING (FETAC)

FETAC are the awarding body for further education and training in Ireland. In 2005, over 120,000 awards were made by FETAC for those participating on courses by a number of providers. These awards are discussed below. It should be noted that the number of awards does not equal the number of participants on courses. There are cases where an individual can obtain multiple awards for a single course.

Table 4.1 Summary of Education and Training Awards by NFQ Level, 2005 [6]

		ROA	Not placed	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	Level 9/10	Total
Junior Certificate		-	-	57,000	-	-	-	-	-	-	**57,000**
Leaving Certificate		-	-	-	57,400		-	-	-	-	**57,400**
FETAC	FÁS	-	800	4,700	4,300	30,200	1,400	-	-	-	**41,400**
	NCC	-	-	-	-	-	4,900	-	-	-	**4,900**
	PLC	56,400	-	900	200	12,000	300	-	-	-	**69,800**
	Fáilte Ireland	-	-	-	900	100	1,100	-	-	-	**2,100**
	Teagasc	300	-	-	50	1,100	1,300	-	-	-	**2,750**
Institutes of Technology		-	-	-	-	-	16,000		8,000	1,200	**25,200**
Universities		-	-	-	-	-	2,800		16,800	11,600	**31,200**
Private Colleges		-	-	-	-	-	2,600		2,800	500	**5,900**
Professional Institutes		-	6,200	-	-	-	-	-	-	1,000	**7,200**
Total		**56,700**	**7,000**	**62,600**	**106,250**		**30,400**		**27,600**	**14,300**	**304,850**

Source: State Examination Commission, FETAC, HEA, HETAC, NUI, Professional Institutes

[6] *Graduation data for universities and Institutes of Technology is based on 2004 data as this is the latest available. All data in Table 4.1 has been rounded. Awards granted to Irish students who undertook studies outside of the Republic of Ireland are not included.*

FÁS

Over 41,000 persons received FETAC awards for FÁS courses in 2005. Of the 4,700 awards made at level 3, the majority were for introductory vocational skills courses. At level 4, 2,585 awards (60% of the 4,300 awards at this level) were made for computer skills courses.

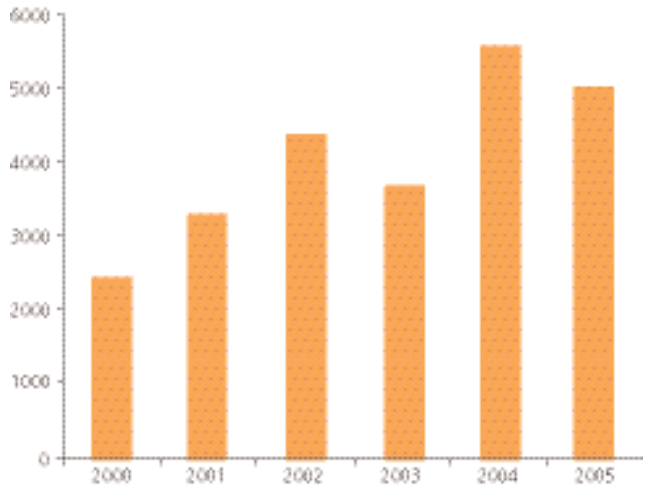
The majority of awards for FÁS courses were made at level 5. Over 30,000 awards were made at this level: of these, 14,400 (48%) were for special purpose awards in construction contractors' plant operation.

A further 1,400 FÁS course participants received FETAC awards made at level 6.

NATIONAL CRAFT CERTIFICATE

Figure 4.1 presents the number of National Craft Certificates (NCC) issued annually between 2000 and 2005. NCCs are issued to those who successfully complete FÁS designated apprenticeships. The number of persons awarded National Craft Certificates increased from 2,400 in 2000 to 4,900 in 2005. A slight decline of 600 occurred between 2004 and 2005. The strong performance of the construction industry has been the main factor in driving the overall increase in the number of NCCs awarded in recent years. This is because of the significant increase in the number of NCCs that were awarded in construction-related trades (e.g. electrician, bricklayer, carpenter, etc.)

Figure 4.1 National Craft Certificates Awards, 2000-2005



Source: FÁS

PLC

Almost 70,000 awards were made for those participating on PLC courses. Of these, over 56,000 were for Records of Achievement. The majority of the remainder of awards were made at level 5, with a total of 12,000 awards made. At this level, 26% of awards were made for business courses, 20% for childcare courses and a further 11% for healthcare support courses.

FÁILTE IRELAND

A total of 2,100 awards were made for those who successfully completed Fáilte Ireland courses in 2005. The majority of awards (1,100) were made at level 6, with a further 900 awards at level 4 and 100 awards at level 5.

TEAGASC

In 2005, 2,750 awards were made for those on Teagasc courses. Of these, 50 were made at level 4, 1,100 at level 5 and 1,300 at level 6. A further 300 Records of Achievement awards were made. The majority of awards at all levels were made for agricultural courses.

4.3 UNIVERSITIES & INSTITUTES OF TECHNOLOGY

Level 6 / 7

There were approximately 19,000 graduates from institutes of technology (IoTs) and universities at level 6/7 in 2004. Figure 4.2 shows graduates by broad discipline. The overall number of graduates at this level has increased by 25% since 2000. Graduates in construction, agriculture/veterinary, healthcare, education, social services and services have increased in the period 2000-2004. Indeed, the numbers graduating from agriculture/veterinary and healthcare courses have more than doubled in this period.

Business and law: Business and law courses yielded by far the highest number of graduates at this level: over 5,600 students graduated in 2004.

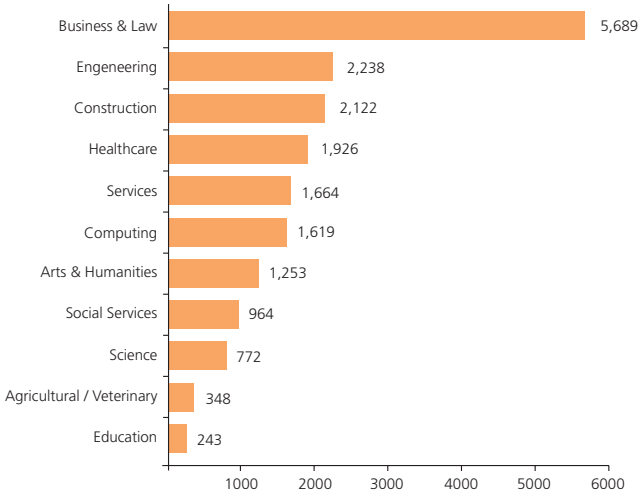
Engineering: Although the numbers graduating from engineering courses increased slightly since 2003, this discipline has experienced an overall decline of 5% over the period 2000-2004. This trend is expected to persist in the medium term as the number of CAO acceptances for engineering courses at level 6/7 continues to decline.

Science: The number of science graduates declined by 75, or 9%, in the period 2000-2004 but a slight increase occurred in the period 2003-2004. The reduced number of graduates

is expected to continue as the number of applications for science courses has yet to show signs of recovery.

Computing: Although graduation output from computing courses experienced only a slight decline (of 6%) in the period 2000-2004, a more significant decline of 23% occurred between 2003 and 2004. The slowdown in the information technology (IT) sector has resulted in enrolments on computing courses more than halving since 2000; therefore, a reduced number of computing graduates is expected in the medium term.

Figure 4.2 Graduations in Universities and IoTs at Level 6/7, 2004



Source: HEA, HETAC

Level 8

There were approximately 25,000 level 8 awards made by universities and IoTs in 2004; an increase of 45% in the period 2000-2004. The increase in the participation rate at this level and increases in the number of courses offered, particularly in institutes of technology, are the main factors influencing this increase.

Figure 4.3 shows graduates by broad discipline for IoTs and universities. Graduations in all broad disciplines, excluding dentistry, increased in the period 2000-2004. More than half of all graduates at level 8 are from arts & humanities and business & law disciplines.

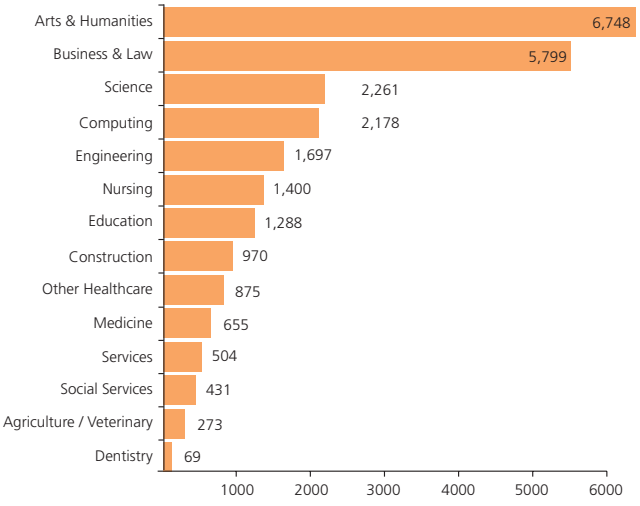
Computing: The number of graduates increased by 170% in the period 2000-2004, but this trend is expected to reverse shortly as enrolments have been in decline in recent years. CAO data for 2005, however, suggests a slight increase in acceptances for computer-related courses.

Nursing and Medicine: An increase in the number of places for medical and nursing courses has led to an increase in graduate output since 2000, of 347% and 280% respectively. This significant increase in nursing graduates is related to recent changes in the training system for nurses and also in the classification of nursing courses.

Social Services: The introduction of a number of new social services courses in IoTs has resulted in the number of graduates doubling since 2000, albeit from a low base.

Engineering: The number of graduations peaked in 2003 at over 1,900, but declined by 12% in 2004. This trend is expected to continue as the number of CAO acceptances for courses at this level has been continuously decreasing in recent years.

Figure 4.3 Graduations in Universities and IoTs at Level 8, 2004



Source: HEA, HETAC

Level 9 / 10

Level 9/10 refers to graduate diplomas, taught masters, research masters and doctors of philosophy. There were 13,000 graduates at levels 9 and 10 from universities and IoTs in 2004, an increase of over 50% in the period 2000-2004. Approximately 40% of all awards at this level were for graduate diplomas; 54% were masters awards; and a further 6% were awarded for doctorates.

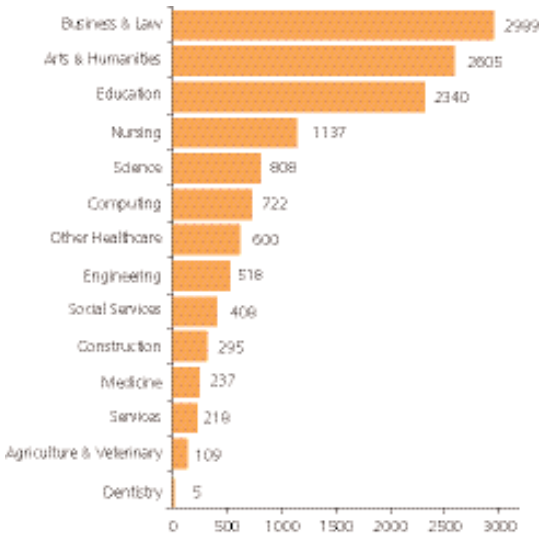
The highest number of awards from post-graduate courses was in business and law (3,000), arts & humanities (2,600) and education (2,300). All disciplines, excluding computing and dentistry, experienced an increase in graduate output in the period 2000-2004, with other healthcare courses experiencing the most significant percentage growth of over 300% over the period.

Computing: Computing graduates declined by 23% over the period 2000-2004. However, an increase occurred between 2003 and 2004.

Science: Graduate output in this category increased by 47% in the period 2000-2004; however, a decline of 4% occurred between 2003 and 2004.

Nursing/Healthcare: A significant increase (130%) in graduate output occurred in this discipline in the period 2000-2004. This increase was due to an increase in the number of part-time graduate diplomas being offered in universities.

Figure 4.4 Graduations in Universities and IoTs at Level 9/10, 2004



Source: HEA, HETAC

4.4 PRIVATE EDUCATION AND TRAINING

Education and training in Ireland also includes a small, but significant, private sector. Private education and training may be gained through private colleges or through the professional institutes that provide training for occupations such as bankers, accountants, insurance brokers, lawyers, managers etc.

Private Colleges

In 2005, almost 6,000 awards – recognised by the Irish awarding council (HETAC), Irish universities or UK universities – were granted to individuals enrolled in private colleges in the Republic of Ireland. Figure 4.5 outlines the number of awards granted in various disciplines within the private education sector in 2005.[7]

The awards were granted predominantly in the area of management, but also in business, education, social studies and accounting. The 'other' category includes design, IT, journalism and media, and humanities.

In terms of award level, 48% of all awards in this category were granted at NFQ level 8; 43% were granted at level 6/7; the remaining 9% of awards were granted at level 9/10.

The highest proportion of awards granted in management was for level 6/7 awards (77%). This was followed by level 8 awards which made up 12%. Awards granted at level 9 accounted for 11% of the total number in management.

In business, the vast majority of awards were level 8 awards (71%). Level 6/7 awards made up 21% of all business awards. The remaining 8% were granted at level 9.

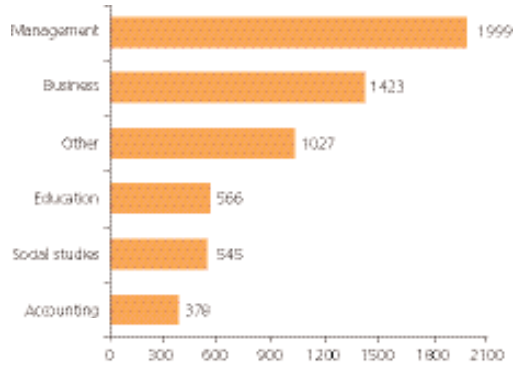
Awards made in accounting were predominantly at level 8 (77%). All remaining awards (23%) were level 6/7 awards.

Of the 545 awards in social studies, approximately 55% were granted at level 6/7, 43% at level 8, and 2% at level 9/10.

Most of the awards in education were level 8 awards (82%). The remaining 18% were granted at level 6/7.

In the 'other' category, 58% of awards were granted at level 8, with 22% and 20% of awards granted for level 6/7 awards and level 9/10 awards, respectively.

Figure 4.5 Awards by Discipline in Private Colleges, 2005



Source: HETAC, NUI, Private Colleges

[7] *Data for private college awards was obtained on personal contact with individual awarding bodies: HETAC, Irish universities, and UK universities. All available data was included in this analysis, however, the data may not be exhaustive as not all providers/awarding bodies were in a position to supply the required data.*

Professional Institutes [8]

There exist a number of professional institutes that act as tuition providers. The professional institutes, collectively, granted over 7,215 awards in 2005. Awards made by professional institutes are predominantly in the areas of business and finance, law and management.

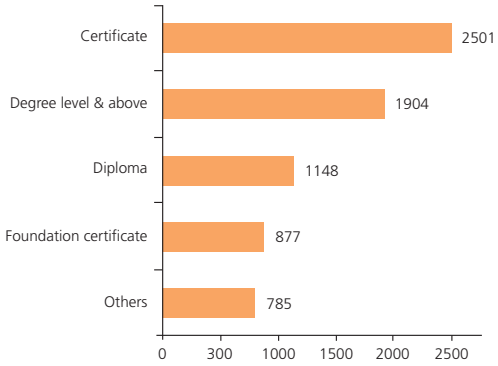
More than 85% of professional qualifications were awarded for studies in business and accounting. The remaining 13% were made up almost equally of awards in law and management.

The awards in this category are professional qualifications, and although there are exceptions, many of the awards are not classified according to NFQ levels. Furthermore, the award titles, i.e. certificate, diploma, etc. are set by each individual professional institute and are not necessarily comparable with each other. As such, an accurate comparison of award level is not possible. However, Figure 4.6 outlines the numbers for each type of award made by professional bodies in 2005. It should be borne in mind, however, that award types are only general categories: not all institutes offer all of the types described.

The foundation certificate is often an entry-level qualification. Those holding a foundation certificate may be exempt from certain modules of a certificate level course. Approximately 12% of all awards made by the professional institutes were for foundation certificates.

A total of 35% of all awards made by professional institutes were for certificate-level awards. 16% of awards were diplomas or diploma-level awards. Awards granted at degree level and above made up 26% of all awards granted by professional institutes. Awards that could not be placed in any of the aforementioned categories are grouped here in 'others'. Approximately 11% of the awards fell into this category.

Figure 4.6 Awards by Type in Professional Institutes, 2005



Source: Professional Institutes

[8] *Professional institutes are bodies that represent the concerns and interests of those working in a given occupation. Many also promote, and in some cases provide, education and training for their members. Only institutes that act as education and training providers are included in this analysis. There also exist a number of professional institutes that are examining and/or awarding bodies only. Students seeking qualifications from these professional institutes must source their own tuition, be that from a private or publicly-funded college. As they are not course providers, and to minimize double-counting, professional institutes that are not course providers are not included in this analysis.*

Section 5

Work Permits and Visas / Authorisations

This section presents a description of the inflow of skills from non-EU sources. An occupation or sector which experiences an inflow of non-EU nationals can be considered to have issues with the sourcing of skills from domestic sources, and this in turn can point to a skills shortage. In order to work in Ireland, non-EU nationals require a work permit or a work visa/authorisation issued by the Department of Enterprise, Trade and Employment (DETE).

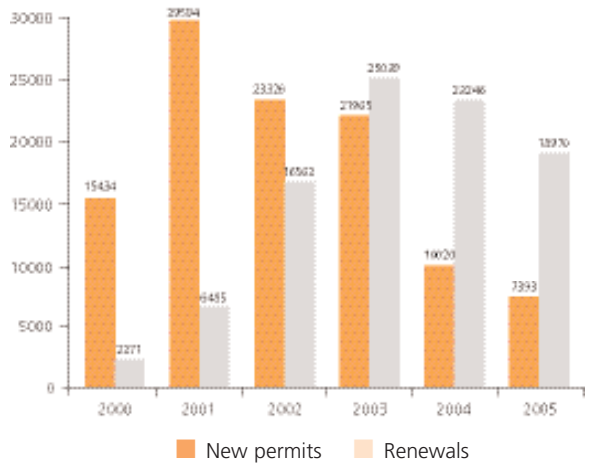
5.1 WORK PERMITS

Work permits are issued to employers who wish to recruit non-EU nationals in Ireland. They are valid for one year and can be renewed upon expiry. The work permit scheme allows employers to source workers from outside the EU, provided they were unsuccessful in filling the post from domestic or EU sources. Employers wishing to employ a non-EU national must normally advertise their vacancy with FÁS prior to applying to the DETE.

In 2005, a total of 8,741 applications for a new work permit were made to the DETE. The approval rate was 85%, with a total of 7,393 applications approved. Over the same period, the DETE also processed 18,970 work permit renewals.

The number of new work permits issued has declined since the expansion of the EU in May 2004. Approximately 29,500 new work permits were issued in 2001, dropping to around 10,000 in 2004 and 7,400 in 2005 (Figure 5.1). In contrast, the number of work permit renewals has increased since 2000, peaking at 25,000 in 2003.

Figure 5.1 Number of New Work Permits and Renewals Issued, 2000-2005



Source: DETE

Table 5.1 presents the number of new work permit applications by major occupational groups in 2005. Personal and protective services (e.g. catering, domestics, childcare, security etc.) accounted for both the highest proportion of applications for work permits and issued work permits, at 29% and 24% respectively. This was followed by professional occupations, which accounted for 1,346 applications and 1,278 approvals. Associate professional and craft related occupations accounted for 15% and 12%, respectively, of the total number of work permits issued.

When individual occupations are examined, those classified as chefs had the highest number of work permits issued (852) which amounts to approximately 12% of all new work permits issued. This was followed by medical practitioners with a total of 581 work permits. Most of the work permits issued in this category were for locum general practitioners. In the care assistant category 426 work permits were issued. Within farming occupations, 240 new work permits were issued, most of which were for equestrian related activities. Occupations in the IT sector also accounted for a high number of work permits and included occupations such as software engineers (213) and computer analysts / programmers (178), both of which are also eligible for the work visa programme.

The figures reveal a steady monthly flow of labour through the work permit system. The data suggests considerable sourcing of labour from abroad, in particular for the catering, health, caring and farming sectors. The high-skilled occupations – managerial, professional and associate professional – account for 41% of the total number of work permits issued.

Table 5.1 New Work Permit Applications by Major Occupational Groups, 2005

Major Occupational Group	Issued	% Issued	Refused	Total Applications
Managers and administrators	663	9%	82	745
Professional	1,278	17%	68	1346
Associate professional	1,096	15%	81	1177
Clerical and secretarial	329	4%	55	384
Craft and related	866	12%	193	1059
Personal and protective services	1,802	24%	690	2492
Sales	163	2%	23	186
Plant and machine operatives	279	4%	34	313
Other	917	12%	122	1039
Total	**7393**	**100%**	**1348**	**8741**

Source: DETE

5.2 WORK VISAS / AUTHORISATIONS

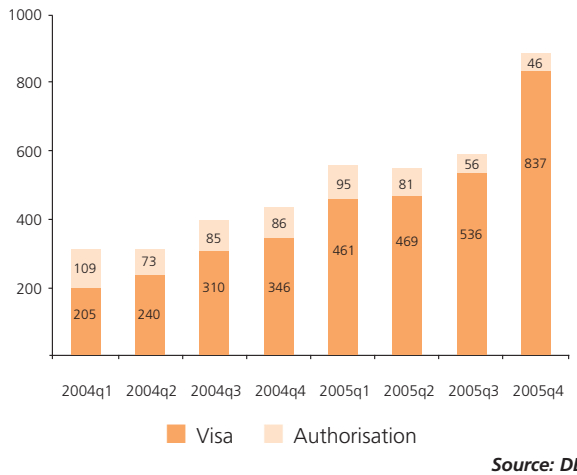
Work visas and work authorisations are granted exclusively to non-EU nationals who are qualified in specific high skilled occupations. Currently, the occupations included in the scheme are in the areas of information and computer technology, construction, health and social care. The scheme was introduced as a response to skills shortages in these sectors in the late 1990s.

The work visa/authorisation is issued to a person looking to work in Ireland and is valid for 2 years. The main difference between work visas and work authorisations is the country of origin of the applicant. Work visas are issued to non-EU nationals who require a visa to travel to Ireland as tourists. In contrast, work authorisations are issued to non-EU nationals who do not require a visa to travel to Ireland as tourists.

In 2005, 2,581 applications were approved. Of these 2,303 were for work visas and 278 were for work authorisations. This is a significant increase on the number of work visas/authorisations issued in 2004 when 1,101 work visas and 353 work authorisations were issued.

Figure 5.2 presents the number of work visas and work authorisations issued by quarter for 2004 and 2005. The number of work authorisations issued by quarter declined slightly in the two year period. On average, 26 work authorisations were issued each month. By contrast, the number of work visas issued increased steadily over the two year period with a significant increase in the last quarter of 2005 – an increase of 301 from the previous quarter.

Figure 5.2 Number of Work Visas and Work Authorisations Issued, 2004-2005



Source: DETE

This significant increase in the overall number of work visas issued in 2005 relates primarily to the increase in work visas issued to non-EU nurses – an increase of 140% since 2004. An increase of work visas issued is also evident for architects, medical radiographers, civil engineers, quantity surveyors, occupational and other medical therapists, and computer analysts, albeit on a much smaller scale.

Interestingly, a significant number of health professionals and IT professionals continue to enter the labour market via the work permit system, although these occupations are eligible for the more favourable work visa scheme. In particular, 581 medical practitioners were issued work permits in 2005, compared to 16 work visas. Similarly, 178 work permits were issued to computer analysts/ programmers, compared to 41 work visas.

The analysis of the work visa/authorisation data indicates that skills continued to be sourced from abroad in the areas of health, information technology and construction. Moreover, there was an increase in the inflow of skills through the work visa scheme, suggesting that previously identified areas of shortage continue to be of concern. There have been two recent additions to the list of eligible occupations on the work visa/authorisation scheme – architectural technicians and cardiac technicians.

Section 6

In Focus: Vacancies

6.1 INTRODUCTION

Information on vacancies can be a useful indicator of the demand for skills in an economy. Vacancies arise from either the creation of a new position by an employer (expansion demand) or through a person leaving an already existing position (replacement demand). Replacement demand can be further differentiated between people who leave an occupation entirely (due to retirement, career change, emigration, illness) and those who change jobs within an occupation (turnover). It is not possible to differentiate between expansion and replacement demand by simply looking at the number of notified vacancies; however, by examining vacancies at an occupational level over time, we can observe the changing demand for jobs.

6.2 DATA SOURCES

Unlike some other EU countries (Italy, for example), Ireland does not have a centralised source for all vacancy information.[10] The ESRI (commissioned by Forfás and FÁS for the Expert Group on Future Skills Needs) carried out two national surveys of vacancies in 2001/02 based on nationally representative samples. However, there has been no such study since then that has looked into measuring the overall number of vacancies in the Irish economy.

The Skills and Labour Market Research Unit collects data from a number of different sources, namely vacancies notified to FÁS, the Irish Times and IrishJobs.ie. Irishjobs.ie is one of Ireland's foremost online recruitment sites. The SLMRU began collecting Irishjobs data from the start of 2006 in order to capture the growing market of vacancies notified on the Internet. FÁS, in conjunction with the ESRI, also carries out a monthly survey of employers on difficult to fill vacancies. As all of these data sources are available on a monthly basis, they can provide up-to-date information on the current demand for skills.

In terms of limitations of the data, these data sources do not provide a comprehensive source of all vacancies in the Irish economy. It is estimated that FÁS is notified of approximately 35% – 40% of all vacancies.[11] FÁS is notified of vacancies across all broad occupational groups. The Irish Times receives a greater number of notifications for managerial, professional, and associate professional vacancies than FÁS, but receives barely any notifications of vacancies for craftpersons, personal and protective services, sales, and operatives. A further complication is that a change in the number of vacancies notified to these sources over time may represent a change in how employers advertise vacancies rather than an increase or decrease in the actual number of vacancies arising in the economy.

[10] *Even in such countries, official vacancy information does not include vacancies arising in the informal economy which varies in size from country to country.*

[11] *R. Fox, Employment Services Market Share 2005, Planning and Research, FÁS. May 2006*

Each of the vacancies has been coded according to the 1990 Standard Occupational Classification, which is the classification system used by the Central Statistics Office. These codes are three-digit at occupation-level and can be grouped at the one-digit level to provide broad occupational groups. The data here is presented as broad occupational groups; however, some information is given about the key occupations included within the group. The numbers of vacancies notified have been rounded to the nearest twenty-five. The data presented in this section covers the time period from the first half of 2003 to the first half of 2006. Irishjobs data is only available for the first half of 2006.

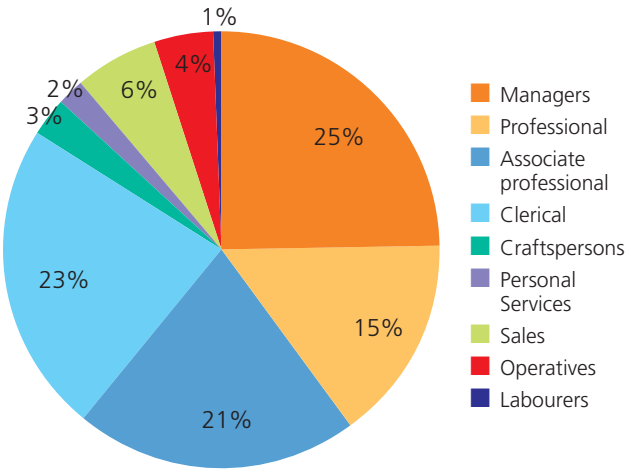
6.3 OVERALL VACANCIES

Figure 6.1 below displays the number of vacancies notified to the Irish Times and FÁS in each six-month period since the start of 2003. There has been an increase in the number of vacancies notified to FÁS over the past two years, increasing by 35% from the first half of 2004 to the same period 2005, and then by a further 20% to 67,550 in the first half of 2006. The number of Irish Times vacancies increased gradually from 2003 to 2005, then fell to 24,550 in the first half of 2006.

Figure 6.1 Vacancy Notifications, 2003 - 2006

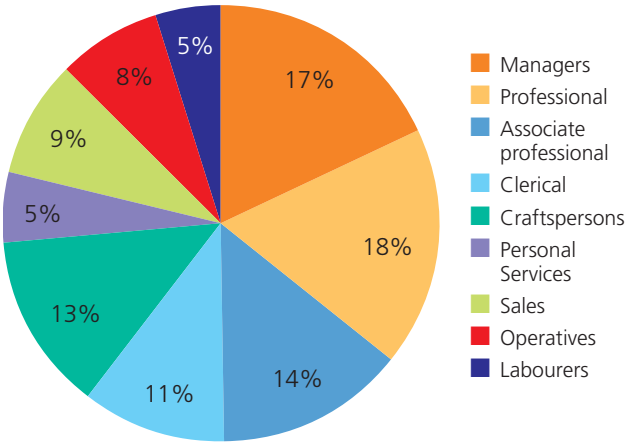
Data from Irishjobs.ie is only available for the first half of 2006. While duplicate vacancies (vacancies with the same job title and job description) have been removed, it is still likely that some degree of duplication exists, as the same job may be advertised by different agencies or with different job titles/descriptions. There were 163,375 notifications of vacancies located in the Republic of Ireland on Irishjobs for the first six months of 2006. A quarter of these notifications were for managerial and administrator positions, almost a quarter were for clerical positions (23%) and just over a fifth were for associate professional positions (21%). The breakdown of vacancies by broad occupational group is presented in Figure 6.2 below.

Figure 6.2 Irishjobs Vacancies by Broad Occupational Group, Jan–June, 2006



The FÁS/ESRI monthly vacancy survey asks employers questions relating to vacancies and which job titles they are finding difficult to fill. The results presented here are in relation to the first six months of 2006 only, in order to give an insight into the occupations which are currently difficult to fill. There were 806 job titles mentioned by employers as being difficult to fill in the first half of 2006. Figure 6.3 below gives the broad occupational breakdown of these job titles. Approximately one half (49%) of the difficult to fill job titles mentioned were for managers, professionals and associate professionals.

Figure 6.3 FÁS/ESRI Difficult to Fill Vacancies by Broad Occupational Group, Jan–June, 2006



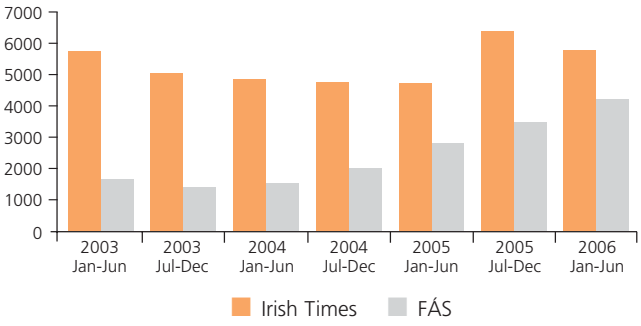
6.3.1 MANAGERS & ADMINISTRATORS

The number of manager and administrator vacancies notified to FÁS has increased noticeably in the past two years. The number of notifications to the Irish Times experienced a gradual decline from 2003 to the first half to 2005, but increased sharply in the second half of 2005.

In the first half of 2006, FÁS was notified of 4,325 managerial and administrative vacancies. This was a 51% increase from the same period in 2005. Likewise, the Irish Times were notified of 5,725 management and administrative vacancies in the first half of 2006, up 22% from the same period in 2005. Irishjobs were notified of 40,400 vacancies in this occupational group in the first period of 2006.

As it is possible that employers/agencies may notify more than one source of their vacancy, it is not possible to add these vacancy figures together to provide an overall figure.

Figure 6.4 Number of Vacancy Notifications, Managers and Administrators, 2003 - 2006



The highest number of vacancies in FÁS, the Irish Times and Irishjobs was for marketing managers. While marketing managers constitute 8% of employment in this occupational group, they represented more than 20% of the vacancies in all three sources. In terms of the greatest change in demand, the number of production and works manager vacancies has increased markedly in the past year in both the Irish Times and FÁS. Financial managers also featured strongly in all three sources.

In the FÁS/ESRI employer survey, one in five of the job titles mentioned by companies as being difficult to fill were in this occupational group. The most mentioned occupations were marketing managers, production and works managers, building managers, financial managers and managers/proprietors of shops.

6.3.2 PROFESSIONAL OCCUPATIONS

The number of vacancy notifications for professional occupations in the Irish Times dropped sharply in the first half of 2006 to 4,275, having remained stable at over 6,000 notifications for the previous two years. FÁS experienced an increase in professional vacancy notifications in the first half of 2006, rising to 2,650. Irishjobs were notified of 24,850 professional vacancies in the first half of 2006.

There was a considerable increase in the number of vacancies for software engineers in the Irish Times in the first six months of 2006 compared to the same period in 2005. Furthermore, the number of vacancies for software engineers was the highest among all professional occupations in Irishjobs. There was an increased demand for solicitors in the first half of 2006, as well as for electronic engineers.

Figure 6.5 Number of Vacancy Notifications, Professional Occupations, 2003 - 2006

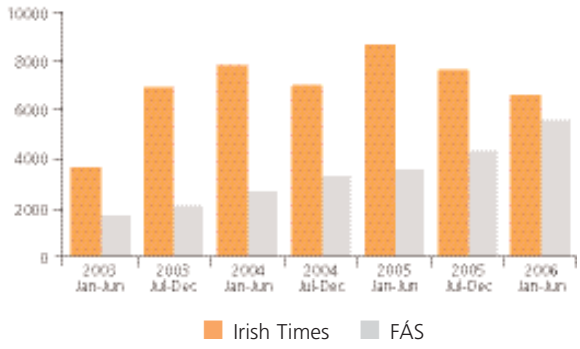
One in six occupations mentioned by employers as being difficult to fill was a professional occupation. The top five professional occupations mentioned in the first six months of 2006 were: accountants, planning and quality control engineers, civil engineers, production engineers, and building surveyors.

6.3.3 ASSOCIATE PROFESSIONAL OCCUPATIONS

The number of associate professional vacancies in the Irish Times has varied since 2003. In recent times, the number fell by almost a quarter to 6,550 in the first half of 2006 compared to 8,625 in the first half of 2005. The number of associate professional vacancies notified to FÁS has increased steadily since 2003, rising to 5,525 in the first half of 2006. There were 34,275 associate professional vacancies notified to Irishjobs.

In terms of occupations experiencing the most change in demand, there was an increase in demand for social care occupations such as matrons and houseparents, and welfare, community and youth workers in the FÁS vacancies. There was a clear decline in demand for taxation experts in the first half of 2006 in the Irish Times compared to previous years. The demand for underwriters, claims assessors and analysts remained high, receiving the highest number of notifications in the Irish Times and Irishjobs for this occupational group.

Figure 6.6 Number of Vacancy Notifications, Associate Professional Occupations, 2003 - 2006



One in seven of the occupations mentioned by employers as being difficult to fill were in this occupational group. The top occupations mentioned by employers were: quantity surveyors, underwriters, claims assessors and analysts, and estimators and valuers.

6.3.4 CLERICAL OCCUPATIONS

The amount of clerical vacancies notified to FÁS has increased since 2003. The number increased by a third from 7,350 in the first half of 2005 to 9,950 in the first half of 2006. Clerical vacancies notified to the Irish Times decreased over the same period, falling by almost a fifth, from 7,225 to 5,900. There was a sharp increase in the number of clerical vacancies notified to FÁS in the second half of 2005, which can be attributed to the demand for census enumerators during this period. There were 37,675 clerical occupations notified to Irishjobs in the first half of 2006.

Figure 6.7 Number of Vacancy Notifications, Clerical Occupations, 2003 - 2006

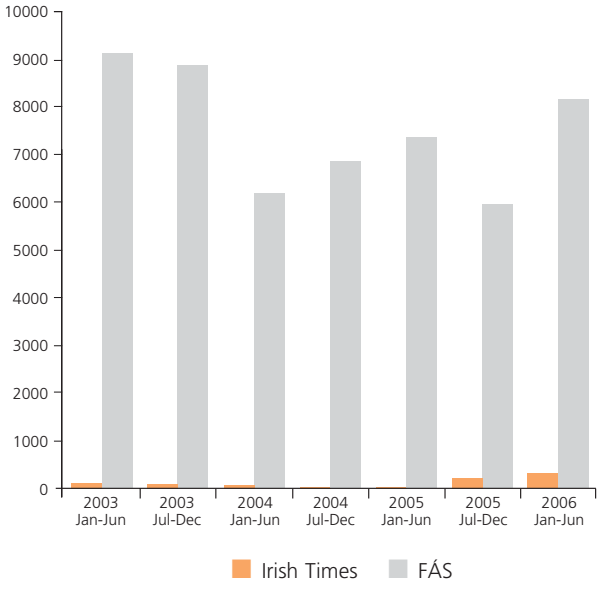
There were no significant trends or changes in any of the occupations within this group. In terms of difficult to fill occupations, one in ten of the occupations mentioned by employers as being difficult to fill were clerical occupations. The main occupations mentioned were: accounts and wages clerks, filing and records clerks, receptionists and legal secretaries.

6.3.5 CRAFT OCCUPATIONS

For the remainder of occupational groups in this chapter, the Irish Times received very few notifications. There was a decline in the number of vacancies notified to FÁS for this occupational group since 2003, although there was a recovery in the first half of 2006.

There was a very large increase in demand for metal working production and maintenance fitters in the first six months of 2006 – there were 1,270 vacancies notified to FÁS and over 900 to Irishjobs, the most for any occupation in this occupational group. The demand for butchers decreased by a quarter to 325 notifications in the first half of 2006, compared to over 400 notifications in the same period in the previous two years.

Figure 6.8 Number of Vacancy Notifications, Craft Occupations, 2003 - 2006



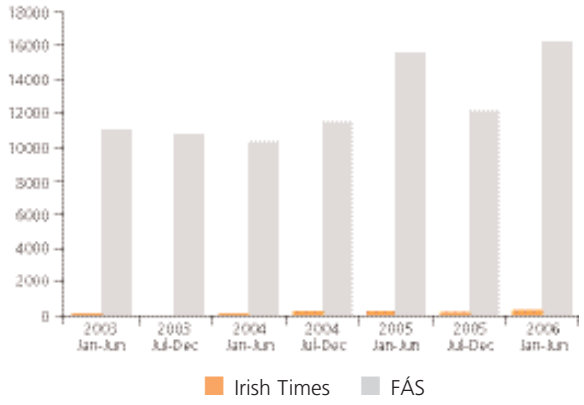
In terms of difficult to fill vacancies, the occupations mentioned most by employers were: metal working production and maintenance fitters, machine tool setters, welding trades, plumbers, carpenters and joiners, and sheet metal workers. One in eight of the occupations mentioned as difficult to fill by employers fell into this occupational group.

6.3.6 PERSONAL AND PROTECTIVE SERVICES OCCUPATIONS

Personal and protective services occupations constituted 23% of all vacancies notified to FÁS in the first half of 2006. The number of vacancies in this occupational group remained steady in 2003 and has increased since the second half of 2004. There were 3,275 vacancies notified to Irishjobs in this occupational group in the first half of 2006.

The demand for chefs and cooks has remained high over the past few years – there were 4,050 vacancies for chefs/cooks notified to FÁS in the first half of 2006, which is high for an occupation with an employment figure of 21,400. There were also over 4,000 chef/cook vacancies in 2005 when employment was 19,300 suggesting that this occupation is continuing to expand. Irishjobs also had over 1,400 vacancies for chefs/cooks.

Figure 6.9 Number of Vacancy Notifications, Personal and Protective Services Occupations, 2003 - 2006



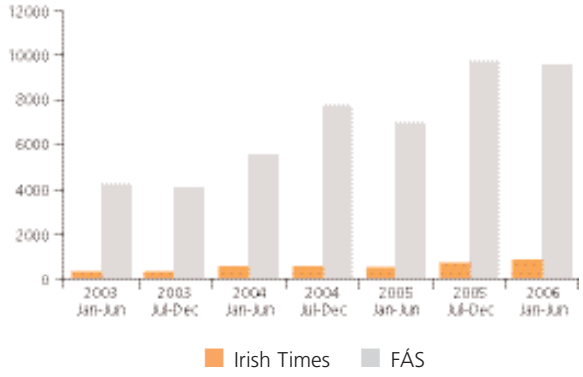
In the FÁS/ESRI employer survey of difficult to fill vacancies, one in twenty of the job titles mentioned were in this occupational group. The top occupations cited as being difficult to fill were: chefs, bar staff, and waiters/waitresses.

6.3.7 SALES OCCUPATIONS

Vacancies in sales notified to FÁS have increased since 2003. The number of sales occupations notified to FÁS increased by 37% in the first half of 2006 compared to the same period in 2005, from 7,200 to 9,825. The number of sales occupations notified to the Irish Times increased by 71% over the same period, from 550 to 925. There were 10,100 sales vacancies notified to Irishjobs in the first half of 2006.

The biggest increase in demand has been for technical and wholesale sales representatives. The number of vacancies notified to FÁS for this occupation increased from 1,625 in the first half of 2005 to 3,275 in the same period of 2006. Technical and wholesale sales representatives also comprise the largest number of vacancy notifications in Irishjobs in this occupational group (5,125).

Figure 6.10 Number of Vacancy Notifications, Sales Occupations, 2003 - 2006

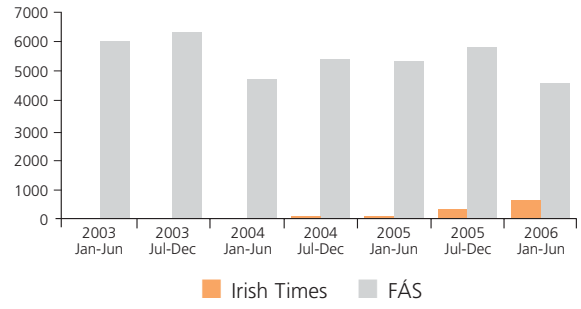


In the FÁS/ESRI employer survey of difficult to fill vacancies, 8% of the job titles mentioned were in this occupational group. The top occupations cited as being difficult to fill were: sales assistants, technical and wholesale sales representatives, van salespersons, and telephone salespersons.

6.3.8 OPERATIVE OCCUPATIONS

Since the second half of 2003, there has been a decline in the number of vacancy notifications to FÁS for this occupational group. There was a 12% decrease in the number of operative vacancies notified to FÁS in the second half of 2006 compared to the same period in 2005, falling from 5,350 to 4,600. The main occupation to experience a decline was mechanical plant drivers/operators, which fell from 2,825 notifications in the first half of 2005 to 1,675 in the first half of 2006. There were 7,150 vacancies notified to Irishjobs for this occupational group in the first half of 2006.

Figure 6.11 Number of Vacancy Notifications, Plant and Machine Operatives Occupations, 2003 - 2006



In terms of difficult to fill vacancies, as cited in the FÁS/ESRI employer survey, 8% of the job titles mentioned by employers fell into this occupational category. The top occupations mentioned by employers were: drivers of road goods vehicles, construction and related workers, and machine tool workers.

6.3.9 UNSKILLED OCCUPATIONS

There was a decline in the number of vacancy notifications to FÁS for this occupational group in the second half of 2003. The number of vacancies remained stable until the first half of 2006, when there was a 22% increase, rising from 5,500 in the first half of 2005 to 6,625. Irishjobs received 1,000 vacancy notifications for this occupational group in the first half of 2006.

There were no significant trends or changes in any of the occupations within this occupation group. In terms of difficult to fill vacancies, employers cited labourers in processing industries, counterhands and catering assistants, as being the occupations most difficult to fill in this occupation group.

Figure 6.12 Number of Vacancy Notifications, Unskilled Occupations, 2003 - 2006

6.4 CONCLUSION

Information on vacancies can provide a useful insight into the changing demand for employees in an economy over time. As there is no centralised source for vacancy information in Ireland, this section examined the available information on vacancies, namely from FÁS and the Irish Times, with additional information from the FÁS/ESRI monthly employer survey and Irishjobs.

The number of vacancies notified to FÁS has increased since 2003, across almost all occupational groups. The occupational groups to experience a decline in notifications in the first half of 2006 were clerical occupations, and plant and machine operatives.

Notifications to the Irish Times of vacancies decreased since the first half of 2005 across almost all occupational groups. There was a slight increase in the number of notifications for clerical, sales and operatives occupations in the first half of 2006.

In terms of changing demand for specific occupations, there was a noticeable increase in demand for production and works managers, software engineers, metal working production and maintenance fitters, chefs and cooks, and technical and wholesale sales representatives. Most of these occupations were among the key occupations cited by employers as being difficult to fill in the FÁS/ESRI survey.

Section 7

Occupational Employment Profiles

In this section we examine employment trends by occupation. The section is organised as follows: first, a table containing data used in the analysis is presented (Table 7.1); this is followed by profiles of selected occupations.

Table 7.1 contains demand and shortage indicators for selected occupations and broad occupational groups which were used in the analysis of skills shortages. The contents of the table are as follows:

Column 1 contains occupation titles. Occupations in bold are broad occupational groups and are made up of individual occupations presented below them.

Column 2 presents the employment stock for each occupation. Employment is reported as an annual average for 2005. *Source: Central Statistics Office, Quarterly National Household Survey (QNHS).*

Column 3 shows the percentage of females in the employment stock of an occupation.
Source: Quarter 2 2005 QNHS.

Column 4 shows the percentage of part-time workers in the total employment of an occupation.
Source: Quarter 2 2005 QNHS.

Column 5 gives an indication of the unemployment levels in broad occupational groups. The unemployment rate is calculated by dividing the number of unemployed in an occupational group by the total employment and unemployment of that group. The unemployment rate is indicated as follows:

- '**below average**' for unemployment rates less than 3%
- '**average**' for unemployment rates in the range 3%-6%
- '**above average**' for unemployment rates greater than or equal to 6%

Only unemployed persons who stated their occupations are captured in this indicator. As a result, the indicator used here could understate the true unemployment level in an occupational group. *Source: Quarter 2 2005 QNHS.*

Column 6 shows the percentage of persons older than 55 in the total employment of an occupation. This indicator was used in combination with the replacement rate (Column 12) to estimate the replacement demand for an occupation. An age distribution skewed towards older workers indicates higher retirement rates in the short to medium term.
Source: Quarter 2 2005 QNHS.

Column 7 shows the percentage of non-Irish persons in the total employment in each occupation. A higher than average proportion of non-Irish nationals in an occupation suggests that Irish employers have had to look outside of the Irish labour supply to fill vacancies in certain occupations.
Source: Quarter 2 2005 QNHS.

Column 8 shows the average annual employment growth for the period 2000-2005. This was used to assess current employment growth trends and may be a guide to future trends. *Source: QNHS 2000-2005.*

Column 9 presents the number of new work permits issued for each occupation for the year 2005. This data was used as an indicator of demand for labour that could not be met from domestic or EU sources.
Source: Department of Enterprise, Trade and Employment.

Column 10 gives the number of work visas and work authorisations issued for 2005. The work visa and authorisation scheme covers only selected occupations in the construction, healthcare and IT sectors. This data was used as an indicator of demand for labour that could not be met from domestic or EU sources.
Source: Department of Enterprise, Trade and Employment.

Column 11 reports the number of employers who mentioned these occupations as difficult to fill. A frequent mention of an occupation as difficult to fill was used as an indicator of a shortage. *Source: FÁS/ESRI Monthly Employment and Vacancy Survey Report, Jan-Dec 2005*

Column 12 contains replacement rates for each occupation. The replacement rate indicates the share of employment in an occupation which is expected to be lost each year as a result of workers moving to other occupations, retirement, illness, emigration or death. In other words, the replacement rate reflects the minimum number of persons required annually to preserve the existing employment stock in each occupation. *Source: FÁS/ESRI Manpower Forecasting Studies, Report 9, April 2001.*

Column 13 provides an indication of shortage for each occupation. The indicator was derived by considering all indicators (columns 2-12), as well as by using additional information on vacancies and education and relevant qualitative information. The following explains the indicator of shortage:

- '**no shortage**' is used for occupations where there are no apparent labour market imbalances
- '**skill shortage**' is used for occupations where shortages of skills have been identified
- '**labour shortage**' is used for occupations where there is an insufficient number of individuals willing to take up employment opportunities
- '**inconclusive**' is used for occupations where available quantitative information is insufficient for the identification of shortages.

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

Column 14 elaborates further on the shortages identified in column 13. So that:

- 'S' stands for significant shortage
- 'C' stands for current shortage
- 'F' stands for possible future shortage

Soc description	Numbers employed	% Female	Part-time	Unemployment	% >55	% Non-Irish National	Annual average growth rate 2000-2005	Work permits 2005	Work visas/ authorisations 2005	Difficult to fill vacancies	Replacement rate	Shortage indicator	Comment
General managers and administrators	19,000	39.7%	8.3%	Below Average	16.9%	3.3%	11.1%	37		3	-1.5%	No Shortage	
Production managers in industry	26,800	16.0%	1.7%	Below Average	12.5%	5.2%	7.7%	114		158	-1.5%	No Shortage	
Building managers	5,900	6.1%	1.4%	Below Average	13.8%	4.9%	5.3%	37		107	-1.5%	Skill Shortage	S,C,F
Specialist managers	38,200	40.0%	6.8%	Below Average	7.3%	6.2%	2.2%	198		68	-1.5%	No Shortage	
Marketing etc. managers	18,300	37.4%	6.0%		7.1%	5.7%	2.9%	101		48	-1.5%	Skill Shortage	C
Purchasing managers	1,200	21.2%	4.8%		16.4%	8.4%	8.4%	5		3	-1.5%	No Shortage	
Advertising & PR managers	3,300	53.2%	6.7%		10.8%	11.3%	3.2%	9		6	-1.5%	No Shortage	
Personnel managers	4,900	67.2%	14.1%		4.4%	1.2%	1.0%	32		5	-1.5%	No Shortage	
Computer systems managers	7,900	22.8%	4.4%		3.6%	6.0%	3.7%	33		4	-1.5%	Skill Shortage	C,F
Financial institution and office managers	33,700	63.2%	11.2%	Below Average	6.8%	3.9%	2.6%	62		20	-1.5%	No Shortage	
Bank and other financial managers	24,000	60.0%	10.0%		7.8%	4.2%	1.9%	58		16	-1.5%	No Shortage	
Credit controllers	3,900	71.7%	12.6%		5.2%	5.9%	7.2%	4		4	-1.5%	Labour Shortage	C
Managers in transport and storage	11,100	14.9%	2.2%	Average	12.6%	6.1%	0.1%	20		29	-1.5%	Skill Shortage	
Transport managers	4,500	12.1%	2.9%		14.8%	9.0%	2.7%	4		4	-1.5%	Skill Shortage	C
Stores managers	3,400	24.2%	3.2%		14.3%	3.0%	-5.9%	12		19	-1.5%	Inconclusive	
Warehousing managers	3,200	9.3%	0.0%		7.4%	4.8%	5.2%	4		6	-1.5%	No Shortage	
Protective service officers	2,100	2.3%	0.0%	Below Average	8.8%	2.2%	7.8%	0		0	-1.5%	No Shortage	
Managers in farming, horticulture, forestry and fishing	93,700	6.8%	8.9%	Below Average	38.3%	1.0%	-2.0%	10		0	3.1%	No Shortage	
Farm owners and managers	92,900	6.7%	8.9%		38.3%	1.0%	-1.9%	5		0	3.1%	No Shortage	
Managers and proprietors in service industries	70,000	43.8%	9.1%	Below Average	18.2%	7.2%	-2.2%	139		48	-1.5%	No Shortage	
Hotel & accommodation managers	6,500	63.3%	12.9%		21.4%	18.0%	-2.0%	12		8	-1.5%	No Shortage	
Restaurant & catering managers	8,100	61.9%	12.4%		11.0%	14.0%	-1.9%	69		4	-1.5%	No Shortage	
Publicans, innkeepers & club stewards	6,400	30.7%	9.8%		27.0%	0.8%	-5.0%	3		0	1.7%	No Shortage	
Entertainment/sports managers	2,400	41.4%	5.9%		14.4%	6.3%	-3.1%	12		0	-1.5%	No Shortage	
Travel agency managers	2,600	75.4%	17.8%		4.3%	10.3%	7.1%	18		3	-1.5%	No Shortage	
Other managers and administrators	20,500	49.0%	8.8%	Below Average	12.8%	5.5%	4.6%	83		29	-1.5%	No Shortage	
Natural scientists	8,600	52.7%	7.2%	Below Average	7.5%	5.0%	6.1%	47		17	2.8%	Skill Shortage	F
Chemists	2,000	61.3%	9.3%		2.3%	0.0%	1.3%	18		3	2.8%	Skill Shortage	F
Biological scientists	4,000	55.5%	7.9%		11.8%	2.7%	10.4%	5		9	2.8%	Skill Shortage	F
Physicists & other natural scientists	2,700	43.3%	4.9%		4.7%	11.6%	4.5%	24		5	2.8%	Skill Shortage	F
Engineers and technologists	41,000	14.9%	2.0%	Below Average	6.8%	9.4%	5.9%	357		142	2.8%	Skill Shortage	

Soc description	Numbers employed	% Female	Part-time	Unemployment	% >55	% Non-Irish National	Annual average growth rate 2000-2005	Work permits 2005	Work visas/ authorisations 2005	Difficult to fill vacancies	Replacement rate	Shortage indicator	Comment
Civil/mining engineers	9,200	9.4%	2.6%		11.1%	7.6%	5.2%	16	99	25	2.8%	Skill Shortage	S,C,F
Mechanical engineers	4,200	6.3%	3.3%		7.1%	6.6%	7.8%	9		2	2.8%	No Shortage	
Electrical engineers	3,600	4.3%	0.0%		3.6%	12.2%	11.0%	4		2	2.8%	Skill Shortage	C,F
Electronic engineers	4,300	10.8%	2.1%		6.7%	9.5%	5.2%	23		6	2.8%	Skill Shortage	C,F
Software engineers	8,200	22.5%	2.1%		1.3%	10.9%	5.0%	213	161	7	2.8%	Skill Shortage	S,C,F
Chemical engineers	1,400	16.1%	0.0%		0.0%	7.5%	11.4%	2		2	2.8%	Skill Shortage	C,F
Design & development engineers	2,000	23.7%	4.4%		6.3%	14.3%	10.8%	9		2	2.8%	Skill Shortage	C,F
Planning & quality control engineers	2,100	44.6%	2.2%		6.3%	8.5%	-0.2%	8		34	2.8%	Skill Shortage	C,F
Other engineers & technologists n.e.c.	5900	13.5%	0.7%		10.4%	9.4%	5.1%	73		62	2.8%	No Shortage	
Health professionals	17,600	47.4%	14.5%	Below Average	17.6%	11.7%	5.6%	653	38	2	2.8%	Skill Shortage	
Medical practitioners	10,500	46.1%	14.3%		19.5%	15.1%	6.0%	581	38	0	2.8%	Skill Shortage	S,C,F
Pharmacists/pharmacologists etc	3,000	61.5%	20.9%		9.8%	8.4%	11.9%	57		2	2.8%	Skill Shortage	C
Dental practitioners	1,700	50.1%	16.0%		26.9%	9.5%	-0.6%	6		0	2.8%	Skill Shortage	S,C,F
Veterinarians	1,700	23.7%	5.4%		14.7%	2.2%	5.0%	5		0	2.8%	No Shortage	
Teaching professionals	75,900	68.5%	15.8%	Below Average	15.4%	5.0%	1.5%	75		0	2.8%	No Shortage	
University and IoT lecturers	11,300	39.9%	18.6%		23.1%	13.1%	4.8%	35		0	2.8%	No Shortage	
Secondary and vocational education teachers	29,200	66.5%	12.5%		15.9%	2.9%	0.1%	6		0	2.8%	No Shortage	
Primary & nursery education teachers	27,800	82.3%	9.1%		12.5%	2.7%	2.6%	10		0	2.8%	No Shortage	
Other teaching professionals n.e.c.	7,700	69.6%	33.4%		13.3%	7.6%	-1.2%	23		0	2.8%	No Shortage	
Legal professionals	9,700	46.3%	5.2%	Below Average	11.6%	0.6%	4.9%	14		8	2.8%	No Shortage	
Judges, barristers & advocates	2,100	46.7%	0.0%		18.5%	3.0%	11.2%	2		0	2.8%	No Shortage	
Solicitors	7,500	46.2%	6.6%		9.8%	0.0%	3.5%	12		8	2.8%	No Shortage	
Business and financial professionals	34,200	41.1%	6.5%	Below Average	6.8%	6.2%	6.3%	106		46	2.8%	Skill Shortage	
Accountants & tax experts	28,200	41.4%	5.6%		6.3%	4.7%	4.5%	58		47	2.8%	Skill Shortage	S,C,F
Actuaries, economists, statisticians	1,700	41.6%	12.9%		4.3%	10.7%	5.9%	2		0	2.8%	Skill Shortage	S,C,F
Business analysts	5,800	35.9%	10.3%		10.1%	12.3%	12.8%	64		4	2.8%	Skill Shortage	C
Architects, town planners and surveyors	7,000	28.0%	3.1%	Below Average	13.5%	9.6%	8.6%	16	58	37	2.8%	Skill Shortage	
Architects	5,200	36.5%	4.3%		13.8%	11.6%	11.0%	11	57	24	2.8%	Skill Shortage	S,C,F
Building, mining and other surveyors	1,800	4.7%	0.0%		11.3%	4.9%	7.6%	5	1	13	2.8%	No Shortage	
Librarians, archivists & curators	1,700	81.7%	25.2%	Below Average	13.7%	2.8%	-1.1%	1		0	2.8%	No Shortage	
Other professional occupations	10,900	55.0%	16.5%	Below Average	20.5%	11.7%	10.1%	9	7	0	2.8%	No Shortage	

Soc description	Numbers employed	% Female	Part-time	Unemployment	% >55	% Non-Irish National	Annual average growth rate 2000-2005	Work permits 2005	Work visas/ authorisations 2005	Difficult to fill vacancies	Replacement rate	Shortage indicator	Comment
Psychologists & other social/behavioural scientists	1,900	53.2%	9.7%		22.5%	21.8%	12.8%	3	4	0	2.8%	Skill Shortage	C
Social workers, probation officers	5,600	80.3%	23.0%		8.1%	12.0%	19.2%	4	3	0	2.8%	Inconclusive	
Scientific technicians	20,600	28.0%	5.6%	Average	4.7%	6.5%	2.2%	147		61	2.6%	No Shortage	
Laboratory technicians	5,800	55.9%	8.2%		3.5%	4.9%	-2.3%	24		6	2.6%	No Shortage	
Engineering technicians	1,300	11.0%	9.1%		0.0%	24.1%	8.0%	35		6	2.6%	Skill Shortage	C, F
Architectural, town planning technicians	1,100	34.6%	15.3%		4.4%	0.0%	2.4%	8		15	2.6%	Skill Shortage	C, F
Building & civil engineering technicians	400	15.7%	0.0%		16.9%	0.0%	2.7%	10		15	2.6%	Skill Shortage	C, F
Other scientific technicians n.e.c.	9,900	18.4%	3.3%		5.1%	5.5%	13.2%	67		17	2.6%	Skill Shortage	C, F
Draughtspersons, quantity and other surveyors	4,800	8.9%	2.6%	Below Average	13.3%	3.9%	2.2%	18	14	95	2.6%	Skill Shortage	
Draughtspersons	2,000	15.6%	2.0%		11.7%	0.0%	-2.1%	12		12	2.6%	No Shortage	
Quantity surveyors	2,800	3.9%	3.0%		14.7%	6.9%	6.2%	6	14	83	2.6%	Skill Shortage	S,C,F
Computer analyst/programmers	15,900	25.4%	5.4%	Below Average	1.5%	12.4%	2.4%	178	39	34	2.6%	Skill Shortage	S,C,F
Ship/aircraft officers incl. Air traffic controllers	2,300	4.9%	2.1%	Below Average	11.5%	14.1%	2.5%	38		0	2.6%	No Shortage	
Health associate professionals	63,000	90.7%	28.5%	Below Average	13.6%	9.2%	5.8%	144	1531	0	2.6%	Skill Shortage	
Nurses and midwives	50,800	93.4%	28.5%		13.9%	9.4%	5.2%	37	1452	0	2.6%	Skill Shortage	C, F
Medical radiographers	1,500	88.8%	16.8%		21.5%	18.3%	9.2%	10	22	0	2.6%	Skill Shortage	S,C,F
Physiotherapists	2,000	91.5%	32.1%		9.8%	7.7%	11.2%	16	10	0	2.6%	Skill Shortage	C, F
Medical technicians, dental auxiliaries	1,500	72.3%	25.2%		5.5%	2.8%	1.7%	19		0	2.6%	No Shortage	
Occupational & therapists n.e.c.	4,300	77.0%	39.9%		17.4%	10.9%	9.1%	57	47	0	2.6%	Skill Shortage	S,C
Other health associate professionals n.e.c.	3,500	72.0%	16.6%		4.4%	2.7%	6.3%	9		0	2.6%	No Shortage	
Legal associate professionals	1,200	75.2%	17.0%	Below Average	20.7%	4.2%	1.3%	9		0	2.6%	No Shortage	
Business and financial associate professionals	15,200	50.6%	9.1%	Below Average	11.0%	5.4%	6.2%	73		66	2.6%	No Shortage	
Underwriters, claims assessors and analysts	10,400	41.8%	8.3%		10.8%	6.5%	5.9%	44		27	2.6%	Skill Shortage	S,C,F
Personnel, industrial relations officers	3,000	88.9%	9.3%		9.9%	2.8%	18.7%	7		6	2.6%	No Shortage	
Matrons, houseparents, welfare, community & youth workers	7,200	76.4%	24.0%	Average	16.8%	3.3%	2.9%	20		0	2.6%	No Shortage	
Literary, artistic and sports professionals	25,500	41.4%	19.7%	Average	12.5%	7.6%	2.8%	224		22	2.8%	No Shortage	
Other associate professional and technical occupations	13,600	54.7%	15.5%	Average	12.7%	5.6%	1.7%	245		15	2.8%	No Shortage	
Careers guidance advisors	1,200	80.1%	3.6%		3.7%	0.0%	4.3%	1		0	2.6%	No Shortage	
Vocational, industrial trainers	5,200	64.9%	22.1%		14.9%	4.6%	-4.1%	16		3	2.8%	No Shortage	
Administrative/clerical officers and assistants in civil service	30,400	67.7%	12.1%	Below Average	10.6%	1.2%	3.0%	1		0	3.5%	No Shortage	
Numerical clerks & cashiers	65,900	76.3%	27.0%	Below Average	7.3%	4.6%	4.1%	115		37	3.5%	Labour Shortage	S,C,F

Soc description	Numbers employed	% Female	Part-time	Unemployment	% >55	% Non-Irish National	Annual average growth rate 2000-2005	Work permits 2005	Work visas/ authorisations 2005	Difficult to fill vacancies	Replacement rate	Shortage indicator	Comment
Filing & records clerks	8,400	67.9%	20.4%	Below Average	11.9%	2.4%	-1.7%	31		39	3.5%	Skill Shortage	C
Other clerks	50,200	79.7%	24.2%	Average	9.0%	4.9%	3.8%	72		13	3.5%	No Shortage	
Warehousemen/women	20,000	15.1%	9.6%	Above Average	9.4%	8.4%	2.9%	41		29	3.5%	Skill Shortage	C
Secretaries, personal assistants etc.	43,900	97.3%	30.1%	Below Average	10.4%	4.1%	3.1%	42		10	3.5%	No Shortage	
Legal secretaries	5,000	100.0%	15.0%		8.1%	5.1%	3.7%	23		7	3.5%	No Shortage	
Other secretaries	39,000	97.0%	31.9%		10.7%	4.0%	3.1%	19		3	3.5%	No Shortage	
Receptionists & telephonists	18,900	90.5%	31.8%	Average	11.6%	8.1%	3.2%	19		29	3.5%	No Shortage	
Computer & other office machine operators	3,900	43.7%	14.9%	Average	6.4%	7.4%	-5.6%	8		0	3.5%	No Shortage	
Construction trades	78,500	1.2%	2.2%	Average	8.3%	11.6%	8.6%	135		53	2.7%	Skill Shortage	
Bricklayers, masons	16,500	0.3%	0.8%		5.5%	13.5%	7.9%	20		9	2.7%	Skill Shortage	C
Roofers, slaters, tilers, sheeters, cladders	6,700	0.8%	2.2%		5.2%	8.1%	9.6%	6		3	2.7%	Inconclusive	
Plasterers	12,900	0.0%	0.3%		4.8%	11.8%	10.5%	44		23	2.7%	Skill Shortage	C
Glaziers	800	5.9%	0.0%		7.9%	10.1%	2.6%	1		0	2.7%	No Shortage	
Builders, building contractors	19,800	2.3%	1.5%		11.4%	10.6%	12.8%	38		1	2.7%	No Shortage	
Scaffolders, riggers, steeplejacks	2,000	0.0%	0.0%		6.0%	16.3%	8.6%	12		1	2.7%	Skill Shortage	C
Floorers, floor coverers, carpet fitters, tilers	2,500	4.9%	4.1%		10.6%	7.5%	4.1%	9		5	2.7%	Skill Shortage	C
Painters & decorators	12,300	2.0%	5.2%		11.4%	10.2%	4.2%	1		10	2.7%	No Shortage	
Other construction trades n.e.c.	5,100	0.0%	7.3%		10.3%	17.5%	6.3%	4		1	2.7%	Inconclusive	
Metal machining, fitting & instrument making trades	26,000	3.6%	0.9%	Below Average	9.7%	4.7%	-0.2%	105		50	1.5%	Skill Shortage	C
Electrical/ electronic trades	41,600	3.1%	1.2%	Below Average	7.4%	6.0%	2.7%	126		5	2.1%	No Shortage	
Electrical/ electronic trades with electrician technicians	43,700	3.5%	1.3%		7.4%	6.0%	1.3%	129		7	2.1%	No Shortage	
Metal forming, welding & related trades	29,600	0.7%	1.8%	Average	7.8%	6.9%	5.6%	89		53	2.2%	Skill Shortage	
Plumbers, heating & related trades	14,600	0.3%	2.5%		8.7%	4.2%	8.4%	6		12	2.7%	No Shortage	
Other metal forming, welding & related trades	15,000	1.0%	1.1%		6.9%	9.6%	3.3%	83		41	1.5%	Skill Shortage	C
Vehicle trades	19,700	0.2%	3.1%	Below Average	9.2%	4.6%	2.5%	25		13	2.7%	No Shortage	
Textiles, garments and related trades	4,100	64.6%	18.3%	Above Average	15.6%	6.5%	-15.5%	12		1	2.7%	No Shortage	
Printing and related trades	7,000	26.2%	5.7%	Above Average	12.9%	3.6%	-0.6%	6		3	2.7%	No Shortage	
Woodworking trades	43,400	0.9%	1.9%	Average	8.0%	8.6%	6.0%	53		25	2.7%	Skill Shortage	
Carpenters & joiners	38,900	0.3%	1.8%		7.4%	8.9%	7.0%	50		25	2.7%	Skill Shortage	C
Wood working trades	4,500	5.9%	3.4%		13.6%	5.7%	-1.0%	3		0	2.7%	No Shortage	
Food preparation trades	8,700	12.3%	10.6%	Average	12.1%	20.4%	-1.9%	162		7	1.5%	Labour Shortage	S,C

Soc description	Numbers employed	% Female	Part-time	Unemployment	% >55	% Non-Irish National	Annual average growth rate 2000-2005	Work permits 2005	Work visas/ authorisations 2005	Difficult to fill vacancies	Replacement rate	Shortage indicator	Comment
Other craft & related occupations	16,100	13.7%	12.3%	Above Average	13.7%	10.3%	-1.5%	153		9	2.7%	No Shortage	
NCOs and other ranks in the armed services	5,700	5.8%	0.0%	Below Average	7.0%	0.8%	-4.5%	0		0	1.2%	No Shortage	
NCOs and other ranks including senior officers	6,900	4.7%	0.0%		6.3%	1.4%	-2.7%	0		0	1.2%	No Shortage	
Security and protective service occupations	30,500	16.8%	9.3%	Average	11.5%	4.7%	2.7%	99		2	1.2%	No Shortage	
Police officers	12,300	19.7%	1.9%		3.8%	0.0%	1.7%	0		0	1.2%	No Shortage	
Fire service officers	2,700	2.1%	8.6%		11.6%	1.9%	3.6%	0		0	1.2%	No Shortage	
Prison service officers	3,100	13.5%	0.0%		3.6%	0.0%	0.2%	0		0	1.2%	No Shortage	
Security guards	13,100	15.6%	18.1%		21.0%	10.9%	5.0%	99		2	1.2%	Labour Shortage	C
Catering occupations	63,400	57.2%	38.9%	Average	6.5%	18.0%	2.2%	964		31	3.9%	Shortage	
Chefs, cooks	21,400	48.1%	20.0%		7.2%	21.4%	4.4%	852		15	3.9%	Skill Shortage	S,C,F
Waiters, waitresses	18,900	87.0%	54.7%		7.0%	25.3%	2.1%	96		10	3.9%	Labour Shortage	C
Bar staff	23,100	42.2%	44.2%		5.5%	9.0%	0.6%	16		6	3.9%	No Shortage	
Travel attendants and related occupations	2,500	75.2%	31.9%	Average	17.3%	4.3%	-9.4%	5		0	3.9%	No Shortage	
Travel & flight attendants	2,500	77.4%	32.8%		17.8%	4.4%	-9.4%	5		0	3.9%	No Shortage	
Health and related occupations	41,100	83.4%	36.9%	Average	14.9%	9.0%	9.8%	529		0	2.6%	Labour Shortage	
Care assistants etc.	38,200	84.3%	38.3%		14.8%	9.4%	10.8%	520		0	2.6%	Labour Shortage	S,C,F
Dental nurses	2,100	97.9%	23.5%		6.3%	0.0%	-1.2%	9		0	2.6%	No Shortage	
Childcare and related occupations	25,200	96.2%	39.1%	Average	5.9%	8.6%	11.9%	77		0	3.9%	No Shortage	
Nursery nurses and playgroup leaders	6,700	96.1%	30.7%		7.4%	1.2%	19.0%	2		0	3.9%	No Shortage	
Educational assistants	7,800	96.0%	29.8%		6.8%	1.2%	17.1%	9		0	3.9%	No Shortage	
Other childcare & related occupations	10,700	96.1%	45.0%		7.1%	13.9%	6.1%	66		0	3.9%	No Shortage	
Hairdressers, beauticians etc.	18,300	92.3%	27.6%	Average	3.6%	4.1%	8.1%	41		2	3.9%	No Shortage	
Domestic staff and related occupations	14,600	55.8%	40.9%	Above Average	29.4%	10.7%	-1.8%	84		5	3.9%	No Shortage	
Other personal and protective service occupations	4,200	51.9%	32.3%	Average	8.2%	9.7%	6.0%	3		3	3.9%	No Shortage	
Buyers, brokers etc.	4,800	33.4%	3.6%	Below Average	9.1%	7.5%	5.0%	4		5	4.4%	No Shortage	
Sales representatives	37,800	36.2%	12.2%	Below Average	10.1%	6.5%	4.4%	33		52	4.4%	Skill Shortage	C
Sales assistants	118,100	73.0%	48.1%	Average	6.1%	8.3%	4.7%	116		76	4.4%	Labour Shortage	C
Other salespersons etc.	4,100	8.4%	18.2%	Below Average	19.3%	2.0%	-1.3%	3		20	4.4%	No Shortage	
Other sales occupations	5,400	68.8%	40.5%	Average	17.5%	10.1%	-1.2%	7		14	4.4%	No Shortage	
Food, drink and tobacco operatives	16,400	30.3%	7.4%	Above Average	9.5%	22.9%	0.2%	20		6	1.5%	No Shortage	
Textiles and tannery process operatives	1,400	58.3%	14.3%	Above Average	10.0%	4.8%	-10.1%			0	1.5%	No Shortage	

Soc description	Numbers employed	% Female	Part-time	Unemployment	% >55	% Non-Irish National	Annual average growth rate 2000-2005	Work permits 2005	Work visas/ authorisations 2005	Difficult to fill vacancies	Replacement rate	Shortage indicator	Comment
Chemicals, paper, plastic and related process operatives	12,500	30.6%	6.2%	Average	8.3%	7.7%	-7.5%	18		0	1.5%	No Shortage	
Metal making and treating process operatives	1,900	22.0%	3.7%	Above Average	9.7%	5.9%	-6.0%	4		0	1.5%	No Shortage	
Metal working process operatives	1,200	0.0%	0.0%	Average	14.5%	5.4%	-6.0%	27		24	1.5%	No Shortage	
Assemblers/lineworkers	18,200	49.9%	4.5%	Above Average	3.8%	7.9%	-13.1%	5		22	1.5%	No Shortage	
Other routine process operatives	11,900	46.9%	17.1%	Above Average	9.2%	16.6%	-10.3%	38		4	1.5%	No Shortage	
Road transport operatives	68,100	3.0%	7.3%	Below Average	21.0%	5.3%	5.2%	111		64	-1.2%	Skill Shortage	C
Other transport and machinery operatives	19,900	4.7%	3.9%	Below Average	13.6%	5.3%	3.4%	34		10	1.5%	No Shortage	
Other plant and machine operatives nec	18,400	12.2%	3.8%	Average	13.9%	9.0%	2.8%	22		15	1.5%	No Shortage	
Other occupations in agriculture, forestry and fishing	14,500	21.3%	18.2%	Average	16.7%	20.0%	-7.1%	293		0	3.1%	Labour Shortage	C
Other occupations in mining and manufacturing	9,000	30.2%	10.5%	Above Average	8.5%	13.8%	3.0%	111		11	4.5%	No Shortage	
Other occupations in construction	32,700	0.3%	3.4%	Above Average	9.3%	14.8%	0.3%	6		2	4.5%	Labour Shortage	C
Other occupations in transport	5,300	6.3%	13.9%	Above Average	13.1%	5.6%	-1.5%	8		0	4.5%	No Shortage	
Other occupations in communication	10,800	17.8%	12.0%	Average	19.8%	2.9%	0.6%			3	-1.2%	No Shortage	
Other occupations in sales and services	64,800	73.0%	55.2%	Above Average	17.0%	16.0%	3.9%	288		14	4.5%	Labour Shortage	C
Other occupations n.e.c.	62,100	28.1%	19.4%	Above Average	16.4%	9.0%	22.0%	211		17	4.5%	No Shortage	
All occupations	**1,951,200**	**42.5%**	**17.2%**	**Average**	**12.5%**	**7.7%**	**2.9%**	**7393**	**1947**	**1676**			

DESCRIPTION OF OCCUPATIONAL EMPLOYMENT PROFILES

Using the data from the table, individual occupations were examined in detail. The analysis covered 125 occupations, which were grouped into families of skills. These were:

- Scientists
- Engineers
- IT occupations
- Business & Financial occupations
- Healthcare occupations
- Education occupations
- Social and Care occupations
- Legal & Security occupations
- Construction professional occupations
- Construction craft occupations
- Other craft occupations
- Arts, Sports & Tourism occupations
- Transport & Logistic occupations
- Clerical occupations
- Sales occupations
- Operatives
- Labourers

In general, occupations in the same sector or occupations with similar duties were grouped together. For each family of skills, the employment level, employment growth, age and education profiles of the occupation are examined. First, the level of employment in 2005 is presented. This is followed by an examination of employment growth trends for the period 2000-2005. Small occupations were either excluded or grouped.

Age profiles were analysed by grouping employment into the following categories: persons aged 15 to 24, 25 to 54 and 55 or older.

Education profiles were examined by grouping employment into the following categories: persons with lower secondary education or less; upper secondary or further education and training (FET); and third level education.

In addition, an indication of shortage is provided. This was done by analysing demand and supply indicators. Demand indicators included employment composition and growth, replacement demand, vacancies and immigration. For each occupation we estimated the recruitment requirement by combining expansion and replacement demand. Expansion demand was based on the most recent employment growth rates. However, in many cases, where recent employment increased rapidly, the growth rates were moderated to reflect more sustainable growth patterns. This was done to avoid overestimation of demand.

The supply of skills was approximated using the expected output from the formal education system . The expected output was derived using third level enrolment and graduation data, as well as data from FÁS and other education providers. All of this data is held in the National Skills Database in FÁS at course level.

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

By comparing estimates of demand and supply, an indication of potential shortage was derived. In addition, the other shortage indicators (e.g. work permits, difficult to fill vacancies, etc.) were examined to reinforce the findings. The results also drew on conclusions from previous reports produced by the Expert Group on Future Skills Needs and other qualitative information where available. The objective was to identify areas of shortages, without quantifying them. Identified shortages are classified as skill or labour shortages and an indication of the persistence of shortages is also discussed. However, the results are based on current data. Future shortages are only indicated in cases where there is clear evidence that the shortages will persist or where 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 working conditions may be such that relatively few people with the relevant skills are attracted to the occupation in question. The shortage may also reflect a temporary or a sustained increase in the demand for a particular expertise, or a reduction in the number of students who are acquiring the relevant qualifications.

The most effective way to alleviate a shortage will depend on why 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 increasing the number of student places in the relevant disciplines. If the shortage reflects poor working conditions it may be more effective to improve those conditions than to encourage an increase in the supply of persons with the relevant skills.

It is outside the scope of this bulletin to provide an analysis of why shortages have arisen in certain occupations. However, it is important for policy makers to appreciate that the existence of shortages does not necessarily require a response from Government, either in terms of increasing education or training provision or in terms of increasing immigration.

The purpose of this bulletin is solely to identify occupations where shortages exist. Further study is necessary to identify the cause of these shortages and, consequently, the appropriate policy response. The EGFSN's research programme includes a number of such studies including skills in financial services, ICT and construction.

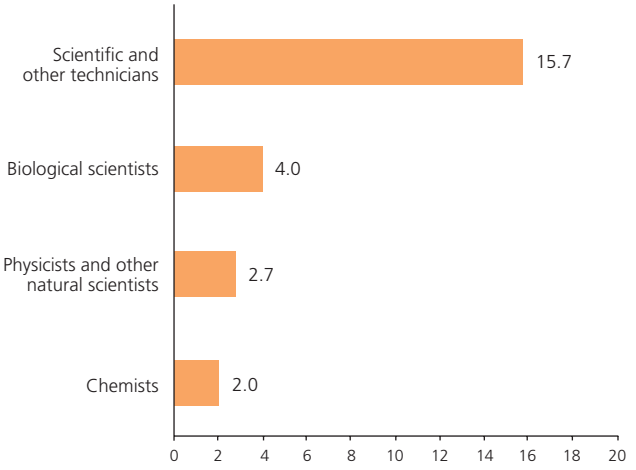
[10] *It must be noted that individuals may not work in the occupations that they trained for.*

7.1 Science Occupations

7.1.1 EMPLOYMENT

This section examines employment in science occupations. In 2005, a total of 24,400 persons were employed in these occupations (detailed in Figure 7.1.1), which represents 1.25% of total employment in the economy. Science occupations were primarily employed in the manufacture of chemicals and chemical products, and in health and social work. Engineering and scientific technicians comprised the largest number of persons in this grouping at 15,700, including approximately 5,800 laboratory technicians. These are associate professionals, while scientists and chemists are professional occupations.

Figure 7.1.1 Numbers Employed (000s) in Science Occupations, 2005



Source: CSO

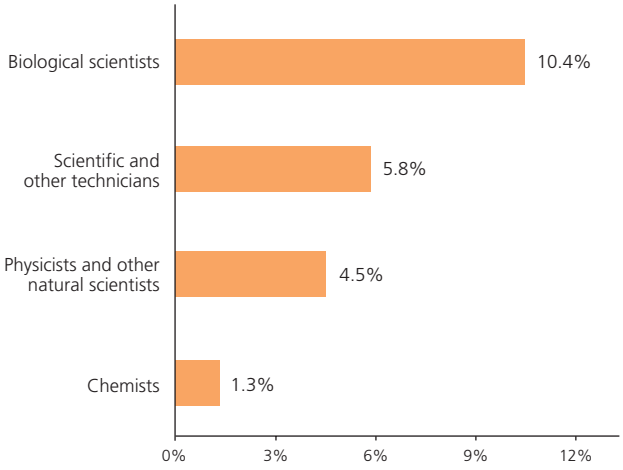
7.1.2 EMPLOYMENT GROWTH (2000-2005)

Figure 7.1.2 shows the annual average rates of employment growth in each science occupation for the five year period 2000 to 2005. Of the occupations, the employment of biological scientists grew the fastest – at an average annual rate of 10.4%. This translates into an increase of 1,600 positions.

The employment of scientific and other technicians, physicists and other natural scientists grew faster than overall employment growth over the period (the annual average employment growth for the total economy was 2.9%).

On the other hand, the number of chemists employed has remained static at around 2,000 over the past few years.

Figure 7.1.2 Average Employment Growth in Science Occupations, 2000-2005 (%)



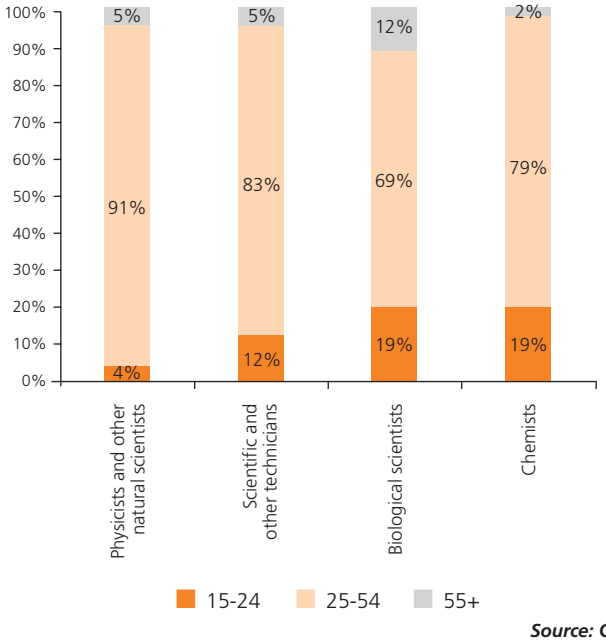
Source: CSO

7.1.3 AGE PROFILE

Figure 7.1.3 shows the age distribution of the selected science occupations. In general, science occupations have an age distribution skewed towards younger age cohorts. Approximately 19% of biological scientists and chemists were aged 15-24 in 2005. This is significantly higher than for professionals in general. Physicists had the lowest proportion of persons aged under 25, at 4%.

There was a sizable proportion (12%) of biological scientists employed older than 55.

Figure 7.1.3 Age Profile of Science Occupations, 2005



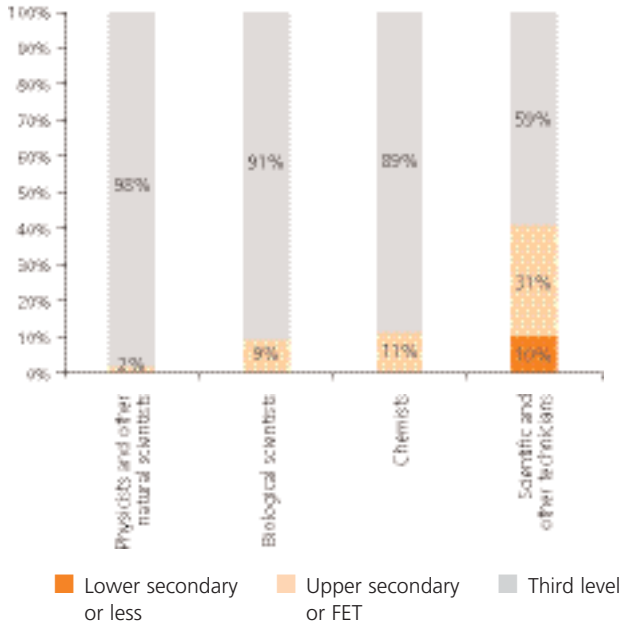
Source: CSO

7.1.4 EDUCATION PROFILE

The education distribution of persons employed in selected science occupations is examined in Figure 7.1.4. The overwhelming majority of scientific professionals have third level qualifications. Their level of education far exceeds the national average.

Within this group, scientific and other technicians had the highest percentage of people who had attained lower secondary education or less, at 10%. In contrast to scientists, 58% of scientific and other technicians had reached third level. This is, however, below the average of all associate professional occupations of 69%.

Figure 7.1.4 Education Profile of Science Occupations 2005



Source: CSO

7.1.5 SHORTAGE INDICATORS

No significant current shortages have been identified in science occupations. However, the Irish government has invested heavily in the last few years in research in science and recently announced a further significant increase in funding. This will lead to the creation of additional postgraduate opportunities in the short to medium term. The number of students studying science at undergraduate level has declined in recent years. If this trend continues, a shortage of research scientists can be expected in the future.

There does not appear to be a general shortage of scientists at technician level. However, various types of scientific and other technicians have entered the country under the work permit scheme and there may be issues with specific skills at technician level.

7.2 Engineering Occupations

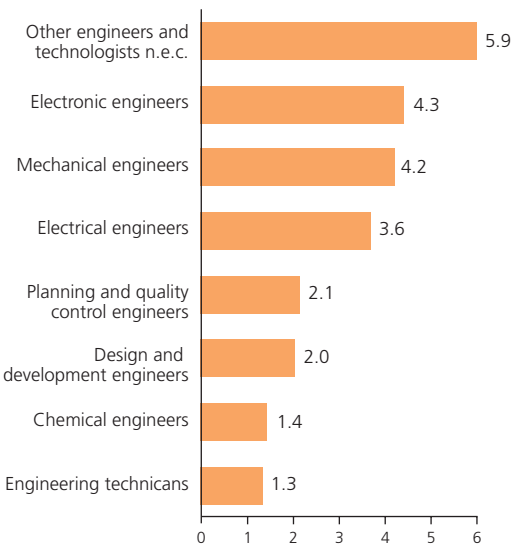
7.2.1 EMPLOYMENT

This section examines the employment of engineering occupations. All of these occupations are professional, with the exception of engineering technicians.

In 2005, there were approximately 24,900 persons employed in engineering occupations, which represents an increase of 2,600 (12%) on the number employed in 2004. The number employed in 2005 is equivalent to 1.3% of total national employment. Employment of the selected engineering occupations is predominantly concentrated in the manufacturing sector with over 50% employed, followed by the real estate, renting and business activities sector (15%) (i.e. consultant engineers) and the construction sector (9%). The remainder is employed in small numbers in other sectors of the economy.

Figure 7.2.1 shows the number employed in each of the selected engineering occupations in 2005. Other engineers and technologists accounted for the largest number of persons employed (5,900). This composite group includes: metallurgists, agricultural engineers, and food and other technologists. Electronic engineers accounted for the second highest number of persons employed (4,300), which was closely followed by mechanical engineers (4,200). Engineering technicians and chemical engineers accounted for the least number employed (1,300 and 1,400 respectively).

Figure 7.2.1 Numbers Employed (000s) in Selected Engineering Occupations, 2005



Source: CSO

7.2.2 EMPLOYMENT GROWTH (2000-2005)

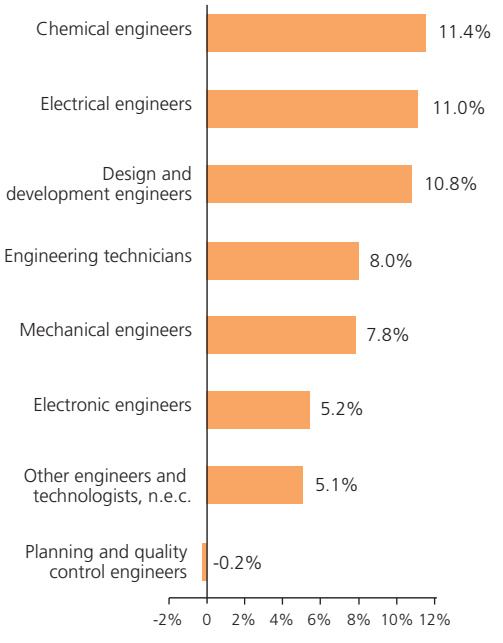
Figure 7.2.2 shows the annual average rates of employment growth in each engineering occupation over the five year period, 2000 to 2005. With the exception of planning and quality control engineers, the numbers employed in each of the selected engineering occupations increased between 2000 and 2005. A total of 6,400 new posts were created across all other engineering occupations combined.

Over the five year period, the largest number of new posts was created for electrical engineers (1,500), followed jointly by mechanical and other engineers and technologists (with around 1,300 posts each).

Chemical engineers and electrical engineers recorded the highest rates of employment growth (11.4% and 11% respectively). Moreover, these occupations were ranked in the list of the top five fastest growing occupations between 2000 and 2005.

In contrast, planning and quality control engineers registered a negative employment growth rate of 0.2% over the period 2000 to 2005. However, it is important to note that some engineers classified in the other categories of engineers conduct planning and quality control functions and these are not captured in the planning and quality control category.

Figure 7.2.2 Annual Average Employment Growth in Selected Engineering Occupations, 2000-2005 (%)



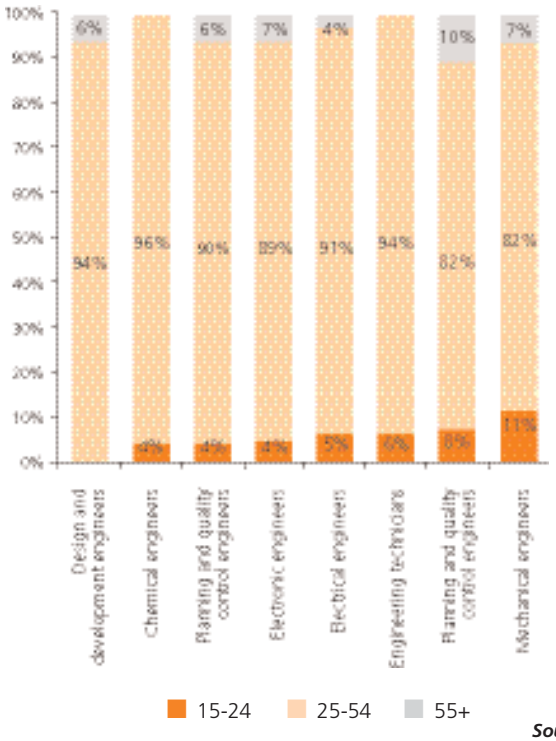
Source: CSO

7.2.3 AGE PROFILE

Figure 7.2.3 shows the age distribution of persons employed in the selected engineering occupations in 2005. Over 80% of those employed in engineering occupations were aged between 25 and 54, which is similar to professional occupations in general.

Mechanical engineers had the youngest employment profile, with around 11% of those employed in this occupation aged between 15 and 24. This figure is below the national average, but exceeds the figure for professional occupations in general. In contrast, other engineers and technologists had the most mature employment profile, with around 10% aged 55 or over.

Figure 7.2.3 Age Profile of Selected Engineering Occupations, 2005

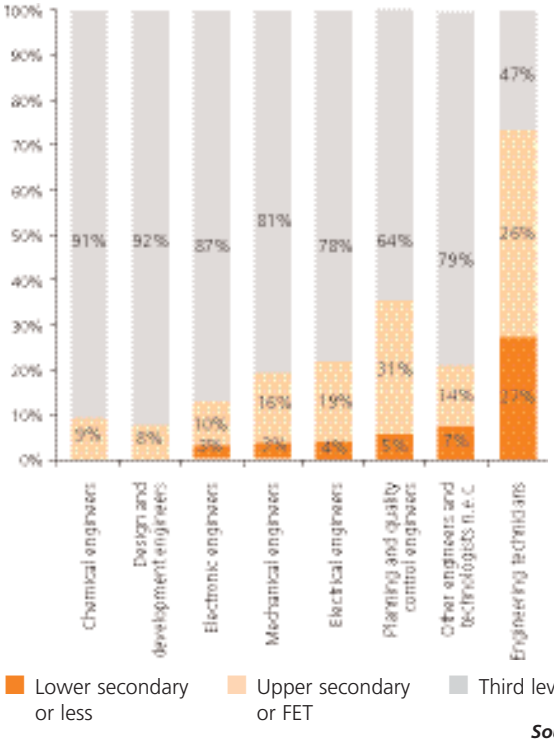


Source: CSO

7.2.4 EDUCATION PROFILE

The education level of the persons employed in each engineering occupation in 2005 is examined in Figure 7.2.4. Most professional engineers hold a third level qualification. This is not surprising given that, although not mandatory, a third level qualification is usually required by employers. In 2005, just under 80% of those employed in the selected engineering occupations held a third level qualification. Engineering technicians had the lowest share of persons employed who had completed third level education: 47% held a third level qualification.

Figure 7.2.4 Education Profile of Selected Engineering Occupations, 2005



Source: CSO

7.2.5 SHORTAGE INDICATORS

There is evidence of a current shortage of engineering technicians available to industry because the majority of those who qualify at technician level go on to degree-level. This trend towards engaging in further study is expected to continue into the future. Furthermore, it is expected that the decline in the number of first year enrolments in engineering technician courses in recent years will also continue in the foreseeable future.

There is evidence of a shortage of engineers in Ireland. Some employers have been experiencing difficulties in recruiting persons in the following occupations:

- electrical and electronic engineers
- planning and quality control engineers
- design and development engineers
- chemical engineers

Shortages in these areas are expected to persist into the future, given the decline in student applications to engineering courses in recent years and the expected strong performance of the IT, pharmaceutical (including biotechnology, and chemicals) and medical devices industries over the coming years.[14]

[14] *For further details see the forthcoming SLMRU's Engineering Skills Monitoring Report 2006*

7.3 IT Professional Occupations

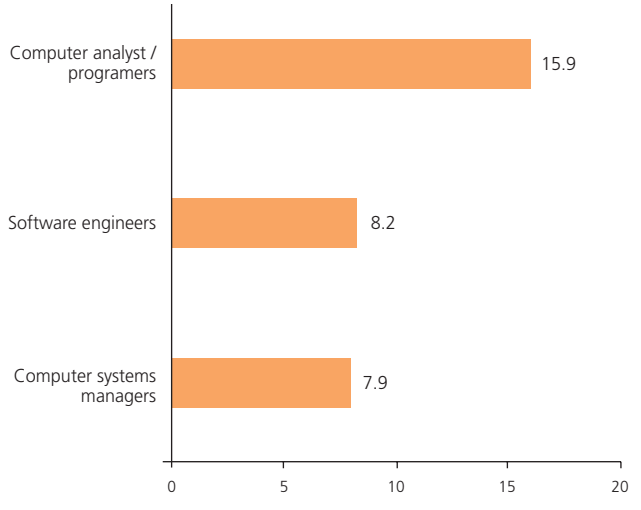
7.3.1 EMPLOYMENT

This section examines employment of selected IT occupations: computer systems managers, software engineers and computer analyst/programmers.

In 2005, there were 32,000 persons employed in IT occupations which is an increase of 1,700 (6%) on the 2004 figure. Associate professionals (computer analyst/programmers) accounted for the largest share of total employment in IT occupations (50%); professional occupations (software engineers) and managers (computer systems managers) accounted for around 25% each. These occupations together accounted for approximately 1.6% of total employment in the economy in 2005 and this figure has remained relatively unchanged since 2004.

Employment of IT occupations was predominantly concentrated in the real estate, renting and business activities sector, mainly in the computer related activities sub-sector (around 50%) followed by the manufacturing sector (16%) and financial intermediation sector (10%) and the remainder were employed in small numbers across various sectors of the economy in 2005.

Figure 7.3.1 Numbers Employed (000s) in IT Professional Occupations, 2005



Source: CSO

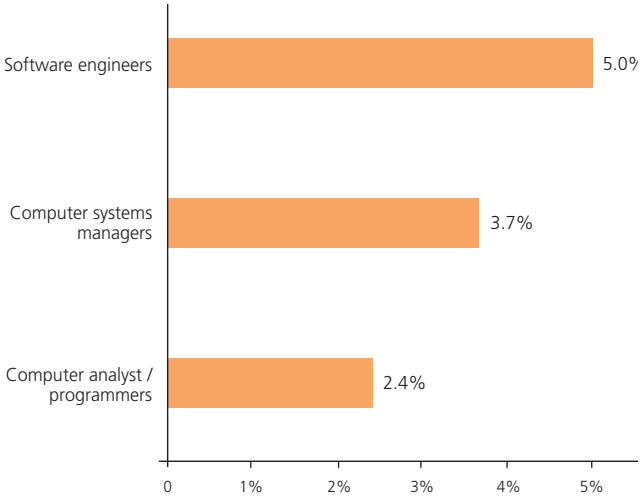
7.3.2 EMPLOYMENT GROWTH (2000-2005)

A total of 4,900 new jobs were created in IT occupations over the period 2000 to 2005.

Each of the three IT occupations experienced employment growth over the five year period. The numbers employed as software engineers and computer analyst/programmers each increased by 1,800 from 6,400 and 14,200 in 2000 respectively, and the number employed as computer systems managers increased by 1,300 from 6,600 in 2000.

Figure 7.3.2 shows the annual average rates of employment growth for each of the IT occupations over the period 2000 to 2005. Employment growth for software engineers and computer systems managers exceeded the average national employment growth rate of 2.9%. The number employed in these occupations increased at an annual average rate of 5.0% and 3.7% respectively. The annual average rate of employment growth for computer analyst/programmers (2.4%) was below the average national employment growth rate.

Figure 7.3.2 Annual Average Employment Growth in IT Professional Occupations, 2000-2005 (%)



Source: CSO

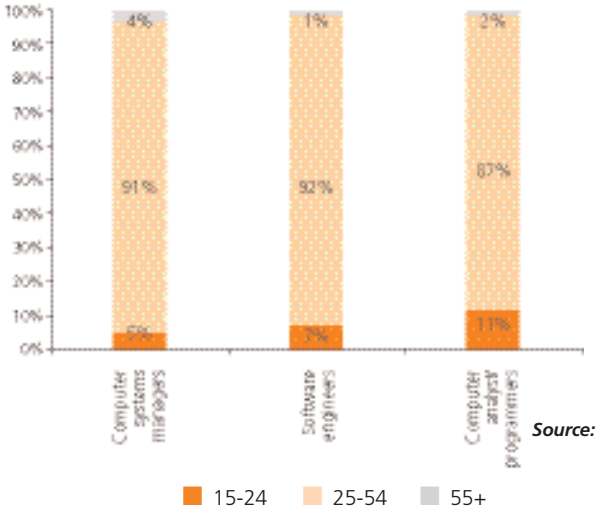
7.3.3 AGE PROFILE

Figure 7.3.3 shows the age distribution of IT occupations in 2005. The majority of those employed in IT occupations were aged between 25 and 54.

Less than 2% of software engineers and computer analyst/programmers were aged 55 or over, compared with the national average of 12.5%. Less than 4% of computer systems managers were aged 55 or over which is a much lower proportion when compared with the proportion for managerial occupations in general (20%, see Figure 3.5).

In this occupational group, computer analyst/programmers accounted for the highest proportion of workers aged between 15 and 24 in 2005, with 11%. This figure, however, is still below the national proportion in this age cohort (15%).

Figure 7.3.3 Age Profile of IT Professional Occupations, 2005

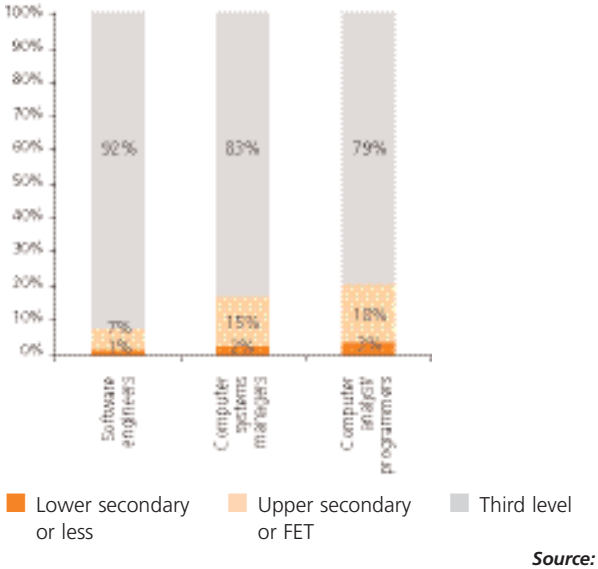


Source: CSO

7.3.4 EDUCATION PROFILE

The education level attained by persons employed in each of the IT occupations in 2005 is presented in Figure 7.3.4. In 2005, over 80% of persons employed in IT occupations had attained a third level qualification – a far greater proportion than the national average of 32% and a slight increase since 2004. There was almost no representation in the lower secondary or less education category.

Figure 7.3.4 Education Profile of IT Professional Occupations, 2005



Source: CSO

7.3.5 SHORTAGE INDICATORS

There is evidence of a current shortage of software engineers. The significant number of work permits and work visas issued to non-Irish nationals in 2005 supports this finding. Demand for this occupation is expected to be relatively high in the future due to the gradual recovery/upturn of the IT sector in recent years and the resumption of stronger growth in the long-term. It is expected that the level of graduate output from the third level education system will not match future demand requirements. This trend is underpinned by the decline in the level of student uptake in computing courses since the downturn of the IT sector in 2001 – the level of student uptake in computing courses in both 2004 and 2005 was less than half the level in 2000.

There is evidence of a current shortage of computer analysts/programmers as indicated by the significant number of new work permits and work visas that were issued to non-Irish nationals for this occupation in 2005 (a total of 178 and 39 respectively). Consequently, the share of non-EU nationals in the employment stock of this occupation increased in 2005. This occupation was also frequently cited by employers as being difficult to fill in the FÁS/ESRI Monthly Employment and Vacancy Surveys in 2005. Future shortages of this occupation are likely to persist in the future. This expectation is underpinned by a resumption of stronger growth in the IT sector in the long-term and if the decline in the number of enrolments in software and computer related degree courses persists into the future.

There is also an indication of a current shortage of computer systems managers. This occupation was frequently cited by employers as being difficult to fill in the FÁS/ERSI Monthly Employment and Vacancy Surveys in 2005. There were also a number of work permits issued for this occupation in 2005, which highlights that employers have been experiencing difficulties in sourcing candidates in Ireland with the specific skills required. This occupation should be monitored closely as it may become increasingly difficult to source suitable IT managers due to shortages at lower levels.

7.4 Business and Financial Occupations

7.4.1 EMPLOYMENT

This section examines finance, accounting, human resources and business occupations. Each of these areas covers a wide range of job titles which are employed across various sectors of the economy. Approximately one third of the total employment examined in this section is located in financial activities: banking, insurance and financial intermediation.

Persons employed in business and finance related occupations are mostly professionals, associate professionals or managers. In 2005, there were just over 80,000 persons employed in these occupations (Figure 7.4.1). This represents 4.2% of national employment.

With an employment level of over 28,000, accountants and tax experts[15] accounted for more than a third of the overall employment in this group. The second largest occupation in terms of employment related to bank and other financial managers (24,000), accounting for almost another third of overall employment in this group.

Figure 7.4.1 Numbers Employed (000s) in Selected Business and Financial Occupations, 2005

Source: CSO

[15] *Of the total in this occupation, 98 % are accountants, while the reminder are taxation experts.*

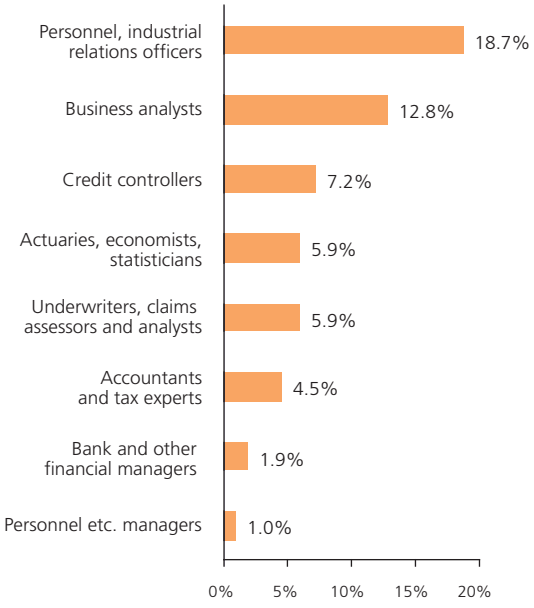
7.4.2 EMPLOYMENT GROWTH (2000-2005)

Figure 7.4.2 shows the annual employment growth rate for business and financial occupations for the period 2000-2005. Over the 5-year period, more than 16,000 new jobs were created. This represents an annual employment growth of 4.6%, which exceeds the national average for this period of 2.9%. Strong employment growth was driven by the overall buoyant performance of the economy, but also by exceptional growth in the financial sector, primarily its international component.

In absolute terms, the highest number of new posts was created in accounting: more than 5,500. In relative terms, the highest employment growth was recorded for personnel officers and business analysts: employment in both occupations grew well in excess of 10%.

While most of the occupations in this group experienced employment growth above the national average, over the same period, the employment growth of personnel managers and bank and other financial was sluggish. Slower than average employment growth for bank and other financial managers reflects recent structural changes, mostly in the banking sector. These include technological and organisational changes, such as the expansion of internet banking and the consolidation of the sector through mergers and acquisitions. These developments have resulted in a reduction in demand for bank managers.

Figure 7.4.2 Annual Average Growth in Selected Business and Financial Occupations, 2000-2005 (%)



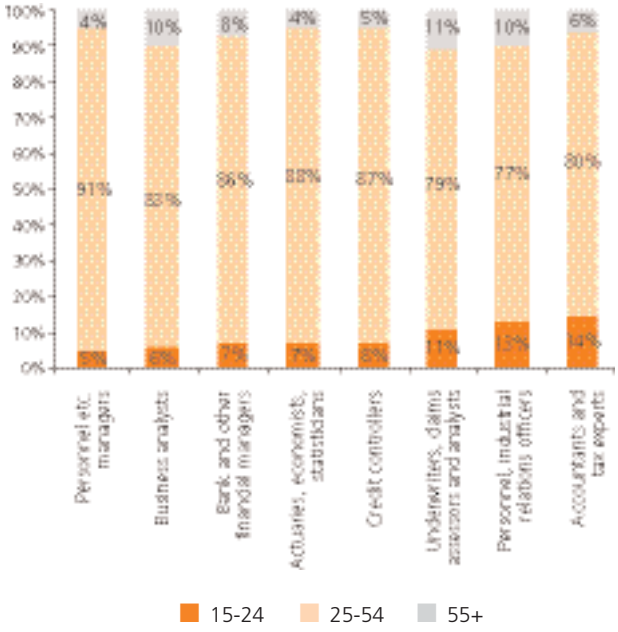
Source: CSO

7.4.3 AGE PROFILE

The age profile of the selected business and financial occupations is presented in Figure 7.4.3. Overall employment in the selected occupations is concentrated in the younger age cohorts: 92% of persons employed in the business and finance occupational group are younger than 55. There are no stark differences in the age distributions of individual occupations within business and finance. In all occupations examined, approximately 80% of employment is in the 25-54 age cohort. Persons employed as managers in finance and personnel are, on average, much younger than the national average for managers.

The share of persons aged 15-24 is relatively small in all occupations observed. This finding is not surprising given that professionals, associate professionals and managers tend to spend prolonged periods in formal or professional education.

Figure 7.4.3 Age Profile of Selected Business and Financial Occupations, 2005



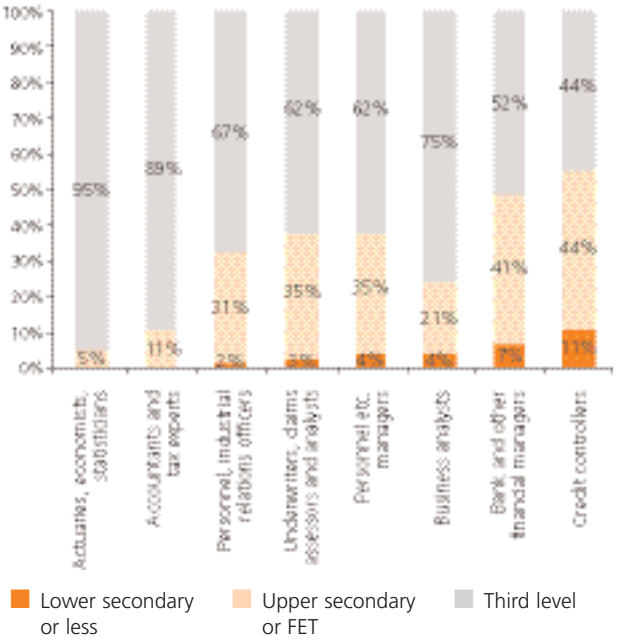
Source: CSO

7.4.4 EDUCATION PROFILE

Figure 7.4.4 shows employment by highest education attainment in selected business and financial occupations. Overall, persons employed in business and financial occupations have a high level of educational attainment: of 80,000 persons employed, 70% have third level qualifications. This is markedly above the national average. Business and financial professionals – accountants, business analysts, economists, actuaries etc. – are almost all third level graduates. Bank and financial managers have somewhat lower education attainment than professionals given that entry into managerial positions is not strictly linked to education attainment, but also to relevant experience and seniority.

Credit controllers have the lowest education attainment in the overall occupational group: approximately 50% of those employed have secondary education or less.

Figure 7.4.4 Education Profile of Selected Business and Financial Occupations, 2005



Source: CSO

7.4.5 SHORTAGE INDICATORS

The demand for financial skills continues to be strong due to the expansion of existing activities and the diversification within the sector linked to moving up the value chain of financial service provision (e.g. a shift from back to front office activities in international financial intermediation). In addition, continuous changes in the regulatory environment make meeting the skill needs of the financial sector a moving target.

As a result, skill shortages, which were identified in a number of financial areas in the previous year, have persisted. This includes shortages of accountants, actuaries, financial analysts (primarily investment and risk analysts) and underwriters. Despite a recent increase in education and training provision in some financial areas (e.g. risk management), the number of qualified persons expected to become available for work is still not considered sufficient to meet market demand.

The problem in attracting and retaining staff in credit control continues to be an issue.

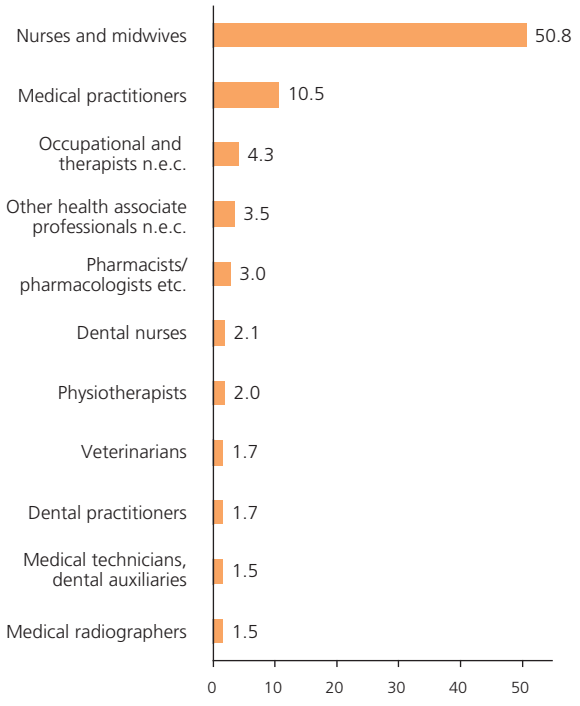
In addition, there are significant shortages in some financial occupations classified as clerical. These occupations are considered in Section 7.14.

7.5 Healthcare Occupations

7.5.1 EMPLOYMENT

Figure 7.5.1 shows the number employed in the selected healthcare occupations in 2005. There were 82,600 persons employed in these occupations, representing 4.2% of total national employment. Of the total employed in healthcare occupations, 21% were at professional level, while the remainder was at associate professional level. Nurses and midwives were the largest occupation in the group followed by medical practitioners.

Figure 7.5.1 Numbers Employed (000s) in Selected Healthcare Occupations, 2005



Source: CSO

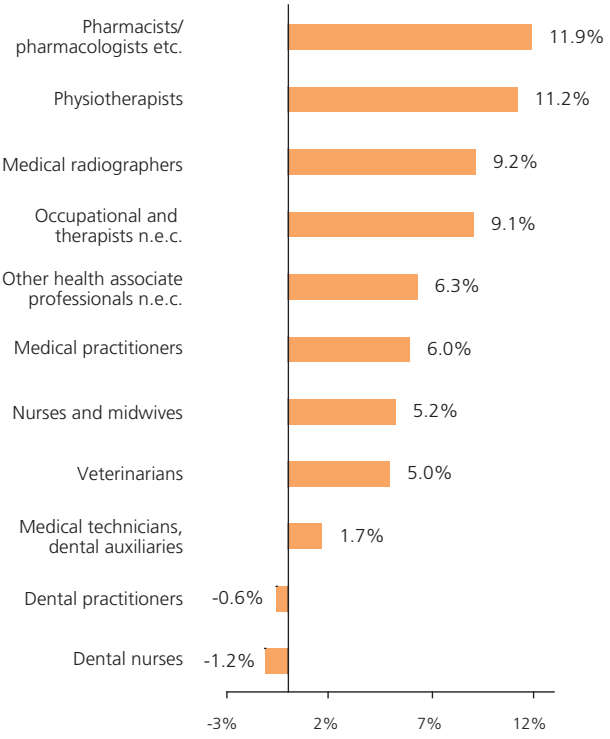
7.5.2 EMPLOYMENT GROWTH (2000-2005)

Approximately 19,500 new jobs were created in the selected healthcare occupations between 2000 and 2005, with around 11,500 new posts for nurses and midwives.

Figure 7.5.2 shows the annual average rates of employment growth in selected healthcare occupations for the five year period 2000 to 2005. Only the dental occupations and medical technicians had average annual employment growth rates below the national average. Over the last five years, the highest employment growth rate was recorded for pharmacists, therapists and medical radiographers.

The number of medical radiographers and other therapists (including, *inter alia*, occupational, speech and language therapists) also increased rapidly.

Figure 7.5.2 Annual Average Employment Growth in Selected Healthcare Occupations, 2000-2005 (%)

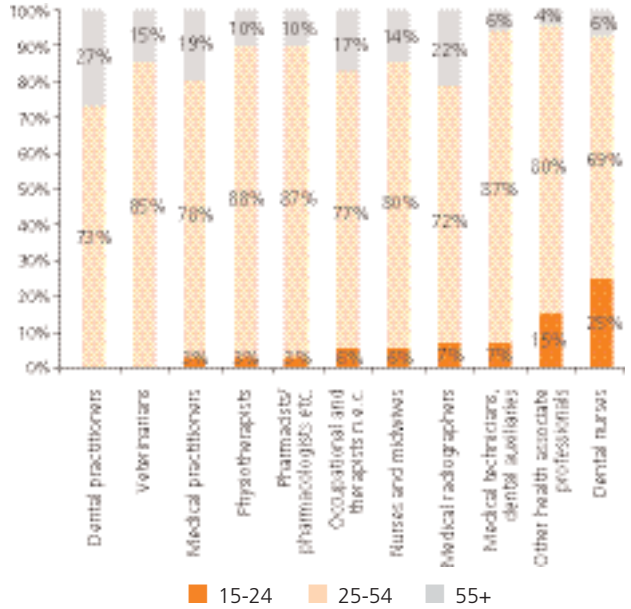


Source: CSO

7.5.3 AGE PROFILE

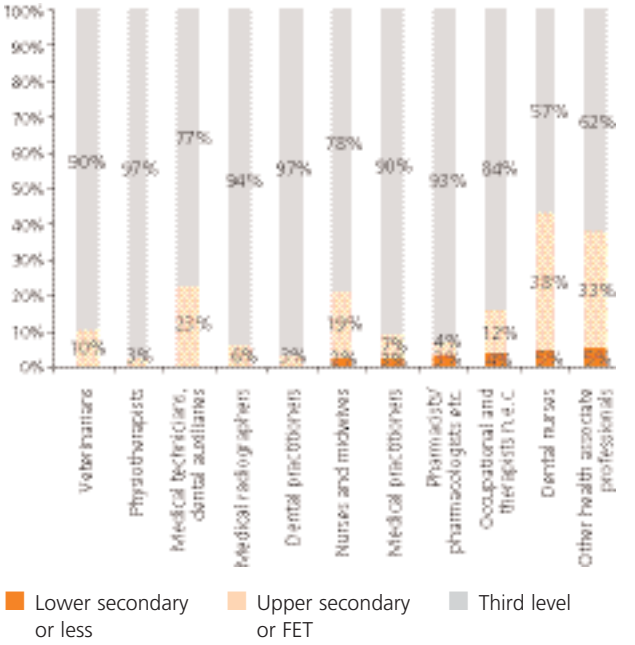
Figure 7.5.3 shows the age distribution of the selected healthcare occupations. Dental nurses have the youngest employment profile: more than a quarter of all employed in this occupation are younger than 25 (which is the highest share of this age cohort amongst healthcare occupations and well above the national average), 6% are older than 55 (which is well below the national level). On the other hand, 27% of dental practitioners are older than 55, with very few classified as younger than 25 in this occupation. Medical practitioners and medical radiographers also had a significant proportion of over 55s.

Figure 7.5.3 Age Profile of Selected Healthcare Occupations, 2005



Source: CSO

Figure 7.5.4 Education Profile of Selected Healthcare Occupations, 2005



Source: CSO

7.5.4 EDUCATION PROFILE

Figure 7.5.4 shows the education level of persons employed in each selected healthcare occupation. For most professional healthcare occupations, third level qualifications are mandatory. This applies to medical practitioners, pharmacists, most therapists, dentists, medical radiographers, as well as veterinarians. Since 2003, the education level of nursing has also been upgraded from diploma to degree level. The occurrence of persons with educational attainment lower than third level in the medical practitioner and dentist categories is probably due to misclassification. Dental nurses and other health associate professionals had the lowest proportions of individuals with third level qualifications across all selected occupations.

7.5.5 SHORTAGE INDICATORS

There is evidence of shortages in many healthcare occupations. These occupations include medical practitioners, dentists, various types of therapists (including dieticians) and radiographers. There are also possible shortages of nurses and pharmacists.

Increases in demand for the services of these occupations in recent years have not been matched by an increase in the number of graduates from the education system. However, the number of places on courses in medical related areas has increased in recent years. This should ease shortages, in particular in the therapy occupations. While the number of places for medical doctors in Ireland is set to increase in 2006, this will not impact on actual supply in the short to medium term.

There is a shortage of radiographers and the recent increase in training places will not be enough to reverse this. The number of dentists being trained annually has not changed in over 20 years causing problems in this area. The age profile of dentists is skewed towards older age cohorts which raises issues for future replacement demand.

There was a serious shortage of nurses in 2005 due to the lengthening in the training for nurses and the consequent lack of graduates in 2005. The recent slowdown in the growth of the number of nurses employed, indicating a moderation in

demand, should partially resolve the issue of shortages, though nurses will still need to be sourced from overseas.

Demand for pharmacists has increased in recent years, leading to a shortage. Graduates from new courses have begun to emerge, but if strong employment growth continues, shortages may persist.

Issues related to the supply of healthcare skills are discussed in more detail in a report published by the SLMRU[16] in 2005.

[16] *Healthcare Skills Monitoring Report, SLMRU, FÁS, Autumn 2005.*

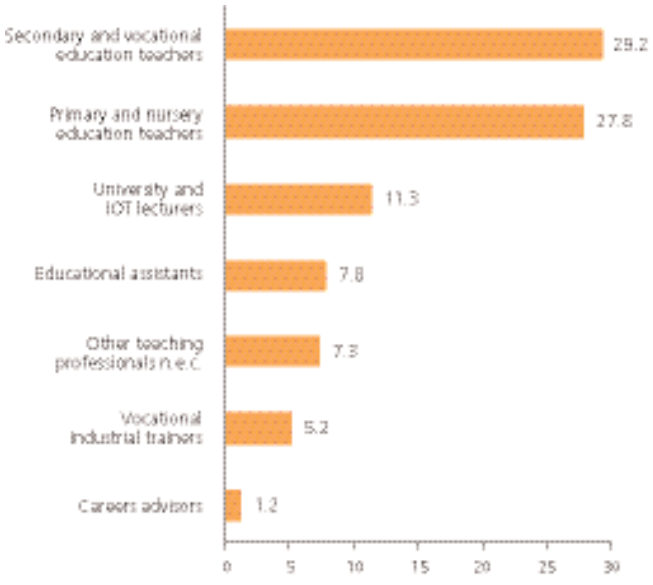
7.6 Education Occupations

7.6.1 EMPLOYMENT

This section examines employment in selected education occupations. These include teachers, trainers and other educational professionals. Career guidance advisors and educational assistants are also included in education occupations given their relevance to the sector.

The numbers employed in the selected education related occupations are presented in Figure 7.6.1. In 2005, 89,700 persons were employed in these occupations, which accounts for almost 4.6% of total national employment. The majority of employment in educated related occupations is in the education sector.

Figure 7.6.1 Numbers Employed (000s) in Selected Education Occupations, 2005



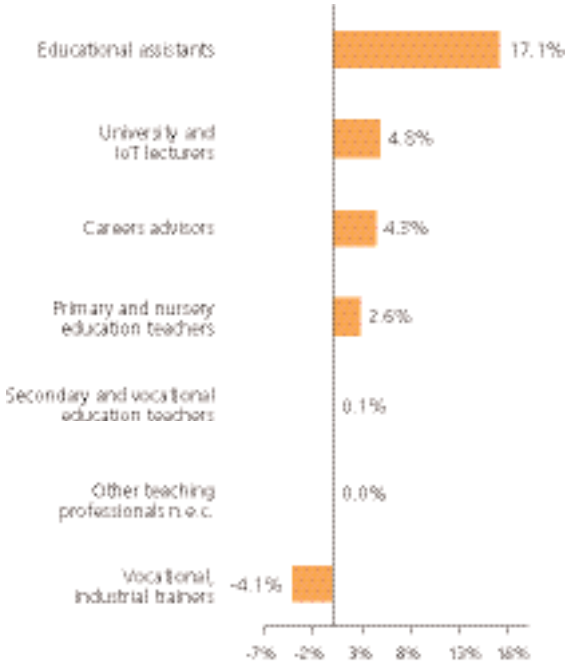
Source: CSO

7.6.2 EMPLOYMENT GROWTH (2000-2005)

A total of 9,200 extra persons were employed in the selected education occupations between 2000 and 2005. The annual average employment growth is presented in Figure 7.6.2. While most of the selected occupations gained employment over the period, the number of vocational trainers declined.

The largest increase in employment in both absolute and relative terms was for educational assistants. The numbers employed as educational assistants grew at an annual average rate of 17.1%. The number of university lecturers and career advisors grew at an annual rate of approximately 4%. The growth in the number of primary teachers was close to the national average of 2.9%. The number of secondary school/vocational teachers and other teaching professionals remained relatively unchanged over the period.

Figure 7.6.2 Annual Average Employment Growth in Selected Education Occupations, 2000-2005 (%)

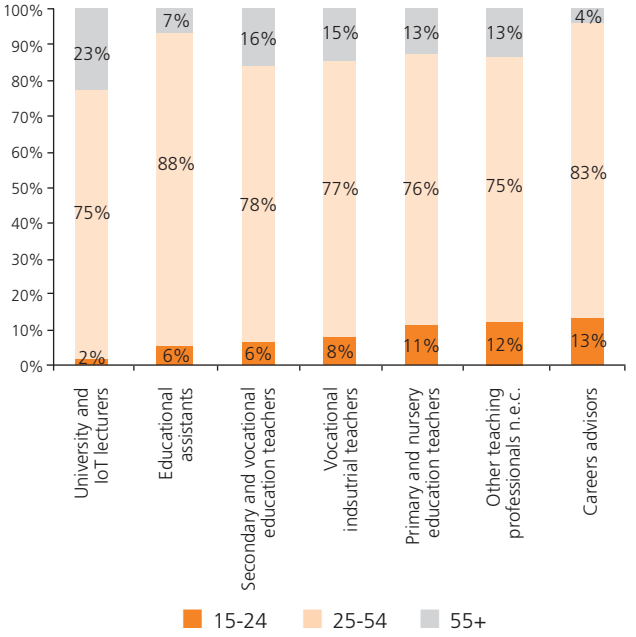


Source: CSO

7.6.3 AGE PROFILE

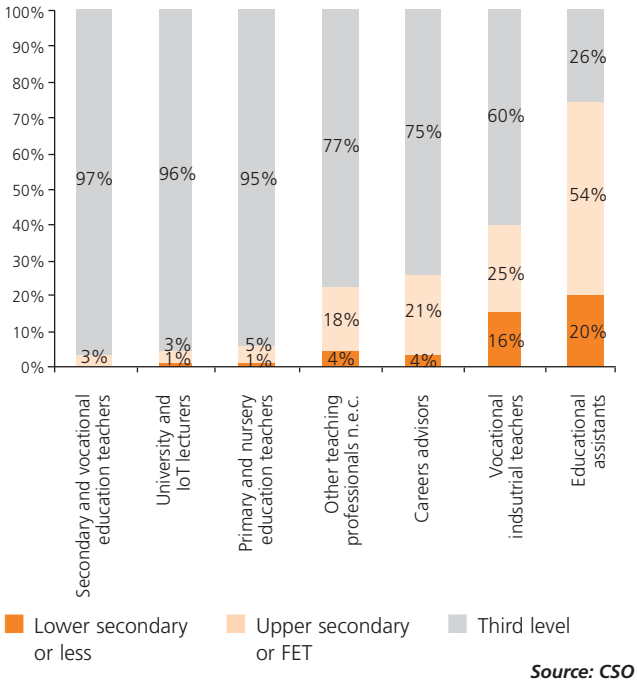
The age distribution of the selected education related occupations is shown in Figure 7.6.3. Career advisors, other teaching professionals and primary/nursery teachers have the youngest employment profile. On the other side of the spectrum lie university lecturers with the highest share of persons aged 55+ and the lowest share of 15-24 year olds. Given that postgraduate qualifications are required for university lecturing positions, only a small proportion in this occupation is aged 15-24.

Figure 7.6.3 Age Profile of Selected Education Occupations, 2005



Source: CSO

Figure 7.6.4 Education Profile of Selected Education Occupations, 2005



Source: CSO

7.6.4 EDUCATION PROFILE

Figure 7.6.4 shows the education level of persons employed in each education-related occupation. Third level qualifications are usually a prerequisite for teaching in the formal education system. This is illustrated in the education distribution of primary and secondary teachers and university lecturers, where almost all persons employed hold third level qualifications. Academic qualifications are not a mandatory requirement for non-professional education related jobs, which is illustrated by the higher proportion of persons with lower than third level educational attainment in those occupations. The majority of educational assistants have attained upper secondary education or FET, with approximately 20% having lower secondary education or less.

7.6.5 SHORTAGE INDICATORS

There is little evidence of skill shortages in the education sector. There is a large pool of graduates available from teacher training courses. However, this does not preclude shortages in particular subject areas such as mathematics or physical sciences in secondary schools, as well as in the area of special needs.

The number of pupils entering education at primary level has risen recently and will continue to rise in the near future as the number of births has increased. This will lead to an increase in demand for education providers. In addition, continuous Government's efforts to reduce class size[17] will result in an increase in demand for primary teachers.

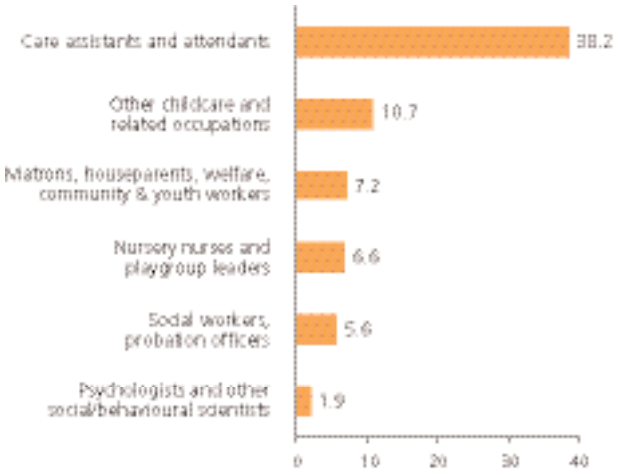
[17] *Primary Circular 0023/2006. Regulations Governing The Appointment And Retention Of Teachers In Primary Schools For The School Year 2006/07, Department of Education and Science*

7.7 Social and Care Occupations

7.7.1 EMPLOYMENT

The numbers employed in the selected social and care occupations are shown in Figure 7.7.1. In 2005, approximately 70,000 persons were employed in these occupations, which represented 3.6% of national employment. Professional occupations in this category include social workers and psychologists, which account for 11% of the total employment in the selected care occupations. At associate professional level, there were 7,200 (10% of total) persons employed. This includes houseparents and community or youth workers. Care assistants and attendants are the largest occupation in the group with 38,200 employed. The majority of care employment is in the health and social work sector, with the remainder in the education sector and across other sectors of the economy.

Figure 7.7.1 Numbers Employed (000s) in Selected Care Occupations, 2005



Source: CSO

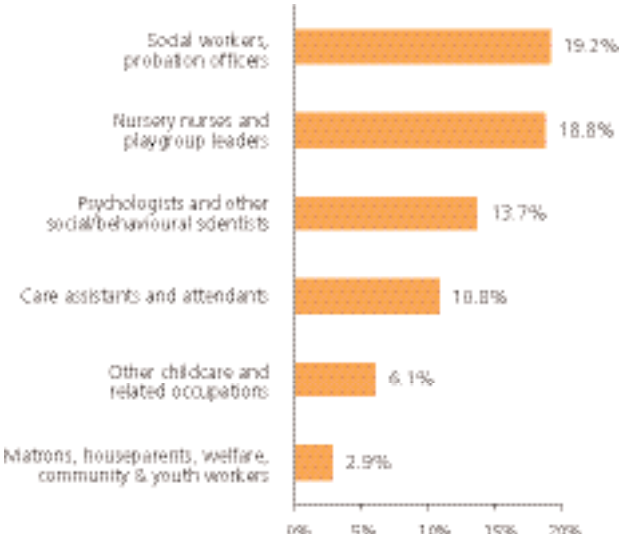
7.7.2 EMPLOYMENT GROWTH (2000-2005)

Figure 7.7.2 shows the annual average employment growth in selected care occupations in the period 2000 to 2005. All of the occupations in this group, with the exception of houseparents and community or youth workers, grew faster than national employment during the period. Houseparents and community or youth workers grew at the same rate as national employment.

The fastest growing occupations in this group were social workers and nursery nurses which both grew at approximately 19% annually over the period. Overall, there was an increase in employment in these occupations of almost 27,000 between 2000 and 2005.

The number employed as care assistants in 2005 was 38,200 which is a significant increase on the 2004 figure. The annual average growth rate of care assistants was 10.8% over the period 2000 to 2005.

Figure 7.7.2 Annual Average Employment Growth in Selected Care Occupations, 2000-2005 (%)

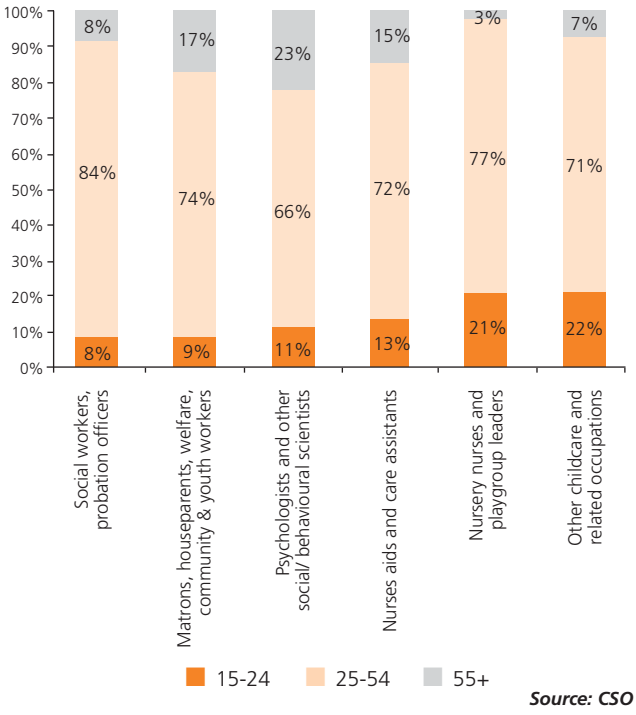


Source: CSO

7.7.3 AGE PROFILE

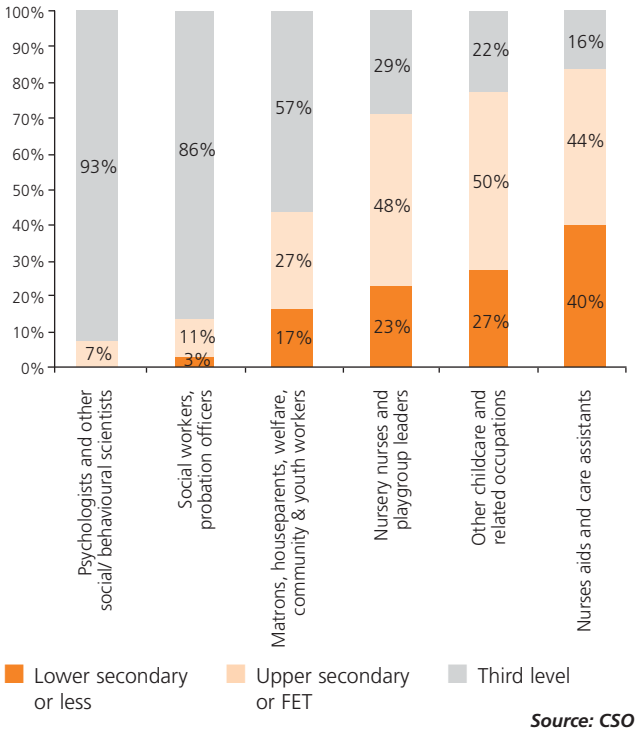
Figure 7.7.3 shows the age distribution of the selected care occupations. With over 20% aged under-25, childcare related occupations, namely nursery nurses and other childcare and related occupations, have the youngest work force amongst this occupational group. Psychologists and other social/behavioural scientists have the highest proportion of older workers of these occupations, with 23% older than 55.

Figure 7.7.3 Age Profile of Selected Care Occupations, 2005



Source: CSO

Figure 7.7.4 Education Profile of Selected Care Occupations, 2005



Source: CSO

7.7.4 EDUCATION PROFILE

Figure 7.7.4 shows the education level of the persons employed in each care occupation. Professional occupations, such as psychologists and social workers, have the highest share of persons employed with third level qualifications. For these occupations the share of third level qualification holders exceeds 85%. Care assistants have the lowest education attainment, with 40% of those employed with lower secondary education or less. Approximately one quarter of those employed in childcare related occupations have lower secondary or less educational attainment.

7.7.5 SHORTAGE INDICATORS

There is evidence of a labour shortage of care assistants/ attendants: over 500 work permits were issued to non-EU care assistants in 2005.

The demand for childcare and consequently for childcare workers, has risen rapidly in recent years, but supply has risen in tandem and there does not seem to be any labour shortage in this area. There are numerous childcare courses offered by Vocational Education Committees (VECs) and FÁS and enrolment on these courses has been increasing.

The data shows little evidence of shortages for houseparents, community and youth workers, but the broad nature of this occupational group may disguise shortages for specific skills. This is also the case for psychologists and other behavioural scientists for whom there is no overall shortage. However, shortages exist for specific types of psychologists, notably clinical and educational psychologists.

There is some evidence that a sizable number of people are misclassified as social workers in official employment statistics. The data suggests that there is a shortage of social workers. However, due to misclassification, information regarding any shortages in this occupation is inconclusive.

7.8 Legal and Security Occupations

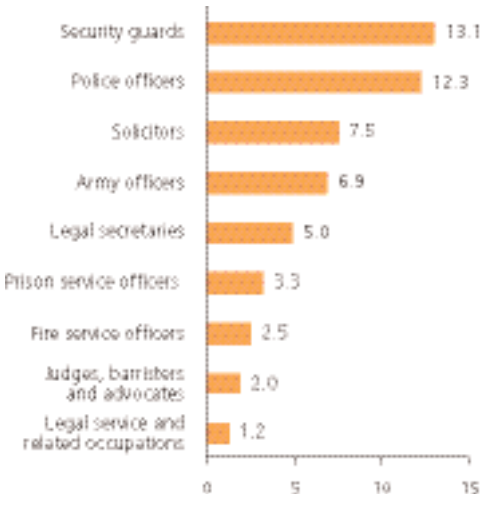
7.8.1 EMPLOYMENT

This section examines the employment of selected legal and security occupations shown in Figure 7.8.1. In 2005, there were approximately 53,700 persons employed in the selected legal and security occupations, which represented 2.7% of total national employment. The number employed in these occupations increased by 2,600 (5%) since 2004.

The majority of legal professionals were employed in the other business activities sector, while security personnel were employed in the public administration and defence sector in 2005.

The majority of persons were employed as security guards and police officers: 13,100 and 12,300, respectively. The least number of persons were employed in the legal service and related occupations[18] and as judges, barristers and advocates: 1,200 and 2,000, respectively.

Figure 7.8.1 Numbers Employed (000s) in Legal and Security Occupations, 2005



Source: CSO

7.8.2 EMPLOYMENT GROWTH (2000-2005)

Overall, a total of 6,200 new jobs were created for the selected legal and security occupations over the period 2000 to 2005. All occupations experienced jobs growth over the period, with the exception of army officers – this occupation lost around 1,000 posts.

Figure 7.8.2 shows the annual average rates of employment growth in each of the selected legal and security occupations over the period 2000 to 2005. Over the five year period, the highest employment growth rate was recorded for judges, barristers and advocates (11%), followed by security guards and related occupations (5%). Army officers were the only occupation which experienced a negative annual average employment growth rate of almost 3% over the period.

Figure 7.8.2 Annual Average Employment Growth in Legal and Security Occupations, 2000-2005 (%)

Source: CSO

7.8.3 AGE PROFILE

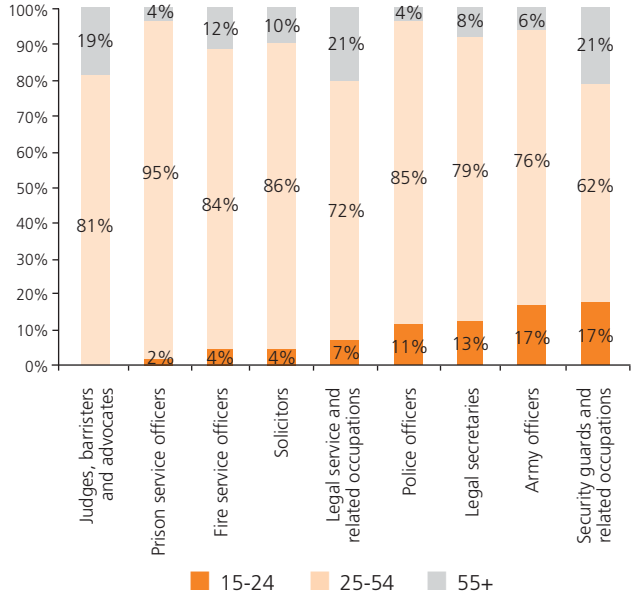
Figure 7.8.3 shows the age distribution of the selected legal and security occupations in 2005. Overall, the majority of persons employed in these occupations were aged 25-54 (78%), which is above the national average of 72%.

Security guards and related occupations, followed by legal service & related occupations and judges, barristers & advocates had the highest share of mature workers: 21%, 21% and 19%, respectively.

Overall, a total of 11% of persons employed in legal and security occupations were aged 15-24. Security guards and related occupations and army officers jointly accounted for the largest share of younger workers (i.e. aged 15-24), with approximately an 18% share each.

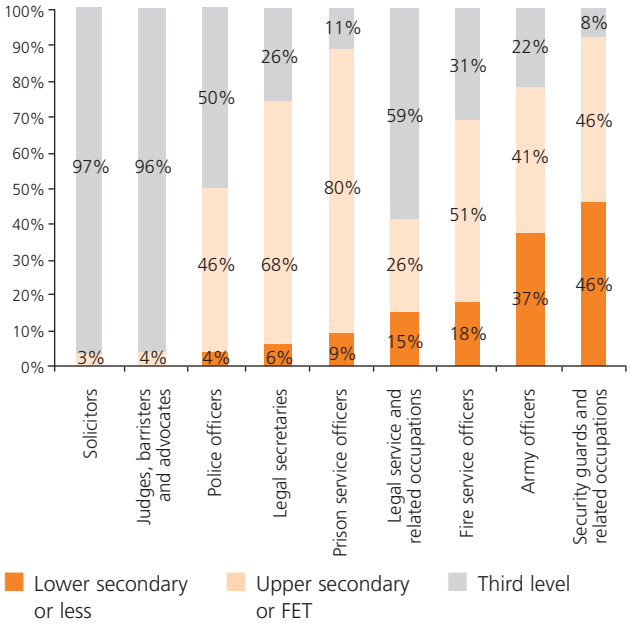
[18] *Legal service and related occupations include, inter alia, barrister's clerks, conveyancers, legal assistants and housing and planning inspectors.*

Figure 7.8.3 Age Profile of Legal and Security Occupations, 2005



Source: CSO

Figure 7.8.4 Education Profile of Legal and Security Occupations, 2005



Source: CSO

7.8.4 EDUCATION PROFILE

The education level of the persons employed in each of the selected legal and security occupations in 2005 is shown in Figure 7.8.4.

There is a clear contrast in the educational attainment levels of persons employed in legal and security occupations. A negligible percentage of judges, barristers and advocates have attained an education level below third level – it is assumed that the small percentage of persons employed in such occupations that have only attained upper secondary education or less is due to misclassification.

With 37% and 46% of employment at lower secondary education or less respectively, army officers and security guards have the lowest level of education in this occupational grouping. This is also significantly above the national average.

7.8.5 SHORTAGE INDICATORS

There is no indication of shortages in the legal professions. There is also no indication of any difficulty in recruiting army officers and other protective services occupations (with the exception of security guards) based on an examination of relevant data sources.

Employment of security guards grew strongly over the period 2000 to 2005 (at an annualised rate of 5% per annum). The data highlights significant sourcing of this occupation from non-domestic supply: a significant number of new work permits were issued to non-EU nationals and there was an increase in the share of non-Irish nationals in the employment stock of this occupation. The change in the nationality composition of the employment stock originates from an inflow of security guards from non-EU and EU countries (mostly accession countries). This would suggest that employers are having difficulty sourcing security guards from domestic supply.

7.9 Construction Professional Occupations

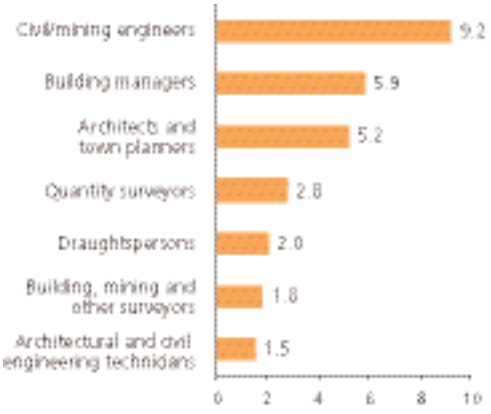
7.9.1 EMPLOYMENT

This section examines the employment of selected construction professional occupations. Figure 7.9.1 shows the number of persons employed in each of these occupations. In 2005, approximately 28,000 persons were employed in construction professional occupations, representing 1.5% of total national employment. Since 2004, the number employed in such occupations increased by 2,100 (8%).

The majority of persons were employed as civil and mining engineers (9,200) followed by building managers (5,900) and architects and town planners (5,200). The least number of persons were employed as technicians; there was a total 1,500 persons employed in this occupation.

Employment of the selected construction professional occupations is primarily concentrated in the construction sector and in the real estate, renting and business activities sector (over 50% and 27% respectively). The remainder are employed in small numbers across various sectors of the economy.

Figure 7.9.1 Numbers Employed (000s) in Construction Professional Occupations, 2005



Source: CSO

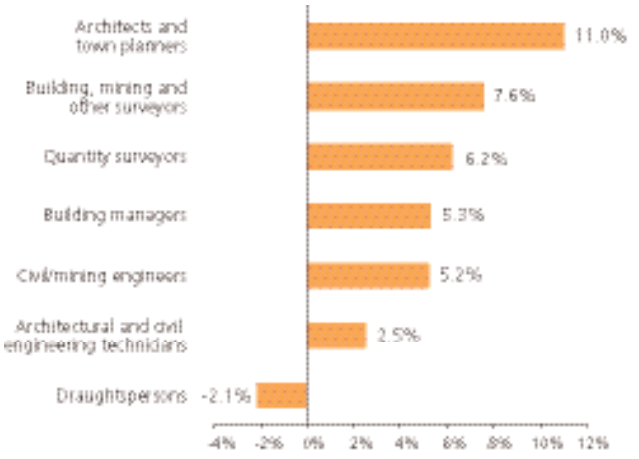
7.9.2 EMPLOYMENT GROWTH (2000-2005)

The number employed in all construction occupations increased over the five year period 2000 to 2005, with the exception of draughtspersons. Civil and mining engineers and architects and town planners jointly recorded the largest absolute increase in the number employed over the five year period, with an increase of 2,100 persons in each occupation.

Figure 7.9.2 shows the annual average rates of employment growth registered in each occupation over the period 2000 to 2005. Strong occupational employment growth was driven by the buoyant performance of the construction sector. Five out of seven construction professional occupations experienced employment growth above the national average. Employment of architects & town planners, building, mining & other surveyors, and quantity surveyors grew the fastest over the five year period, at an annual average rate of 11%, 7.6% and 6.2%, respectively.

In contrast, negative employment growth was recorded for the number of persons employed as draughtspersons – an annual average negative employment growth rate of 2% over the period. This trend is most likely due to the impact of technological changes in the field of computer aided design.

Figure 7.9.2 Annual Average Employment Growth in Construction Professional Occupations, 2000-2005 (%)



Source: CSO

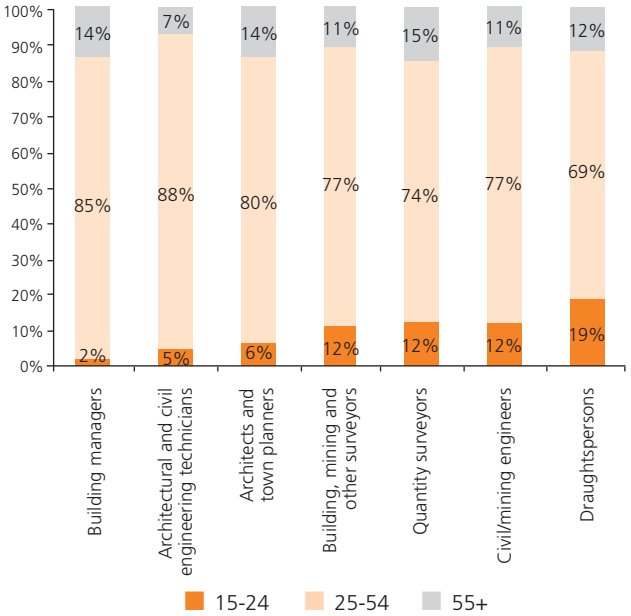
7.9.3 AGE PROFILE

Figure 7.9.3 shows the age distribution of persons employed in each of the selected construction professional occupations in 2005. Of the total number employed in these occupations, the majority of persons were aged between 25 and 54 (79%).

Draughtspersons had the highest percentage of persons employed aged 15-24 (19%) and this figure exceeded the national average of 15%. This was followed by civil and mining engineers and quantity surveyors (approximately 12% of those employed in each of these occupations were aged 15-24).

Quantity surveyors had the most mature employment profile, with 15% of those employed aged 55 or over. This was followed jointly by architects and town planners and building managers, with approximately 14% of those employed in each occupation aged 55 or over. This proportion exceeded the national average of 12.5%.

Figure 7.9.3 Age Profile of Construction Professional Occupations, 2005



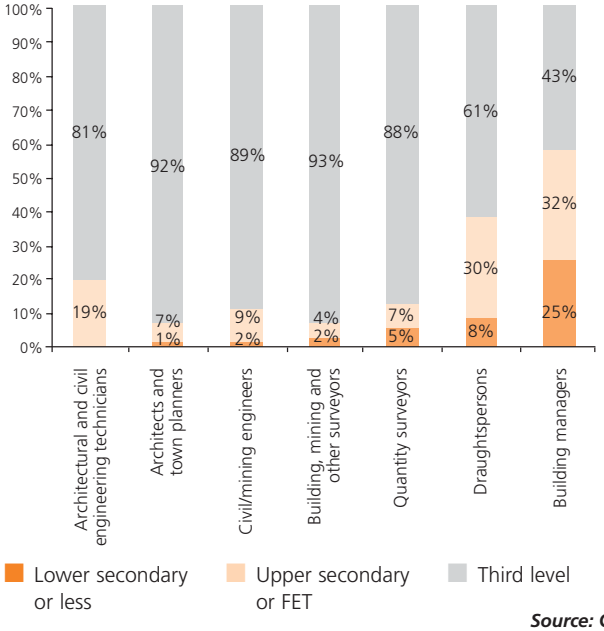
Source: CSO

7.9.4 EDUCATION PROFILE

Figure 7.9.4 shows the level of educational attainment of persons employed in each of the selected occupations in 2005. As in the case of most professional occupations, the majority of persons employed in each occupation (excluding building managers) had third level qualifications. Overall, approximately 78% of those employed in these occupations held third level qualifications. This proportion is below the national average for professional occupations, in general (approximately 90%).

Within this occupational group, building, mining & other surveyors, architects & town planners, civil/mining engineers, and quantity surveyors had the highest proportion of persons employed who had attained third level qualifications (over 80% employed in each of these occupations). At the other end of the scale, building managers and draughtspersons had the highest proportion of persons employed who had attained lower secondary or less (a total of 25% and 8.4% employed in these occupations respectively).

Figure 7.9.4 Education Profile of Construction Professional Occupations, 2005



Source: CSO

7.9.5 SHORTAGE INDICATORS

Many of the professional occupations employed within the construction industry continue to be in short supply – civil and mining engineers, architects and quantity surveyors. This is highlighted by the significant number of qualified persons in these occupations that continued to be sourced from non-EU countries under the work visa/authorization scheme in 2005. In addition, these three occupations were frequently cited by employers as being difficult to fill, according to the *FÁS/ESRI Monthly Employment and Vacancy Surveys* in 2005. Quantity surveyors were the most frequently cited occupation in these surveys. It is expected that shortages will abate to some extent in the future due to the expected slower growth in the construction sector and an increase in graduate output from third level education.

At technician level, there is evidence of a shortage of architectural & town planning technicians, and building & civil engineering technicians. The former group of technicians was recently added to the work visa/authorisation scheme suggesting that Irish employers are experiencing difficulties in filling posts for these occupations from domestic supply.

There are also shortages of management skills in the construction sector. There were a considerable number of mentions of difficult to fill vacancies for building managers in 2005 and there was also an increase in the number of work permits issued between 2004 and 2005.

7.10 Construction Craft Occupations

7.10.1 EMPLOYMENT

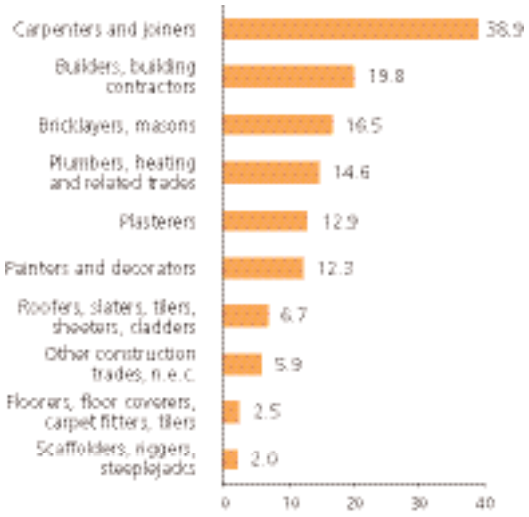
This section examines employment of selected construction craft occupations. These occupations are shown in Figure 7.10.1.

In 2005, there were approximately 132,000 persons employed in the selected construction craft occupations, which represented 7% of total national employment in the economy. There has been a significant increase (17,100 or 15%) on the number employed in 2004.

The construction sector is the predominant sector of employment for construction craft occupations. In 2005, almost 90% (115,200 persons) were employed in this sector and the remainder was employed in small numbers across other sectors of the economy.

Carpenters and joiners accounted for the largest number of persons employed (38,900), followed by builders and building contractors (19,800). Scaffolders, riggers and steeplejacks accounted for the least number employed (2,000).

Figure 7.10.1 Numbers Employed (000s) in Construction Craft Occupations, 2005



Source: CSO

7.10.2 EMPLOYMENT GROWTH (2005-2006)

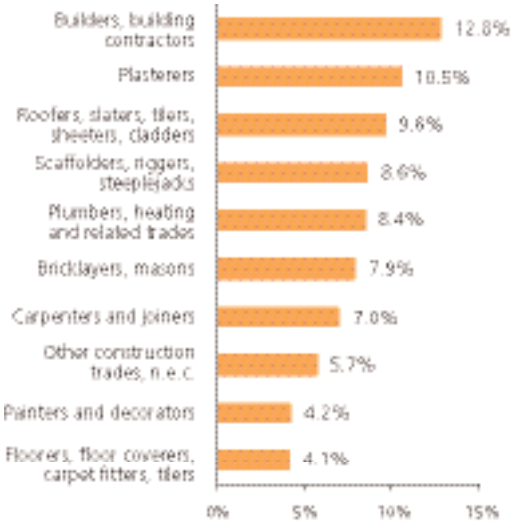
Each of the selected construction craft occupations posted an increase in the number employed over the period 2000 to 2005. In aggregate, a total of 42,600 new jobs were created for these occupations over the five year period.

In terms of individual occupations/occupational groups, the most significant number of new jobs was created for carpenters and joiners (the largest occupational group), with a total of 11,200 new jobs. This was followed by builders and building contractors (the second largest occupational group), with a total of 9,000 new jobs.

Figure 7.10.2 shows the annual average rates of employment growth recorded in each occupation over the period 2000 to 2005. The average annual employment growth rate recorded in all construction craft occupations was above the national average of 2.9%.

Builders and building contractors and plasterers experienced the most pronounced rate of employment growth over the five year period (12.8% and 10.5% respectively).

Figure 7.10.2 Annual Average Employment Growth in Construction Craft Occupations, 2000-2005 (%)



Source: CSO

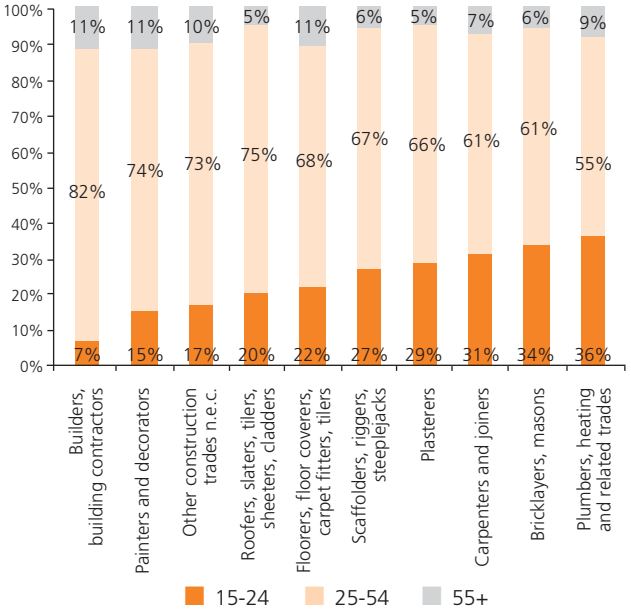
7.10.3 AGE PROFILE

Figure 7.10.3 shows the age distribution of the selected construction craft occupations in 2005. Overall, the majority of persons employed in these occupations are aged 25-54 (67%). The relatively high proportion of craftspersons in younger age cohorts (a quarter are aged 15-24) is due to the inclusion of apprentices in the employment stock. Plumbers

have the highest percentage of persons employed aged 15-24 (36%), followed by bricklayers and masons (34%).

Builders & building contractors, painters & decorators, and floorers/tilers account for the highest percentage of mature workers (at 11% each), while roofers etc. and plasterers account for the lowest proportion (at 5% each).

Figure 7.10.3 Age Profile of Construction Craft Occupations, 2005



Source: CSO

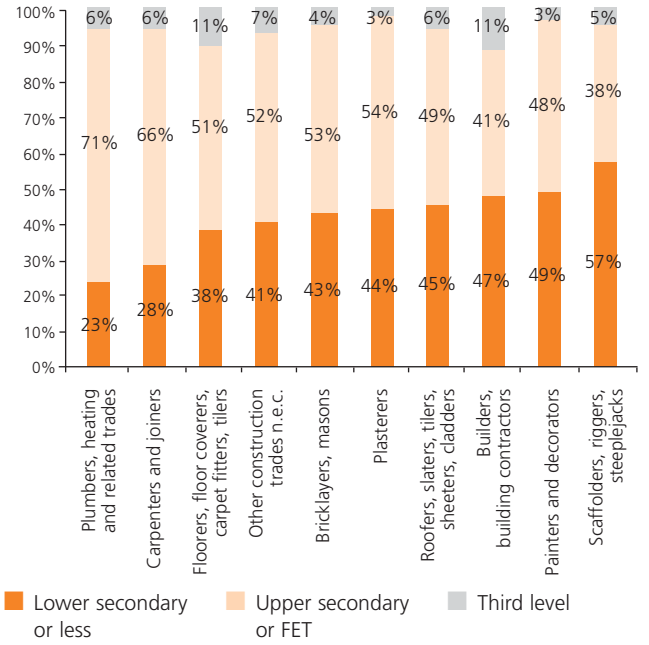
7.10.4 EDUCATION PROFILE

The highest level of educational attainment reached by persons employed in each of the selected construction craft occupations is shown in Figure 7.10.4. Overall, the majority of persons employed in construction craft occupations have completed upper secondary/FET education (56%)[19]. This proportion exceeds the national average figure of 40%.

The proportion of persons employed in construction crafts occupations who have completed lower secondary education or less is, in general, above the overall national. Consequently, the proportion of persons employed in construction craft occupations who have completed third level education (6%) is considerably below the percentage in the overall economy (32%). In all of the occupations, however, some individuals hold third level qualifications – builders and building contractors and floorers etc. have the highest proportion of persons employed with third level qualifications (around 11% each).

[19] *In the CSO education classification, apprenticeship programmes are included in the further education and training category.*

Figure 7.10.4 Education Profile of Construction Craft Occupations, 2005



Source: CSO

7.10.5 SHORTAGE INDICATORS

Many of the construction trades continue to be in short supply, mainly due to the continued high level of construction activity in Ireland. The trades most noticeably affected are: bricklayers, plasterers, carpenters, scaffolders, and floorers/tilers. While all of these trades have seen a higher uptake in apprentices in the past few years, shortages still persist. Shortages have, however, been addressed to some extent by the inflow of labour from non-domestic supply – a considerable number of work permits were issued for these occupations and the share of non-Irish nationals in the employment stock of these occupations has increased markedly since the expansion of the EU in 2004.

It is anticipated that the current record levels of activity in residential development will contract in the medium term – this sector is the main sector of employment of these trades. The moderation of growth in this sector coupled with the continued increase in the inflow of non-Irish nationals in the employment stock and the higher uptake of apprentices in recent years is expected to close the gap between supply and demand for many of the craft skills – in particular, the 'wet trades' (plasterers and bricklayers) and carpenters.

For roofers, slaters, tilers, sheeters and cladders and other construction trades, there is little data on supply and it is difficult to draw meaningful conclusions about shortages.

7.11 Other Craft Occupations

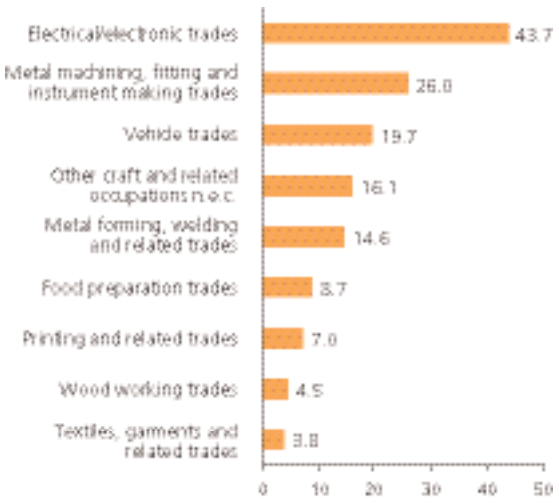
7.11.1 EMPLOYMENT

This section examines employment of other craft occupations and these are presented in Figure 7.11.1. In 2005, there was a total of 144,100 persons employed in these occupations, which is equivalent to 7% of total national employment and represents an increase of 5,800 (4%) since 2004.

In 2005, the majority of other craftspersons were employed in electrical/electronic trades (43,000); metal machining, fitting and instrument making trades (26,000); and vehicle trades (19,700). The least number of craftspersons were employed in textiles, garments and related trades (3,800) and wood working trades (4,500).

Employment of other craftspersons is primarily concentrated in both the manufacturing and construction sectors (over one-third of persons were employed in both of these sectors in 2005).

Figure 7.11.1 Numbers Employed (000s) in 'Other' Craft Occupations, 2005



Source: CSO

7.11.2 EMPLOYMENT GROWTH (2000-2005)

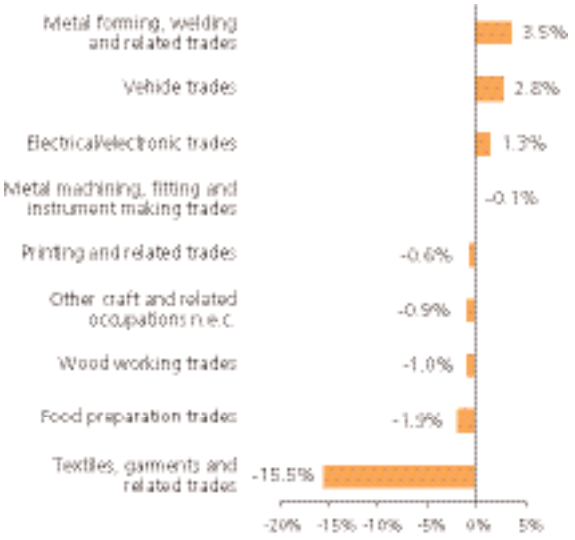
Figure 7.11.2 shows the annual average rates of employment growth in each occupation over the period 2000 to 2005.

Most other craft occupations experienced a decline in the numbers employed over the period 2000 to 2005. Only three other craft occupations – electrical/electronic trades; metal forming, welding and related trades; and vehicle trades – recorded an increase in the numbers employed over the five year period.

Textiles, garments and related trades recorded the most marked decline in the numbers employed – a decrease of 5,100 since 2000 or an annual decline of 15.5%. This was followed by food preparation trades, in which the numbers employed decreased by almost 1,000 since 2000.

Metal forming, welding and related trades was the only other craft occupation in which the rate of employment growth surpassed the annual average employment growth rate recorded in all crafts and the national average rate of 2.9%.

Figure 7.11.2 Annual Average Employment Growth in 'Other' Craft Occupations, 2000-2005 (%)



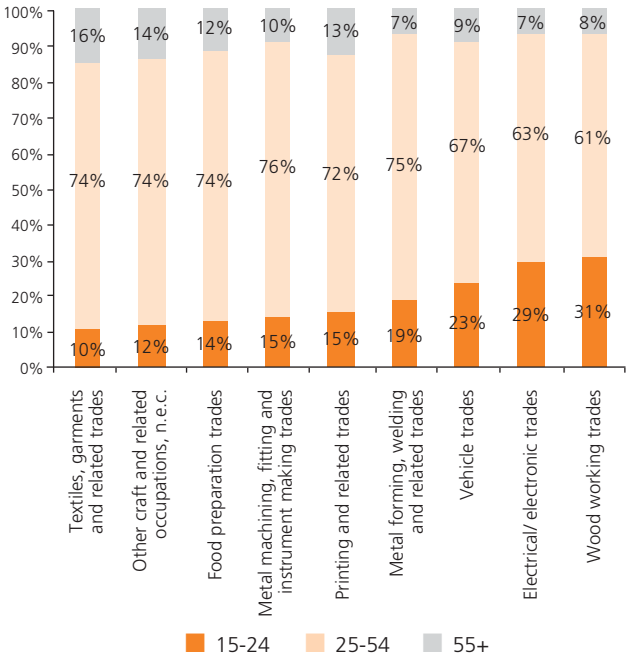
Source: CSO

7.11.3 AGE PROFILE

Figure 7.11.3 shows the age distribution of other craft occupations in 2005. At 23%, the proportion of those employed who were under the age of 25 was relatively high, especially when compared with the national average of 15%. Both wood working trades and electrical/electronic trades trades had the highest percentage of persons employed in this age cohort (around 30% each), followed by vehicle trades (23%).

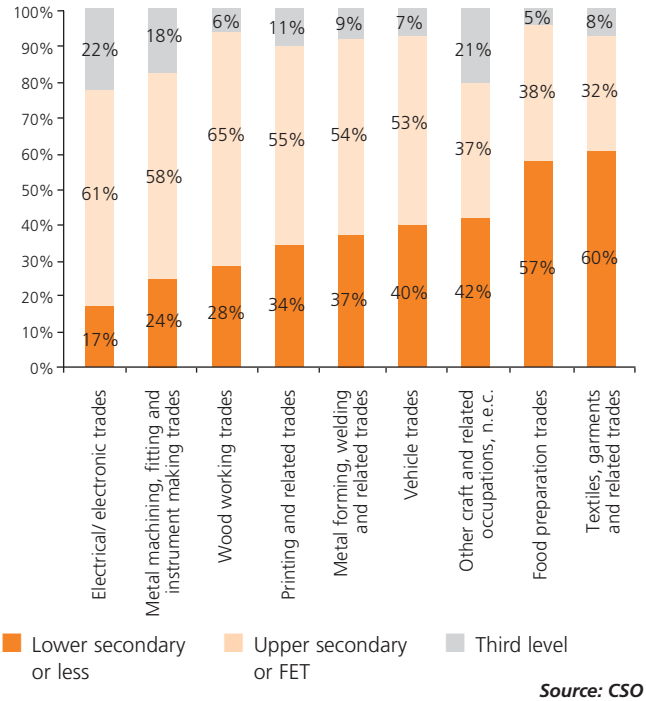
Overall, a total of 9% of those employed in 'other' craft occupations were aged 55 or over, which is below the national average of 12.5%. Textiles, garments & related trades and 'other' craft & related occupations were the only occupations in which the percentage employed aged 55 or over exceeded the national average.

Figure 7.11.3 Age Profile of 'Other' Craft Occupations, 2005



Source: CSO

Figure 7.11.4 Education Profile of 'Other' Craft Occupations, 2005



Source: CSO

7.11.4 EDUCATION PROFILE

The highest level of education attained by persons employed in each of the other craft occupations in 2005 is shown in Figure 7.11.4. Overall, the highest proportion of persons employed in such occupations had attained upper secondary education/FET (56%); 31% had attained lower secondary education or less and 14% had attained third level education.

A high proportion of craftspersons employed in occupations such as textiles, garments & related trades; food preparation trades; and other craft & related trades had attained lower secondary education or less.

The percentage of other craftspersons who had attained third level education was slightly above the average of all craftspersons (10%) but considerably below the national average (32%). Third level education was proportionally higher for electrical/electronic trades and other craft and related workers (22% and 21% respectively) and for metal machining, fitting and instrument making trades.

7.11.5 SHORTAGE INDICATORS

Overall employment in other craft occupations has been declining. This would suggest an absence of any skill shortages. However, there are specific areas within the broad occupational groupings where shortages have been identified. These are the following:

- Metal working production and maintenance fitters – there has been a significant number of work permits issued to non-EU nationals and this occupation has been frequently mentioned by employers as difficult to fill
- Sheet metal workers – this occupation has been frequently mentioned by employers as difficult to fill
- Welders - the number of work permits issued for this occupation and the share of non-Irish nationals in the employment stock suggest that many employers are experiencing difficulties in sourcing welders domestically
- Butchers and de-boners – the share of non-Irish nationals in the employment stock and the number of work permits issued suggest that many employers are experiencing difficulties in sourcing workers in this occupation.

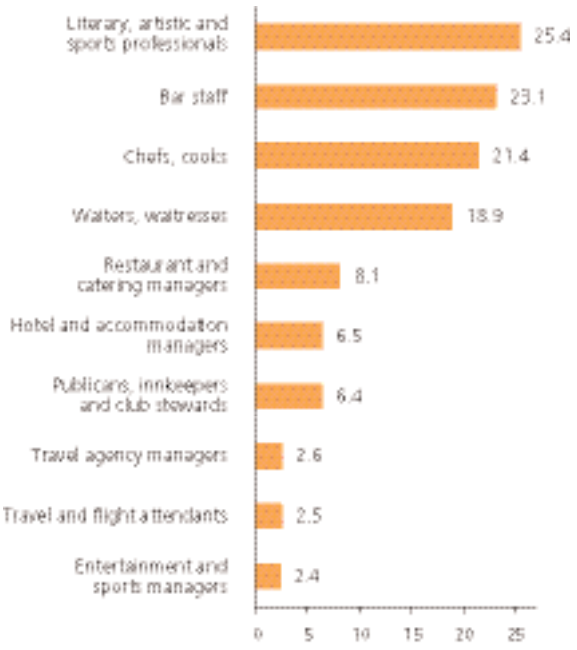
7.12 Arts, Sports and Tourism Occupations

7.12.1 EMPLOYMENT

In this section, we examine employment in arts, sports and tourism occupations. These occupations are typically employed in recreational, cultural and sporting activities, as well as in the hotel and restaurant sectors.

Figure 7.12.1 shows the number employed in the selected arts, sports and tourism occupations in 2005. In 2005, there were 117,000 persons employed across all selected occupations in arts, sports and tourism, which represents 6% of national employment. More than 70% of total employment in this group relates to persons employed in hotel and restaurant related activities (chefs, bar staff, waiters and related managers). There were over 25,000 literary, arts and sports professionals in employment in Ireland in 2005, and approximately 7,500 employed in travel and entertainment related activities.

Figure 7.12.1 Numbers Employed (000s) in Selected Arts, Sports and Tourism Occupations, 2005



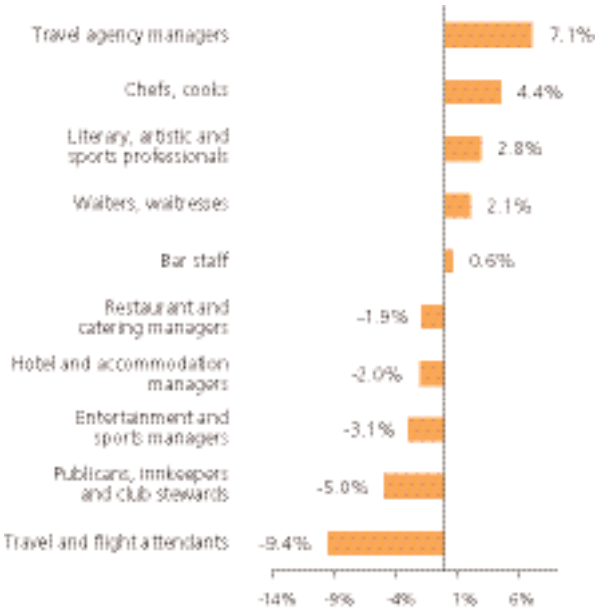
Source: CSO

7.12.2 EMPLOYMENT GROWTH (2000-2005)

Employment growth recorded in each of the selected arts, sports and tourism occupations in the period 2000-2005 is presented in Figure 7.12.2. The figure shows varied performance across selected occupations. Employment grew faster than the national average for two occupations only: travel agency managers (albeit from a small base) and chefs/cooks. Employment contracted on average annually for hotel and restaurant managers and publicans, and also for entertainment and sports managers and travel attendants.

In absolute terms, the highest employment growth was recorded for chefs/cooks: more than 4,000 new jobs were created over the five year period. This is followed by literary, artistic and sports professionals: 3,300 new jobs were created. However, within this occupation, most of the employment growth was due to an increase in the number of authors, writers and journalists, while the number of designers actually declined. An increase in employment levels of bar staff and waiters/waitresses led to the creation of almost 2,500 new positions.

Figure 7.12.2 Annual Average Growth in Selected Arts, Sports and Tourism Occupations, 2000-2005 (%)



Source: CSO

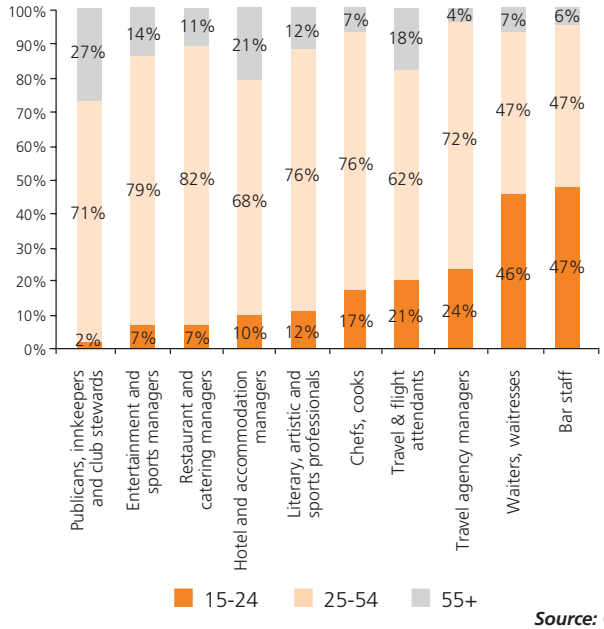
7.12.3 AGE PROFILE

The age distribution of the selected occupations in arts, sports and tourism is presented in Figure 7.12.3. Almost half of all persons employed as waiters/waitresses and bar staff are concentrated in the 15-24 age cohort, placing them amongst the youngest occupations overall. This is not surprising given that working as waiting or bar staff is taken as a temporary position taken during studies, travel or while in between jobs by many young people.

The age distribution of publicans, on the other hand, is skewed towards older age cohorts, with 27% aged over 55 and a negligible number are younger than 25.

Given the wide range of job titles covered, the age distribution of literary, artistic and sports professionals mirrors the overall national average.

Figure 7.12.3 Age Profile of Selected Arts, Sports and Tourism Occupations, 2005



Source: CSO

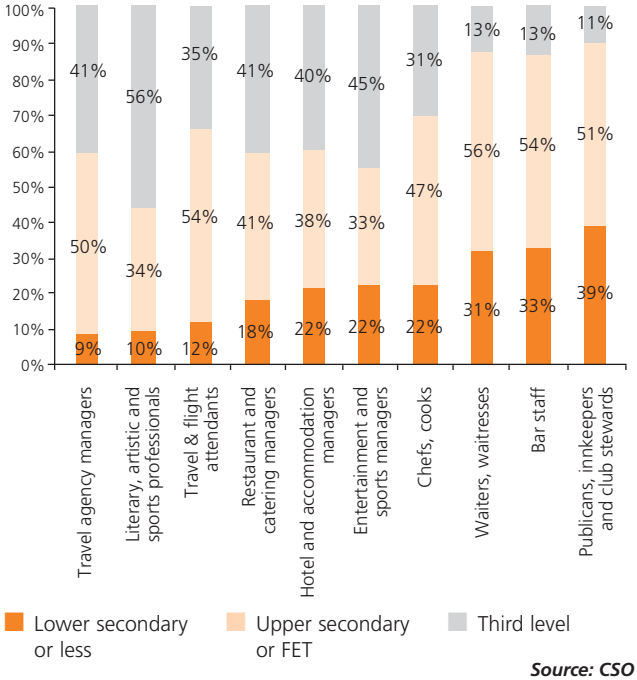
7.12.4 EDUCATION PROFILE

Figure 7.12.4 presents the education distribution of employment in arts, sports and tourism occupations. Waiters/waitresses, bar staff and publicans have the lowest level of educational attainment amongst the selected occupations: less than 15% of employment is at third level and a third or more at lower secondary level or lower. The education profile of these occupations is below the national average.

Literary, artistic and sports professionals have the highest level of educational attainment of all the selected occupations.

However, with 56% of persons employed with third level education, literary, artistic and sports professionals have a lower level of educational attainment than for professional occupations in general. This is partly because many sports professionals do not hold third level qualifications.

Figure 7.12.4 Education Profile of Selected Arts, Sports and Tourism Occupations, 2005



Source: CSO

7.12.5 SHORTAGE INDICATORS

Although the imbalance between demand and supply seems to have abated since 2004, there is still evidence that some employers are having difficulties in sourcing chefs and waiters/waitresses in Ireland. The indicators of potential shortage include the following: the share of non-Irish nationals in these occupations is exceptionally high (21% and 25% respectively); a significant number of work permits were issued to non-EU nationals to work in these occupations (almost 1,000 new work permits were issued for chefs in 2005); and some employers are still citing vacancies for these occupations as being difficult to fill. While the shortage of chefs is a skills shortage, the shortage of waiting staff is a labour shortage.

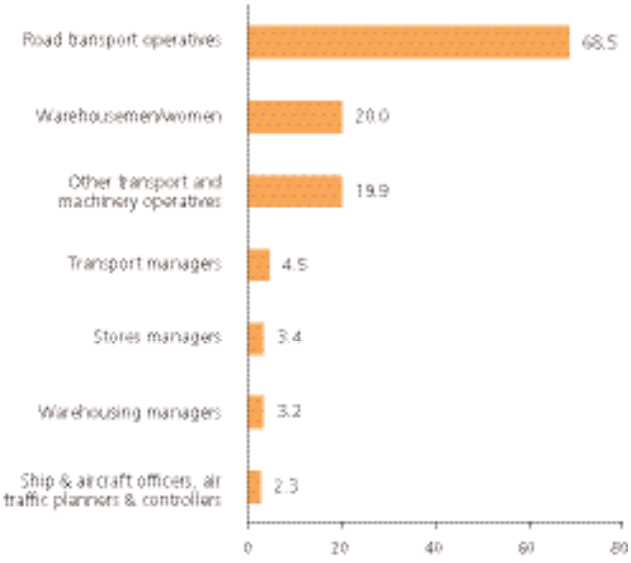
7.13 Transport and Logistics Occupations

7.13.1 EMPLOYMENT

This section examines employment in transport and logistics occupations (Figure 7.13.1). These occupations are predominantly employed in the transport, storage and communications sector and in the wholesale and retail sector. However, some are also found in manufacturing and construction activities.

In 2005, just over 6% of national employment was represented by these occupations. Of the total 120,000 persons employed in transport and logistics occupations, almost 88,500 (74%) were employed as transport operatives, mainly road transport operatives (68,500) (truck drivers, bus and taxi drivers). Warehousemen/women accounted for 17% of total employment in this group with 20,000 persons. Managers – transport, stores and warehousing managers – accounted for 9% of employment in the group with 11,000 persons.

Figure 7.13.1 Numbers Employed (000s) in Selected Transport and Logistics Occupations, 2005



Source: CSO

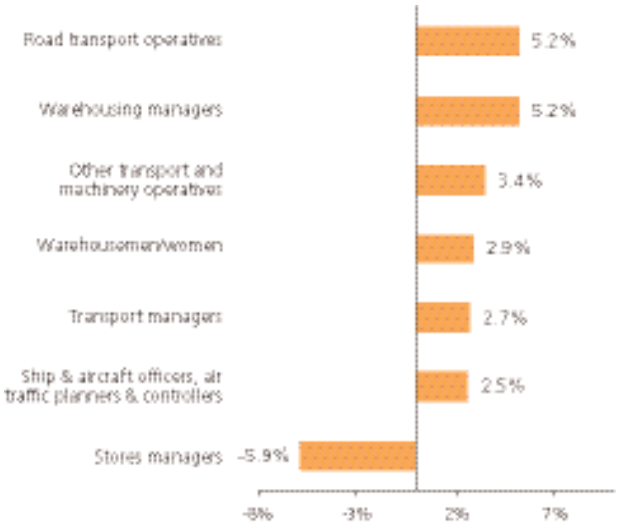
7.13.2 EMPLOYMENT GROWTH (2000-2005)

Over the period 2000-2005, more than 20,000 new positions were created in transport and logistics occupations. Over 70% of these posts were for road transport operatives. Employment for other transport operatives, which includes drivers of fork lifts and mechanical trucks and plant operatives, grew by 3,100. The number of warehousemen/women employed in 2005 was 20,000, a rise of 2,700 since 2000.

Overall, employment of transport and logistics managers in 2005 was almost equivalent to that of 2000. However, while there was a slight increase in the number employed as warehousing and transport managers, employment of stores managers contracted.

Employment growth recorded in the selected transport and logistics occupations, in terms of annualized five year growth rates, is presented in Figure 7.13.2. All occupations, except stores managers, experienced positive employment growth. Moreover, employment of transport operatives and warehousing managers grew faster annually than the national average of 2.9%.

Figure 7.13.2 Annual Average Growth in Selected Transport and Logistics Occupations, 2000-2005 (%)

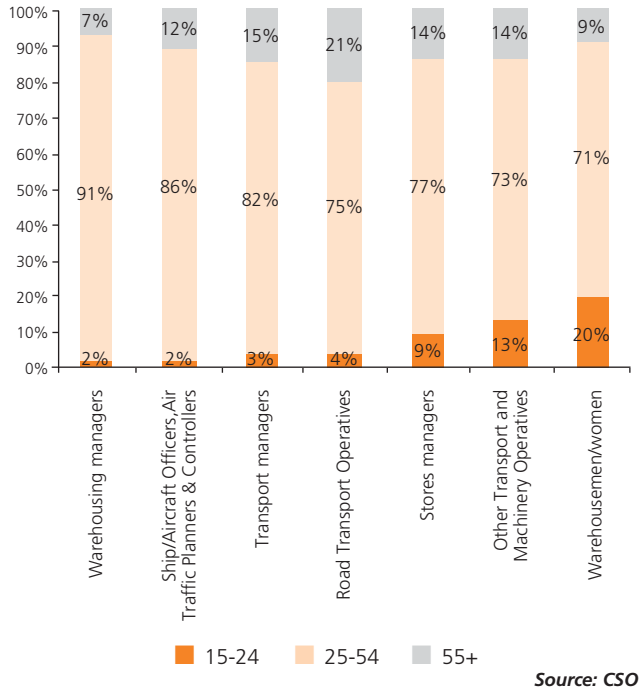


Source: CSO

7.13.3 AGE PROFILE

The age distribution of the selected transport and logistics occupations is shown in Figure 7.13.3. In general, the majority of employment in each selected occupation is concentrated in the 25-54 age category. With 21% of employment in the 55+ age category, road transport operatives have a higher share of older workers than the national average. In contrast, with 20% of employment in the 15-24 age cohort, warehousemen/women have a higher share of younger workers than the national average.

Figure 7.13.3 Age Profile of Selected Transport and Logistics Occupations, 2005



Source: CSO

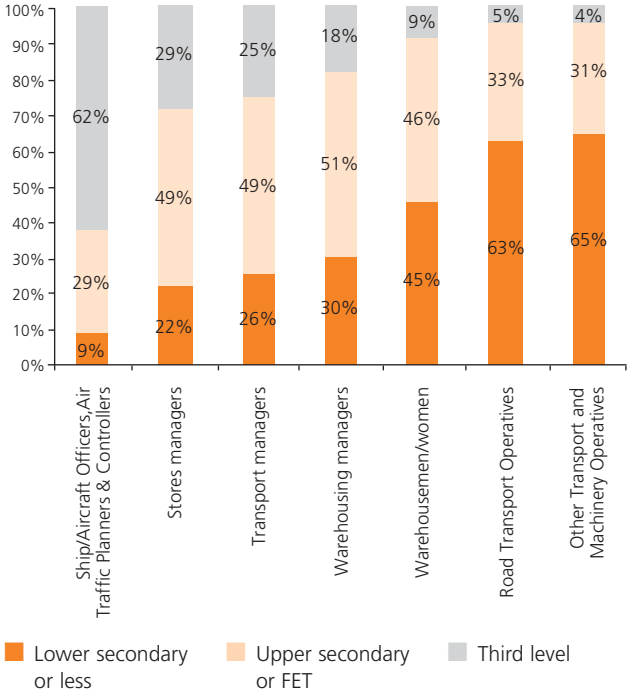
7.13.4 EDUCATION PROFILE

The education distribution of employment in transport and logistics occupations is presented in Figure 7.13.4. Of the selected occupations, ship and aircraft officers and air traffic controllers have the highest education attainment, with 62% of employment in the third level education category. This is not surprising, given that ship and aircraft officers and air traffic controllers are associate professionals and their educational distribution is very similar to that of other associate professionals.

The education distribution of transport operatives is skewed towards lower education levels, with in excess of 60% with lower secondary or less education. Moreover, the education level of transport operatives is lower than the education level of operatives in general.

Transport, stores and warehousing managers have similar education distributions: approximately one half of those in employment have attained upper secondary education or FET, while the remainder is almost equally distributed between lower secondary and third level education.

Figure 7.13.4 Education Profile of Selected Transport and Logistics Occupations, 2005



Source: CSO

7.13.5 SHORTAGE INDICATORS

Despite the fact that a new degree programme was recently introduced, there is still evidence of a shortage of transport managers, in particular, persons with relevant skills to manage integrated supply chains in the indigenous sector.

The work permit data and the results from the difficult to fill vacancy survey suggest that some employers are experiencing difficulties in sourcing road transport operatives, namely drivers of heavy goods vehicles (HGV).

While the quantitative data does not point at widespread shortages, there is evidence that some employers experiencing difficulties in sourcing warehousemen/women with specific skills: the share of non-Irish nationals in employment increased between 2004 and 2005 (from 5% to 8.4%) and there has been an increase in the frequency of mentions in the difficult to fill vacancy survey since 2004.

7.14 Clerical Occupations

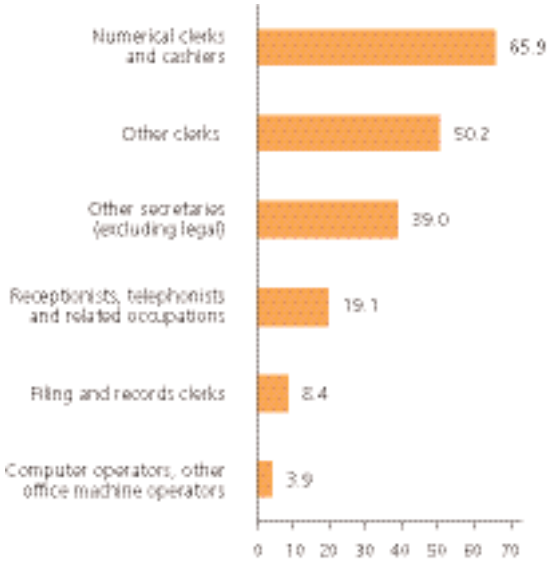
7.14.1 EMPLOYMENT

This section examines employment in clerical occupations. Clerical occupations cover a wide range of administrative areas: finance, records, communications and general clerical.

Approximately 186,000 persons were employed in clerical occupations in 2005, which represents 9.6% of the total employment in the economy (Figure 7.14.1). Clerical occupations are employed across all sectors of the economy with the highest share (20%) found in financial intermediation (including insurance), followed by the other business activities sector (11%) and public administration (8%).

With in excess of 50,000 persons in employment, numerical clerks and cashiers, and other clerks (n.e.c.) each are the most populated occupations in this group and indeed amongst the most populated occupations in general.

Figure 7.14.1 Numbers Employed (000s) in Clerical Occupations, 2005



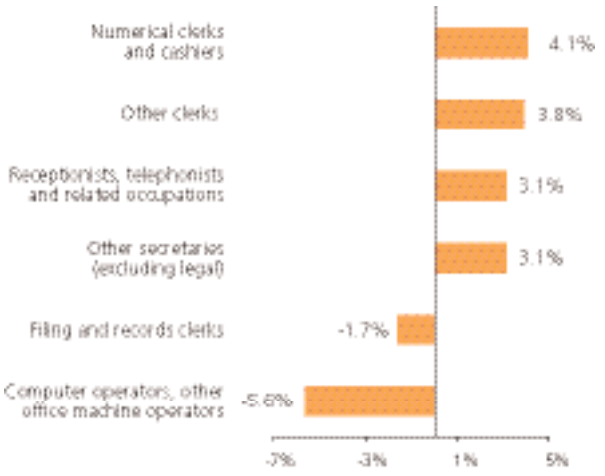
Source: CSO

7.14.2 EMPLOYMENT GROWTH (2000-2005)

Figure 7.14.2 presents annual employment growth for clerical occupations over the period 2000-2005. More than 26,000 new positions were created in this occupation over this period. However, while employment in some occupations increased at an annual rate above the national average (mostly for clerks in finance and communications), it contracted for records clerks and computer operators.

Employment of numerical clerks increased at an average annual rate of 4.1%, which represents almost 12,000 new jobs. Similarly, employment of other clerks (mostly general office administrators) increased by 3.8%, creating 8,600 new posts. Employment growth in clerical occupations was driven by the overall strong performance of the economy and the exceptional growth of the financial sector. The decline in employment of filing and records clerks is not surprising given the labour savings brought about by the computerisation of records systems.

Figure 7.14.2 Annual Average Employment Growth in Clerical Occupations, 2000-2005 (%)

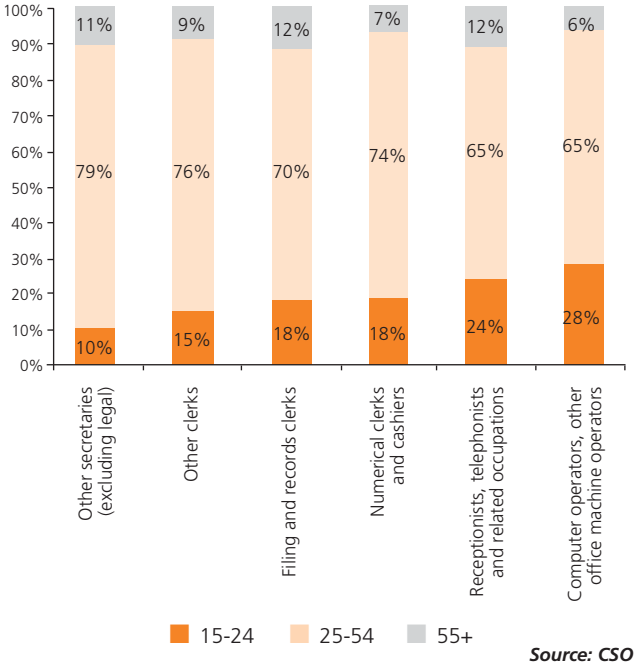


Source: CSO

7.14.3 AGE PROFILE

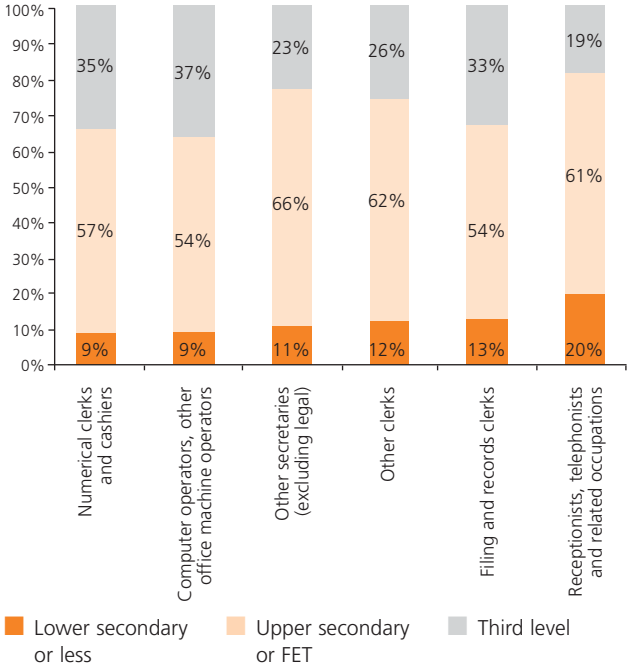
The age distribution of the clerical occupations is presented in Figure 7.14.3. For these occupations, the age distribution of employment is skewed towards younger age cohorts, with almost all occupations having higher than the national average share of persons younger than 25.

Figure 7.14.3 Age Profile of Clerical Occupations, 2005



Source: CSO

Figure 7.14.4 Education Profile of Clerical Occupations, 2005



Source: CSO

7.14.4 EDUCATION PROFILE

Figure 7.14.4 shows the education distribution of persons employed in clerical occupations. With the exception of communication clerks, who typically have a lower education attainment, all clerical occupations have a similar employment profile: more than 50% at upper secondary level, with between one quarter and one third with third level qualifications.

7.14.5 SHORTAGE INDICATORS

Currently, Ireland is one of the leading world centers for back office activities in international banking and insurance. This is creating a large demand for financial clerks and has resulted in shortages of skills in this area. In particular, skills in short supply relate to fund accounting and administration and service provision for shareholders on the banking side and pension administration and claims processing on the insurance side.

Although financial clerks can be recruited from a variety of sources, ranging from upper secondary school graduates to university graduates from varied fields, the current market situation indicates that the challenge is to attract and retain potential candidates in these positions.

Despite a decline in employment levels for filing and records clerks, shortages have been identified in relation to specific clerical skills in the area of transport and logistics. This includes recording for freight forwarding, custom clearance, import/export documentation processing and logistics planning. The shortage appears to be due to the lack of awareness of employment opportunities on the part of potential applicants, as well as the limited training provision in these areas.

7.15 Sales Occupations

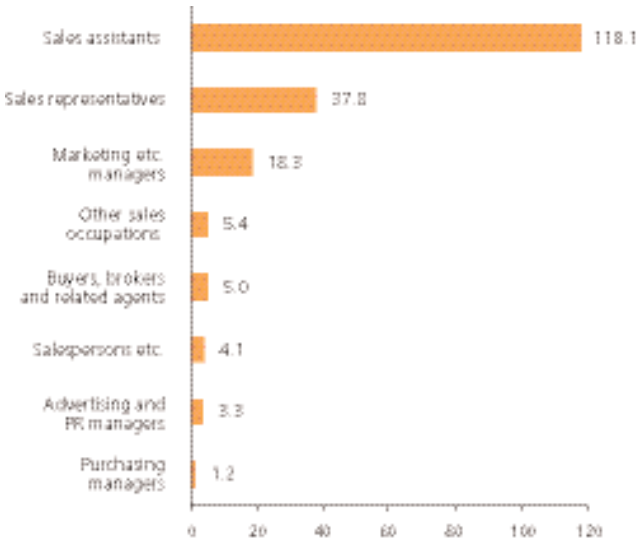
7.15.1 EMPLOYMENT

This section examines employment in selected sales-related occupations. This covers sales assistants, representatives and buyers, but also persons employed in marketing and advertising. The latter, together with purchasing managers, are classified as managerial occupations.

Figure 7.15.1 shows employment levels in selected sales occupations in 2005. With more than 190,000 persons employed in the selected sales occupations, together these occupations account for 10% of the total national employment. A significant majority of employment in sales occupations is concentrated in retail and wholesale.

More than a half of employment in all sales occupations is accounted for by sales assistants. With an employment level of 118,000, this is the most populated single occupation economy-wide. These occupations include sales assistants, retail cash desk and check-out operators, as well as petrol pump forecourt attendants.

Figure 7.15.1 Numbers Employed (000s) in Selected Sales Occupations, 2005



Source: CSO

7.15.2 EMPLOYMENT GROWTH (2000-2005)

Over the period 2000-2005, approximately 35,000 new jobs were created for sales occupations. Figure 7.15.2 shows the annual average rates of employment growth in each of the selected sales occupations in this five-year period. Most sales occupations experienced employment growth above the national average over the period, which was primarily attributable to the strong performance of the retail and wholesale sector over the same period. Employment of purchasing managers grew the fastest over the five year period, at an average rate of 8.4% annually.

In contrast, two occupations in the sales occupational group exhibited negative growth rates during the five year period - salespersons etc. (mobile, market and door-to door salespersons) and other sales occupations. Employment in these occupations contracted at an average annual rate of 1.3% and 1.2%, respectively, over this period.

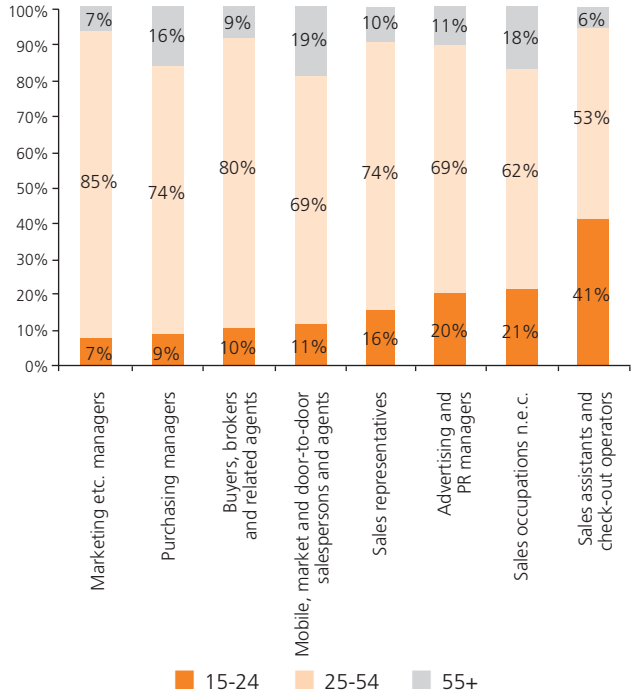
Figure 7.15.2 Annual Average Employment Growth in Selected Sales Occupations, 2000-2005 (%)

Source: CSO

7.15.3 AGE PROFILE

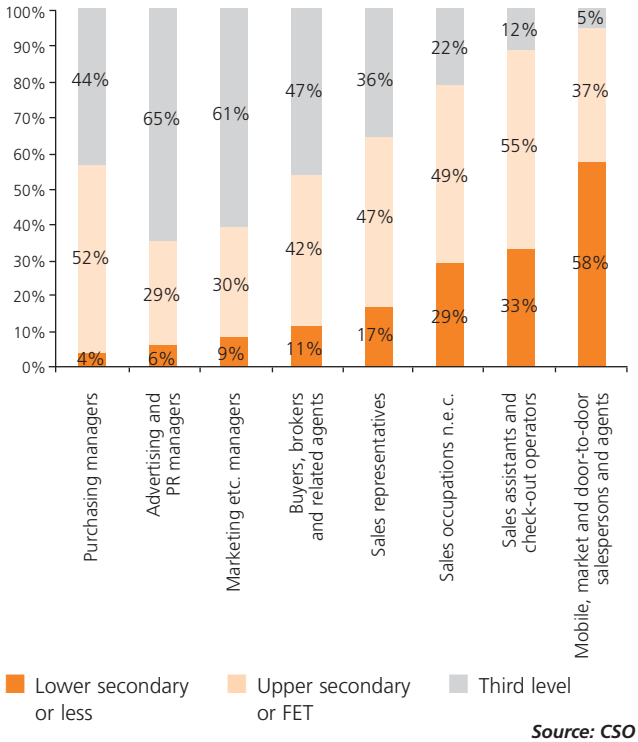
The age profile of the selected sales occupations is presented in Figure 7.15.3. The age distribution of sales assistants in employment was strongly skewed towards younger age cohorts. With 41% younger than 25 and 6% over 55, sales assistants have the one of the youngest age profiles of all occupations. At 19%, the share of mobile, market and door-to-door salespersons in 55+ category is above the national average.

Figure 7.15.3 Age Profile of Selected Sales Occupations, 2005



Source: CSO

Figure 7.15.4 Education Profile of Selected Sales Occupations, 2005



Source: CSO

7.15.4 EDUCATION PROFILE

Figure 7.15.4 shows the education profile of persons employed in each sales occupation. The highest educational attainment level is found in management occupations. On the other hand, the lowest educational attainment level is found in salespersons (mobile, market and door-to-door salespersons): 58% have not completed upper secondary education. Sales assistants also have lower than the national average educational attainment level: 33% with lower secondary or less education and 12% with third level education.

7.15.5 SHORTAGE INDICATORS

Despite significant recruitment from non domestic sources (particularly from the EU accession states), which is evident in the increased share of non-Irish nationals in the employment stock since 2004 (from 5% to 8.3% in 2005), there is still evidence that some employers are experiencing difficulties in sourcing sales assistants. The issue is a labour rather than a skill shortage.

The results from recent employer surveys suggest that many companies continue to experience difficulties in recruiting high calibre sales personnel with international experience and sales representatives with technical, product and sectoral knowledge.

Finally, the analysis indicates a shortage of marketing skills, especially at managerial level. Key indicators include a significant number of work permits issued and a frequent mention by employers as difficult to source.

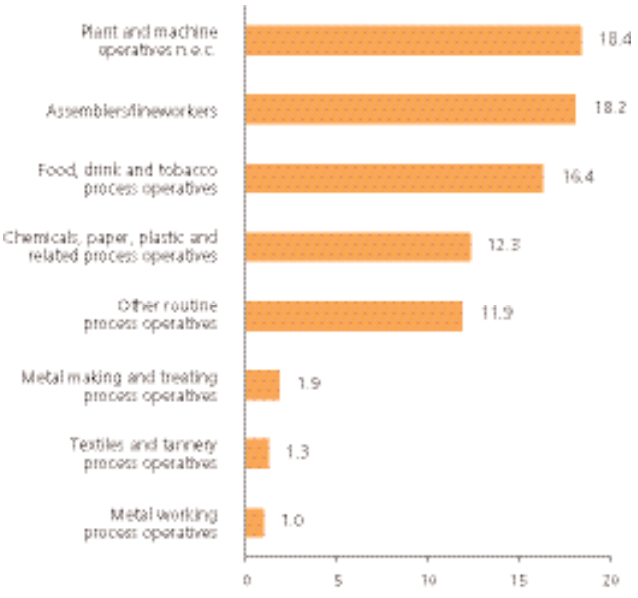
7.16 Operatives

7.16.1 EMPLOYMENT

This section examines the employment of operatives. There were just over 81,200 persons employed as operatives in 2005, which represented 4.2% of the overall national employment (Figure 7.16.1). Operatives perform a variety of routine assembly operations and tasks for which no formal education is required. Almost all of the operatives were employed in the manufacturing sector (mainly manufacturing of food, manufacturing of chemicals and manufacturing of medical instruments) and the remainder were employed in the construction sector and other sectors of the economy.

Plant and machinery operatives[20] and assemblers and lineworkers had the highest level of employment in this occupational group. The least number were employed as metals and textiles operatives.

Figure 7.16.1 Numbers Employed (000s) as Operatives and Related Occupations, 2005



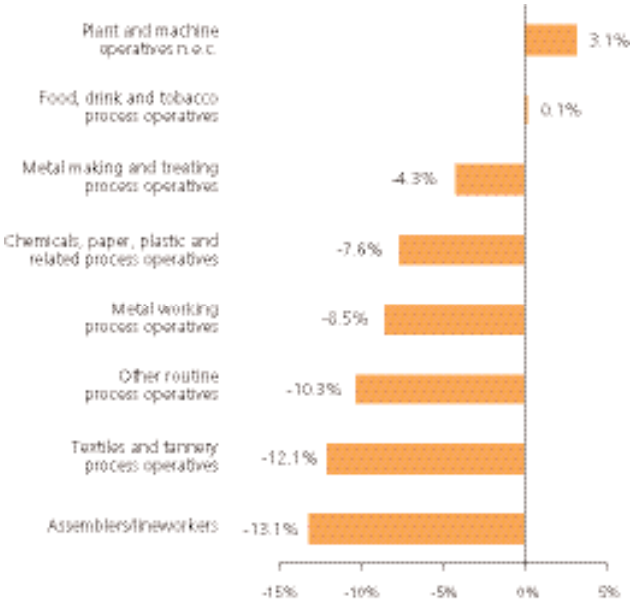
Source: CSO

7.16.2 EMPLOYMENT GROWTH (2000-2005)

Figure 7.16.2 shows the annual average employment growth for operatives and related occupations for the period 2000 to 2005. This occupational group has experienced a large fall in employment in the last number of years. In fact most of the fall in manufacturing employment can be attributed to a significant decline in operative positions. This is because a significant number of manufacturing operations have relocated from Ireland to lower cost locations worldwide in the face of increasing competitiveness and cost pressures.

Most of the occupations examined in this section experienced a decline in employment over the period 2000 to 2005. The largest fall was for assemblers and lineworkers at an average annual rate of 13.1%. Plant & machine operatives and food & related operatives were the only two occupations where employment increased over the five year period. The net loss across all operative occupations was over 30,000 posts. Just over 60% of these job losses were accounted for by assemblers and lineworkers.

Figure 7.16.2 Annual Average Employment Growth for Operatives and Related Occupations, 2000-2005 (%)



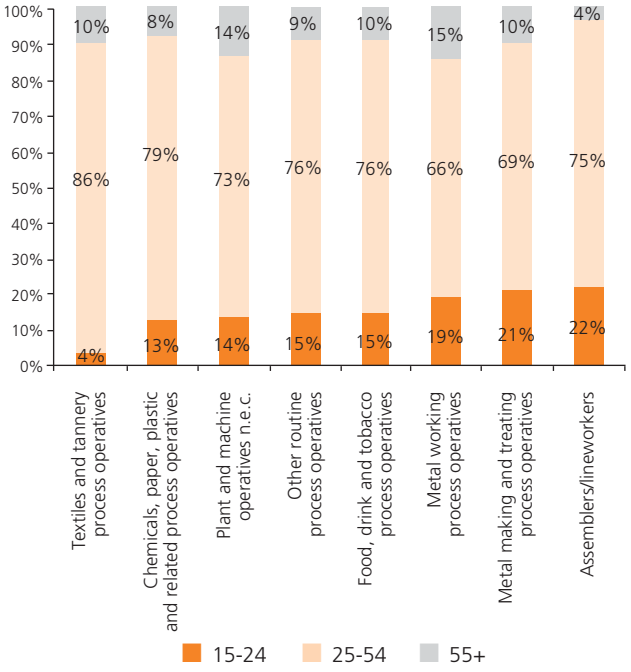
Source: CSO

[20] *Plant and machinery operatives include a large range of low-skilled positions mostly in industry and construction and that are not classified elsewhere.*

7.16.3 AGE PROFILE

The age distribution of operatives and related occupations is shown in Figure 7.16.3. In each occupation examined, the majority of employment is concentrated in the 25-54 age cohorts. There are very few younger people (<25) working as textiles and tannery process operatives and there are significant numbers of persons older than 55 working as metal working process operatives and plant and machinery operatives.

Figure 7.16.3 Age Profile of Operatives and Related Occupations, 2005

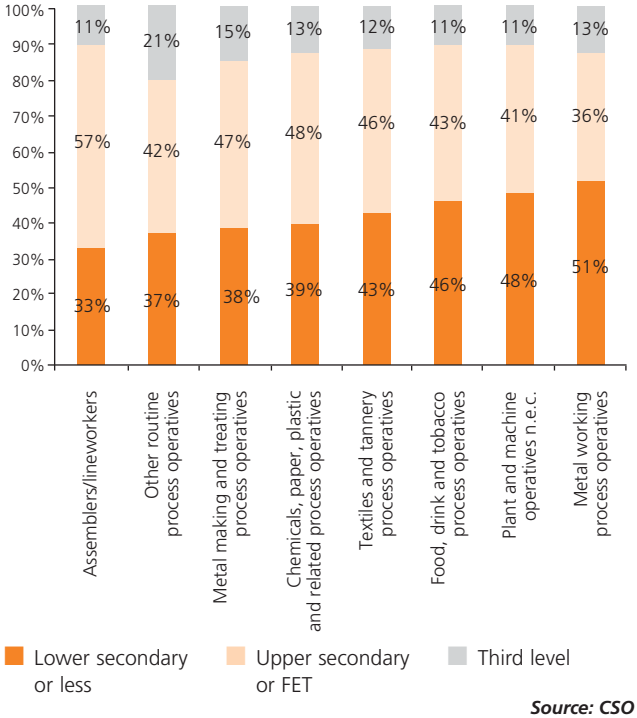


Source: CSO

7.16.4 EDUCATION PROFILE

Figure 7.16.4 shows the education level of persons employed as operatives. In general, educational attainment for operatives and related occupations is lower than most other occupational groups. Assemblers and lineworkers and other routine process operatives have the highest level of educational attainment of the selected occupations with metal making & treating process operatives and plant & machinery operatives having the lowest level of educational attainment of the selected occupations. A significant minority, and for some occupations even a majority, of persons employed as operatives are in the lower secondary or less education category.

Figure 7.16.4 Education Profile of Operatives and Related Occupations, 2005



Source: CSO

7.16.5 SHORTAGE INDICATORS

There are no current shortages of operatives in Ireland. These occupations have experienced a fall in employment in recent years, with only plant and machinery operatives showing any significant growth.

Interestingly, the share of non-Irish nationals in the employment stock of operatives has increased significantly, particularly since the expansion of the EU in 2004. In some cases the share doubled between 2004 and 2005.

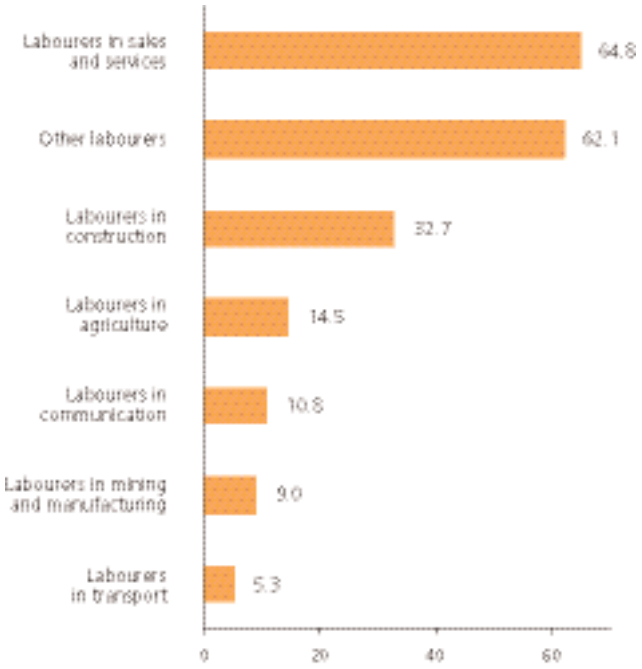
7.17 Labourers

7.17.1 EMPLOYMENT

This section looks at the employment of labourers. Labourers perform a variety of routine tasks, often involving the use of hand-tools and in some cases considerable physical effort, for which no formal education is required.

In 2005, there were over 199,000 persons employed as labourers, representing approximately 10% of the overall national employment. Figure 7.17.1 presents the numbers employed in 2005 in various labourer occupations. There were 64,800 employed as labourers in sales and services, and 62,100 in the other labourers category.[21] Together, these two occupations accounted for over 60% of all those employed in labourer occupations. This was followed by labourers in construction, with over 32,700 persons employed. The least number were employed as labourers in transport (5,300), and labourers in mining and manufacturing (9,000).

Figure 7.17.1 Numbers Employed (000s) as Labourers, 2005



Source: CSO

[21] *The other labourers category is an aggregate group comprised of unclassified labourers as well as occupations that could not be classified elsewhere.*

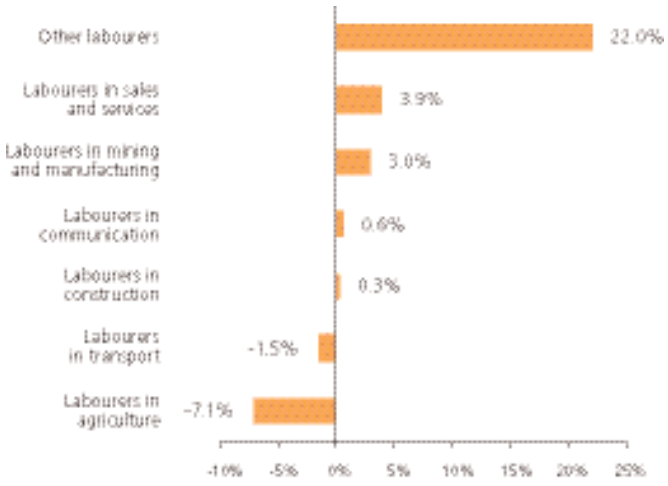
7.17.2 EMPLOYMENT GROWTH (2000-2005)

Figure 7.17.2 shows the annual average employment growth for labourers between 2000 and 2005.

With an annual average growth rate of 22% for the five year period, other labourers experienced by far the fastest growth of all the labourer occupations. This is followed by labourers in sales and services, at 3.9%, and labourers in mining and manufacturing at 3%. The high growth rate in the other labourers category may be related to classification issues (see footnote).

Two occupations examined in this section showed a decline in employment over the period 2000 to 2005: labourers in agriculture declined by 7.1% per annum, while the number of labourers in transport dropped by 1.5% annually.

Figure 7.17.2 Annual Average Employment Growth for Labourers, 2000-2005 (%)



Source: CSO

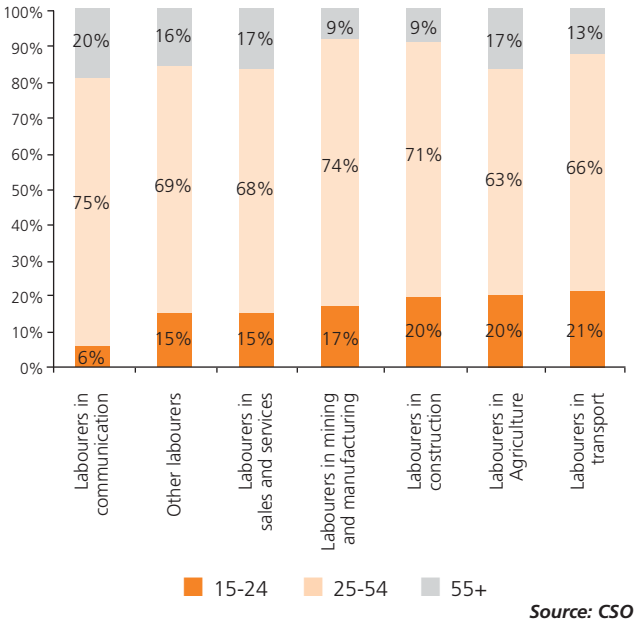
7.17.3 AGE PROFILE

The detailed age profile of labourers is presented in Figure 7.17.3. At 69%, the majority of persons employed in these occupations are in the 25-54 age cohort.

Labourers in mining and manufacturing and in construction have the youngest age profiles, with over 90% of persons in these occupations in the in the 15-54 age cohort.

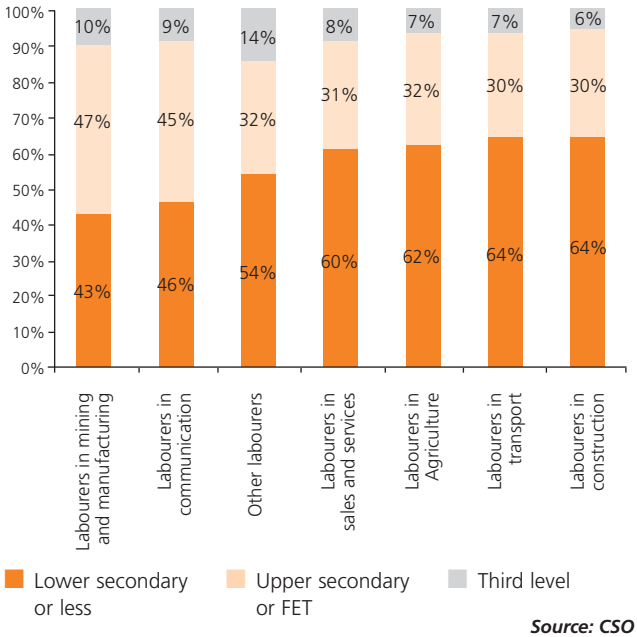
At 20%, the share of labourers in communication in the 55+ age category is above the national average of 13%, making it the occupation with the oldest age profile in this section. Labourers in sales and services and in agriculture have the second oldest age profiles, each with 17% in the 55+ age cohort.

Figure 7.17.3 Age Profile of Labourers, 2005



Source: CSO

Figure 7.17.4 Education Profile of Labourers, 2005



Source: CSO

7.17.4 EDUCATION PROFILE

Figure 7.17.4 shows the education profile of persons employed in each of the labourer occupations. In general, the educational attainment for labourers is skewed toward the lower educational levels. With the exception of labourers in mining and manufacturing, the highest proportion of persons in each occupation examined had an educational attainment of lower secondary or less. This proportion is substantially higher than the national average for all occupations of 29%. The relatively high percentage of those with third level qualifications in the other labourers category may be again due to classification issues (see footnote).

Labourers in mining and manufacturing have the highest educational attainment: 47% have attained upper secondary or FET qualifications, while 10% have a third level qualification.

7.17.5 SHORTAGE INDICATORS

There is evidence that shortages exist in labourer occupations. Even with the expansion of the European Union, over 900 work permits were issued in these occupations in 2005. The share of non-Irish nationals in these occupations rose from approximately 7% in 2004 to approximately 13% in 2005. In fact almost all the rise in employment was accounted for by non-Irish nationals. The sectors where the number of non-Irish national labourers is greatest are sales and services, construction and agriculture.

This suggests that Irish persons are generally reluctant to take up jobs as labourers and employers seek non-Irish nationals to do this type work. While this shortage is significant in terms of numbers, it is not a matter of immediate concern as the shortfall is currently being met by an inflow of non-Irish national labour.

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Labour Participation Rates of the over 55s in Ireland	*December 2001*
The Third Report of the Expert Group on Future Skills Needs – Responding to Ireland's Growing Skills Needs	*August 2001*
Benchmarking Mechanisms and Strategies to Attract Researchers to Ireland	*July 2001*

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Report on E-Business Skills	*August 2000*
Report on In-Company Training	*August 2000*
The Second Report of the Expert Group on Future Skills Needs – Responding to Ireland's Growing Skills Needs	*March 2000*
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The First Report of the Expert Group on Future Skills Needs – Responding to Ireland's Growing Skills Needs	*December 1998*

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