



National Skills Bulletin 2005



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

September 2005

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National Skills Bulletin 2005

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Executive Summary

The National Skills Bulletin 2005 is the first of an annual series providing statistics on skills and occupational trends in Ireland. It is produced by the Skills and Labour Market Research Unit (SLMRU) of FÁS, on behalf of the Expert Group on Future Skills Needs (EGFSN).

The objective 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.

First, an overview of general labour market trends is provided. This is followed by statistics on sectoral employment trends, with particular focus on the manufacturing sector. Thirdly, employment profiles of nine broad occupational groups are presented. Subsequently, information regarding education, non-national workers and vacancies is summarised. Finally, an analysis of 125 occupations, categorized into 16 occupational groups, is supplied.

This edition of the National Skills Bulletin also contains a special article focusing on employment of the non-national population in Ireland.

KEY FINDINGS

The main body of the National Skills Bulletin consists of the analysis of employment at occupational level. The objective was to provide occupational profiles and to highlight areas of shortages. Each occupation was examined in terms of its employment profile (age, education, nationality etc.), with employment levels and growth rates also presented. Where applicable, the number of issued work permits/visas/authorisations was given. In addition, an indication of the difficulty in filling positions for an occupation was reported, if available. In order to augment the analysis, previously published EGFSN reports were also consulted. By examining the above indicators we identified occupations where shortages seem to exist. Any shortage was also 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 did not involve making forecasts of future shortages. Thus, what are identified in the report are recent and current shortages, not possible future ones.

Skill shortages refer to a situation where there are an insufficient number of trained/qualified individuals in the domestic market to meet the demand for an occupation. Skills shortages were identified in the following areas:

Construction

Many of the professional occupations within the construction industry are in short supply due to the high level of construction activity in Ireland. These include architects, civil engineers, planners, and quantity surveyors, as well as project managers and experienced site managers. The shortages are reflected in the fact that a significant number of these professionals continue to be recruited from abroad under the work visa/authorisation scheme. In addition, quantity surveyors are frequently cited by companies as being difficult to source. It is expected that these shortages will abate somewhat in the coming years as a result of a combination of more moderate growth in the construction sector and the introduction of new courses – particularly in architecture and town planning.

Many of the construction trades are also experiencing shortages. The trades most noticeably affected are bricklayers, plasterers, carpenters, floorers, and painters and decorators. While all of these trades have seen a higher uptake in apprentices in the past few years, shortages persist. However, it is anticipated that the current record levels of activity in residential development will contract in the medium term. This is expected to improve the balance between supply and demand for many of the craft skills – particularly the so-called ‘wet trades’.

Financial

There is evidence of a current shortage of accountants and tax experts, actuaries and financial analysts. Shortages of accountants and tax experts are, *inter alia*, closely linked to changes in the domestic and international regulatory environment, which have created a demand for specialised skills in the area of compliance. Similarly, the development of new standards in the area of risk has been changing the way in which financial institutions deal with operational, market and credit risk. This, in turn, has created an increase in demand for actuaries; underwriters; financial, investment and risk analysts; and fund managers. Changes in the compliance and risk areas are likely to continue and, unless an adjustment in the supply is made, skill shortages are expected to persist. Moreover, any move to the higher value added activities in international financial intermediation (i.e. a shift from back to front office activities) within international financial services, would widen the skill gaps identified in this analysis.

Engineering

There is some evidence that the current output of design and production engineers from the education system is insufficient to meet demand.

The decline in the number of students applying for electronic and electrical engineering may create a shortage of these professionals in the future, particularly as these graduates are also employed by the IT sector. In many cases, these engineers can act as a substitute for software engineers.

At technician level, there is evidence of skills shortages. These include manufacturing and multi-skilled maintenance technicians. This is evidenced by the numbers of work permits issued in this area and also by the results of the difficult to fill vacancy survey.

Some of the metal forming, welding and related trades are also in short supply. There is evidence that employers are sourcing welders, steel fixers and sheet metal workers from abroad.

Information technology

There is evidence of a current shortage of computer analysts/programmers. Work permit and work visa data, along with the results from the difficult to fill survey, all support this finding. The skill gap in this area is likely to widen given the recent recovery of the IT industry from the slowdown in 2001, as well as the decline in enrolments onto software and computer courses in the past number of years.

There are currently shortages in software engineers as evidenced by the number of work permits and work visas issued to non-nationals in this area. Demand is expected to continue to be relatively high whereas the supply of software engineers from the education system is expected to remain at current levels or fall.

Pharmaceuticals

For chemical engineers, there is evidence that there is a significant shortage and that this will continue into the future. The continuing development of the chemical and pharmaceutical industry will lead to an increase in the number of chemical engineers required. Supply at current levels will not be able to meet this demand.

The Irish government is actively encouraging industry to become significantly more engaged in scientific research and development activities – in many cases in partnership with third-level institutions. Any increase in activity in this area would require a parallel increase in the number of science graduates – particularly at postgraduate level. Unfortunately, the number of students studying science at third-level has declined in recent years. If these trends continue, it is inevitable that there will be a shortage of research scientists unless a large number of immigrants are recruited.

Healthcare

There are clear shortages in a number of healthcare occupations including medical practitioners, dentists, various types of therapists (including dieticians) and radiographers. Dramatic increases in demand for the services of these occupations have not been matched by an increase of graduates from the education system. In 2002, a range of health-related occupations were included in the work visa scheme to alleviate shortages. Since then a large number of non-national healthcare workers have joined the Irish labour force. The data from the work visa and work permit schemes shows that this has continued into 2005.

In response to shortages, new courses have recently begun in physiotherapy, speech and language therapy and occupational therapy but the graduates from these courses will only begin to emerge in 2006 or later. A dramatic increase in the number of places for medical practitioners is due to take place in the short term.

There is a widespread perception of shortages of nurses. However, this shortage may reflect a combination of factors, such as a high attrition rate and issues with work practices. In addition, a change to a new system of education has resulted in the loss of a year's output of graduates. Thus, any shortage will not necessarily be alleviated by an increase in education provision.

Finally, social workers are experiencing some shortages and there is evidence that a large number of social workers are non-nationals. New social work courses have come on stream in the past few years which may alleviate future shortages.

Transport

A shortage of integrated supply chain managers continues to be an issue, despite a new degree programme which has been introduced recently. There are also shortages of heavy goods vehicle (HGV) drivers and, to some extent, freight forwarding officers. The work permit data and the results from the difficult to fill vacancy survey indicate continued shortages of HGV drivers.

Clerical skills in short supply include freight forwarding, customs clearance, import/export documentation processing and logistics planning. The shortages appear to be due to a lack of awareness of employment opportunities in these areas on the part of potential applicants, as well as the limited training provision in these areas.

Sales

The difficulties which have been reported by some employers in filling vacancies for technical sales representatives and marketing personnel are indicative of a skills shortage.

Catering

The highest number of work permits in the first half of 2005 was issued to chefs, pointing at shortages in this area.

Labour shortages refer to a situation where there are an insufficient number of individuals willing to take up employment opportunities. Labour shortages were identified in the following areas:

Financial

The analysis reveals that there are shortages of financial clerks. Ireland has become one of the leading world centers for back office activities in international banking and insurance. This has resulted in a shortage of financial administrators, such as fund accountants, fund administrators and shareholder services staff on the banking side and pension administrators and claims processors on the insurance side. While there is a sufficient supply in terms of skills, the challenge is in attracting and retaining staff in administrative roles in international banking and insurance. Unless there is a widespread move towards front office activities, accompanied by a significant reduction in back office activities, labour shortages in this area are expected to persist into the future.

Shortages of credit controllers have also been identified in the analysis. Credit controllers have varied educational backgrounds and, thus, there are a large number of sources, ranging from Leaving Certificate graduates to university graduates in a number of fields that can be recruited for these positions. The challenge is to attract and retain staff in credit control positions.

Services

Labour shortages exist for security guard and waiting staff, both of whom have been increasingly sourced from abroad.

Food manufacturing

Labour shortages have been identified in some specific food preparation jobs, namely butchers and de-boners, who have been extensively sourced from non-EU countries under the Work Permit system.

Healthcare

There is evidence of a shortage of care assistants/attendants. Over 200 non-EU nationals have come through the work permit system in the first six months of 2005. This is a labour, rather than skill shortage, given that care assistants/attendants tend to be trained on the job.

Sales

While sales assistant positions are frequently mentioned as difficult to fill, this is a labour rather than skill shortage, reflecting the lack of interest in these positions as a career.

Conclusion

Most of the analysis presented in the National Skills Bulletin is confined to occupations as defined in official Irish statistics. Further investigations could reveal specific shortages at a narrower, sub-occupational, level. Further research should aim to examine in more detail labour market imbalances identified in this National Skills Bulletin and put forward recommendations on how they should be resolved.

While a number of shortage areas have already been explored in previous EGFSN reports, some areas of shortage have not been addressed, while others merit revisiting. First, construction skill shortages identified in both the National Skills Bulletin and the Construction Skills Monitoring Report 2003 should be further explored in the context of the expected moderation of growth in the construction sector. Second, identified shortages of financial skills warrant more detailed examination, particularly in light of the Government's strategy to further strengthen Ireland's position in international financial intermediation. Third, given the importance of the pharmaceutical industry for the Irish economy, and the Government's strategy to increase science-related R&D activities, the shortfall in the uptake of science courses and its implications should be addressed. Finally, given that the successful recovery of the IT industry in Ireland relies on the availability of relevant skills, the decrease in uptake of IT-related courses is an area of concern and should be closely monitored. In addition, there are a number of areas of labour shortage, mainly in relatively lower skilled occupations e.g. chefs, sales assistants, butchers etc.

In conclusion, this Bulletin has identified a number of occupations that are in short supply and where further actions may be needed to ensure a sufficient supply of skills for the future. However, there may also be other occupations and particular skill sets that will face shortages in the future. There is a need for an on-going programme of research to identify such shortages as well as to monitor Ireland's success in alleviating existing ones. Such research will include the study of emerging skills by the SLMRU (due for completion by early 2006), a FÁS/ESRI Manpower Forecasting report on supply/demand balances for key occupations also due in early 2006, a number of sectoral studies currently underway and the immigration study by the EGFSN (due in Autumn 2005). The anticipation, and avoidance, of skills and labour shortages are key on-going objectives in moving Ireland towards a high-skills, knowledge-based, economy.

Section 1

General Labour Market Trends

Between March and May of 2004, just over 4,000,000 persons resided in the Republic of Ireland (Figure 1.1). Of these, 2.7 million persons were of working age; 845,000 were younger than 15; the remainder were older than 65.

Within the working age cohorts, almost 1.8 million were in employment. Of 948,000 working age persons who were classified as not in employment approximately 9% were unemployed, while the remainder were economically inactive.

Of the 84,000 unemployed, 71,500 were seeking full time work; the remainder were searching for part-time work.

Forty one percent of the economically inactive were engaged in home duties, 37% were students, 6% were retired. The remainder were marginally attached to the labour market or inactive for other reasons.

Of persons older than 65, 34,000 were in employment; the remainder were either engaging in home duties or retired.

Ireland's rapid economic growth during the latter half of the 1990s slowed somewhat in 2001/02 (See Figure 1.2).and was accompanied by a decline in employment growth, which fell from over 6% in 1999 to less than 2% in 2002. Since 2002, economic growth has recovered and the Central Bank forecasts Gross Domestic Product (GDP) growth of 5.5% in 2005 and 5.75% in 2006. The Central Bank expects Gross National Product (GNP) growth to be broadly similar to GDP growth.

Figure 1.1 Population by Labour Status in Quarter 2, 2004

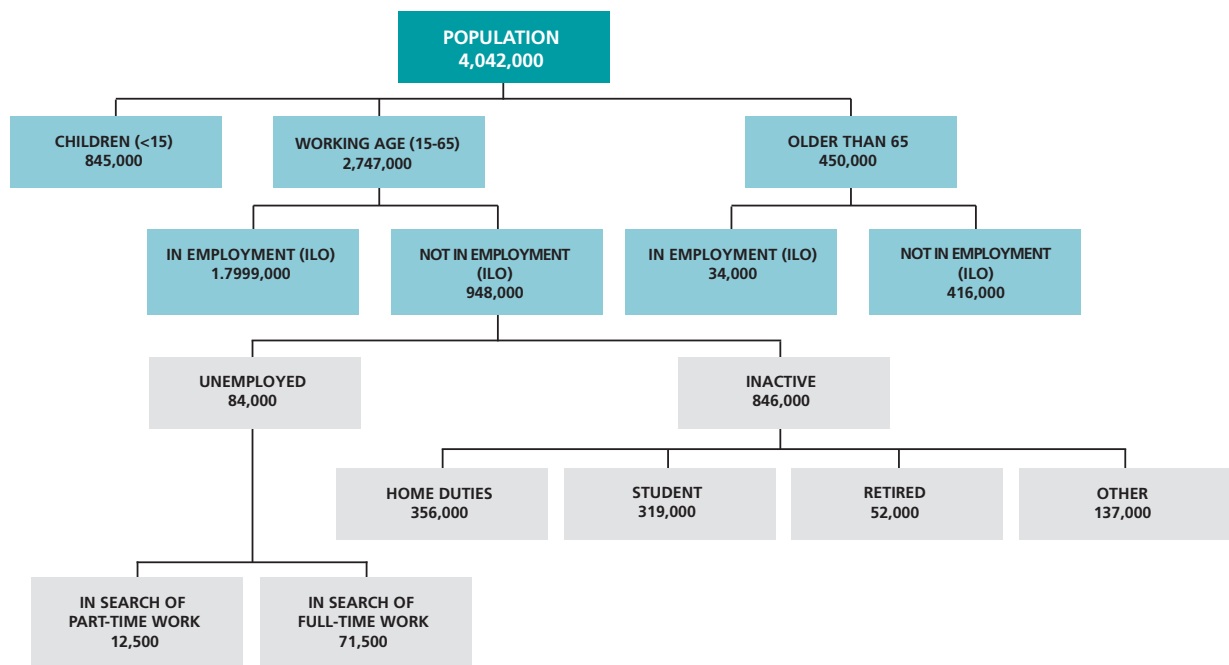
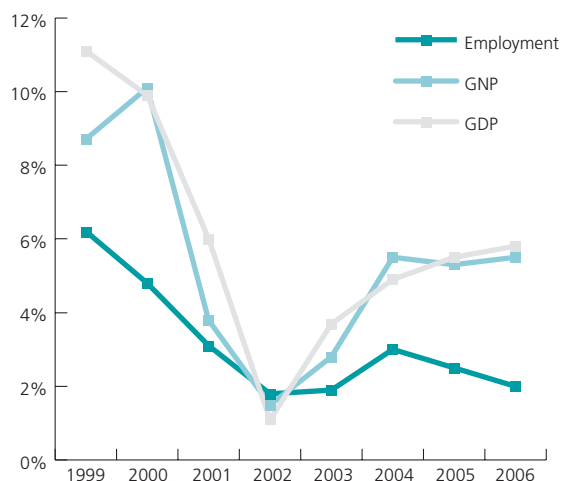
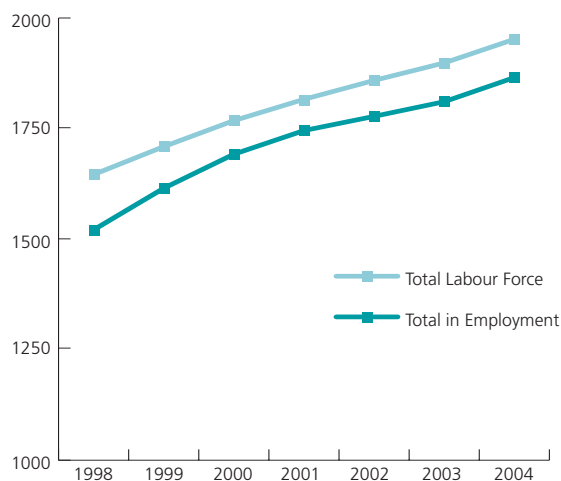


Figure 1.2 Economic and Employment Growth, 1999-2006



Source: Central Bank

Figure 1.3 Labour Force in 000's, 1998-2004



Source: CSO

The Irish labour force (see Figure 1.3) has grown from approximately 1.65 million in 1998 to 1.95 million in 2004. The numbers in employment grew from approximately 1.52 million to almost 1.87 million over the same period¹. Thus, the Irish economy generated almost 350,000 net new jobs. This is remarkable given the marked slowdown in economic growth in 2002.

The creation of these new positions has meant that, for much of the period, employment growth was faster than labour force growth. Consequently, unemployment has fallen significantly since 1998. The unemployment rate fell from 7.6% in 1998 to 3.9% in 2001. It rose to 4.4% in 2002 and has remained around this mark. It is expected that the unemployment rate will remain at approximately 4.4% in 2005 and 2006 (FÁS Quarterly Labour Market Commentary).

A main driver of labour force growth over the period has been an increase in the participation rate from 57.2% in 1998, to 60.7% in 2004. This represents an extra 112,000 individuals in the labour force.

Table 1.1 Unemployment and Participation Rates, 1998-2004

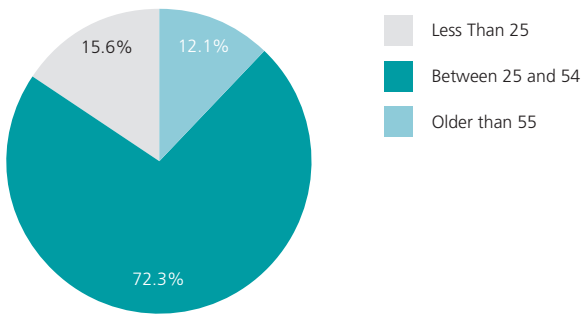
| Year | Unemployment Rate | Participation Rate |
|------|-------------------|--------------------|
| 1998 | 7.6% | 57.2% |
| 1999 | 5.6% | 59.5% |
| 2000 | 4.3% | 59.5% |
| 2001 | 3.9% | 59.9% |
| 2002 | 4.4% | 60.0% |
| 2003 | 4.6% | 60.2% |
| 2004 | 4.5% | 60.7% |

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 2004 alone.

Figure 1.4 shows the division of overall employment by age. A total of 72% of persons employed are aged between 25 and 54; 12% are over the age of 55; 16% are under 25. In 1999, the respective figures were 70%, 11% and 19%. This reflects a slight aging of the persons in employment.

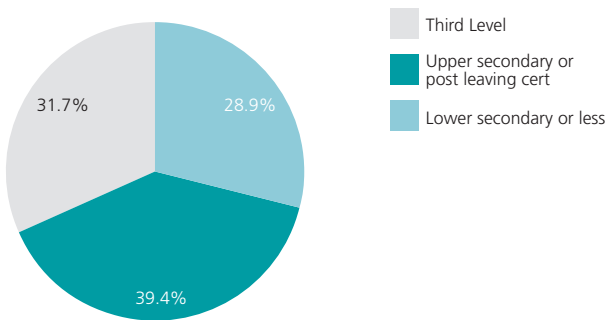
Figure 1.4 Employment by Age, 2004



Source: CSO

Figure 1.5 shows the division of overall employment by the highest degree of education achieved. While 32% of person employed have achieved third level qualifications (certificate, diploma, degree or above), 29% have lower secondary or less. When compared to 1999, there has been a marked shift towards higher educational attainment. In 1999, 24% of the employed persons had achieved third level education with 35% having lower secondary or less.

Figure 1.5 Employment by Education, 2004



Source: CSO

Section 2

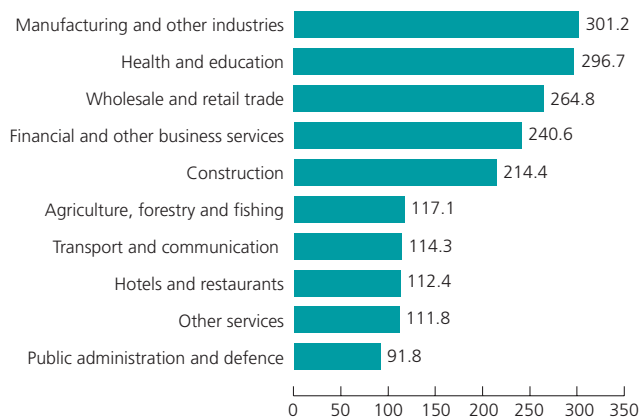
Industry Employment Trends

2.1 EMPLOYMENT

This section examines sectoral employment trends in the Irish economy. First, broad sectors are examined in terms of employment and employment growth. Subsequently, where possible, each sector is examined in terms of employment trends in its sub-sectors. Finally, given its importance to the overall economy, the manufacturing sector is examined in greater detail (Section 2.4).

Figure 2.1 divides total employment into ten economic sectors. The largest employer was the manufacturing sector with more than 300,000 employed. This is closely followed by health and education at 296,700.

Figure 2.1 Employment by Sector in 000's, 2004



Source: CSO

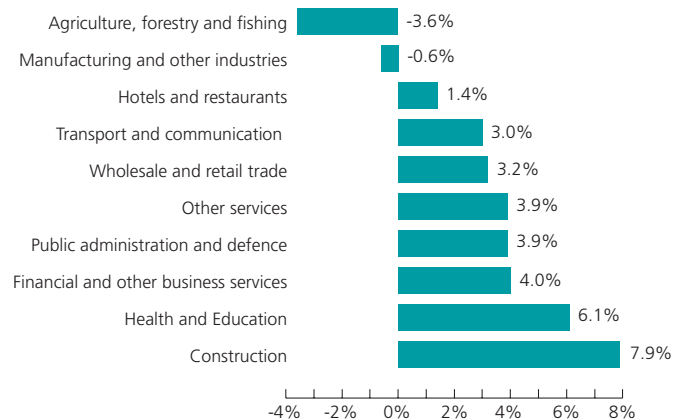
2.2 EMPLOYMENT GROWTH

Between 1999 and 2004 (Figure 2.2), employment in Ireland increased by 250,600, or 15.5%, equating to an annual average growth rate of 2.9%. However, this growth was not evenly distributed across sectors. Three sectors grew slower: agriculture, forestry and fishing, manufacturing and other industries, and hotels and restaurants.

The health and education sector added 76,200 jobs, whereas agriculture, forestry and fishing lost 23,400 jobs.

Interestingly, the sectors which have experienced the largest increase in numbers employed, namely, health and education, construction, and wholesale and retail trade, are all part of the non-traded sector.

Figure 2.2 Annual Average Employment Growth by Sector, 1999-2004 (%)



Source: CSO

2.3 EMPLOYMENT GROWTH BY SECTOR (1999-2004)

This section will briefly examine employment growth in each sector highlighting differences in the growth rates in sub-sectors where appropriate. The manufacturing and other productive industry sector is examined in detail in the next section.

Construction

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. Employment grew by 67,600, representing an annual average increase of 7.9%. Total employment reached 214,400 in 2004.

Health and Education

The health and education sector was one of the fastest growing sectors; a total of 76,200 extra persons were employed.

Employment in the health sector increased by 57,500, or 47%, while employment in the education sector increased by 18,700, or 19%. More recently, between 2003 and 2004, the growth in both sectors has slowed with employment increasing by 3.4%.

Financial and Other Business Services

Employment grew by 42,700 representing a total increase of 21.6% and an annual average increase of 4%. Total employment reached 240,600 in 2004.

The financial sub-sectors within this broad group employed 83,000 people in 2004, an increase of 7,000, or 9.7%, since 2003. Overall, between 1999 and 2004, a total of 20,400 extra people were employed in the financial sub-sectors, representing an increase of 32.6%. Much of this growth can be attributed to the strong performance of the international financial services sub-sector.

Public Administration and Defence

Employment grew by 16,100, representing an annual average increase of 3.9%. However, because of the public sector employment cap introduced by the Irish government in the 2003 Budget, no growth in employment occurred in this sector between 2003 and 2004.

Other Services

A total of 111,800 persons were employed in the other services sectors in 2004. This sector grew at an annual average rate of 3.9% between 1999 and 2004. However, employment growth accelerated between 2003 and 2004, increasing by 10.8%.

The CSO statistics are not detailed enough to give a meaningful breakdown into different sub-sectors but most of the employment growth occurred in the sub-sector covering dry-cleaning, hairdressing and other beauty treatment, funeral and related activities, and physical wellbeing activities. Collectively these activities represented 32% of other services in 2004, but 75% of the employment growth between 2003 and 2004.

Wholesale and Retail Trade

Employment grew by 38,700, representing an average annual growth rate of 3.2%. Total employment reached 264,800 in 2004.

In the retail sales sub-sector employment grew by 34,800 over the period, representing an increase of 24.3%. This accounted for most of the new jobs in the overall sector.

In the motor vehicles sales and repairs sub-sector employment grew by 4,100, representing an increase of 11.9%.

In the wholesale sales sub-sector employment fell slightly. The numbers employed rose from 48,400 in 1999 to 51,700 in 2002, but have subsequently fell.

Transport and Communication

A total of 114,300 persons were employed in this sector, representing an increase of 15,700 (or 16%) since 1999. This is an annual average increase of 3%.

The transport sub-sectors employed 82,300 persons in 2004, an increase of 3,800, or 4.6%, since 2003. Land and water transport activities accounted for this rise, as the numbers employed in air and other transport activities fell over the year.

Employment in the communication sub-sector fell by 2,400, or 7.6%, in 2004 from the previous year. Employment in this sector peaked in 2002 at 36,700 but declined to 31,900 in 2004. Most of this decline is due to restructuring in this sub-sector.

Hotels and Restaurants

The number employed in the hotels and restaurants sector rose by 7,500, or 7.2% between 1999 and 2004. However, between 2003 and 2004 approximately 3,500 jobs were lost in this sector, reducing the annual average growth rate to 1.4% over the period. Rising costs and the introduction of the smoking ban in 2004, amongst other issues, led to decreased demand in this sector, resulting in an adverse effect on employment.

Agriculture, Forestry and Fishing

Employment fell by 23,500, representing a decrease of 16.7% and an annual average growth rate of -3.6%. Total employment was 117,100 persons in 2004. Most jobs (22,500) were lost in agriculture.

In terms of employment growth, this sector has had the poorest performance. The decline is mostly due to problems with economic viability and succession in small farm holdings.

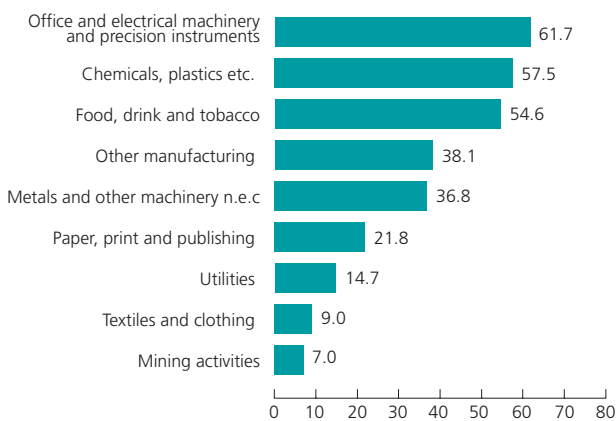
2.4 MANUFACTURING AND OTHER PRODUCTIVE INDUSTRIES

2.4.1 Employment

Manufacturing employs 16.1% of the Irish workforce directly and underpins many of the other economic sectors, particularly the services sector. Manufacturing employment has declined in recent years. After reaching a peak of 321,500 persons employed in 2001, this number has fallen steadily since to 301,200 in 2004. This section will look at the main sub-sectors of manufacturing examining their employment growth over five years.

Figure 2.3 shows manufacturing employment divided into different sub-sectors. Over half of manufacturing employment is accounted for by three sub-sectors: food, drink and tobacco; chemicals, plastics etc.; and office and electrical machinery including precision instruments. Mining activities and textiles and clothing are the smallest sub-sectors in terms of employment.

Figure 2.3 Employment by Manufacturing Sector, 2004. (000's)



Source: CSO

2.4.2 Employment Growth (1999-2004)

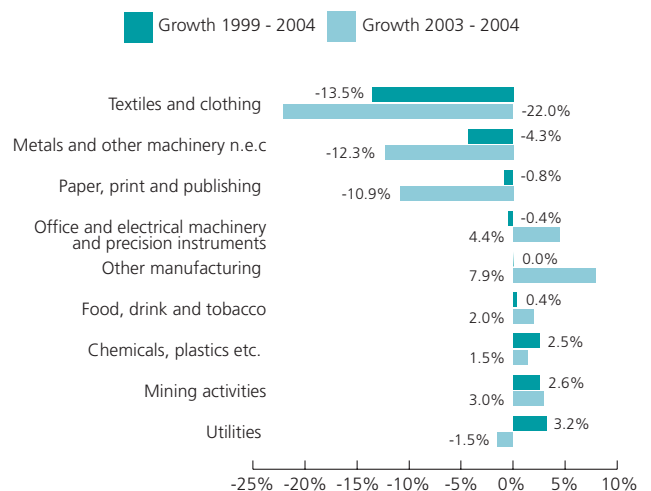
Figure 2.4 shows the growth in employment in the different manufacturing sub-sectors for both the past one and five years. The sub-sectors have experienced divergent performance in terms of employment growth. Manufacturing operations associated with traditional industries have declined significantly; moreover, Ireland has lost some modern manufacturing operations to lower cost locations. In contrast, the chemicals sub-sector has grown rapidly over the same period.

Employment increased in chemical, plastics etc. sector by 6,700 persons. Other sectors which saw increases include food, drink and tobacco, utilities, and mining activities. In contrast, employment declined by 9,700 persons in the textiles and clothing sector.

Employment also fell significantly in the paper, print and publishing sector and the metals and other machinery n.e.c. sector. Both of these sectors experienced a large drop in the numbers employed in the past year, with paper, print and publishing falling by 10.9% between 2003 and 2004 and metals and other machinery n.e.c. falling by 12.3% over the same period.

Each of these manufacturing sub-sectors is examined below.

Figure 2.4 Annual Average Employment Growth in Manufacturing Sectors (%), 1999-2004 and 2003-2004



Source: CSO

2.4.3 Employment Growth by Sub-Sector (1999-2004)

Utilities

Employment in this sub-sector reached 14,700 in 2004, an increase of 2,100, or 16.9%, since 1999. The electricity, gas and water supply sub-sector accounts for most (86%) of employment in this sector and accounts for almost all of the growth in employment. However, between 2003 and 2004, employment in this sector declined by 1.5%.

Mining Activities

A total of 7,000 persons were employed in mining in 2004. This is an increase of 13.5% on the number employed in 1999 or approximately 800 persons. Employment in this sector peaked in 2002 at 7,900 and has since fallen.

Chemicals, Plastics etc.

In 2004, 57,500 persons were employed in this sector. This is an increase of 6,700, or 13.1%, over the numbers employed in 1999. Employment rose by 1.5% between 2003 and 2004.

The manufacturing of chemicals has seen employment growth of 31.8% between 1999 and 2004. In contrast, employment in the manufacture of rubber and plastics and the manufacture of other non-metallic mineral products fell by 13.1% and 2.5% respectively.

Food, Drink and Tobacco

A total of 54,600 persons were employed in the food, drink and tobacco sector in 2004. This is an increase of 1,000, or 1.9%, since 1999. Employment in the food and drink sub-sector accounts for the majority of the employment. Employment in this sub-sector has remained between 53,000 and 54,000 for a number of years.

Other Manufacturing

Employment in other manufacturing at 38,100 is little changed from its level in 1999. However, since 1999 employment fell until 2002 but has subsequently risen, growing by 7.9% between 2003 and 2004.

Office and Electrical Machinery and Precision Instruments

In 2004, 61,700 persons were employed in this sector making it the largest employer in manufacturing. This is a decrease of 2%, or 1,300, since 1999. Employment in this sector peaked at 70,400 in 2001 and has since dropped by 12.4%.

Within the sub-sectors, employment in the manufacturing of computers and office machinery and the manufacture of precision instruments increased by 7.5% and 35.9% respectively since 1999. Employment in the manufacture of radio, television and communication equipment declined by 11,700, or 58.3%, since 1999. This fall in employment was larger than the increases in the other sub-sectors.

Paper, Print and Publishing

There were 21,800 persons employed in this sector in 2004. This is a fall of 900, or 4.1%, from the 1999 employment level. In 2003, employment stood at 24,400, indicating that the decline in employment took place between 2003 and 2004. Employment in the manufacturing of paper and paper products fell by 1,000 between 2003 and 2004. This represents a fall of 24.5% in one year. Employment in printing and publishing fell by 1,600 or 8%.

Metals and other Machinery not Elsewhere Classified (n.e.c.)

A total of 36,800 persons were employed in this sector in 2004. This sector is also known as the traditional engineering sector and has experienced a 19.8% fall in employment since 1999. Much of this decline occurred between 2003 and 2004.

Textiles and Clothing

Employment in this sub-sector stood at 9,000 in 2004. Employment has dropped steadily from 18,700 in 1999. This drop is distributed reasonably evenly throughout the different sub-sectors within this sector. The closure of many traditional textile operations has contributed significantly to this decline in employment.

2.5 EMPLOYMENT EXPECTATION TRENDS BY SECTOR

In this section we outline employment expectations by sector, based on a monthly survey conducted by the ESRI. 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 three or four months. Responses to this question are weighed by employment and an employment expectations index is reported each month. If the index is positive, employers believe they will add jobs in the next few months.

The results from the latest available survey at the time of writing are discussed below². Overall employment expectations for autumn 2005 were positive. Specific sector trends are examined in turn.

Construction

Construction firms expect to increase employment over the next few months. This is a change from earlier in 2005 and in the latter part of 2004 when they did not expect to be adding to their workforces.

Industry

Employers in industry expect to add more workers over the next 3 - 4 months. This is in sharp contrast with 2003 and 2004 where employment expectations were negative.

Retail

Employment expectations in the retail sector fluctuated throughout the year. The results from the most recent survey suggest that employment levels will fall.

Services

Overall, employers in the services sector expect that employment levels will increase in the short-term. This is in contrast to the first quarter of 2005, where employment expectations were negative. However, seasonal factors are most likely to be responsible for these trends.

² Source: FÁS/ ESRI Monthly Employment Vacancy Survey, July 2005

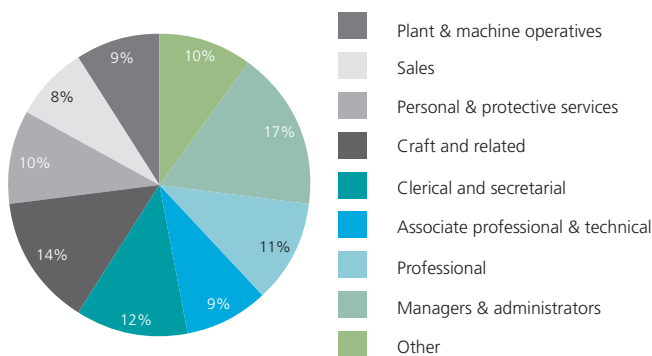
Section 3

Employment by Broad Occupational Group

3.1 EMPLOYMENT (2004)

In this section we examine employment by broad occupational groups. Of the 1.8 million persons in employment (Figure 3.1), 17% were classified as managers or administrators; 14% as craft; and 12% as clerical. Importantly, over the last five years the share of professionals increased by 1.4 percentage points to 11.2%, while the share of plant and machinery operatives, as well as managers and administrators decreased by 1.6 and 1.4 percentage points, respectively.

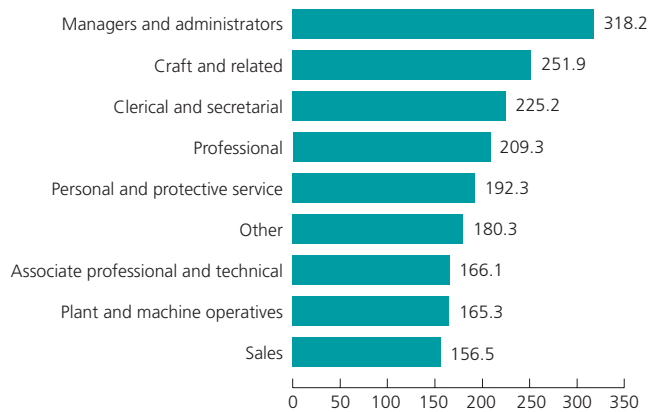
Figure 3.1 Employment by Broad Occupational Group 2004



Source: CSO, Quarterly National Household Survey

Figure 3.2 shows employment levels for 2004. The largest occupational category is managerial and administrative with 318,000 persons. Professional and associate professional occupations combined account for 375,000 persons. Craft related occupations employ a quarter of a million people; clerical occupations employ 225,000.

Figure 3.2 Numbers Employed by Broad Occupational Group in 2004 (000's)



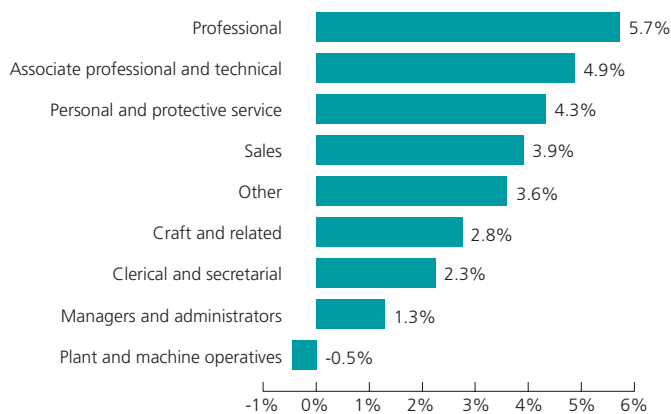
Source: CSO

3.2 EMPLOYMENT GROWTH (1999-2004)

The fastest growing occupational groups are professional and associate professional, as well as occupations in services and sales, which in terms of the annualised growth rate for the period 1999-2004 increased by 5.7%, 4.9%, 4.3% and 3.9%, respectively (Figure 3.3). More than 85,000 new positions were opened in professional and associate professional categories combined over the observed period. Over the same period, almost 4,000 jobs were lost in plant and machine operatives category, the only occupational group to see a decline over the last five years.

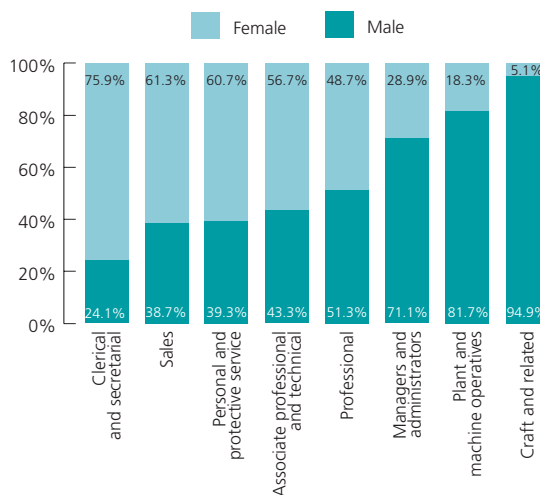
The other occupations, managers and administrators, clerical and secretarial occupations and crafts and related occupations have grown slower than the overall national employment growth.

Figure 3.3 Annual Average Employment Growth by Broad Occupational Group (%), 1999-2004



Source: CSO

Figure 3.4 Employment by Gender in Broad Occupational Groups (%), 2004



Source: CSO, Quarterly National Household Survey

3.3 EMPLOYMENT BY GENDER

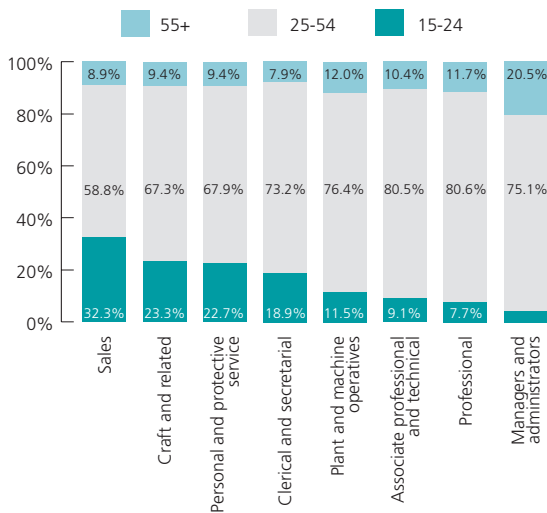
Since 1999, the share of female employees has increased for all broad occupational groups, except for operatives and craft related occupations. Female workers dominate in clerical, sales and services related occupations (Figure 3.4). Persons employed in the crafts occupational group are predominantly male; females account for 5.1%.

It is worth noting that 71.1% of managers and administrators in 2004 were male. However, almost 30% of all managers are farm managers/owners, who are predominantly male. When farm managers/owners are excluded, the proportion of female managers increases from 28.9% to 38.2%.

3.4 AGE PROFILE

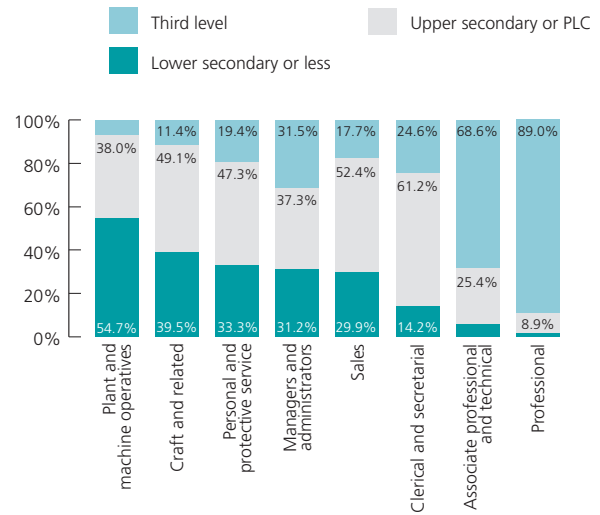
Figure 3.5 shows the age distribution for the broad occupational groups. Sales had the highest proportion of persons younger than 25. On the other hand, the managerial group had the highest proportion of persons older than 55. This is not surprising given that managerial positions are, in general, associated with long experience and seniority. Interestingly, over the period 1999-2004, the proportion of under-25s declined in all occupations, reflecting the overall aging of the population.

Figure 3.5 Employment by Age in Broad Occupational Groups (%), 2004



Source: CSO, Quarterly National Household Survey

Figure 3.6 Employment by Education in Broad Occupational Groups (%), 2004



Source: CSO, Quarterly National Household Survey

3.5 EDUCATION PROFILE

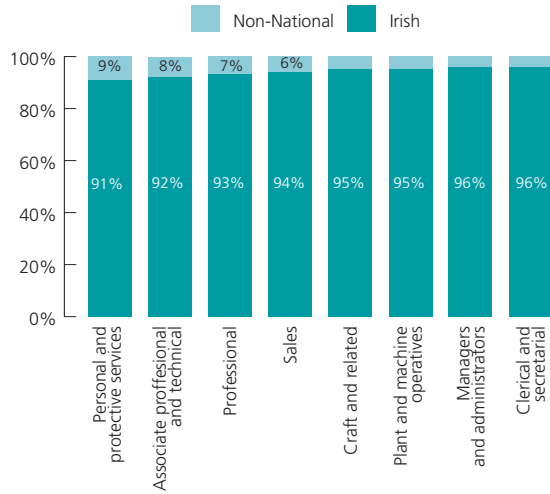
Figure 3.6 presents employment by broad occupational groups broken by the education level. Occupational groups with the highest proportion of employed with third level qualifications are professional and associate professional, with 89% and 69% of persons in this category, respectively. On the other hand, more than half of plant and machine operatives have attained lower secondary education or less.

Over the period 1999-2004, all occupational groups experienced an increase in the proportion of the third level component and a decrease in the lower secondary or less category. The share of the third level component in the associate professional group increased most notably (by 10.2 percentage points) over the period.

3.6 NATIONALITY

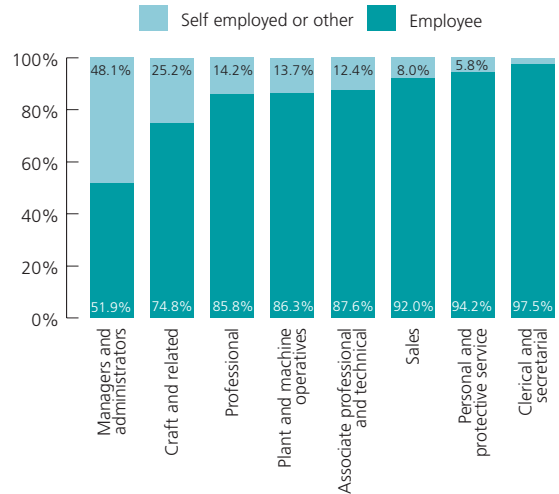
For all occupational groups, more than 90% of those employed are Irish nationals (Figure 3.7). Personal and protective services have the highest percentage of non-nationals employed (9%), with more than 60% of them classified as non-EU. The non-Irish proportion of all occupational groups increased over the period 1999-2004. Personal and protective services and sales are occupational groups with the fastest growing non-Irish component, growing by 5.3 and 3.5 percentage points respectively between 1999 and 2004.

Figure 3.7 Employment by Nationality in Broad Occupational Groups (%), 2004



Source: CSO, Quarterly National Household Survey

Figure 3.8 Employment by Employment Status in Broad Occupational Groups (%), 2004



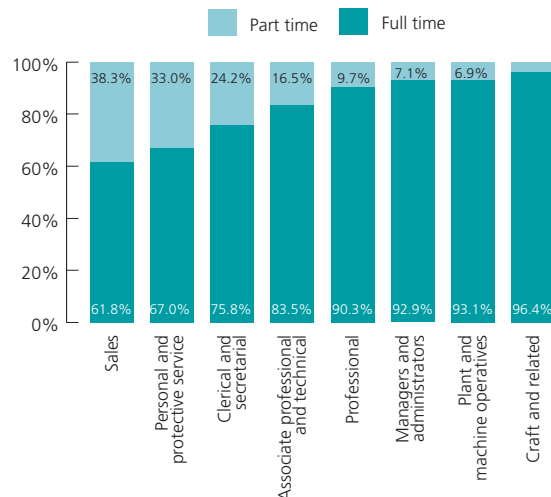
Source: CSO, Quarterly National Household Survey

3.7 EMPLOYMENT STATUS

With the exception of the managerial and craft groups, in excess of 85% of the employed persons in all groups are classified as employees. Furthermore, the distribution between employees and self employed, for most occupational groups, has remained relatively stable over the period 1999-2004. Due to the large number of business owners who are classified as managers, the managerial occupational group has almost equal division between employees and self employed.

For all occupational groups, the majority of employed persons work full time. The occupational groups with the most part-time workers are sales, services, clerical and associate professional. Interestingly, these occupational groups have the highest proportion of females. Clerical and sales occupations have seen an increase in the proportion of part time workers over the period 1999-2004 of four and two percentage points, respectively.

Figure 3.9 Full Time vs. Part Time Employment in Broad Occupational Groups (%), 2004



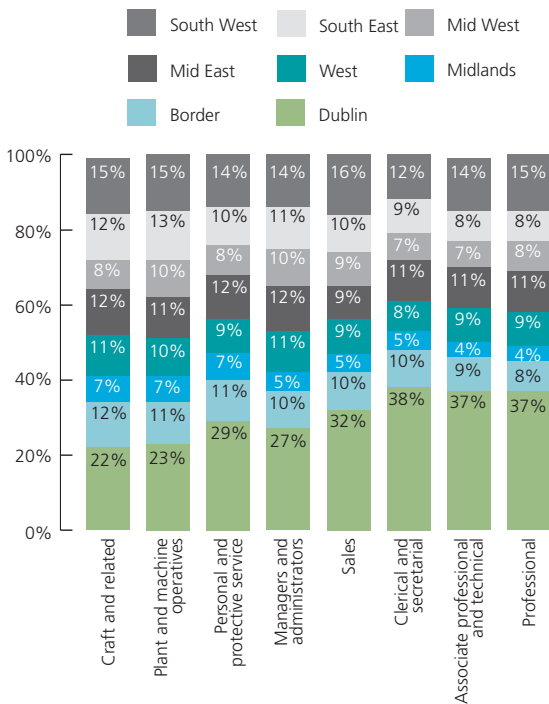
Source: CSO, Quarterly National Household Survey

3.8 REGION

For all occupational groups, the highest proportion of employment is situated in the Dublin region. For clerical, professional and associate professional groups more than a third of the total employment is based in Dublin. However, the regional distribution of employment has been changing since 1999, whereby the share of employment located in the Dublin region has declined for all occupational groups with the exception of managerial and operatives which have remained relatively static. Except for the Mid and South West regions, which did not benefit, the outflow from the Dublin region has been distributed relatively evenly throughout the other regions.

However, it should be borne in mind that many individuals commute large distances and may live in different regions from where they work. For instance, many residents of the mid-East region work in Dublin.

Figure 3.10 Employment by Region in Broad Occupational Groups (%), 2004



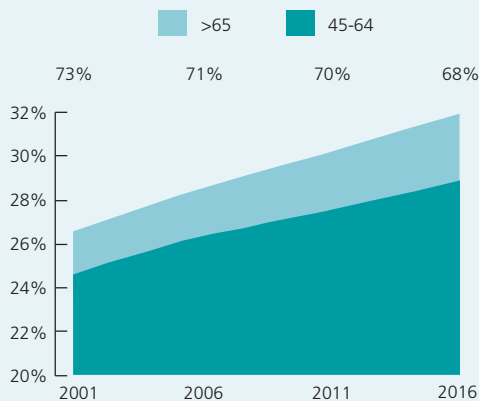
Source: CSO, Quarterly National Household Survey

MATURE AGE WORKFORCE

Many developed economies are currently undergoing a demographic shift: birth rates have fallen and life expectancy has risen. These trends have led to the aging of the population, and Ireland is no exception to these trends. However, the impact in Ireland will be less than in many other European countries, as the birth rate has not fallen to the low levels experienced in some countries. In addition, the birth rate has risen slightly over the past number of years.

Nevertheless, Ireland will experience a 'greying' of the labour force. Figure 3.11 below shows the projected share of the labour force accounted for by persons over 45. This share is expected to rise from approximately 26.6% in 2001 to just under 32% in 2016. There will be an estimated 283,700 additional people over 45 in the labour force in 2016 than in 2001. The proportion of the workforce aged over 65 is estimated to increase from 1.9% in 2001 to 3.1% in 2016.

Figure 3.11 Percentage of Over 45s in the Labour Force, 2001-2016



Source: CSO

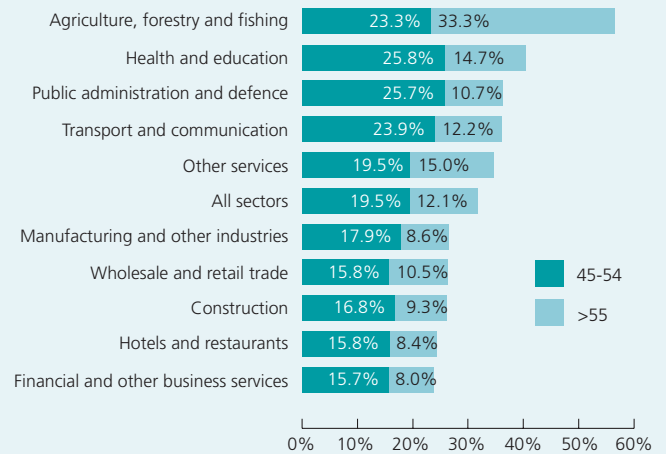
In 2004, the proportion of over 55s who worked part time was 23%; this compares to 17% of the workforce overall.

The participation rate of older females is lower than participation rates of both older males and females in the overall workforce. A total of 32.3% of over 55 year old workers were female in 2004, whereas 43.4% of under 55 year old workers were female.

The labour force participation rates for older workers are also lower than for younger workers. For example 60.3% of 55-59 year olds were active in the labour force; this drops to 41.9% of 60-64 year olds. The respective rates for 25-34 year olds and 35-44 year olds are 84.6% and 79.8%.

Figure 3.12 shows the proportions of employment in the various economic sectors broken down by the age of the older workforce. Approximately 56% of the workforce in agriculture, fishing and forestry is over 45 with 33% over 55. Financial and other business services and hotel and restaurants have the smallest proportion of older workers.

Figure 3.12 Proportion of Mature Age Workers by Sector, 2004



Source: CSO

Below is a list of the top ten occupations which employ the older workers and the number of older workers (>55) they employ.

Table 3.1 Top 10 occupations by number of older workers (>55) employed

| Occupation | Persons |
|---|---------|
| Farm owners and managers | 35,600 |
| Drivers of road goods vehicles | 7,000 |
| Managers/proprietors of shops etc. | 6,700 |
| Sales assistants | 6,900 |
| Cleaners, domestics | 6,400 |
| Nurses | 6,300 |
| All other labourers and related workers | 5,000 |
| Secondary/vocational education teachers | 4,500 |
| Other clerks (n.o.s.) | 4,100 |
| Care assistants and attendants | 4,000 |

Source: CSO QNHS Q2 2004

Section 4

Education and Training

The objective of this section is to provide a broad overview of the supply of skilled labour from the formal education and training system in Ireland. The National Framework of Qualifications (NFQ) classifies education into 10 levels:

- Level 1-2:** Level 1 and 2 Certificate
- Level 3:** Level 3 Certificate and Junior Certificate
- Level 4:** Level 4 and Leaving Certificate
- Level 5:** Leaving Certificate and 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

Figure 4.1 shows a **simplified** scheme of the NFQ with the estimated output for selected providers at various levels in 2003 (the latest year for which data was available). The output from private colleges and professional institutions, which provide education at levels 6-10 was not available. The arrows indicate possible destinations of graduates at any level.

While the majority of those who exit the formal education system enter the labour market, some leave the country, engage in home duties or do not participate for other reasons.

Level 1-2

No certificates have been awarded for Level 1 and 2 as yet.

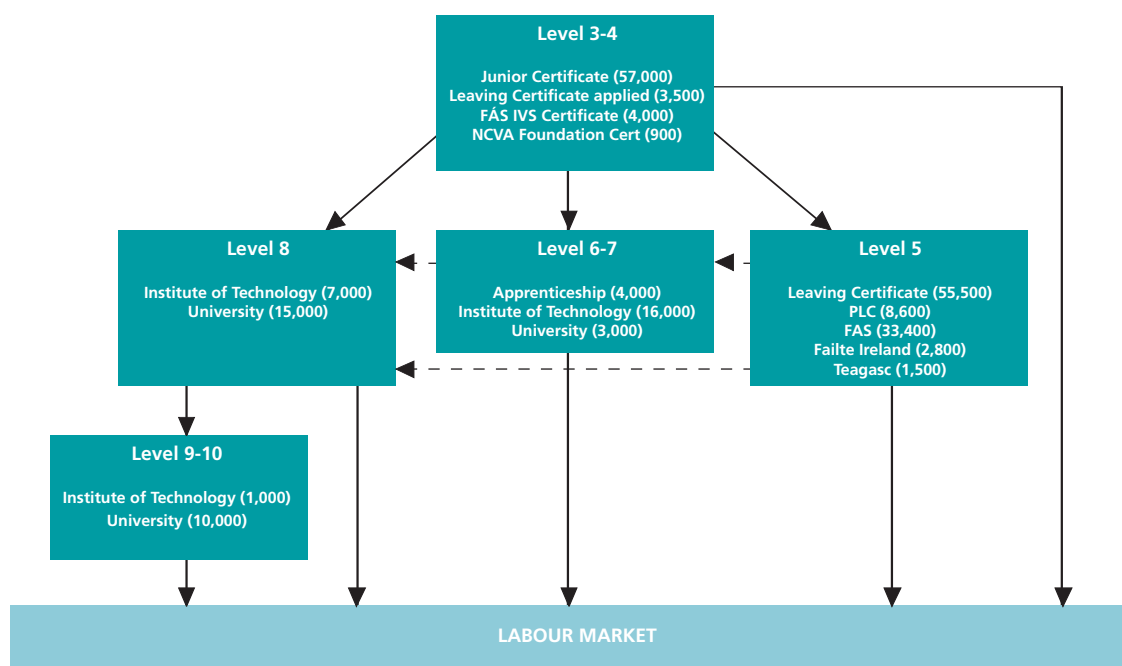
Level 3-4

In 2003, approximately 57,000 Junior Certificates and approximately 3,500 Applied Leaving Certificates were awarded. Over 4,000 people received FÁS IVS certificates in 2003; 900 were awarded NCVA Foundation certificates.

Level 5

The output from level 5 for 2003 is broken down by the education and training providers. A number of courses are classified here as level 5, which in fact may range from levels 1-6; however, the majority fall into the level 5 category. Approximately 100,000 individuals were awarded further education and training certificates

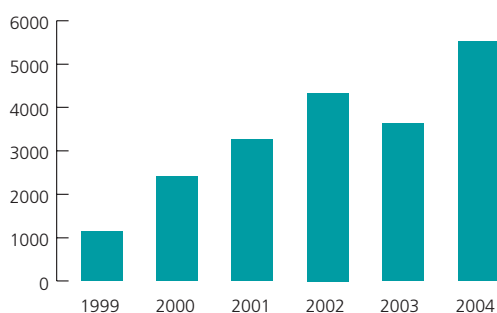
Figure 4.1 Education and Training Output in 2003



Level 6-7

The number of persons awarded National Craft Certificates increased from 1,137 in 1999 to 5,519 in 2004, an almost fivefold increase (Figure 4.2). The greatest increase in certificates issued is for construction related trades (e.g. electrician, bricklayer, carpenter, etc.), which can be attributed to the strong performance of the construction industry.

Figure 4.2 Number of Awarded National Craft Certificates, 1999-2004



Source: FÁS

Levels 6 and 7 refer to higher certificates and ordinary degrees, respectively. There were approximately 19,000 graduates of institutes of technology and universities at level 6-7 in 2003. Figure 4.3 shows graduates by broad discipline for levels 6-7 from institutes of technology and universities. All of the broad disciplines (except science) have seen an increase of graduates over this period; the overall graduate numbers have increased by 33% since 1999.

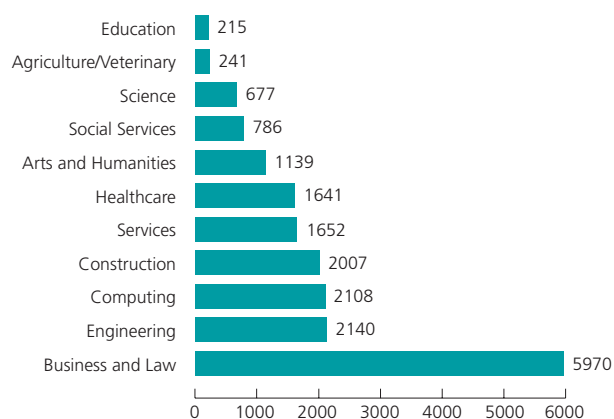
Business and law: Traditionally, business and law courses yield the highest number of graduates at this level and almost 6,000 students graduated from these courses in 2003.

Healthcare: Healthcare courses, at level 6-7, had the largest percentage increase (126%) of graduates over the four year period, owing to an increase in the number of courses offered in this discipline.

Science: The number of science graduates has declined by 43% since 1999. This trend is set to continue, with the number of applications for science related courses continuing to decline in 2005.

Computing: Although computing graduates increased by 51% over the period 1999-2003, this trend is forecast to reverse over the coming years. The decline in enrolments into computer related courses, following the slowdown in the information technology (IT) sector in 2001, is expected to adversely affect graduate output in the short to medium term.

Figure 4.3 Level 6-7 Graduations 2003



Source: HEA, HETAC

Level 8

Level 8 refers to honours bachelor degrees. There were approximately 22,000 level 8 awards granted in 2003. Figure 4.4 shows graduates by broad discipline for institutes of technology and universities. More than half of all graduates at level 8 are from arts and humanities and business and law disciplines.

The total number of level 8 graduates has increased by 37% since 1999. This can be attributed to an increase in participation rate at level 8 and increases in the number of courses offered, particularly in institutes of technology.

Computing: The number of graduates from computing courses increased by 136% over the period 1999-2003. However, this trend is forecast to reverse over the coming years. Similar to levels 6-7, a decline in enrolments into computer related courses at level 8 has occurred recently. This is expected to reduce graduate output in the short to medium term. CAO data for 2005 suggests a slight increase in applications for computer related courses since last year.

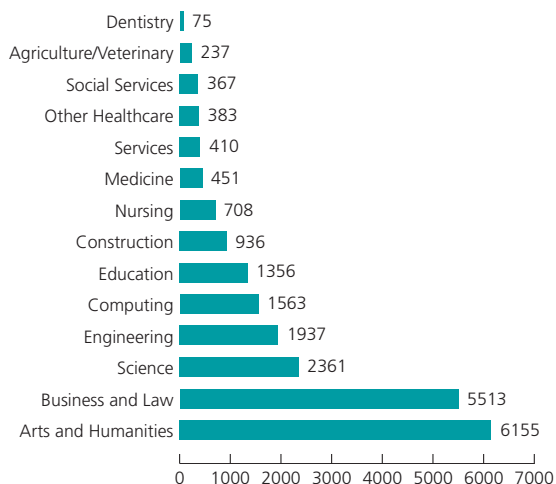
Nursing: In 2002, nursing education was reformed with a move from a 3-year diploma to a 4-year degree. As a result, there will be no nursing graduates in 2005.

Social Services: The introduction of a number of new social services courses at institutes of technology has resulted in an increase in the number of graduates in this discipline by more than 200% since 1999.

Dentistry and Medicine: Interestingly, the graduate output from dentistry and medicine has remained almost unchanged since 1999, despite the widely reported skill shortages in these areas. This is due to a limited number of courses, as well as places, on offer. An increase in the number of places for medical courses is expected to occur in the future.

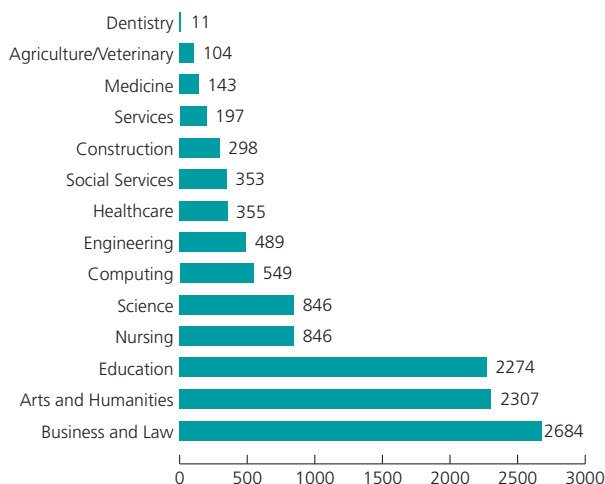
Computing: The number of computer postgraduates declined by 35% over the period. Following the slowdown in the information technology sector in 2001, there has been a decline in the uptake of graduate diploma conversion courses (from 693 in 1999 to 268 in 2003), which were previously used for redirecting graduates from various disciplines into information technology.

Figure 4.4 Level 8 Graduations 2003



Source: HEA, HETAC

Figure 4.5 Level 9/10 Graduations 2003



Source: HEA, HETAC

Level 9-10

Level 9-10 refers to graduate diplomas, taught masters, research masters and doctors of philosophy. There were 11,000 graduates at levels 9 and 10 in 2003. The greatest number of awards from post-graduate courses was in business and law (over 2,600), arts and humanities (2,300) and education (2,300). The latter two disciplines have increased significantly since 1999 – increasing by 71% and 92%, respectively. The largest percentage increase over the four year period was in services (tourism, transport etc.) although the actual numbers involved are quite small.

Section 5

Work Permits and Visas / Authorisations

This section provides a brief analysis of the data regarding the inflow of skills from non-EU sources.

An inflow of non-EU nationals into an occupation or sector can be used as an indicator of skill shortage.

Non-EU nationals can work in Ireland provided they have been granted a work permit or a work visa/authorisation. Both schemes are run by the Department of Enterprise, Trade and Employment (DETE).

Work permits

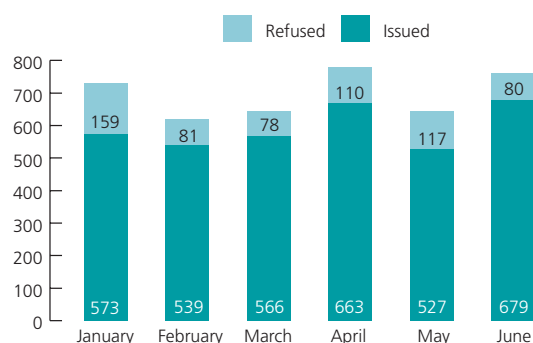
Work permits are issued to employers wishing to recruit non-EU nationals and are valid for one year. They can be renewed upon expiry. The work permit scheme allows employers to source workers from abroad, provided they were unsuccessful in filling the post from domestic or EU sources. Employers wishing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

The figures reveal a steady monthly flow of labour through the work permit system. The data suggests a considerable sourcing of labour from abroad for catering, health, caring and farming sectors. The majority of work permits issued are for low skilled occupations, with high-skilled occupations – managerial, professional and associate professional – accounting for 38% of the total.

In the period from January to June 2005 a total of 4,117 applications for a **new** work permit³ were made to the DETE. Of this, the number of applications approved was 3,552. The refusal rate was 15%, with a total of 625 applications refused.

Figure 5.1 presents the number of work permits issued and refused by month. On average, approximately 700 applications are processed each month.

Figure 5.1. Work Permits Issued and Refused, Jan-June 2005



Source: DETE

Table 5.1 presents work permit applications by major occupational groups. Sixty percent of work permits issued were for trades and low skilled occupations (major groups 4-9), while professional, associate professional and managerial occupations account for the remainder.

Table 5.1 New Work Permit Applications by Major Occupational Groups

| Major occupational group | Issued | % Issued | Refused | Total |
|------------------------------------|-------------|-------------|------------|-------------|
| 1 Managers and administrators | 320 | 9% | 33 | 353 |
| 2 Professional | 582 | 16% | 33 | 615 |
| 3 Associate professional | 518 | 15% | 33 | 551 |
| 4 Clerical and secretarial | 144 | 4% | 22 | 166 |
| 5 Craft and related | 471 | 13% | 75 | 546 |
| 6 Personal and protective services | 868 | 24% | 332 | 1,200 |
| 7 Sales | 85 | 2% | 14 | 99 |
| 8 Plant and machine operatives | 146 | 4% | 20 | 166 |
| 9 Other | 418 | 12% | 63 | 481 |
| Total | 3552 | 100% | 625 | 4177 |

Source: DETE

³ Over the same period, the DETE also processed 9,632 renewals.

The highest number of applications for work permits was in the personal and protective services, with 29% of the total. Personal and protective services (e.g. catering, domestics, childcare, security etc.) also accounted for the highest number of issued work permits – 24%. This is followed by the professional occupations, which accounted for 615 applications and 582 approvals. Associate professional and craft related occupations accounted for 15% and 13% of the total number of issued work permits, respectively.

In terms of the individual occupations, the highest number of work permits issued were for those classified as chefs (393). Medical practitioners followed with 260 work permits issued. Most of the work permits issued in this category were for locum general practitioners. Care assistants accounted for 180 work permits issued. For farming occupations, most of which were for equestrian related activities, 112 work permits were issued. Finally, 105 work permits were issued for horticultural trades. Other occupations had fewer than 100 work permits issued over the period.

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.

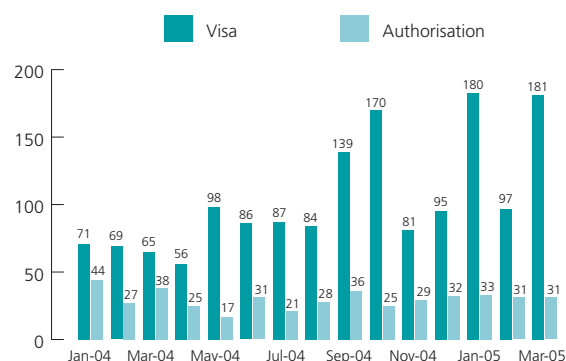
In contrast to work visas, work authorisations are issued to non-EU nationals who do not require a visa to travel to Ireland as tourists. The work visa/authorisation is issued to a person looking to work in Ireland and is valid for two years.

The analysis of the work visa/authorisation data indicates continued sourcing from abroad of skills in the area of health, information technology and construction. Moreover, there is an increase of inflow of skills through the work visa scheme, suggesting that previously identified areas of shortage continue to be an area of concern.

In 2004, 1,454 applications were approved, of which, 1,101 were for work visas and 353 were for work authorisations. In the first three months of 2005, an additional 461 and 95 work visas and work authorisations were issued, respectively.

Figure 5.2 presents the number of work visas and work authorisations issued by month for the period January 2004 to March 2005. The number of work authorisations issued monthly did not vary significantly over the period. On average, 30 work authorisations are issued each month. By contrast, the number of work visas issued monthly fluctuated markedly. Overall, there has been an increase in the number of work visas issued since September 2004.

Figure 5.2. Number of Work Visas and Work Authorisations issued



Source: DETE

The number of work visas issued in the first quarter of 2005 was 461, compared to 205 for the same period in 2004 – an increase of more than 100%. Non-EU nurses' visas accounted for almost 80% of this increase – the number of work visas issued to nurses in the first quarter of 2005 was 350 compared to 149 in the same period of 2004. The number of issued work visas also rose for medical radiographers, civil engineers, occupational and other medical therapists, computer analysts and software engineers.

Interestingly, a significant number of health professionals and IT professionals, are entering the labour market via the work permit system, although these occupations are eligible for the more favourable work visa scheme. In particular, 140 medical practitioners were issued work permit in Quarter 1 2005, compared to five work visas. Similarly, 21 work permits were issued for computer analysts/ programmers, compared to 11 work visas.

Section 6

Difficult to Fill Vacancies: Survey Results

In this section we briefly outline the results of the difficult to fill vacancy survey⁴ conducted by the ESRI on behalf of FÁS. This monthly survey asks companies in four economic sectors questions relating to vacancies and the job titles of the vacancies that they are finding difficult to fill. Employers' perceptions of difficult to fill vacancies can be used as an indicator of shortages. The results of the surveys covering the period January 2004 and June 2005 are presented below by sector.

In Table 7.1 (see next section) the number of difficult to fill vacancy mentions in 2004 for each occupation is presented. However, due to the varying number of firms in different sectors and months covered in the sample, the actual numbers of mentions is a crude indicator. The proportion of all mentions an occupation received in an individual sector gives a better indication of its difficulty to fill.

Construction

On average, in 2004, 15.2% of construction firms reported vacancies each month. The proportion of firms reporting vacancies averaged 15.1% in the first half of 2005; this is unchanged from the same period in 2004.

Over the course of the surveys in 2004, firms in the construction sector mentioned a total of 334 job titles as difficult to fill: building managers (36.5% of mentions in the construction sector), quantity surveyors (13.8%), bricklayers (11.7%), plasterers (10.2%), and carpenters (5.9%). Collectively, these occupations account for 74.3% of all difficult to fill vacancies mentioned in the survey in 2004.

In the first six months of 2005, 97 job titles were mentioned as difficult to fill. The top five occupations, in terms of mentions, were unchanged except for bricklayers who were replaced by estimators and valuers as the third ranked occupation mentioned. Bricklayers fell out of the top five and were only mentioned once between Jan-Jun 2005.

Industry

In 2004, 20.5% of firms in industry reported vacancies on average each month. However, in the first half of 2005, the monthly proportion of firms reporting vacancies fell to 16.7%. The corresponding figure for the first half of 2004 was 21%. This suggests a slowdown in recruitment in industrial firms in the first half of 2005.

During 2004, industrial firms with vacancies mentioned 568 job titles that they were finding difficult to fill. The main occupations mentioned were various types of operatives (20%), managers (15%), engineers (12%), metal forming, welding and related trades (9%) and metal machining, fitting and instrument making trades (7%).

In the first six months of 2005, 159 job titles of difficult to fill occupations were mentioned. This fall mirrors the fall in the proportion of firms with vacancies. The main occupations remained unchanged; however, engineers now totalled 22.6% of all mentions for this period.

Retail

The average monthly proportion of retail firms with vacancies in the survey was 4.6% in 2004. The average for the first six months of 2005 was 1.8% which compared to 6.9% for the same period in 2004, suggesting a marked slowdown in recruitment in retail firms in 2005.

The main occupations mentioned as difficult to fill were sales assistants (24% of mentions), managers of shops (8.7%), cleaners (4.6%) and transport and storage managers (4.1%). In the first half of 2005, 72 job titles were mentioned, with the only main change being an increase in the number of times vacancies for warehousemen/women were indicated as difficult to fill.

Services

The proportion of firms in the services sector reporting vacancies averaged 15% in 2004. This fell to 11.2% for the first six months of 2005. In the first six months of 2004, the proportion was 16.4% indicating a fall in the number of firms with vacancies in early 2005 as compared to 2004.

The total number of job titles mentioned was 399 in 2004 and 180 for the first six months of 2005. The main occupations reported by firms in the service sector in 2004 included HGV drivers (20% of mentions), chefs (13%), various types of clerks (8%), and business and financial professionals (6%). The same occupations were also the main occupations mentioned in the first half of 2005 with the exception of chefs who were reported much less than before. In addition, engineers and scientific technicians were mentioned more in 2005 than previously.

⁴ FÁS/ESRI Employment and Vacancy Survey, June 2005

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.

Skill shortages refer to a situation where there are an insufficient number of trained/qualified individuals in the domestic market to meet the demand for an occupation. They arise for occupations associated with specific skills, which are usually acquired through formal education or training.

Labour shortages refer to a situation where there are an insufficient number of individuals willing to take up employment opportunities. They usually occur for relatively lower skilled occupations.

The contents of the table are as follows:

Column 1 contains occupation titles.

Column 2 presents employment stock for each occupation. The occupational employment is reported as an annual average for 2004. 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 2004 QNHS.

Column 4 shows the percentage of part-time workers in the total employment in an occupation. Source: Quarter 2 2004 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. 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 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 2004 QNHS.

Column 6 shows the percentage of persons older than 55 in the total employment in 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 2004 QNHS.

Column 7 shows the percentage of non-Irish persons in the total employment in each occupation. A higher than average proportion of non-nationals in an occupation suggests that shortages existed in the past. Source: Quarter 2 2004 QNHS.

Column 8 shows the average annual employment growth for the period 1999-2004. This was used to assess current and future expansion demand. Source: QNHS 1999-2004.

Column 9 presents the number of new work permits issued for each occupation for the period January to June 2005. Work permit data was not available at occupational level in 2004. This data was used as an indicator of demand for labour that could not be met from domestic sources. Source: Department of Enterprise, Trade and Employment.

Column 10 gives the number of work visas and work authorisations issued for 2004. Figures in brackets are for the period January to March 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 2004

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 a career change, 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 any shortages 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 objective was to highlight areas of possible shortages. 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 a shortage of labour
- 'inconclusive' is used for occupations where available quantitative information is insufficient for the identification of shortages.

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

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

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 included:

- Scientists
- Engineers
- IT
- Business and Financial
- Health
- Education
- Care Profession
- Legal and Security
- Construction Professionals
- Construction Craft
- Other Craft
- Arts, Sports and Tourism
- Transport and Logistics
- Library and Clerical
- Sales
- Operatives.

Small occupations were either excluded or grouped.

For each family of skills employment trends, employment growth, age and education profiles of the occupation are examined. First, the level of employment in 2004 is presented. This is followed by an examination of employment growth trends for the period 1999-2004.

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; higher secondary or post leaving certificate education; and third level education.

Shortage indicators were generated 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.

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 a myriad of 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 the 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.

Table 7.1 Demand and Shortage Indicators for Selected Occupations

| Occupation | Numbers employed | % Female | Part-time | Unemployment | % >55 | % Non-national | Annual average growth rate 1999-2004 | Work permits Jan-Jun 2005 | Work visas/authorisations 2004(2005) | Difficult to fill vacancies 2004 | Replacement rate | Shortage indicator | Comment |
|--|------------------|----------|-----------|---------------|-------|----------------|--------------------------------------|---------------------------|--------------------------------------|----------------------------------|------------------|--------------------|---------|
| General managers and administrators | 23,600 | 35% | 8.9% | Below average | 16% | 5% | 19.3% | 21 | | 5 | -1.5% | No shortage | |
| Production managers in industry | 24,700 | 13% | 2.8% | Below average | 13% | 6% | 2.2% | 53 | | 159 | -1.5% | No shortage | |
| Building managers | 5,800 | 8% | 3.6% | | 12% | 12% | 2.8% | 18 | | 134 | -1.5% | Inconclusive | |
| Specialist managers | 33,800 | 42% | 5.1% | Below average | 7% | 5% | 1.5% | 100 | | 63 | -1.5% | No shortage | |
| Marketing etc. managers | 16,900 | 37% | 5% | | 8% | 5% | 3.5% | 47 | | 43 | -1.5% | No shortage | |
| Purchasing managers | 2,900 | 34% | 0% | | 14% | 0% | 4.9% | 3 | | | -1.5% | No shortage | |
| Advertising & PR managers | 6,300 | 57% | 10% | | 5% | 5% | 1.4% | 3 | | 9 | -1.5% | No shortage | |
| Personnel managers | 4,300 | 67% | 8% | | 7% | 5% | -0.5% | 21 | | 2 | -1.5% | No shortage | |
| Computer systems managers | 5,700 | 30% | 2% | | 2% | 5% | 1.2% | 17 | | 7 | -1.5% | No shortage | |
| Financial institution and office managers | 24,100 | 61% | 9% | Below average | 7% | 4% | -0.9% | 29 | | 10 | | No shortage | |
| Bank and other financial managers | 15,300 | 57% | 9% | | 7% | 5% | -3.4% | 28 | | 9 | -1.5% | No shortage | |
| Credit controllers | 4,000 | 69% | 10% | | 8% | 6% | 9.4% | 1 | | 1 | -1.5% | Labour shortage | S,C,F |
| Managers in transport and storage | 15,000 | 16% | 3% | Below average | 8% | 5% | 7.5% | 7 | | 13 | -1.5% | | |
| Transport managers | 3,600 | 16% | 3% | | 8% | 6% | -1.2% | 1 | | 2 | -1.5% | Skill shortage | C |
| Stores managers | 8,500 | 16% | 2% | | 6% | 5% | 13.8% | 6 | | 9 | -1.5% | Skill shortage | C |
| Warehousing managers | 2,900 | 17% | 5% | | 12% | 4% | 5.7% | | | 2 | -1.5% | No shortage | |
| Protective service officers | 1,500 | 0% | 6% | Below average | 6% | 3% | 7.2% | 3 | | | -1.5% | No shortage | |
| Managers in farming, horticulture, forestry and fishing | 94,100 | 7% | 8% | Below average | 38% | 1% | -3.4% | 7 | | | 3.1% | No shortage | |
| Farm owners and managers | 93,600 | 7% | 8% | | 38% | 1% | -3.2% | 3 | | | 3.1% | No shortage | |
| Managers and proprietors in service industries | 67,800 | 41% | 8% | Below average | 19% | 6% | -2.0% | 59 | | 27 | -1.5% | No shortage | |
| Hotel & accommodation managers | 5,300 | 69% | 16% | | 24% | 13% | -3.7% | 5 | | 4 | -1.5% | No shortage | |
| Restaurant & catering managers | 9,100 | 54% | 9% | | 10% | 11% | 2.6% | 32 | | 1 | -1.5% | No shortage | |
| Publicans, innkeepers & club stewards | 7,100 | 31% | 6% | | 31% | 3% | -3.7% | 3 | | 2 | 1.7% | No shortage | |
| Entertainment/sports managers | 1,900 | 38% | 13% | | 7% | 0% | -6.0% | 2 | | 1 | -1.5% | No shortage | |
| Travel agency managers | 1,900 | 68% | 15% | | 13% | 24% | 6.1% | 6 | | 1 | -1.5% | No shortage | |
| Other managers and administrators | 33,600 | 36% | 8% | Below average | 14% | 6% | 22.3% | 44 | | 26 | -1.5% | No shortage | |
| Natural scientists | 8,000 | 44% | 4% | Below average | 10% | 4% | 9.0% | 28 | 1 | 9 | 2.8% | Skill shortage | F |

| | | | | | | | | | | | |
|--|--------|-----|-----|-----|-----|-------|-----|----------|------|----------------|-------|
| Chemists | 2,000 | 38% | 2% | 12% | 4% | 10.6% | 13 | 1 | 2.8% | Skill shortage | F |
| Biological scientists | 3,500 | 42% | 5% | 6% | 0% | 9.5% | 4 | 1 | 2.8% | Skill shortage | F |
| Physicists & other natural scientists | 2,400 | 54% | 6% | 13% | 9% | 7.0% | 11 | 1 | 2.8% | Skill shortage | F |
| Engineers and technologists | 38,100 | 13% | 2% | 5% | 10% | 6.5% | 143 | 309 (93) | 2.8% | | |
| Civil/mining engineers | 8,900 | 9% | 1% | 7% | 7% | 7.4% | 10 | 96 (32) | 2.8% | Skill shortage | S,C,F |
| Mechanical engineers | 3,600 | 6% | 1% | 9% | 5% | 6.6% | 7 | 3 | 2.8% | No shortage | |
| Electrical engineers | 3,100 | 20% | 3% | 6% | 15% | 9.9% | 3 | 9 | 2.8% | Skill shortage | F |
| Electronic engineers | 3,300 | 3% | 0% | 4% | 13% | -1.3% | 1 | 3 | 2.8% | Skill shortage | F |
| Software engineers | 8,600 | 17% | 2% | 1% | 16% | 8.4% | 70 | 213 (61) | 2.8% | Skill shortage | S,C,F |
| Chemical engineers | 1,600 | 9% | 0% | 3% | 5% | 18.0% | 2 | 3 | 2.8% | Skill shortage | S,C,F |
| Design & development engineers | 1,700 | 24% | 4% | 0% | 4% | 14.5% | 2 | 9 | 2.8% | Skill shortage | S,C,F |
| Planning & quality control engineers | 2,300 | 26% | 9% | 9% | 5% | -5.7% | 4 | 11 | 2.8% | No shortage | |
| Other engineers & technologists n.e.c. | 5,200 | 14% | 0% | 7% | 11% | 9.6% | 33 | 40 | 2.8% | No shortage | |
| Health professionals | 18,000 | 38% | 9% | 15% | 17% | 8.3% | 292 | 47 (15) | 2.8% | | |
| Medical practitioners | 11,800 | 36% | 7% | 13% | 23% | 11.8% | 260 | 47 (15) | 2.8% | Skill shortage | S,C,F |
| Pharmacists/pharmacologists etc | 2,500 | 50% | 10% | 15% | 9% | 2.6% | 27 | 2 | 2.8% | No shortage | |
| Dental practitioners | 1,700 | 41% | 22% | 14% | 3% | 7.8% | 3 | 3 | 2.8% | Skill shortage | S,C,F |
| Veterinarians | 1,800 | 19% | 2% | 30% | 2% | 3.4% | 2 | 2 | 2.8% | No shortage | |
| Teaching professionals | 75,100 | 71% | 15% | 15% | 6% | 1.7% | 41 | 2 | 2.8% | No shortage | |
| University and IoT teachers | 10,000 | 43% | 14% | 21% | 12% | 2.9% | 16 | 2 | 2.8% | No shortage | |
| Secondary and vocational education teachers | 27,000 | 66% | 14% | 16% | 3% | -2.0% | 4 | 4 | 2.8% | No shortage | |
| Primary & nursery education teachers | 28,200 | 85% | 6% | 11% | 3% | 2.4% | 7 | 7 | 2.8% | No shortage | |
| Other teaching professionals nec. | 9,900 | 72% | 33% | 15% | 10% | 14.4% | 13 | 13 | 2.8% | No shortage | |
| Legal professionals | 9,000 | 40% | 2% | 11% | 3% | 3.6% | 4 | 3 | 2.8% | No shortage | |
| Judges, barristers & advocates | 1,500 | 27% | 0% | 17% | 7% | 9.6% | 2 | 2 | 2.8% | No shortage | |
| Solicitors | 7,500 | 43% | 3% | 9% | 2% | 2.4% | 2 | 3 | 2.8% | No shortage | |
| Business and financial professionals | 35,100 | 43% | 7% | 7% | 5% | 8.2% | 62 | 29 | 2.8% | | |
| Accountants & tax experts | 29,000 | 42% | 6% | 7% | 3% | 6.4% | 29 | 30 | 2.8% | Skill shortage | S,C,F |
| Actuaries, economists, statisticians | 1,500 | 46% | 5% | 8% | 18% | 5.1% | 2 | 1 | 2.8% | Skill shortage | S,C,F |
| Business analysts | 6,300 | 48% | 10% | 7% | 9% | 13.5% | 37 | 2 | 2.8% | No shortage | |
| Architects, town planners and surveyors | 5,900 | 28% | 8% | 13% | 9% | 8.4% | 6 | 66 (19) | 2.8% | Skill shortage | |
| Architects | 4,300 | 30% | 8% | 13% | 11% | 11.6% | 3 | 63 (19) | 2.8% | Skill shortage | S,C,F |
| Building, mining and other surveyors | 1,400 | 11% | 6% | 10% | 5% | 6.2% | 3 | 3 | 2.8% | No shortage | |
| Librarians, archivists & curators | 2,500 | 77% | 26% | 15% | 6% | 10.6% | 1 | 1 | 2.8% | No shortage | |

| Occupation | Numbers employed | % Female | Part-time | Unemployment | % >55 | % Non-national | Annual average growth rate 1999-2004 | Work permits Jan-Jun 2005 | Work visas/authorisations 2004(2005) | Difficult to fill vacancies 2004 | Replacement rate | Shortage indicator | Comment |
|---|------------------|----------|-----------|---------------|-------|----------------|--------------------------------------|---------------------------|--------------------------------------|----------------------------------|------------------|--------------------|---------|
| Other professional occupations | 10,300 | 55% | 19% | Below average | 22% | 11% | 6.7% | 5 | 23 (3) | | 2.8% | No shortage | |
| Psychologists & Other social/behavioural scientists | 1,700 | 60% | 8% | | 13% | 26% | 2.9% | 1 | 4 (1) | | 2.8% | No shortage | |
| Social workers, probation officers | 4,700 | 82% | 23% | | 11% | 12% | 13.1% | 3 | 19 (2) | | 2.8% | Skill shortage | C |
| Scientific technicians | 21,600 | 27% | 3% | Below average | 8% | 3% | 6.4% | 85 | | 48 | 2.6% | No shortage | |
| Scientific technicians excluding electrical technicians | 18,900 | 31% | 3% | | 8% | 4% | 11.4% | 82 | | 38 | 2.6% | No shortage | |
| Draughtspersons, quantity and other surveyors | 4,500 | 14% | 3% | Below average | 5% | 6% | -0.9% | 9 | 10 (8) | 54 | 2.6% | | |
| Draughtspersons | 1,900 | 23% | 3% | | 2% | 5% | -6.3% | 6 | | 3 | 2.6% | No shortage | |
| Quantity surveyors | 2,600 | 8% | 4% | | 8% | 7% | 8.0% | 3 | 10 (8) | 51 | 2.6% | Skill shortage | S,C |
| Computer analyst/programmers | 16,100 | 32% | 4% | Below average | 2% | 11% | 4.5% | 66 | 35 (17) | 15 | 2.6% | Skill shortage | S,C,F |
| Ship/aircraft officers incl. air traffic controllers | 2,600 | 5% | 3% | Below average | 5% | 3% | 9.1% | 31 | | | 2.6% | No shortage | |
| Health associate professionals | 61,300 | 89% | 28% | Below average | 13% | 9% | 6.4% | 75 | 963 (401) | 2 | 2.6% | | |
| Nurses and midwives | 50,200 | 93% | 29% | | 13% | 8% | 5.7% | 17 | 881 (367) | 1 | 2.6% | Skill shortage | S,C |
| Medical radiographers | 1,100 | 83% | 38% | | 24% | 11% | 8.4% | 5 | 24 (10) | | 2.6% | Skill shortage | S,C,F |
| Physiotherapists | 1,800 | 84% | 47% | | 6% | 6% | 12.7% | 7 | 20 (5) | | 2.6% | Skill shortage | S,C |
| Medical technicians, dental auxiliaries | 1,400 | 43% | 16% | | 11% | 4% | 0.8% | 9 | | | 2.6% | No shortage | |
| Occupational & therapists n.e.c | 3,800 | 82% | 25% | | 8% | 20% | 11.0% | 36 | 38 (19) | | 2.6% | Skill shortage | S,C,F |
| Other health associate professionals n.e.c.3,400 | | 66% | 17% | | 16% | 9% | 10.3% | 1 | | 1 | 2.6% | Skill shortage | C,F |
| Legal associate professionals | 1,600 | 62% | 6% | Below average | 8% | 7% | 11.5% | 5 | | 35 | 2.6% | No shortage | |
| Business and financial associate professionals | 14,800 | 47% | 6% | Below average | 9% | 8% | 8.1% | 34 | | | 2.6% | | |
| Estimators and valuers | 500 | 13% | 0% | | 10% | 0% | 9.2% | | | 13 | 2.6% | No shortage | |
| Underwriters, claims assessors and analysts | 10,400 | 41% | 6% | | 11% | 7% | 9.6% | 24 | | 13 | 2.6% | Skill shortage | S,C,F |
| Personnel, industrial relations officers | 2,300 | 79% | 7% | | 4% | 9% | 15.1% | 4 | | 5 | 2.6% | No shortage | |
| Houseparents, welfare, community & youth workers | 7,100 | 70% | 31% | Below average | 13% | 3% | 3.4% | 4 | | 1 | 2.6% | No shortage | |
| Literary, artistic and sports professionals | 23,600 | 37% | 17% | Average | 13% | 12% | 2.1% | 111 | | 12 | 2.8% | No shortage | |

| | | | | | | | | | | | |
|---|--------|-----|-----|---------------|-----|-----|-------|----|----|-------|-----------------------|
| Other associate professional and technical occupations | 12,800 | 53% | 13% | Average | 14% | 9% | -0.2% | 98 | 10 | 2.8% | No shortage |
| Careers guidance/advisors | 1,500 | 72% | 15% | | 16% | 7% | 27% | 2 | 2 | 2.6% | Inconclusive |
| Vocational, industrial trainers | 4,800 | 57% | 16% | Below average | 15% | 8% | -7.8% | 5 | | 2.8% | No shortage |
| Administrative/clerical officers and assistants in civil service | 27,200 | 74% | 13% | Below average | 8% | 1% | 3.4% | 0 | | 3.5% | No shortage |
| Numerical clerks & cashiers | 61,000 | 78% | 26% | Below average | 6% | 4% | 4.2% | 47 | 23 | 3.5% | Labour shortage S,C,F |
| Filing & Records Clerks | 7,300 | 68% | 25% | Average | 9% | 7% | -2.5% | 12 | 22 | 3.5% | Skill shortage C |
| Other clerks | 50,500 | 81% | 25% | Average | 8% | 4% | 3.9% | 29 | 3 | 3.5% | No shortage |
| Warehousemen/women | 19,300 | 19% | 11% | Average | 7% | 5% | 2.2% | 20 | 18 | 3.5% | No shortage |
| Secretaries, personal assistants etc. | 39,700 | 96% | 30% | Below average | 10% | 3% | 0.4% | 22 | 13 | 3.5% | No shortage |
| Legal secretaries | 3,500 | 98% | 22% | | 11% | 5% | -1.4% | 13 | 4 | 3.5% | No shortage |
| Other secretaries | 36,200 | 96% | 31% | | 10% | 3% | 0.6% | 9 | 7 | 3.5% | No shortage |
| Receptionists & telephonists | 16,400 | 89% | 34% | Below average | 11% | 5% | 0.7% | 10 | 13 | 3.5% | No shortage |
| Computer & other office machine operators | 3,900 | 46% | 18% | Above average | 5% | 7% | -7.0% | 4 | 2 | 3.5% | No shortage |
| Construction trades | 65,500 | 2% | 2% | Average | 10% | 5% | 8.7% | 86 | 93 | 2.7% | |
| Bricklayers, masons | 14,000 | 1% | 2% | | 6% | 5% | 8.3% | 13 | 40 | 2.7% | Skill shortage S,C |
| Roofers, slaters, tilers, sheeters, cladders | 4,600 | 4% | 1% | | 3% | 2% | 7.2% | 4 | 3 | 2.7% | Inconclusive |
| Plasterers | 11,700 | 0% | 1% | | 5% | 3% | 12.0% | 22 | 34 | 2.7% | Skill shortage S,C |
| Glaziers | 700 | 0% | 0% | | 15% | 0% | -1.9% | | | 2.7% | No shortage |
| Builders, building contractors | 16,000 | 3% | 2% | | 13% | 7% | 12.4% | 36 | | 2.7% | No shortage |
| Scaffolders, riggers, steeplejacks | 1,600 | 0% | 0% | | 6% | 0% | 8.8% | 4 | | 2.7% | Inconclusive |
| Floorers, floor coverers, carpet fitters, tilers | 2,200 | 0% | 4% | | 14% | 4% | 3.6% | 6 | 3 | 2.7% | Skill shortage S,C |
| Painters & decorators | 9,800 | 2% | 3% | | 13% | 3% | 2.9% | | 13 | 2.7% | Skill shortage S,C |
| Other construction trades n.e.c. | 5,000 | 6% | 7% | | 18% | 13% | 11.4% | 1 | | 2.7% | Inconclusive |
| Metal machining, fitting & instrument making trades | 24,900 | 2% | 1% | Average | 12% | 4% | -3.1% | 63 | 47 | 1.5% | No shortage |
| Electrical/ electronic trades | 38,700 | 5% | 2% | Average | 6% | 4% | 2.9% | 63 | 5 | 2.1% | No shortage |
| Electrical/ Electronic Trades with Electrician Technicians | 41,400 | 5% | 2% | | 7% | 4% | 1.7% | 66 | 15 | 2.1% | No shortage |
| Metal forming, welding & related trades | 26,100 | 1% | 2% | Average | 7% | 4% | 3.6% | 36 | 66 | 2..1% | |
| Plumbers, heating & related trades | 12,600 | 1% | 2% | | 8% | 2% | 7.1% | 3 | 11 | 2.7% | No shortage |
| Other metal forming, welding & related trades | 13,100 | 0% | 2% | | 6% | 7% | 0.5% | 33 | 55 | 1.5% | Skill shortage C |

| Occupation | Numbers employed | % Female | Part-time | Unemployment | % >55 | % Non-national | Annual average growth rate 1999-2004 | Work permits Jan-Jun 2005 | Work visas/authorisations 2004(2005) | Difficult to fill vacancies 2004 | Replacement rate | Shortage indicator | Comment |
|--|------------------|----------|-----------|---------------|-------|----------------|--------------------------------------|---------------------------|--------------------------------------|----------------------------------|------------------|--------------------|---------|
| Vehicle trades | 17,900 | 0% | 6% | Average | 10% | 4% | 2.9% | 10 | 16 | 2.7% | No shortage | | |
| Textiles, garments and related trades | 5,300 | 56% | 21% | Above Average | 17% | 3% | -14.5% | 8 | 8 | 2.7% | No shortage | | |
| Printing and related trades | 6,500 | 26% | 5% | Above Average | 9% | 7% | -0.8% | 5 | 1 | 2.7% | No shortage | | |
| Woodworking trades | 41,000 | 1% | 1% | Average | 7% | 5% | 7.1% | 10 | 25 | 2.7% | | | |
| Carpenters & joiners | 36,800 | | | | 7% | | 7.9% | 8 | 25 | 2.7% | Skill shortage | C | |
| Wood Working Trades | 4,200 | | | | 8% | | 2.0% | 2 | | 2.7% | No shortage | | |
| Food preparation trades | 9,500 | 12% | 11% | Average | 10% | 24% | -3.6% | 60 | 11 | 1.5% | Labour shortage | C | |
| Other craft & related occupations | 15,800 | 15% | 12% | Above Average | 16% | 5% | -1.7% | 130 | 16 | 2.7% | Inconclusive | | |
| NCOs and other ranks in the armed services | 6,500 | 7% | 1% | Below average | 12% | 3% | -2.9% | 0 | | 1.2% | No shortage | | |
| NCOs and other ranks including senior officers | 7,100 | | | | 11% | | -2.2% | 0 | | 1.2% | No shortage | | |
| Security and protective Service occupations | 29,600 | 14% | 12% | Average | 10% | 4% | 3.0% | 70 | 3 | 1.2% | | | |
| Police officers | 11,500 | | | | 4% | | 0.2% | | | 1.2% | No shortage | | |
| Fire service officers | 2,500 | | | | 5% | | 6.1% | | | 1.2% | No shortage | | |
| Prison service officers | 3,200 | | | | 4% | | 1.7% | | | 1.2% | No shortage | | |
| Security guards | 12,600 | | | | 17% | | 6.1% | 70 | 2 | 1.2% | Labour shortage | C | |
| Catering occupations | 60,700 | 55% | 40% | Average | 4% | 17% | 2.5% | 450 | 57 | 3.9% | | | |
| Chefs, cooks | 19,300 | 50% | 19% | | 6% | 21% | 3.3% | 393 | 44 | 3.9% | Skill shortage | S,C | |
| Waiters, waitresses | 19,300 | 80% | 57% | | 4% | 26% | 2.9% | 48 | 6 | 3.9% | Labour shortage | C | |
| Bar staff | 22,100 | 38% | 43% | | 3% | 6% | 1.4% | 9 | 7 | 3.9% | No shortage | | |
| Travel attendants and related occupations | 3,100 | 75% | 22% | Average | 9% | 2% | -3.6% | 3 | | 3.9% | No shortage | | |
| Travel & flight attendants | 3,000 | 76% | 23% | | 8% | 2% | -1.9% | 3 | | 3.9% | No shortage | | |
| Health and related occupations | 36,300 | 87% | 38% | Average | 14% | 6% | 9.7% | 230 | 1 | 2.6% | | | |
| Care assistants etc. | 33,800 | 88% | 39% | | 15% | 6% | 10.4% | 223 | 1 | 2.6% | Labour shortage | C | |
| Dental nurses | 2,000 | 100% | 31% | | 4% | 3% | 4.3% | 7 | | 2.6% | No shortage | | |
| Childcare and related occupations | 20,800 | 96% | 42% | Average | 5% | 10% | 11.8% | 42 | | 3.9% | No shortage | | |
| Nursery nurses and playgroup leaders | 6,000 | 96% | 51% | | 3% | 3% | 18.3% | 2 | | 3.9% | No shortage | | |
| Educational assistants | 5,800 | 98% | 29% | | 2% | 3% | 18.2% | 5 | | 3.9% | No shortage | | |
| Other childcare & related occupations | 9,000 | 94% | 44% | | 8% | 18% | 5.6% | 35 | | 3.9% | No shortage | | |
| Hairdressers, beauticians etc. | 16,900 | 92% | 29% | Average | 3% | 3% | 6.3% | 22 | | 3.9% | No shortage | | |
| Domestic staff and related occupations | 14,800 | 60% | 45% | Above average | 27% | 9% | -0.8% | 51 | 2 | 3.9% | No shortage | | |

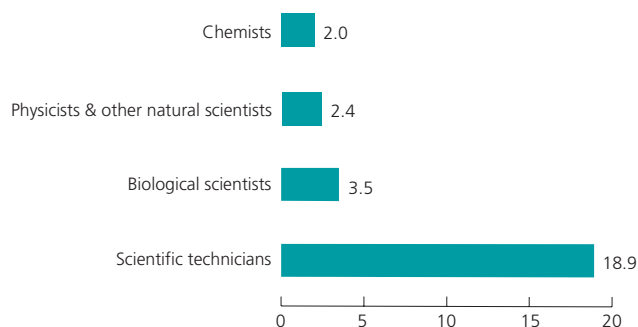
| Other personal and protective service occupations | 4,100 | 46% | 37% | Average | 19% | 11% | 10.5% | 0 | 1 | 3.9% | No shortage |
|--|------------------|------------|------------|----------------|------------|-----------|-------------|-------------|-------------------|-------------|-----------------|
| Buyers, brokers etc. | 4,400 | 49% | 5% | Below average | 15% | 5% | 2.9% | 2 | 3 | 4.4% | Skill shortage |
| Sales representatives | 36,600 | 35% | 13% | Average | 12% | 5% | 3.8% | 19 | 41 | 4.4% | Skill shortage |
| Sales assistants | 106,000 | 73% | 50% | Average | 7% | 5% | 4.1% | 60 | 62 | 4.4% | Labour shortage |
| Other Salespersons etc. | 3,900 | 9% | 16% | Below average | 14% | 8% | 0.9% | 1 | 14 | 4.4% | No shortage |
| Other sales occupations | 5,400 | 66% | 36% | Average | 12% | 14% | 3.0% | 3 | 17 | 4.4% | No shortage |
| Food, drink and tobacco operatives | 14,500 | 32% | 9% | Above average | 7% | 18% | 0.7% | 12 | | 1.5% | No shortage |
| Textiles and tannery process operatives | 1,500 | 43% | 12% | Above average | 6% | 0% | -8.3% | 0 | 33 | 1.5% | No shortage |
| Chemicals, paper, plastic and related process operatives | 13,000 | 27% | 4% | Above average | 5% | 2% | -4.5% | 7 | 3 | 1.5% | No shortage |
| Metal making and treating process operatives | 1,900 | 13% | 8% | Above average | 3% | 7% | -0.3% | 1 | | 1.5% | No shortage |
| Metal working process operatives | 1,100 | 12% | 0% | Below average | 0% | 0% | -6.9% | 14 | 20 | 1.5% | No shortage |
| Assemblers/lineworkers | 18,400 | 48% | 4% | Above average | 5% | 6% | -11.9% | 4 | 21 | 1.5% | No shortage |
| Other routine process operatives | 14,400 | 51% | 18% | Above average | 7% | 8% | -5.4% | 21 | 5 | 1.5% | No shortage |
| Road transport operatives | 65,100 | 3% | 7% | Below average | 18% | 3% | 5.1% | 61 | 87 | -1.2% | Skill shortage |
| Other transport and machinery operatives | 17,400 | 3% | 1% | Average | 12% | 4% | 5.2% | 14 | 6 | 1.5% | No shortage |
| Other plant and machine operatives nec | 16,800 | 14% | 6% | Average | 13% | 3% | 4.6% | 12 | 27 | 1.5% | No shortage |
| Other occupations in agriculture, forestry and fishing | 14,700 | 18% | 21% | Average | 13% | 10% | -9.0% | 151 | 1 | 3.1% | Labour shortage |
| Other occupations in mining and manufacturing | 5,900 | 25% | 5% | Above average | 3% | 8% | -8.3% | 15 | 22 | 4.5% | No shortage |
| Other occupations in construction | 26,400 | 1% | 4% | Above average | 11% | 7% | -2.4% | 6 | 6 | 4.5% | No shortage |
| Other occupations in transport | 6,100 | 9% | 14% | Average | 17% | 5% | -0.2% | 2 | | 4.5% | No shortage |
| Other occupations in communication | 10,500 | 19% | 11% | Below average | 16% | 1% | 0.4% | 0 | | -1.2% | No shortage |
| Other occupations in sales and services | 58,300 | 74% | 60% | Average | 16% | 10% | 2.1% | 139 | 56 | 4.5% | No shortage |
| Other occupations nec | 66,500 | 29% | 16% | Above average | 14% | 4% | 27.5% | 105 | 8 | 4.5% | No shortage |
| All occupations | 1,865,300 | 42% | 17% | Average | 12% | 6% | 2.9% | 3552 | 1454 (556) | 1497 | |

7.1 SCIENCE OCCUPATIONS

7.1.1 Employment

A total of 26,800 persons were employed in the selected science occupations in 2004. These occupations are presented in Figure 7.1.1 and represent 1.4% of total employment in the economy. Science occupations were found across a variety of sectors in the economy but the most significant areas were the manufacture of chemicals and chemical products, and health and social work. Scientific technicians⁵ comprised the greatest number of people in this grouping at 18,900, including approximately 5,500 laboratory technicians. These are associate professionals, while scientists and chemists are professional occupations.

Figure 7.1.1 Numbers Employed (000's) in Science Occupations, 2004



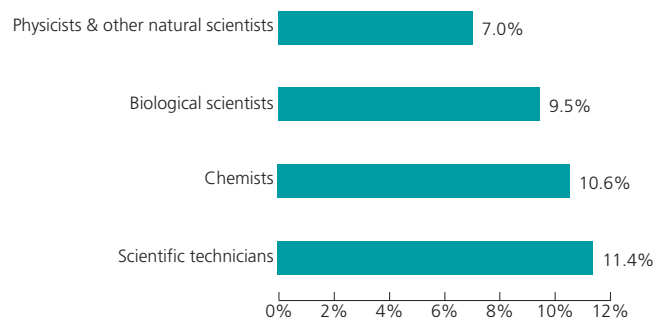
Source: CSO

7.1.2 Employment Growth (1999-2004)

Scientific technicians experienced the largest growth in employment levels over the five year period from 1999 to 2004, from approximately 11,000 to 18,900 – a growth of 7,900 or 72%. Laboratory technicians were the only occupation within this grouping to encounter a drop in employment levels over the same period but the numbers involved are quite small.

Figure 7.1.2 shows the annual average rates of employment growth in each occupation for the five year period 1999 to 2004. Annual average employment growth for the total economy was 2.9% for the same period. All of the science occupations exceeded this average growth rate. This was particularly the case for scientific technicians who averaged growth rates of 11.4% per annum over the period. The number of chemists increased by 10.6% per annum while biological scientists increased by 9.5%.

Figure 7.1.2 Average Employment Growth in Science Occupations, 1999-2004 (%)



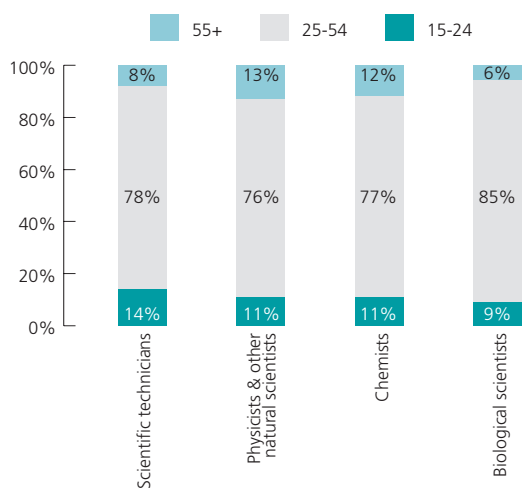
Source: CSO

7.1.3 Age Profile

Figure 7.1.3 shows the age distribution of the selected science occupations. Scientific technicians had the highest proportion of people in the 15-24 age category – most likely a first job for a number of science graduates – whereas biological scientists had only 8.9% in this category. The majority of people were aged between 25 and 54. Physicists had the highest proportion of people aged over 55, at 13.4%.

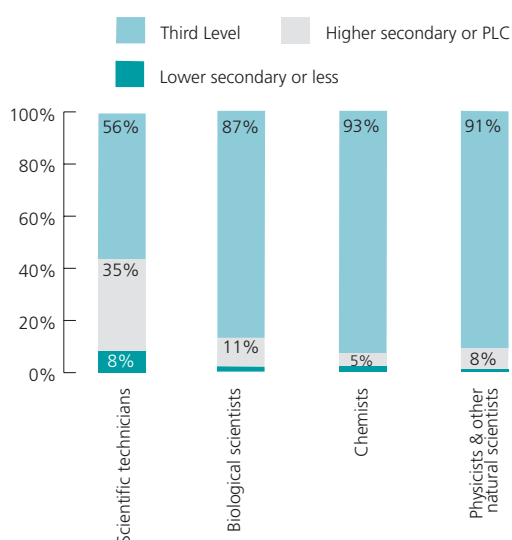
⁵ Scientific technicians are defined as all scientific technicians except electrical technicians, which are covered in Other Craft (Section 7.11).

Figure 7.1.3 Age Profile of Science Occupations, 2004



Source: CSO

Figure 7.1.4 Education Profile of Science Occupations, 2004



Source: CSO

7.1.4 Education Profile

The education level attained by persons employed in each occupation is examined in Figure 7.1.4. The level of education attained by science professions far exceeds the average for the economy as a whole. Scientific technicians had the highest percentage of people who had attained upper secondary education or less, at 35%. Only 56% of scientific technicians had reached third level, as compared to 93% of chemists, although they were still above the national average.

7.1.5 Shortage Indicators

The data used in the analysis (Table 7.1) does not indicate any significant skill shortages at professional level. However, the Irish government is actively encouraging industry to become significantly more engaged in research and development activities – in many cases in partnership with third-level institutions. Any increase in activity in this area would require a parallel increase in the number of science graduates – particularly at postgraduate level. Unfortunately, the number of students studying science at third-level has declined in recent years. If these trends continue, it is inevitable that there will be a shortage of research scientists.

There does not appear to be a general shortage of scientists at technician level. However, due to the varied nature of the occupations covered under this broad category, there may be some specific skills in short supply. The occurrence of scientific technicians in the work permit scheme and the difficult to fill vacancy survey (which could point to shortages) mainly refer to engineering/manufacturing technicians which are dealt with in Section 7.2.

7.2 ENGINEERING OCCUPATIONS

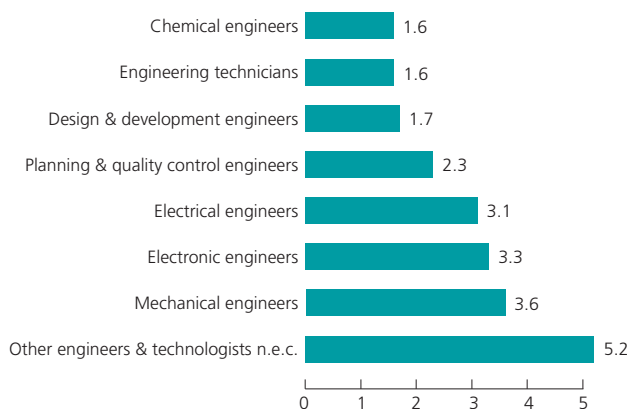
7.2.1 Employment

In 2004, approximately 22,000 persons were employed in engineering occupations in Ireland, which is 1.2% of the total national employment. While more than one third of all engineers are employed in manufacturing (mainly manufacturing of chemicals, metals, electrical machinery and computers), they are also employed in construction, telecommunications and other sectors of the economy.

Except for engineering technicians, all of the selected engineering occupations are professional. Figure 7.2.1 shows the numbers employed in engineering occupations. The highest number of engineers is classified as other, without specifying their field of expertise. This occupational group is composed of metallurgists, agricultural engineers, and food and other technologists.

Mechanical engineers accounted for 3,600 persons. This was closely followed by electronic and electrical engineers, of which there were 3,300 and 3,100, respectively.

Figure 7.2.1 Numbers Employed in Selected Engineering Occupations, 2004 (000s)



Source: CSO

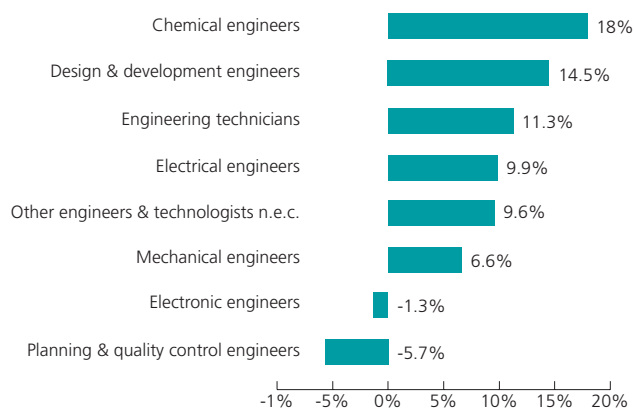
7.2.2 Employment Growth (1999-2004)

While most engineering occupations had increased in numbers over the period 1999-2004, the number of planning and quality control engineers, as well as electronic engineers have contracted. Over the period, approximately 800 posts were lost in the planning and quality control engineer category, and a small number of posts were lost in electronic engineering. Nonetheless, 6,500 new posts were created across all other engineering occupations combined which is a significant growth in absolute terms.

The employment growth for engineering occupations was also strong in relative terms, with the most prominent employment growth recorded for chemical engineers (Figure 7.2.2). In fact, with an average annual growth of 18%, this was one of the five fastest growing occupations between 1999 and 2004. All of the engineering occupations that experienced employment growth grew faster than the total national employment.

On the other hand, planning and quality control engineers declined at an average annual rate of 5.7%. However, some of the engineers in the other categories conduct planning and quality control functions and are not captured in the planning and quality control category.

Figure 7.2.2 Annual Average Employment Growth in Selected Engineering Occupations, 1999-2004 (%)



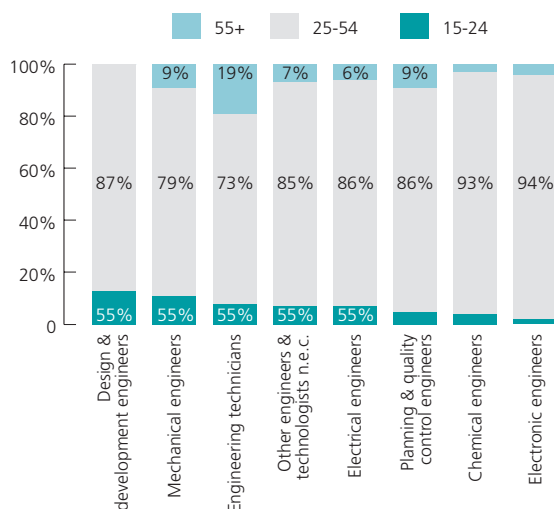
Source: CSO

7.2.3 Age Profile

Figure 7.2.3 shows the age distribution of the selected engineering occupations. The age distribution for engineers is skewed towards younger age cohorts. Design and development engineers are the youngest occupation with the highest share of persons in 15-24 cohort; moreover, almost all persons employed were younger than 55.

On the other hand, at 19%, the engineering technician category has, by far, the highest share of persons aged over 55. In fact, this is one of the top ten occupations with the highest share of mature workers.

Figure 7.2.3 Age Profile of Selected Engineering Occupations, 2004

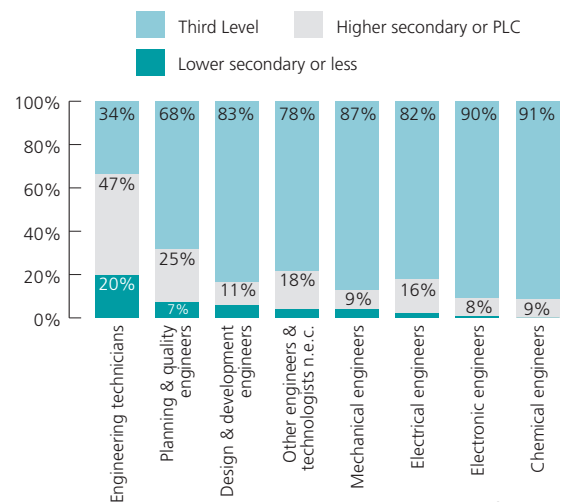


Source: CSO

7.2.4 Education Profile

The education level of the persons employed in each engineering occupation is examined in Figure 7.2.4. A large majority of professional engineers have third level qualifications. This is not surprising given that, although not mandatory, a third level qualification is usually required by employers for filling the engineering posts. Chemical engineers have the highest level of education; more than 90% have third level qualifications. Engineering technicians have the lowest share of persons with third level education amongst engineering occupations. While all other engineering occupations are professional, engineering technicians fall under the associate professional category.

Figure 7.2.4 Education Profile of Selected Engineering Occupations, 2004



Source: CSO

7.2.5 Shortage indicators

Evidence suggests that shortages exist for some types of professional engineers.

For chemical engineers, there is evidence that the shortage is significant and will continue into the future. The continuing development of the chemical and pharmaceutical industry will lead to an increase in the number of chemical engineers required. Supply at current levels will not be able to meet this demand.

The employment of design and development engineers has increased rapidly in recent years. There is some evidence that the current education output in this area is insufficient to meet demand. Design and development engineers have also been mentioned as an occupation in which vacancies are difficult to fill.

The data used in this analysis indicates that there has been a decline in the number of quality control engineers. However, these specialist engineers may be classified under other categories and it would be unwise to conclude that the reduction in their numbers indicates a decline in the demand for their skills.

The decline in the number of students applying for electronic and electrical engineering may create a shortage of these professionals in the future, particularly as these graduates are employed by the IT sector. This issue is discussed in the following section.

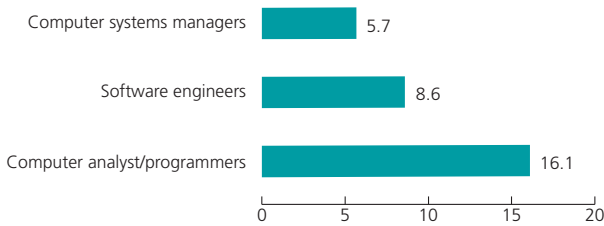
At technician level, there is evidence of specific skills shortages. These include manufacturing and multi-skilled maintenance technicians. Evidence for this derives from the numbers of work permits issued in this area and the results of the difficult to fill vacancy survey.

7.3 IT PROFESSIONAL OCCUPATIONS

7.3.1 Employment

A total of 30,400 IT professionals were employed in 2004. Managers (computer systems managers) accounted for 19% of employment in this group; professionals (software engineers) for 28%; associate professionals (computer analyst/programmers) for the remaining 53%. These occupations represent 2% of total employment in the economy. The computer and related activities sub-sector was the most dominant employer of these occupations.

Figure 7.3.1 Numbers Employed (000's) in IT Professional Occupations, 2004



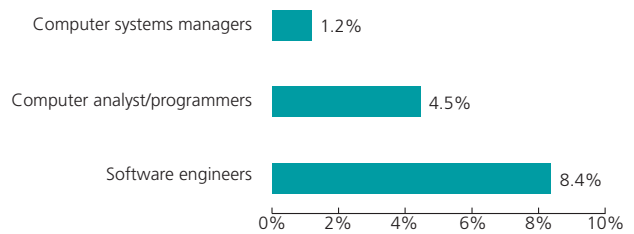
Source: CSO

7.3.2 Employment Growth (1999-2004)

In 2004, a total of 16,100 people worked as computer analyst/programmers – an increase of 3,200 since 1999. The numbers employed increased steadily over the five year period, excluding 2003, which experienced a slight dip. The number of software engineers increased by 2,800 over the five year period, reaching employment levels of 8,600 in 2004. Employment growth was lower for computer systems managers. After reaching a peak of 8,700 in 2001, the number employed declined to 5,700 by 2004.

Figure 7.3.2 shows the annual average rates of employment growth in each occupation for the five year period. Both software engineers and computer analysts/programmers exceeded the average national employment growth rate of 2.9%, at 8.4% and 4.5%, respectively. Indeed, the growth rate for professional occupations was 5.7%, which, again, software engineers exceeded. Because of the decline in numbers employed as computer systems manager since 2001, the annual average growth for this occupation was 1.2%. This is similar to the overall growth rate for all managers (1.3%).

Figure 7.3.2 Annual Average Employment Growth in IT Professional Occupations, 1999-2004 (%)

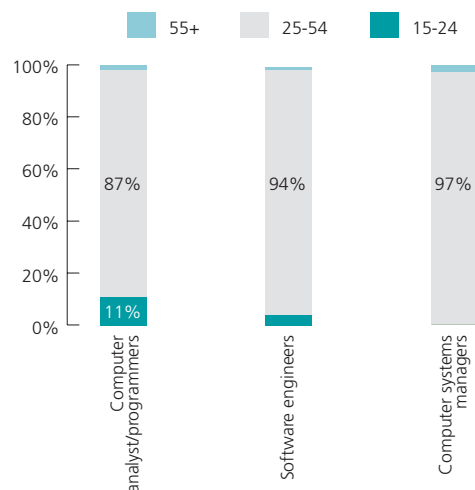


Source: CSO

7.3.3 Age Profile

Figure 7.3.3 shows the age distribution of the selected occupations. The majority of workers in these professions are aged between 25 and 54. Less than 2% of software or computer analysts/programmers were 55 or over as compared to the national average of 12%. Just over 3% of computer systems managers were aged 55 or over – this is a much lower percentage than would usually be found amongst managerial occupations in general (20.5%, see Figure 3.5). In this occupational group computer analysts/programmers had the highest proportion of people aged between 15 and 24, with 10.8%, although still less than the national proportion in this age group.

Figure 7.3.3 Age Profile of IT Professional Occupations, 2004

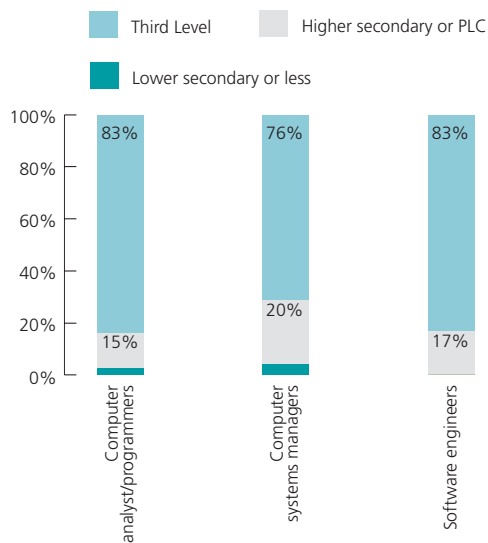


Source: CSO

7.3.4 Education Profile

The education level attained by persons employed in each occupation is examined in Figure 7.3.4. Over 80% of all those working as IT professionals have attained third level education – a far greater proportion than the national average. Of note, though, is that computer systems managers have both the lowest proportion of people employed with third level qualifications (76.4%) and also the highest percentage of people who have reached only lower secondary education or less (3.8%).

Figure 7.3.4 Education Profile of IT Professional Occupations, 2004



Source: CSO

7.3.5 Shortage Indicators

There is evidence of a current shortage of analysts/programmers. Work permit and work visa data, along with the results from the difficult to fill survey, all support this finding. Given the recent recovery of the IT industry from the slowdown in 2001, as well as, the decline in enrolments for software and computer courses in the past number of years, the skill gap in this area is likely to widen.

The numbers of work permits and work visas issued to non-national software engineers indicate current shortages. Demand is expected to continue to be relatively high whereas the supply of software engineers from the education system is expected to remain at current levels or fall.

The IT sector also utilises the skills of electronic and electrical engineers. In many cases, these engineers act as a substitute for software engineers. While there is no apparent shortage of electrical and electronic engineers in general, a recovery in the IT sector may create an additional demand for their skills.

Computer systems managers are likely to be promoted from within a company or from the existing stock of sub management employees in other companies. Consequently, there is unlikely to be a shortage of applicants for any job opportunities. However, shortages at the entry levels will have an effect on the quality, skills and experience of management in the longer term.

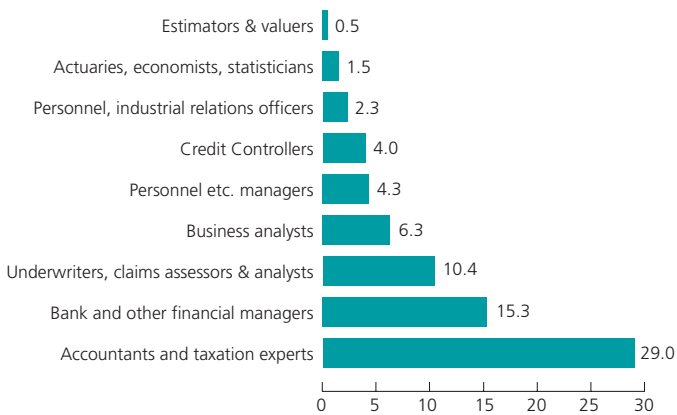
7.4 BUSINESS AND FINANCIAL OCCUPATIONS

7.4.1 Employment

This group covers finance, accounting, human resources and business occupations. Some individual occupations cover a wide range of job titles. For instance, the underwriter etc. category covers positions in areas such as insurance, banking and other financial intermediation. As a result, financial and business occupations are scattered across various sectors of the economy, with one third employed in financial intermediation, insurance and other financial activities.

In 2004, there were 73,500 persons employed in these occupations. Half of these were professionals (accountants etc., business analysts etc. and economists etc.); 18% were associate professional (underwriters etc., personnel officers and estimators etc.); the remainder were managerial occupations.

Figure 7.4.1 Numbers Employed in Selected Business and Financial Occupations in 2004 (000s)



Source: CSO

7.4.2 Employment Growth (1999-2004)

Figure 7.4.1 presents employment in selected business and finance related occupations in 2004. With 29,000⁶ persons employed, accountants were the most populated occupation in the group, as well as one of the 10 most populated occupations overall. Moreover, employment in this period increased by 7,800 posts, which is the highest absolute increase in the group. All occupations (other than banking and personnel managers) grew at a rate higher than the average national employment growth rate of 2.9%. Personnel officers grew the fastest in numbers, closely followed by business analysts (which also include business consultants).

While most of the occupations experienced an increase in employment over the same period, employment in personnel and bank et al. manager categories contracted (Figure 7.4.2). An estimated 2,900 net posts were lost in the bank manager category, mostly a result of structural changes in the banking sector: many branches have been closed as a result of technological developments, such as the widespread use of Automatic Teller Machines (ATM), internet banking, as well as the consolidation of the sector through mergers and acquisitions. On the other hand, a strong growth in the banking sector, including its international component, as well as insurance and business in general, is illustrated by buoyant employment trends across the majority of occupations in this group.

Figure 7.4.2 Annual Average Growth in Selected Business and Financial Occupations, 1999-2004 (%)



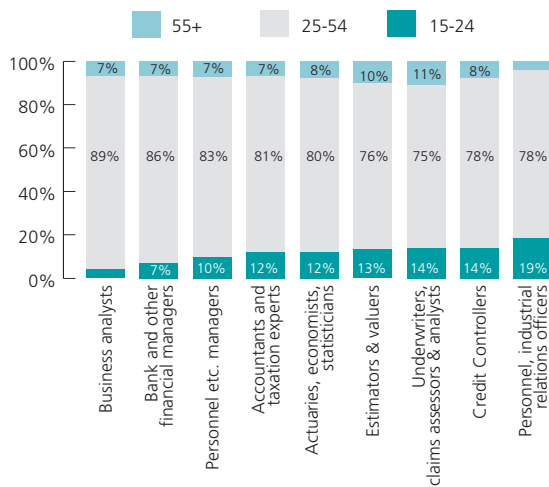
Source: CSO

⁶ Of the total in this occupation, 97 % are accountants, while the remainder are taxation experts

7.4.3 Age Profile

Figure 7.4.3 examines the age profile of the selected business and financial occupations. Employment in all of the selected occupations is concentrated in the younger age cohorts, with not more than 10% of total employment in each occupation older than 55, as compared to 12% of the overall national employment. Indeed, the managerial occupations (bank managers, personnel managers and credit controllers) had a low proportion of workers aged over 55 at 8% or less, as compared to 20% of all managers in this age category at national level. However, each of the occupations had at least three quarters of employment in the 25-54 age cohort. Personnel officers et al. occupation has the highest share of persons aged 15-24, and the lowest share of persons aged 55 plus.

Figure 7.4.3 Age Profile of Selected Business and Financial Occupations, 2004

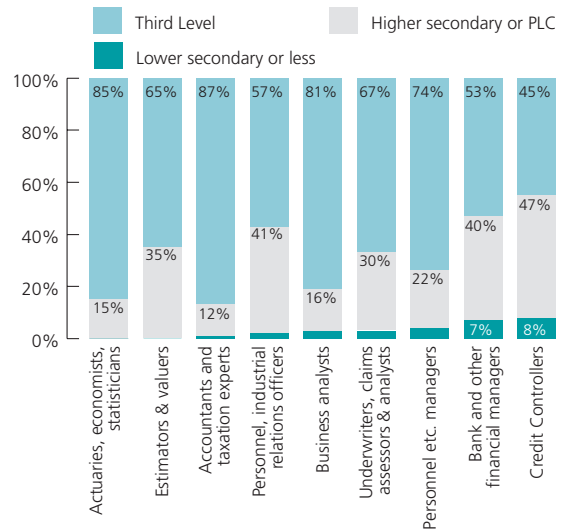


Source: CSO

7.4.4 Education Profile

Employment by highest education attainment in selected business and financial occupations is presented in Figure 7.4.4. In excess of 80% of persons employed in business and financial occupations have third level qualifications. This is in line with the proportions for all professional occupations. Credit controllers have the lowest education attainment in the overall occupational group; 8% of those employed have lower secondary or less education. Forty seven percent of bank and other financial managers have less than third level education, which indicates a high incidence of entry into this occupation though career progression, experience and seniority.

Figure 7.4.4 Education Profile of Selected Business and Financial Occupations, 2004.



Source: CSO

7.4.5 Shortage Indicators

Shortage of accountants and tax experts, actuaries and financial analysts are, *inter alia*, closely linked to changes in the domestic and international regulatory environment, which have created a demand for specialised skills in the area of compliance. Similarly, the development of new standards in the area of risk has been changing the way in which financial institutions deal with operational, market and credit risk. This, in turn, has created an increase in demand for actuaries; underwriters; financial, investment and risk analysts and fund managers etc. Changes in the compliance and risk areas are likely to continue and unless an adjustment in the supply is made, skill shortages are expected to persist. Moreover, any move to the higher value added activities in international financial intermediation (i.e. a shift from back to front office activities) within international financial services, would widen the skill gaps identified in this analysis.

Shortages of credit controllers have also been identified in the analysis. However, the issue is one of labour supply, rather than a skill shortage. Namely, credit controllers have varied educational backgrounds and, thus, there are a large number of sources, ranging from Leaving Certificate graduates to university graduates in a number of fields, from which persons can be recruited for these positions. The challenge is to attract and retain staff in credit control positions.

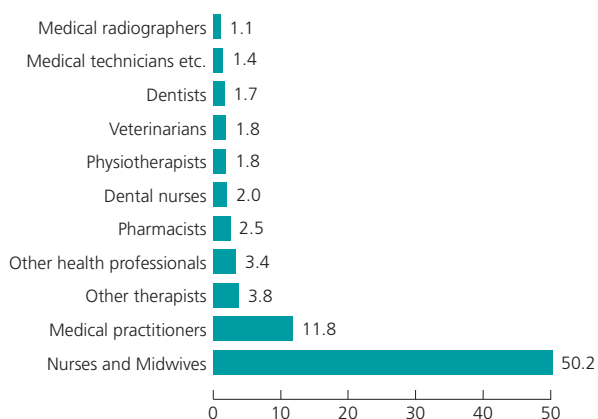
In addition, there are shortages in some clerical level occupations in the financial sector. These occupations are considered in Section 7.14.

7.5 HEALTHCARE OCCUPATIONS

7.5.1 Employment

In 2004, there were 81,000 persons employed in the selected healthcare occupations (Figure 7.5.1). This represents 4.4% of total national employment. Of the total employed persons in the healthcare occupations, 22% were at professional level, while the remainder were at associate professional level. More than 60% of the total employment in the selected healthcare occupations were nurses and midwives. In fact, with 49,500 employed, nurses on their own, as an individual occupation, have the third highest number of persons employed, after sales assistants and farmers.

Figure 7.5.1 Numbers Employed in Selected Healthcare Occupations, 2004 (000's)



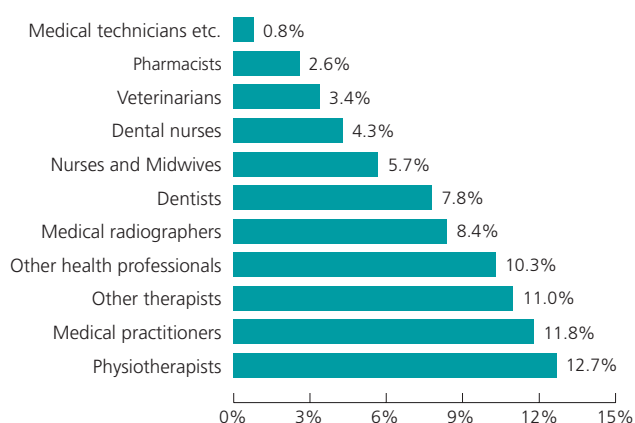
Source: CSO

7.5.2 Employment Growth (1999-2004)

Almost 23,000 new jobs were created in the selected healthcare occupations. This is over 8% of the total national new employment created over the period. Just over 12,000 new posts were created for nurses and midwives. Medical practitioners increased in numbers by 5,000 to 11,800.

Figure 7.5.2 shows the annual average rates of employment growth in selected healthcare occupations. Excluding pharmacists and medical technicians, the average annual employment growth in all healthcare occupations was above the national average. Over the last five years, the highest employment growth rate was recorded for therapists. Physiotherapists experienced the most pronounced growth of 12.7% on average annually. The number of other therapists, including, *inter alia*, occupational, speech and language therapists increased by 11%. The number of medical practitioners increased on average by 11.8% annually.

Figure 7.5.2 Annual Average Employment Growth in Selected Healthcare Occupations, 1999-2004 (%)

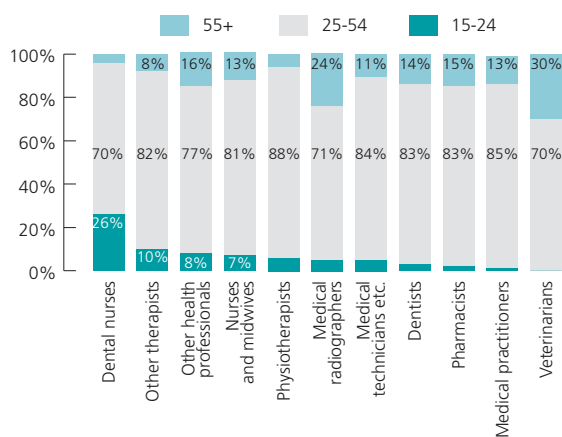


Source: CSO

7.5.3 Age Profile

Figure 7.5.4 shows the age distribution of the selected healthcare occupations. For all occupations examined, in excess of 70% of employed are aged 25-54. Dental nursing has the youngest employees: more than a quarter are younger than 25 (which is the highest share of this age cohort amongst healthcare occupations and well above the national average), 4.5% are older than 55 (which is the lowest share of this age cohort across healthcare occupations and well below the national level). On the other hand, 30% of veterinarians are older than 55, with very few classified as younger than 25 in this occupation. After farm owners and publicans, veterinarians have the highest share of persons aged 55 or over.

Figure 7.5.3 Age Profile of Selected Healthcare Occupations, 2004

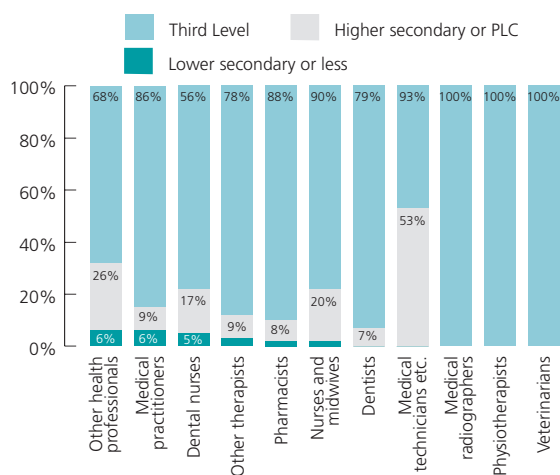


Source: CSO

7.5.4 Education Profile

The education level of persons employed in each selected healthcare occupation is examined in Figure 7.5.4. For most professional healthcare occupations (medical practitioners, pharmacists, most therapists, dentists, medical radiographers, as well as veterinarians) third level qualifications are mandatory. Since 2003, nursing has also been upgraded from a diploma to degree level. Data indicating educational attainment lower than third level in the medical practitioner and dentist categories is either due to the misclassification of the data or refers to persons who began practicing before the introduction of mandatory qualifications.

Figure 7.5.4 Education Profile of Selected Healthcare Occupations, 2004



⁷ Healthcare Skills Monitoring Report, SLMRU, FÁS, August 2005

7.5.5 Shortage Indicators

There are clear shortages in a number of healthcare occupations including medical practitioners, dentists, various types of therapists (including dieticians) and radiographers. Dramatic increases in demand for the services of these occupations have not been matched by an increase of graduates from the education system. In 2002, a range of health related occupations was included in the work visa scheme to alleviate shortages. Since then a large number of non-national healthcare workers has joined the Irish labour force. The data from the work visa and work permit schemes shows that this has continued into 2005.

In response to shortages new courses have recently begun in physiotherapy, speech and language therapy and occupational therapy but the graduates from these courses will only begin to emerge in 2006 or later. A dramatic increase in the number of places for medical practitioners is due to take place in the short term.

There is a widespread perception of shortages of nurses. However, this shortage may reflect a combination of factors, such as a high attrition rate and issues with work practices. In addition, a change to a new system of education has resulted in the loss of a year's output of graduates. Thus, any shortage will not necessarily be alleviated by an increase in education provision. This and other issues related to the supply of healthcare skills are discussed in more detail in a report recently published by the SLMRU⁷.

There is no evidence of shortages with pharmacists (two new courses began in the past few years), dental nurses or veterinarians, though the age profile of veterinarians is a cause for concern.

7.6 EDUCATION OCCUPATIONS

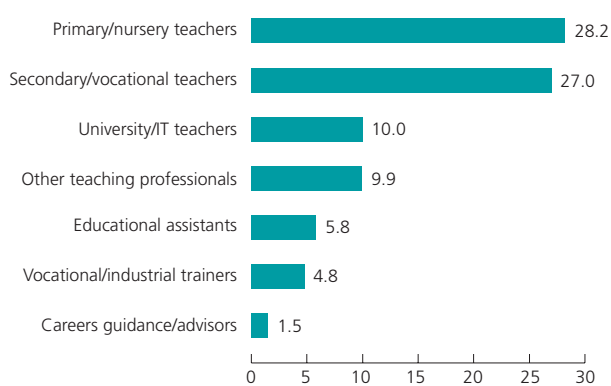
7.6.1 Employment

With 88,000 persons employed, the selected education related occupations account for almost 5% of total national employment. At the professional level, education occupations 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. Figure 7.6.1 shows the totals employed across education occupations.

There were more than 65,000 teachers in Ireland in 2004. Of these, 15% were university teachers, with the remainder almost equally divided between primary/nursery and secondary teachers. Other teaching professionals, which include various instructors, inspectors, as well as principals of education institutions, employed almost 10,000 persons.

Most employment in education related occupations lies in the education sector; however, some teachers are employed in the health sector, as well as some other sectors of the economy.

Figure 7.6.1 Numbers Employed in Selected Education Related Occupations, 2004 (000's)



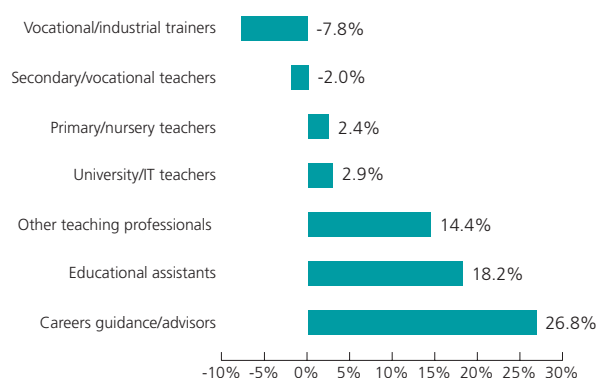
Source: CSO

7.6.2 Employment Growth (1999-2004)

Overall, 8,900 net new posts were created in the selected education occupations. While most occupations gained employment over the period (more than 14,000 posts were created), the number of vocational trainers and secondary school/ vocational teachers was reduced by 5,000 posts.

The number of career guidance/advisors increased at an annual average rate of 26.8%, albeit from a small base. Educational assistant employment increased by 18.2% on average annually over the period 1999-2004. High growth was also recorded for other teaching professionals, while the employment growth for university and primary teachers was close to the national average of 2.9%. The number of secondary school/vocational teachers and vocational trainers declined, with the latter contracting markedly at 7.8% on average annually.

Figure 7.6.2 Annual Average Employment Growth in Selected Education Related Occupations, 1999-2004 (%)

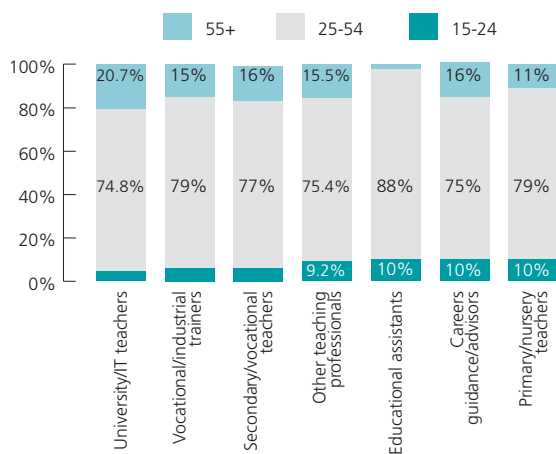


Source: CSO

7.6.3 Age Profile

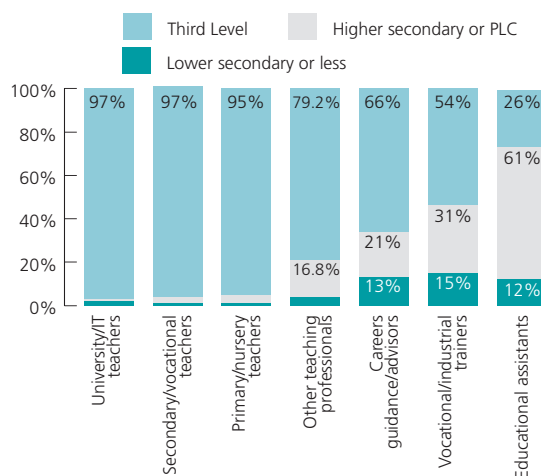
Figure 7.6.3 shows the age distribution of the selected education related occupations. Education assistants and primary/nursery teachers have the youngest employment profile. This is particularly the case for education assistants given that 2% of the total number employed in this occupation are in the 55 or older age cohorts. On the other side of the spectrum lie university teachers with the highest share of persons aged 55+ and the lowest share of 15-24 year olds.

Figure 7.6.3 Age Profile of Selected Education Related Occupations, 2004



Source: CSO

Figure 7.6.4 Education Profile of Selected Education Related Occupations, 2004



Source: CSO

7.6.4 Education Profile

The education level of the persons employed in each education related occupation is examined in Figure 7.6.4. Third level qualifications have become a prerequisite for teaching in the formal education system. This is illustrated in the educational distribution of primary, secondary and university teachers 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 number of persons with lower than third level educational attainment in those occupations.

7.6.5 Shortage Indicators

There is no evidence of skill shortages in the education sector. This is mainly due to the availability of a large pool of graduates from teacher training courses. However, anecdotal evidence suggests shortages of maths and physical science teachers for secondary schools, as well as some special needs teachers.

A recent increase in fertility rates will result in higher enrolment numbers at primary level in the medium term, which is expected to lead to an increase in demand for education providers. Moreover, any structural change which would result in smaller class sizes would lead to an increase in demand for teachers and related occupations.

7.7 CARE OCCUPATIONS

7.7.1 Employment

Figure 7.7.1 presents employment levels in the selected care occupations. In 2004, approximately 62,000 persons were employed in care, which is just above 3% of national employment. Professional occupations in this category include social workers⁸ and psychologists and account for 10% of the total employment in the selected care occupations. At associate professional level, there were 7,000 persons employed. This includes houseparents and community or youth workers. The remaining 79% of employment in care occupations was classified as personal services and mostly include care assistants and childcare related activities.

Most care employment is in the health and social work sector, with the remainder in education and other sectors of the economy.

Figure 7.7.1 Numbers Employed in Selected Care Occupations, 2004 (000's)



Source: CSO

7.7.2 Employment Growth (1999-2004)

Care assistants, which include hospital ward assistants, ambulance staff and care assistants/attendants, account for 33,800 persons, or 55%, of the total employment in the selected care occupations. Moreover, 13,000 new posts were created for care assistants, which surpasses the total number of new posts created in all other care occupations combined. However, in relative terms, nursery nurses and playgroup leaders were the fastest growing occupation in this group with an annualised growth of 18.3%.

⁸ Due to classification errors, the number of social workers reported here is above the actual number of social workers; this is due to the inclusion of individuals who do not hold relevant qualifications in this category.

Figure 7.7.2 Annual Average Employment Growth in Selected Care Occupations, 1999-2004 (%)

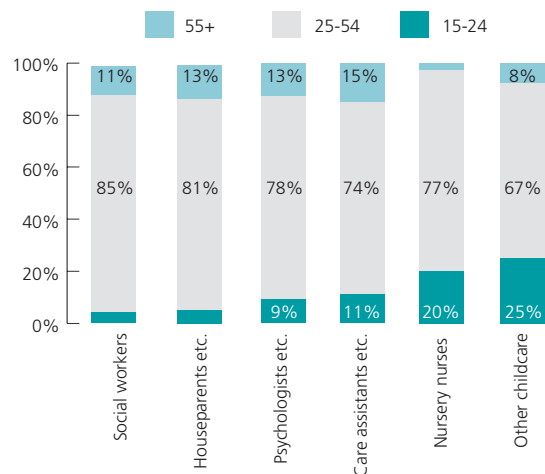


Source: CSO

7.7.3 Age Profile

Figure 7.7.3 shows the age distribution of the selected care occupations. Childcare related occupation, namely nursery nurses and other childcare and related occupations have the youngest work force amongst this occupational group. Care assistants/attendants have the highest proportion of older workers of these occupations.

Figure 7.7.3 Age Profile of Selected Care Occupations, 2004

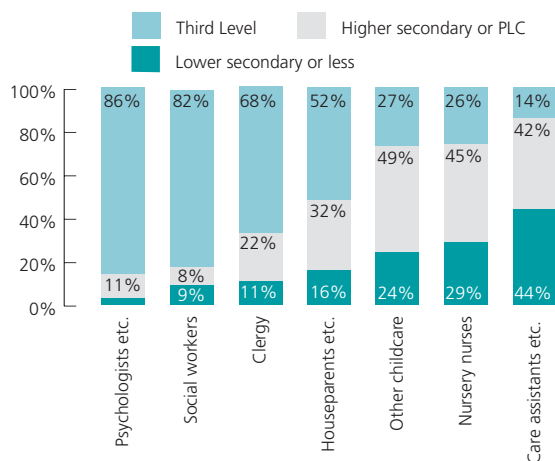


Source: CSO

7.7.4 Education Profile

The education level of the persons employed in each care occupation is examined in Figure 7.7.4. Professional occupations in this occupational group have the highest share of persons employed with third level qualifications. For psychologists and social workers the share of third level qualification holders exceeds 80%. Childcare related occupations have approximately one quarter of those employed with lower secondary or less educational attainment, with a similar share for those with third level qualifications. The lowest education attainment was found in care assistants with 44% of employed in this occupation classified in the lower secondary or lower educational category, which is well above the national average of 30%.

Figure 7.7.4 Education Profile of Selected Care Occupations, 2004



Source: CSO

7.7.5 Shortage Indicators

There is evidence of a shortage of care assistants/attendants. Over 200 non-EU nationals have come through the work permit system in the first six months of 2005. This is a labour rather than skill shortage, given that care assistants/attendants tend to be trained on the job.

While demand for childcare, and consequently childcare workers, has increased substantially in the recent past, supply is drawn from a wide population and there does not seem to be any labour shortage in this area. There are numerous courses at PLC and FÁS level in childcare.

There is little evidence of shortages for houseparents, community and care workers but the broad nature of the occupation group may disguise shortages for specific skills. This is also true for psychologists and other behavioural scientists for whom there is no overall shortage. However, for specific types of psychologists, notably clinical and educational psychologists, shortages exist.

Finally, social workers are experiencing some shortages and there is evidence that a large number of social workers are non nationals. New social work courses have come on stream in the past few years which may alleviate future shortages.

7.8 LEGAL AND SECURITY OCCUPATIONS

7.8.1 Employment

A total of 50,900 legal and security persons were employed in 2004. These occupations are listed below and represent 3% of total employment in the economy. Professional occupations in this group include judges, barristers, advocates and solicitors, of whom there were 9,000 employed. The majority of legal professionals worked in the other business activities sector, while security personnel were predominantly found in the public administration and defence sector.

Figure 7.8.1 Numbers Employed (000's) in Legal and Security Occupations, 2004



Source: CSO

Figure 7.8.2 Annual Average Employment Growth in Legal and Security Occupations, 1999-2004 (%)



Source: CSO

7.8.3 Age Profile

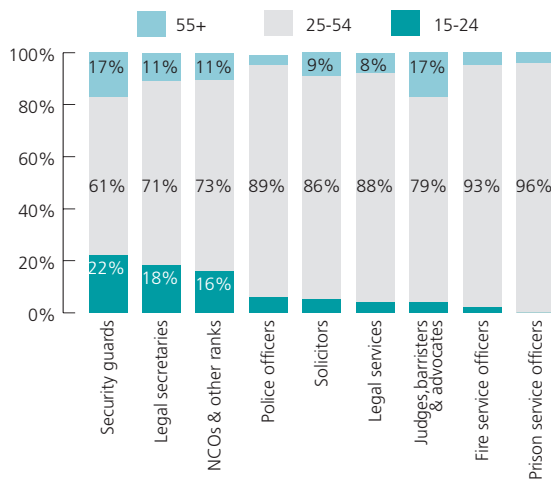
The age distribution of the legal and security occupations is illustrated in Figure 7.8.3. The majority of persons working in these occupations were aged between 25 and 54. Security guards and judges had the highest level of personnel aged over 55, at 17% each, which is above the national average. Security guards also had the highest proportion of workers aged between 15 and 24. No prison service officers were identified as being under the age of 25.

7.8.2 Employment Growth (1999-2004)

Security guards and police officers were the largest employers in this occupational grouping, with security guards also experiencing the largest employment growth over the five year period from 1999 to 2004.

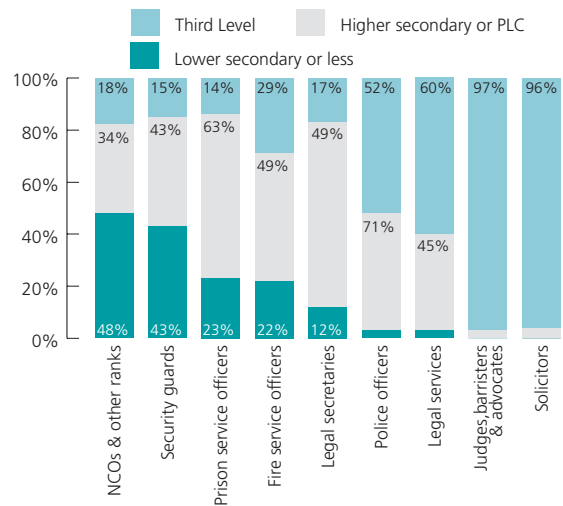
Figure 7.8.2 shows the annual average rates of employment growth in each occupation. Four of the occupations exceeded the national average employment growth rate of 2.9%. The most significant growth rate was for legal services at 11.5%, followed by judges and barristers who experienced an increase of 9.6%. Legal secretaries and army personnel had a negative annual average growth rate of -1.4% and -2.2%, respectively, over the period.

Figure 7.8.3 Age Profile of Legal and Security Professions, 2004



Source: CSO

Figure 7.8.4 Education Profile of Legal and Security Professions, 2004



Source: CSO

7.8.4 Education Profile

The education level attained by the persons employed in each occupation is examined in Figure 7.8.4. There is a major contrast between the personal/protective service occupations and the professional occupations. Only a very small percentage of judges or solicitors had attained less than third-level education – it is assumed that the small percentage with only upper secondary education for these occupations is as a result of a classification error. Army personnel had the highest proportion of people with only lower secondary education or lower at 48%, followed by security guards at 43%, which is much higher than the national average.

7.8.5 Shortage Indicators

There is no apparent shortage at professional level for the legal professions. There also seems to be no difficulty in recruiting fire service, prison or police officers.

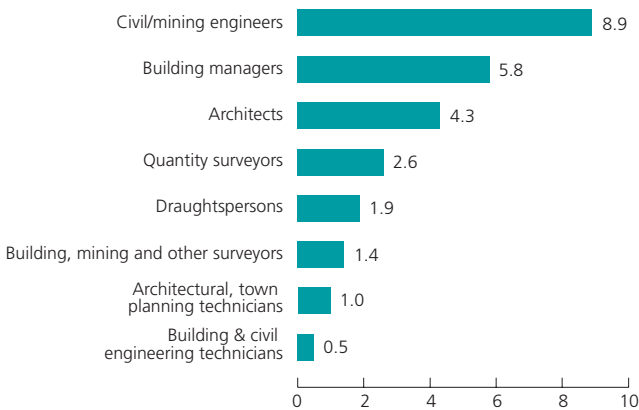
The only occupation in the legal and security occupational group that is experiencing a (labour) shortage is security guards, who have been increasingly sourced from non-EU countries.

7.9 CONSTRUCTION PROFESSIONAL OCCUPATIONS

7.9.1 Employment

Construction professional occupations employed a total of 26,300 in 2004. Within this grouping, 5,800 (or 22%) were at manager level, 14,500 (or 55%) at professional level, and 6,000 (or 23%) at associate professional level. These occupations represent 1% of the total employment in the economy.

Figure 7.9.1 Numbers Employed (000's) in Construction Professional Occupations, 2004



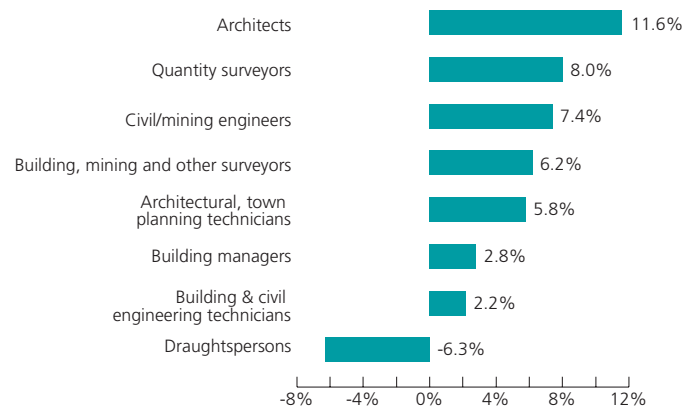
Source: CSO

7.9.2 Employment Growth (1999-2004)

In 2004, the largest occupation was civil and mining engineers with 8,900 employed – an increase of 2,700 since 1999. The numbers employed in this occupation increased steadily over the five year period. At 5,800, building managers were the second largest of the selected occupations.

Figure 7.9.2 shows the annual average rates of employment growth in each occupation for the five year period 1999 to 2004. Five of the occupations in this group achieved growth above the average national employment growth of 2.9%. This strong performance was in line with the growth in the construction sector as a whole, which, in employment terms, was the highest growing sector in the economy. Architects and quantity surveyors both had higher growth rates than the overall construction sector at 11.6% and 8%, respectively. Draughtspersons was the only occupation to experience a negative growth rate (-6.3%). This is likely to be a result of the impact of technological changes in this area (e.g. Computer Aided Design).

Figure 7.9.2 Annual Average Employment Growth in Construction Professional Occupations, 1999-2004 (%)

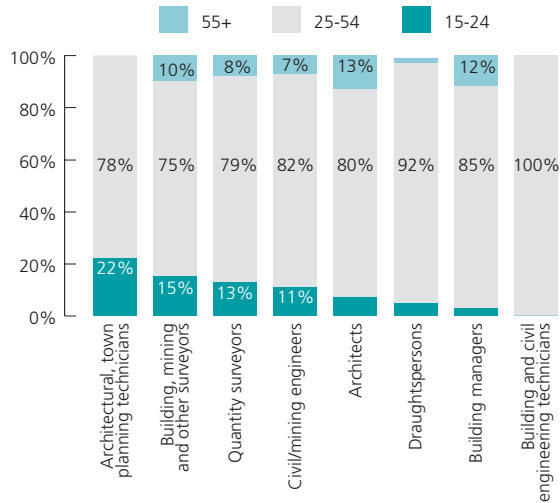


Source: CSO

7.9.3 Age Profile

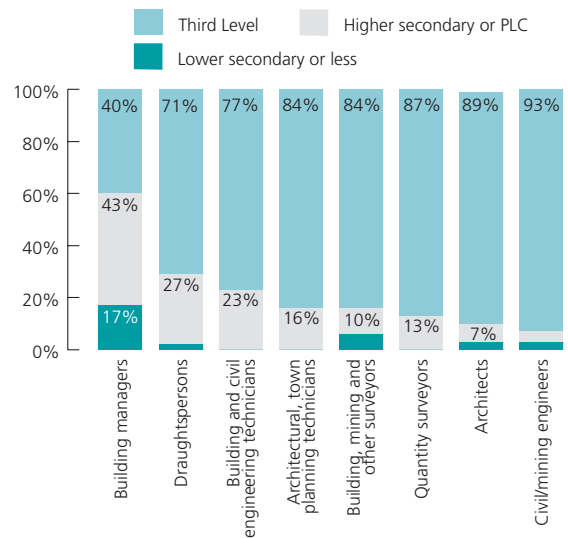
Figure 7.9.3 shows the age distribution of the selected occupations. Overall, these occupations have a higher proportion of persons in the 25-54 group (83%) as compared to the overall average for all employed (72%). Architectural and town planning technicians had the highest percentage of 15-24 year olds at 22%. This was followed by surveyors (both building/mining and quantity surveyors). Architects had the highest percentage of those aged over 55; however, this was in line with the national average.

Figure 7.9.3 Age Profile of Construction Professionals, 2004



Source: CSO

Figure 7.9.4 Education Profile of Construction Professionals, 2004



Source: CSO

7.9.4 Education Profile

The education level of the persons employed in each occupation is examined in Figure 7.9.4. As would be expected in a grouping of professional occupations, the majority in each occupation (excluding building managers) had third-level education. In total, 78% of those employed in these occupations had attained third-level qualifications as compared to 32% of the overall national average. Building managers and surveyors (building and mining) had the highest occurrence of people with lower secondary education or less (at 17% and 6%, respectively). Nearly a third (27%) of draughtspersons had reached upper secondary level whereas civil/mining engineers and architects had the highest percentage of people who had attained third-level education at 93% and 89% respectively.

7.9.5 Shortage Indicators

Many of the professional occupations within the construction industry are in short supply. These include architects, civil engineers, planners, and quantity surveyors. The shortages are reflected in the fact that a significant number of these professionals continue to be recruited from abroad under the work visa/authorisation scheme. In addition, quantity surveyors are frequently cited by companies in the monthly vacancy surveys as being difficult to source.

It is expected that these shortages will abate somewhat in the coming years as a result of a combination of more moderate growth in the construction sector and the introduction of new courses – particularly in architecture and town planning.

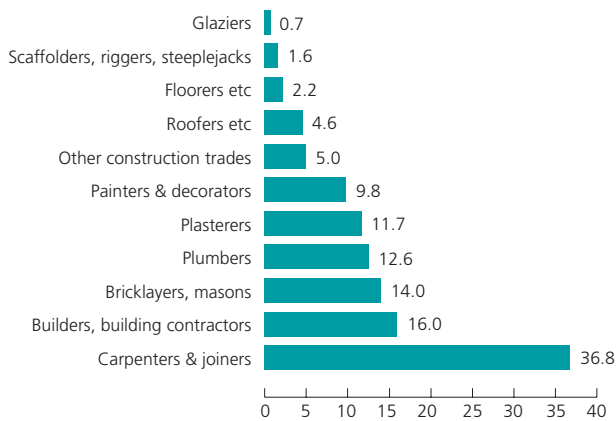
There are also shortages of management skills in the construction sector. These include project managers and experienced site managers.

7.10 CONSTRUCTION CRAFT OCCUPATIONS

7.10.1 Employment

A total of 114,900 construction craftspeople were employed in 2004. These occupations are presented in Figure 7.10.1 and represent 6% of total employment in the economy. Nearly 90% of those working in these occupations are employed within the construction sector.

Figure 7.10.1 Numbers Employed (000's) in Construction Craft Occupations, 2004



Source: CSO

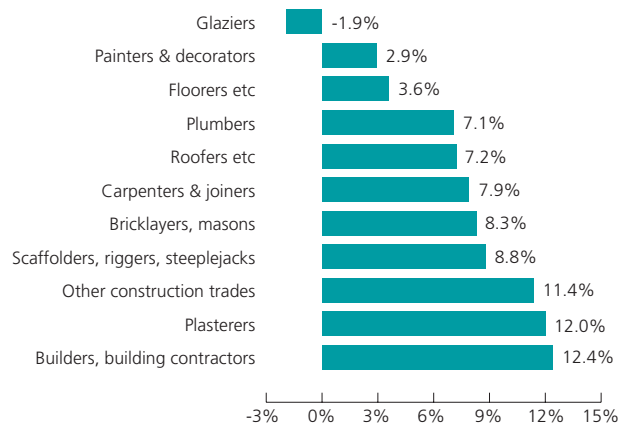
7.10.2 Employment Growth (1999-2004)

Carpenters and joiners comprised the largest occupational group with 36,800 employed. This occupation also experienced the largest growth in employment over the five year period, with a total of 11,700 new posts created.

Builders/building contractors comprised the next largest group in terms of both numbers employed and employment growth. Indeed, builders/building contractors had the highest annual employment growth of construction craft occupations, at 12.4%.

Figure 7.10.2 shows the annual average rates of employment growth in each occupation. All of the occupations in this group experienced employment growth exceeding the national average, excluding glaziers who had a negative annual average growth rate of -1.9%. Over half of the occupations in this group equalled or exceeded the annual average growth rate of the construction sector (7.9%). Moreover, builders/building contractors, plasterers and other construction trades had annual average growth rates of over 11%.

Figure 7.10.2 Annual Average Employment Growth in Construction Craft Occupations, 1999-2004 (%)

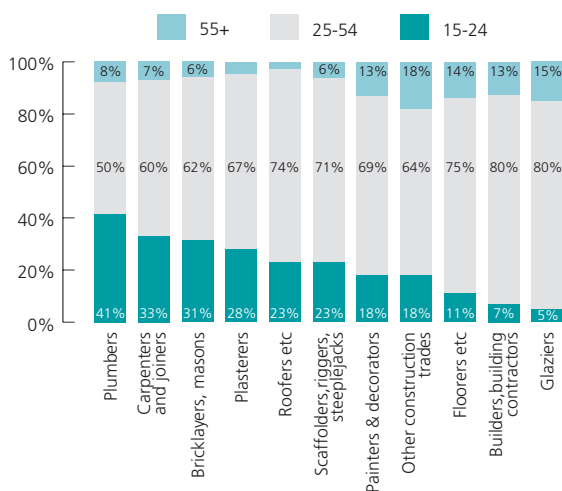


Source: CSO

7.10.3 Age Profile

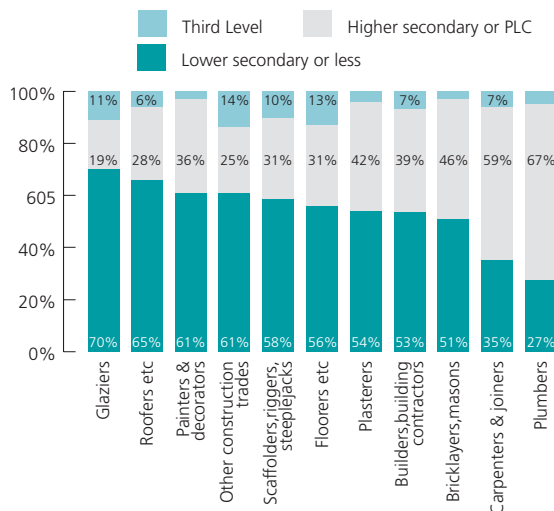
Figure 7.10.3 shows the age distribution of the selected occupations. These occupations are similar to the overall age distribution of the labour force, although there was a higher proportion of those in the 15-24 group (26%) as compared to those in the total economy (16%). Plumbers had the highest percentage of people in this category, at 41%, followed by carpenters and joiners at 33%. Only floorers, builders/building contractors and glaziers were below the overall average for the economy. The latter two occupations had the highest proportions of people in the 25-54 age group at 80% each. All of the occupations had people aged over 55, with other construction trades having the highest proportion at 18% and roofers with the lowest percentage at 3%.

Figure 7.10.3 Age Profile of Construction Craft, 2004



Source: CSO

Figure 7.10.4 Education Profile of Construction Craft, 2004



Source: CSO

7.10.4 Education Profile

The education level attained by persons employed in each occupation is examined in Figure 7.10.4. The overall percentage of construction crafts people with lower secondary or less attainment was 46%, as compared to 29% for the overall economy. Only plumbers had a lower proportion than this at 27%.

Some occupations, such as glaziers, roofers and painter/decorators, reported having over 60% of people with lower secondary education or less. As a result, the percentage of people with third-level education (6%) was considerably lower than in the overall economy (32%). In all of the occupations, however, some individuals hold third-level qualifications. Other construction trades and floorers etc. had the highest proportion at this level with 14% and 13% respectively.

A large proportion of construction craft workers hold national apprenticeship certificates. These certificates are ranked at levels 5/6 in the National Qualifications Awards Framework. The education categories used here do not coincide with the NQAF levels and thus, may underestimate the educational achievements of craft workers.

7.10.5 Shortage Indicators

Many of the construction trades are experiencing shortages mainly due to the high level of construction activity in Ireland. The trades most noticeably affected are bricklaying, plastering, carpentry, flooring, etc and painting and decorating. While all of these trades have seen a higher uptake in apprentices in the past few years, shortages persist. However, it is anticipated that the current record levels of activity in residential development will contract in the medium term. This is expected to improve the balance between supply and demand for many of the craft skills – particularly the so-called wet trades. This is evidenced by a fall in the number of mentions of some construction trades in the difficult to fill vacancy survey.

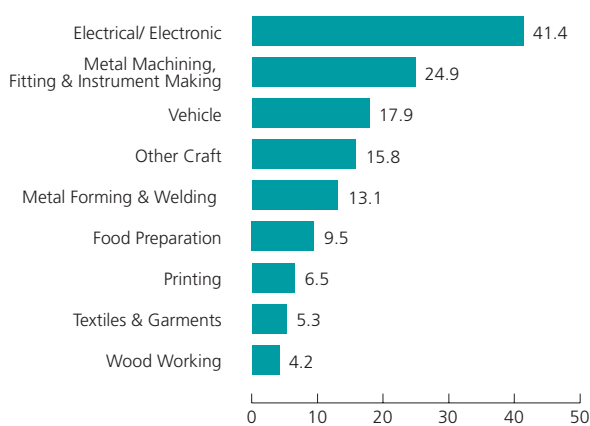
For roofers etc., scaffolders etc., and other construction trades there is little data on supply and it is difficult to draw conclusions about skill shortages. There is also little evidence that there is a shortage of plumbers especially with the dramatic increase in the number of apprentices in recent years.

7.11 OTHER CRAFT OCCUPATIONS

7.11.1 Employment

A total of 138,300 persons were employed in other craft occupations in 2004. These occupations are listed below and represent 7% of total employment in the economy. The majority of other craftspersons worked within electrical/electronic trades, metal forming and woodworking trades.

Figure 7.11.1 Numbers Employed (000's) in Other Craft Occupations, 2004



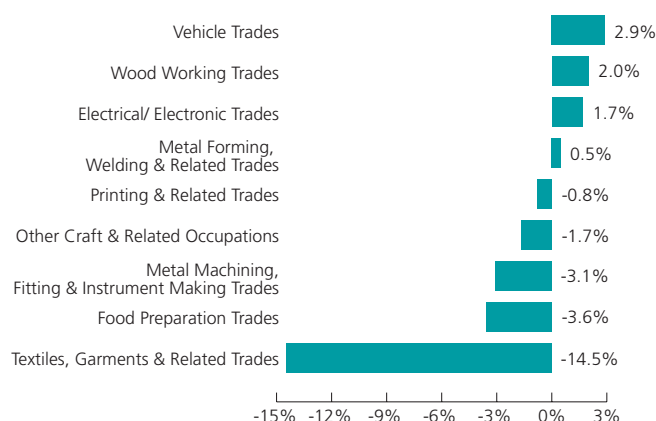
Source: CSO

7.11.2 Employment Growth (1999-2004)

The electrical/ electronic trades were the largest employers, with a total of 41,400 in 2004 – an increase of 3,400 since 1999. Many occupations in this grouping experienced a decline in numbers. This was most marked for textile and garments workers, who declined from 11,500 in 1999 to 5,300 in 2004. The metal machining, fitting and instrument making trades, which employed 24,900 in 2004, declined by 4,200.

Figure 7.11.2 shows the annual average rates of employment growth in each occupation. Overall, craft occupations (including construction crafts) increased by 2.8%. Only vehicle trades exceeded this growth rate at 2.9%. Over half of the occupations in this category experienced a decline in employment. This was the most marked for textiles and garments, with an annual average rate of -14.5%.

Figure 7.11.2 Annual Average Employment Growth in Other Craft Occupations, 1999-2004 (%)

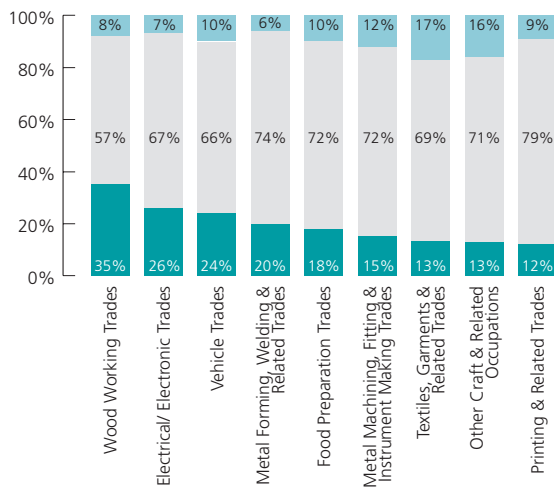


Source: CSO

7.11.3 Age Profile

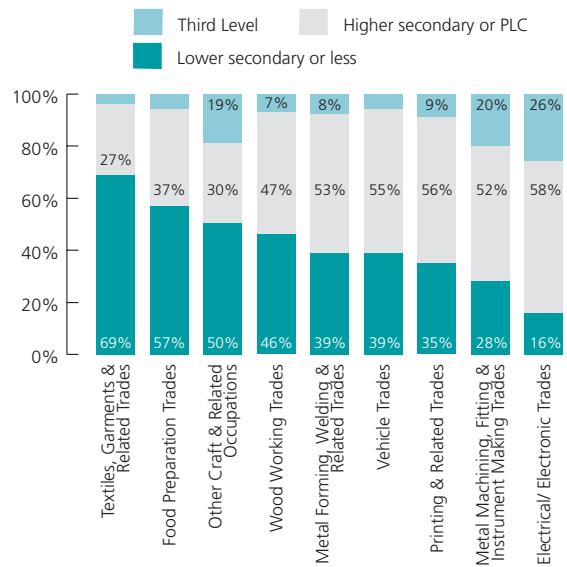
Figure 7.11.3 shows the age distribution of the selected occupations. As is the case for craft occupations in general, a relatively high proportion of other craftspersons are under the age of 24. Woodworking trades had the highest percentage of people in this age cohort (35%) followed by electrical/electronic trades (26%). The textiles, garments etc. trades have the highest proportion of persons over 55, which is higher than the national average of 12%.

Figure 7.11.3 Age Profile of Other Craft Occupations, 2004



Source: CSO

Figure 7.11.4 Education Profile of Other Craft Occupations, 2004



Source: CSO

7.11.4 Education Profile

The education level attained by persons employed in each of the selected craft occupations is examined in Figure 7.11.4. A high proportion of workers in occupations such as textiles/garments, food preparation and other craft attained lower secondary education or less. This exceeds the average of 39.5% for all craft workers. Third level education attainment was proportionally higher for metal machining (28%) and electrical/electronic trades (26%) than for craft workers in general.

7.11.5 Shortage Indicators

Employment in the textiles and printing industries has been declining for a number of years. It is expected that these trends will continue and as such, no skill or labour shortages are foreseen for the related trades.

Wood working trades (excluding carpentry, see Section 7.10) and electricians are also not experiencing shortages. However, there is a labour shortage in some specific food preparation trades (e.g. butchers and de-boners). Some of the metal forming, welding and related trades are also in short supply. There is evidence that employers are sourcing welders, steel fixers and sheet metal workers from abroad.

7.12 ARTS, SPORTS AND TOURISM OCCUPATIONS

7.12.1 Employment

This section covers arts, sports and tourism occupations, which, with 112,600 persons employed, accounts for 6% of national employment. These occupations are predominantly found in the hotel and restaurant sector and the recreational, cultural and sporting activities sector. Together these sectors account for 75.4% of the total employed in the selected occupations. Figure 7.12.1 shows the number employed in the selected arts, sports and tourism occupations in 2004.

Figure 7.12.1 Numbers Employed (000's) in Selected Arts, Sports and Tourism Occupations, 2004



Source: CSO

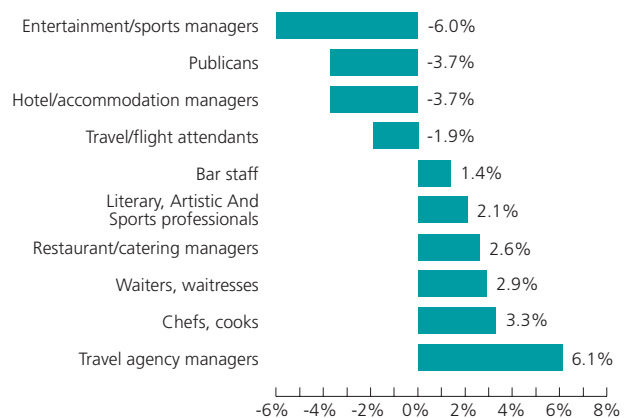
7.12.2 Employment Growth (1999-2004)

Literary, artistic and sports professionals include a wide range of occupations with 23,600 employed. Overall, the number employed in these occupations grew by 2,300. However, while the number of authors, journalists, actors and entertainers grew, the number of artists and designers fell.

In 2004, there were 19,300 waiter/waitresses working in Ireland; this is an increase of 2,600 since 1999. The number of bar staff was 22,100, a rise of 1,500 since 1999. However, there were 1,200 fewer individuals employed as bar staff in 2004 compared to 2003. This is likely to be a result of the difficulties publicans are facing due to the fall in demand for alcohol, and because of the smoking ban. The number of cooks and chefs employed rose by 2,900 between 1999 and 2004; however, the number employed fell slightly between 2003 and 2004. Both hotel managers/accommodation officers and publicans experienced a fall in employment of 1,100 and 1,500 respectively. For hotel managers much of this drop came between 2003 and 2004.

Figure 7.12.2 shows the annual average rates of employment growth in each occupation for the five year period 1999 to 2004. Only travel agency managers and chefs grew faster than the average national employment rate. The number of persons employed as waiters/waitresses grew at the same rate as overall employment, while the other selected occupations grew at a slower rate. The numbers employed as hotel managers and publicans fell at an annual rate of approximately 3.7%, with sports managers falling at an annual rate of 6%. Over the same period the number of travel/flight attendants declined at an average annual rate of 1.9%.

Figure 7.12.2 Annual Average Growth in Selected Arts, Sports and Tourism Occupations, 1999-2004 (%)

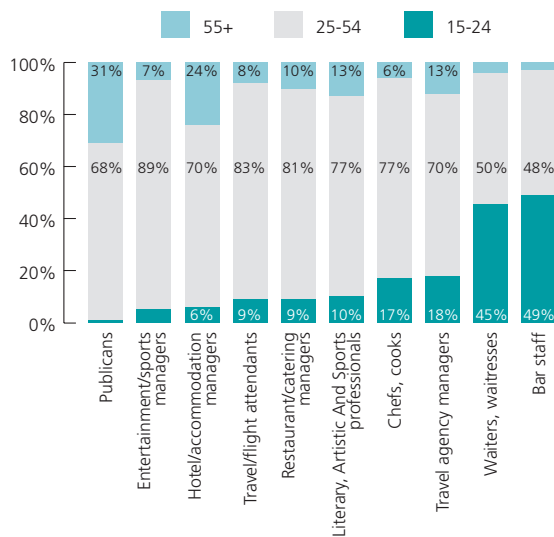


Source: CSO

7.12.3 Age Profile

Figure 7.12.3 shows the age distribution of the selected occupations. As could be expected, the age distribution for bar staff and waiting staff is skewed to the lower age groups. Publicans on the other hand are older with 31% being over 55. 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, 2004

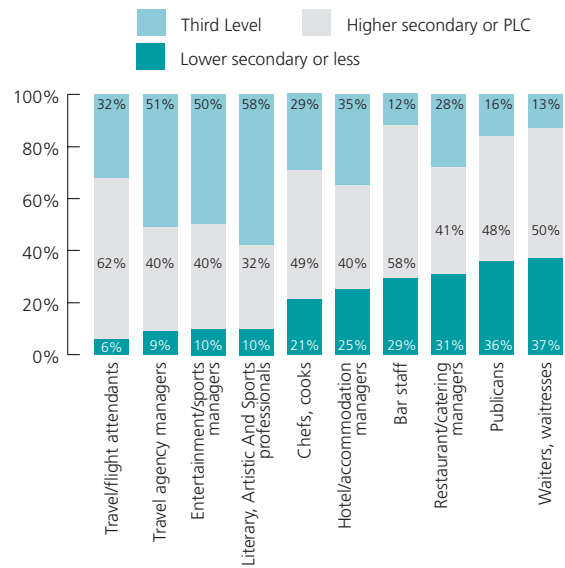


Source: CSO

7.12.4 Education Profile

The education level of the persons employed in each occupation is examined in Figure 7.12.4. Many of the occupations in this sector do not require third level qualifications. This can be seen in the low proportions of waiting, and bar staff in the third level category. On the other hand, with the exception of publicans, management occupations have a higher proportion of third level graduates. The majority of literary, artistic and sports professions have attained some third level education.

Figure 7.12.4 Education Profile of Selected Arts, Sports and Tourism Occupations, 2004.



Source: CSO

7.12.5 Shortage Indicators

There is evidence of shortages of waiting staff and chefs. The large number of non-nationals in these occupations, (the highest number of work permits in the first half of 2005 were issued to chefs) underpins this finding. The shortage of chefs is a skills shortage, while the shortage of waiting staff is a labour shortage.

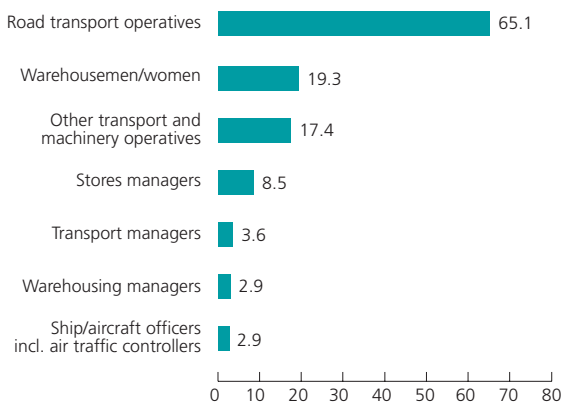
7.13 TRANSPORT AND LOGISTICS OCCUPATIONS

7.13.1 Employment

In 2004, 119,300 persons were employed in transport and logistics occupations, which represented 6.4% of total national employment. These occupations are predominantly found in the transport, storage and communication (42%), and the wholesale and retail trade (19%) sectors, but are also found in manufacturing (16%) and construction (11%). Together these four sectors account for 87% of the total employed in these occupations.

Figure 7.13.1 shows the number employed in the selected transport and logistics occupations. Operatives account for 69% of the number employed in the selected occupations; managers account for 15%.

Figure 7.13.1 Numbers Employed (000's) in Selected Transport and Logistics Occupations, 2004



Source: CSO

7.13.2 Employment Growth (1999-2004)

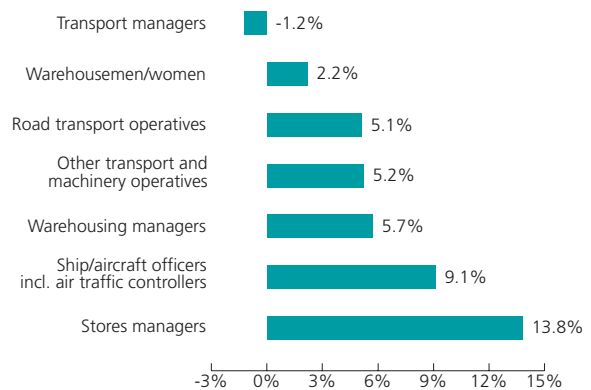
In 2004, there were 65,100 road transport operatives working in Ireland, an increase of 14,400 since 1999. This broad occupational group includes drivers of road goods vehicles and bus and taxi drivers. The number of warehousemen/women employed in 2004 was 19,300, a rise of 2,000 since 1999. Employment of other transport and machinery operatives rose by 3,900 to reach 17,400 in 2004. This broad occupation contains, *inter alia*, drivers of fork lifts and mechanical truck and plant drivers.

There are 15,000 individuals employed as various types of managers in transport and logistics. A total of 8,500 stores managers were employed in 2004, with 3,600 transport managers and 2,900 warehouse managers. The number of stores managers has increased by 4,100 since 1999.

Figure 7.13.2 shows the annual average rates of employment growth in each occupation. Most of the selected occupations experienced growth well above the national annual average employment growth rate. The number of stores managers grew at 13.8% per annum since 1999. The various transport operatives grew at just over 5%. The number employed as warehousemen/women grew slightly slower than overall employment growth at 2.2%, while the number of transport managers fell at an annual rate of 1.2%. However, from 1999 to 2003 the number of transport managers was rising, with the decline occurring after this.

The number of ship and aircraft officers (including air traffic controllers) rose at an annual rate of 9.1%, albeit from a low base in terms of numbers employed.

Figure 7.13.2 Annual Average Growth in Selected Transport and Logistics Occupations, 1999-2004 (%)

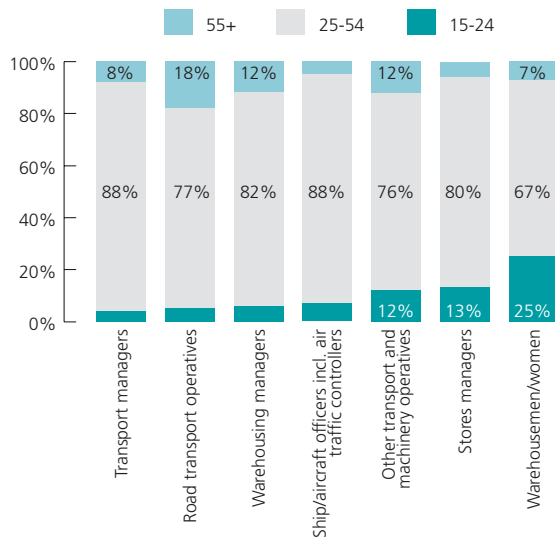


Source: CSO

7.13.3 Age Profile

Figure 7.13.3 shows the age distribution of the selected occupations. The proportion of road transport operatives in the over 55 age category, at 18%, is higher than the national average. In contrast, there is a small share of ship/aircraft officers etc. in this category. Warehousemen/women had the highest proportion of employment in the 15-24 age cohort.

Figure 7.13.3 Age Profile of Selected Transport and Logistics Occupations, 2004

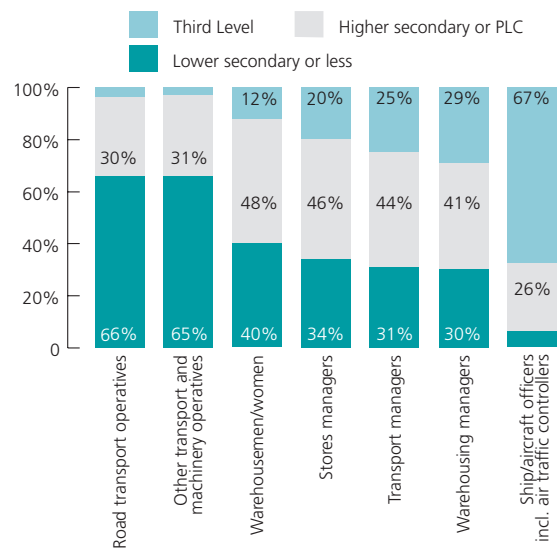


Source: CSO

7.13.4 Education Profile

The education level of the persons employed in each occupation is examined in Figure 7.13.4. The majority of road transport operatives have lower educational attainment than the national average. The various management occupations have similar education attainment distributions to each other. However, these management occupations have an educational distribution that has fewer third level graduates than other management occupations. The average percentage of managers with third level qualifications is 31.5%, whereas only 20% of stores managers and 25% of transport managers have reached this level. The percentage of warehousing managers with third level qualifications is 29%, just under the average for managers as a whole. Over two thirds of ship/aircraft officers (incl. air traffic controllers) have third level qualifications. The educational distribution of these occupations is very similar to that in other associate professional occupations.

Figure 7.13.4 Education Profile of Selected Transport and Logistics Occupations, 2004



Source: CSO

7.13.5 Shortage Indicators

A report by the SLMRU⁹ for the Expert Group on Future Skill Needs indicated that there was a shortage of persons with the skills to manage integrated supply chains. This continues to be an issue, despite a new degree programme since introduced. The report also revealed shortages of heavy goods commercial vehicle drivers and to some extent of freight forwarding officers¹⁰. The work permit data and the results from the difficult to fill vacancy survey indicate continued shortages of HGV drivers.

There was also some evidence of a shortage of warehousemen/women but this is likely to be a labour shortage rather than a skills shortage and there is little evidence that this shortage persisted.

⁹ Human Resource Requirement of the Logistics Industry in Ireland, Expert Group on Future Skills Needs/FÁS, 2002

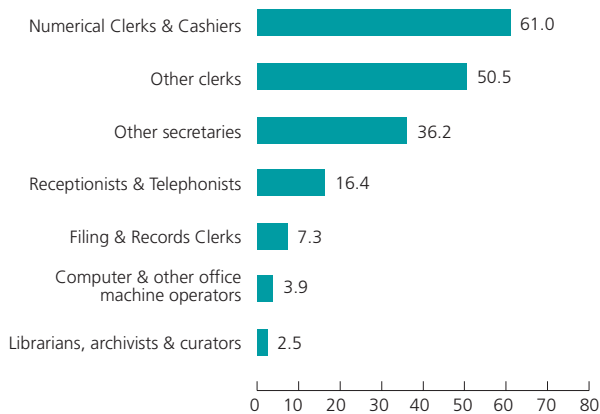
¹⁰ This is a clerical occupation and is covered in Section 7.14.

7.14 LIBRARY AND CLERICAL OCCUPATIONS

7.14.1 Employment

A total of 177,700 persons were employed in the selected library and clerical occupations in 2004. These occupations are presented in Figure 7.14.1 and represent 10% of total employment in the economy. All of the occupations were classified as within the clerical and secretarial broad occupational grouping, excluding librarians, archivists and curators, which are classified as professional. Employment is spread widely across all sectors; the largest number is in financial intermediation (20%).

Figure 7.14.1 Numbers Employed (000's) in Library and Clerical Occupations, 2004



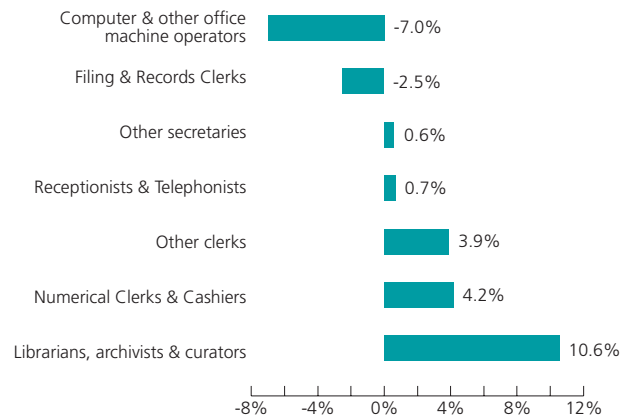
Source: CSO

7.14.2 Employment Growth (1999-2004)

Over a third of all employed in this group are categorised as numerical clerks and cashiers. This occupation also experienced the most significant increase in employment levels, with an increase of 11,300. Employment levels declined in two occupations – computer/ office machine operators (by 1,700 to 3,900) and filing/record clerks (by 1,000 to 7,300).

Figure 7.14.2 shows the annual average rates of employment growth in each occupation. The annual average employment growth rate for the total clerical and secretarial occupations was 2.3%. Librarians, archivists and curators far exceeded this growth rate, with an annual average of 10.6%. Two occupations had negative growth rates – computer/office machine operators (-7%) and filing and records clerks (-2.5%).

Figure 7.14.2 Annual Average Employment Growth in Library and Clerical Occupations, 1999-2004 (%)

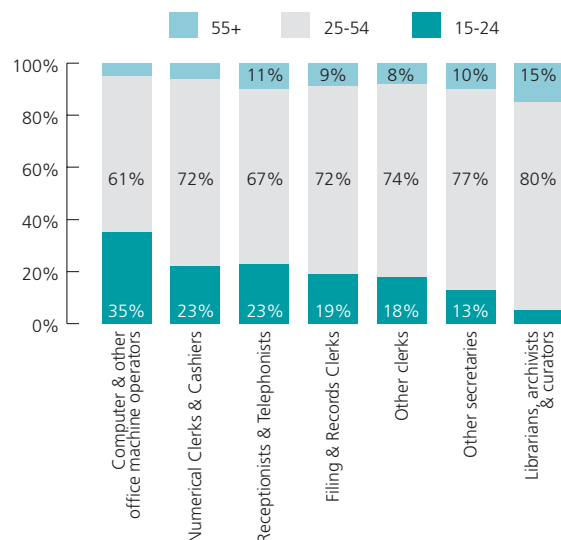


Source: CSO

7.14.3 Age Profile

Figure 7.14.3 shows the age distribution of the selected occupations. The majority employed in these occupations are aged between 25 and 54. For clerical occupations overall, 73.2% were categorised in this age group. Librarians had both the smallest proportion under 24 and the greatest proportion over 55.

Figure 8.14.3 Age Profile of Library and Clerical Occupations, 2004



Source: CSO

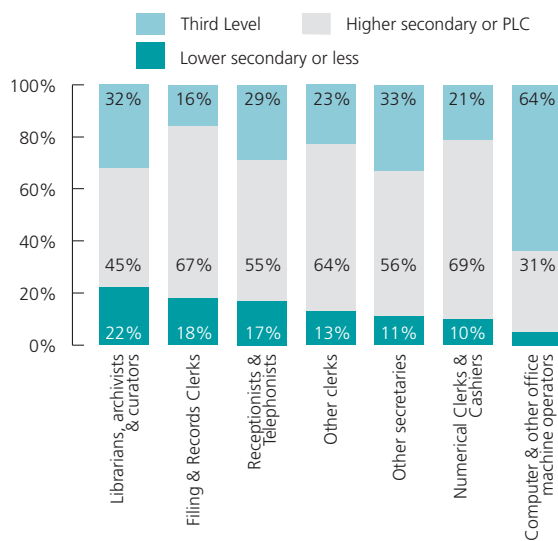
7.14.4 Education Profile

The education level attained by persons employed in each occupation is examined in Figure 7.14.4. Surprisingly, considering that librarians are professionals, there were fewer third level graduates in this occupation than amongst other secretaries and computer/office machine operators. Indeed, both the proportion of people working as computer operators with third level education and also their young age cohort would suggest this may be a first job for a number of graduates. On average, 24.6% of all clerical occupations have reached third level education. Filing and records clerks have the lowest share with third level qualifications.

The educational backgrounds of persons employed in fund administration and insurance processing vary in terms of field as well as level. As such, roles in these two areas can be filled from a large pool of graduates from business, commerce, finance and other courses, as well as from those persons who achieved high leaving certificate results. Therefore, while there is a sufficient supply in terms of skills, the challenge is in attracting and retaining staff in administrative roles in international banking and insurance. Unless there is a widespread move towards front office activities accompanied by a significant reduction in back office activities, labour shortages in this area are expected to persist into the future.

There is also evidence of shortage of some specialist skills in the occupational group relating to filling and records clerks. In particular, there are skill shortages in the area of transport and logistics. Specific skills in short supply include 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.

Figure 7.14.4 Education Profile of Library and Clerical Occupations, 2004



Source: CSO

7.13.5 Shortage Indicators

The analysis reveals that there are shortages of numerical clerks. Ireland has become one of the leading world centers for back office activities in international banking and insurance. This has resulted in a shortage of financial administrators, such as fund accountants, fund administrators and shareholder services staff on the banking side and pension administrators and claims processors on the insurance side.

7.15 SALES OCCUPATIONS

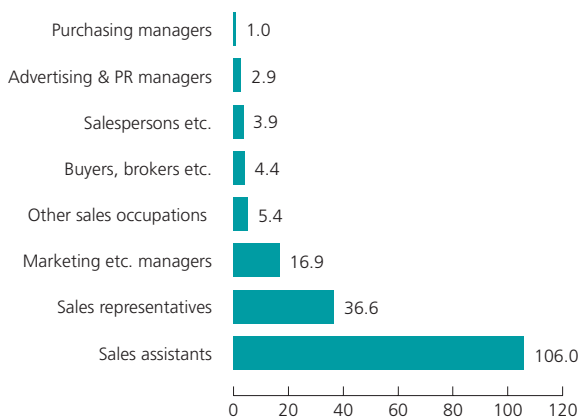
7.15.1 Employment

In 2004, there were 177,000 persons employed in the selected sales occupations. This represented 9.5% of the total national employment. While most of the occupations examined in this section are classified in the sales broad occupational grouping (accounting for 88% of the total employment in this occupational group), three are managerial: marketing managers, advertising and PR managers, and purchasing managers.

Of the total employed in these occupations, more than 50% were in the retail sector, 7% in wholesale, with the remainder scattered across other sectors of the economy. Figure 7.15.1 shows the total employed in selected sales occupations in 2004.

There were 106,000 persons employed as sales assistants. This combines employment of sales assistants, retail cash desk and check-out operators, as well as petrol pump forecourt attendants. Sales assistants on their own accounted for 95,500 persons, which is the most populated single occupation economy wide. Moreover, the employment in the sales assistant category increased over the period 1999-2004, with a net increase of 19,500 posts.

Figure 7.15.1 Numbers Employed (000's) in Selected Sales Occupations, 2004

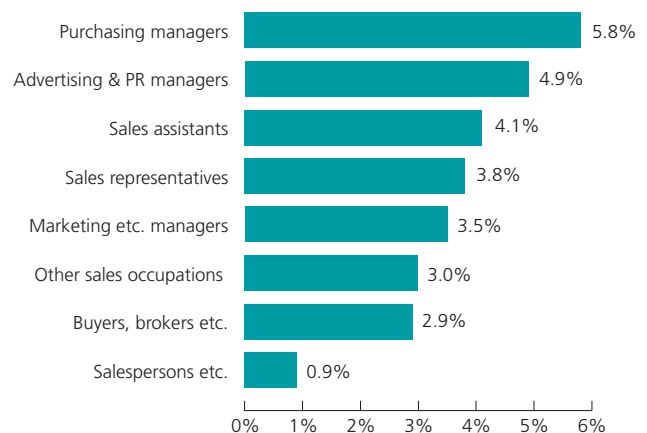


Source: CSO

7.15.2 Employment Growth (1999-2004)

Over the period 1999-2004, employment in all occupations in the sales group increased, although most of the occupations grew just above the overall national annual average of 2.9% (Figure 7.15.2). The growth was brought about by the strong performance of the retail and wholesale sectors over that period. The fastest growing was the employment of purchasing managers and advertising and PR managers with annualised growth rates of 5.8% and 4.9%, respectively. The slowest growth was recorded in the employment of salespersons, which include collectors, salespersons, van salesperson, market and street traders etc.

Figure 7.15.2 Annual Average Employment Growth in Selected Sales Occupations, 1999-2004 (%)

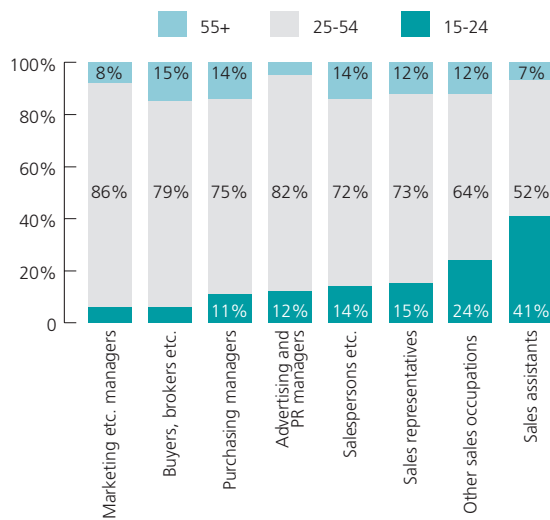


Source: CSO

7.15.3 Age Profile

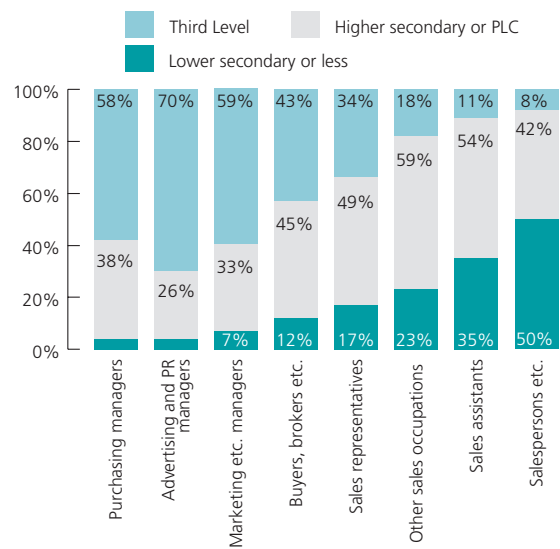
Figure 7.15.3 shows the age distribution of the selected sales occupations. Each of the occupations examined in this group had 15% or fewer persons in the 55 plus category. Indeed, only 5% of advertising and PR managers were over 55. The sales assistant sub-group had the youngest work force: 41% of those employed were younger than 25. This is significantly higher than the overall national average of 15.6%. Marketing managers and buyers/brokers had very few persons employed in this age category.

Figure 7.15.3 Age Profile of Selected Sales Occupations, 2004



Source: CSO

Figure 7.15.4 Education Profile of Selected Sales Occupations, 2004



Source: CSO

7.15.4 Education Profile

The education level of the persons employed in each sales occupation is examined in Figure 7.15.4. The highest educational attainment is found in management occupations. Advertising managers have the highest level (70%) of third level graduates. This proportion is significantly higher than the percentage of all managers with 31.5% reaching third level education. On the other hand, salespersons and sales assistants, have the lowest educational attainment of all sales occupations with the highest share of persons employed with lower secondary education or less, and the lowest share of third level graduates.

7.15.5 Shortage Indicators

There is evidence of shortages of sales assistants and sales representatives. While sales assistant positions are frequently mentioned as difficult to fill, this is a labour shortage. In contrast, the difficulties which have been reported by some employers in filling vacancies for technical sales representatives and marketing personnel are indicative of a skills shortage.

7.16 OPERATIVES

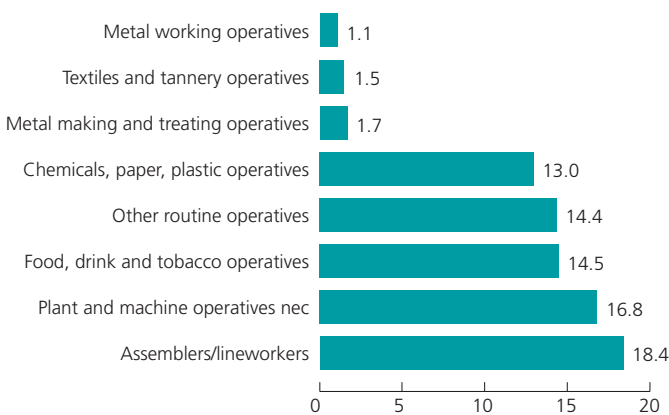
7.16.1 Employment

Just over 81,000 persons were employed as operatives in 2004, representing 4.3% of the overall national employment. Operatives perform a variety of routine assembly operations and tasks for which no formal education is required. Almost all of the operatives are employed in the manufacturing sector (mainly manufacturing of food, manufacturing of chemicals, manufacturing of medical instruments and manufacturing of computers), with some in construction and other sectors of the economy.

A loss of jobs is evident in metals, textiles, chemicals and other areas. While most of the occupations examined in this section have experienced a decline in employment (Figure 7.16.2), employment of assemblers and lineworkers has declined most markedly by an average annual rate of almost 12%. As a result, there was a net loss of more than 16,000 posts over that period. The net loss across all operative occupations was in excess of 20,000 posts.

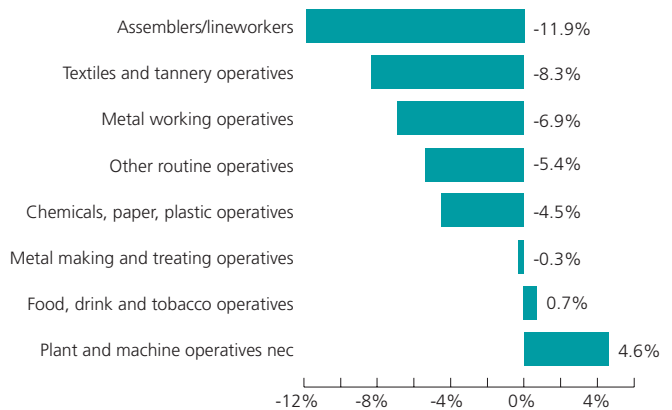
Plant and machine operatives and food and related operatives were the only two occupations where employment increased over the five year period.

Figure 7.16.1 Number Employed (000's) Operatives and Related Occupations, 2004



Source: CSO

Figure 7.16.2 Annual Average Employment Growth for Operatives and Related Occupations, 1999-2004 (%)



Source: CSO

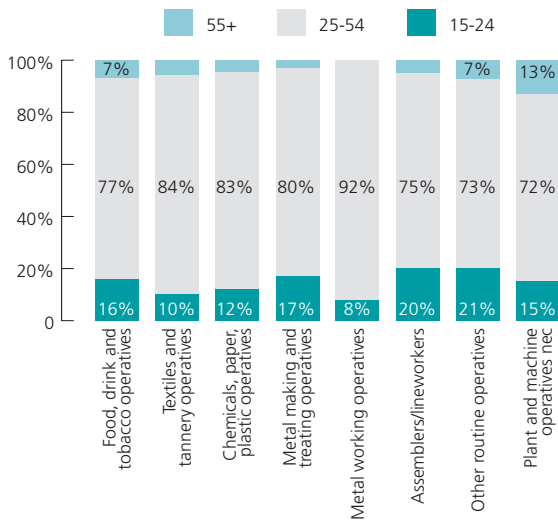
7.16.2 Employment Growth (1999-2004)

Figure 7.16.1 shows the totals employed in selected operative occupations. In general, this occupational group has experienced the most adverse employment trends of all occupational groups examined. This is because a significant number of manufacturing operations have moved from Ireland to lower-cost locations worldwide.

7.16.3 Age Profile

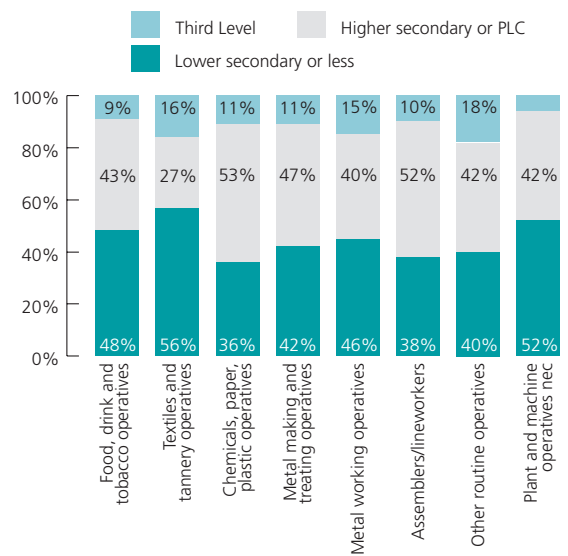
Figure 7.16.3 shows the age distribution of operatives and related occupations. In each occupation examined, most employment is concentrated in the 25-54 age cohorts. Importantly, for each occupation, the share of employment aged less than 25 is greater than the share of those in 55-plus category. In particular, 20% of assemblers/lineworkers are younger than 25, which is above the national average.

Figure 7.16.3 Age Profile of Operatives and Related Occupations, 2004



Source: CSO

Figure 7.16.4 Education Profile of Operatives and Related Occupations, 2004



Source: CSO

7.16.4 Education Profile

The education level of the persons employed as operatives is examined in Figure 7.16.4. In general, educational attainment for operatives and related occupations is lower than in most other occupational groups. A significant minority, and for some occupations even a majority, of persons employed as operatives are in the lower secondary or less education category.

7.16.5 Shortage Indicators

There is no shortage of any of the operative categories covered in this section. Most of these occupations have experienced a fall in employment in the last few years, with only plant and machinery and food, drink and tobacco operatives showing any growth.

The unemployment rate for most of the occupations in this group is above average (Table 7.1). The education profile, combined with the age structure of operatives, could result in further outflow from these occupations into the unemployment pool, if recent employment trends continue into the future.

Section 8

In Focus: Non-Nationals in Ireland

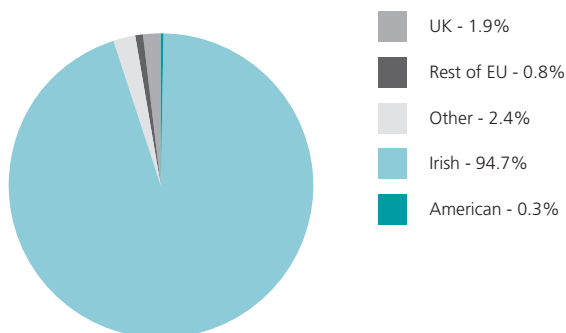
8.1 INTRODUCTION

Brought about by exceptional economic growth, the last decade has seen numerous changes in Ireland. Over the period, the country has experienced, *inter alia*, a dramatic shift from net emigration to net immigration. This paper presents an analysis of the non-Irish population in Ireland based on the results from the Quarterly National Household Survey (QNHS), conducted by the Central Statistics Office, from March to May, 2004. For the purpose of this analysis a non-national is defined as a person whose nationality is not Irish. Although the most recent available, the data used in the analysis refers to the period before the recent expansion of the EU and, as such, does not capture important developments since the accession of new states to the EU. Nonetheless, it provides a useful description of the non-national population stock in terms of region of origin, gender, age, education and, most importantly, labour status. As such, this analysis can be used as a reference for future comparisons.

8.2 COMPOSITION OF THE NON-NATIONAL POPULATION

In 2004, just over four million persons resided in the Republic of Ireland. Of these, 95% were Irish nationals (Figure 8.1). Thus, the non-Irish population accounted for 215,000 persons. Non-nationals were equally divided between EU¹¹ and non-EU countries. 70% of the non-Irish EU nationals came from the UK. This amounted to 75,000 persons from the UK living in the Republic of Ireland in 2004. Of 105,000 non-EU nationals, approximately 10% came from the US.

Figure 8.1 Population in the Republic of Ireland by Nationality, 2004

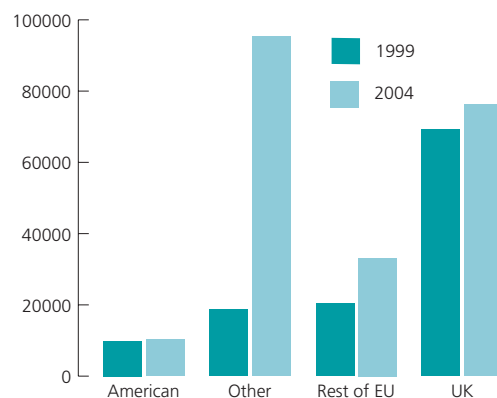


Source: CSO

Over the last five years, the total population of Ireland grew by 8%. The number of Irish nationals increased by 6%, while the number of non-nationals increased by 82%.

Figure 8.2 presents the number of non-nationals by region of origin in 1999 and 2004. The number of non-nationals increased across all regional groups. The fastest growing group was non-EU nationals (excluding Americans), the number in which more than quadrupled, growing from less than 20,000 in 1999 to 95,000 in 2004.

Figure 8.2 Non-national Population in Ireland by Origin in 1999 and 2004

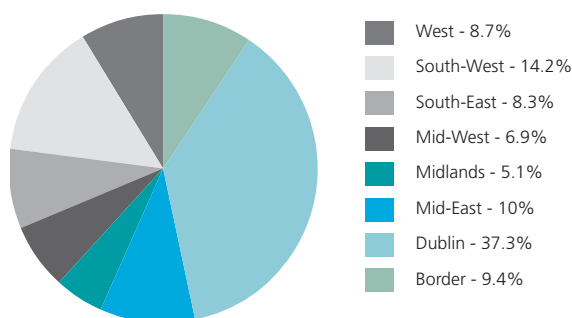


Source: CSO

The non-national population in Ireland is present in all regions of the country (Figure 8.3). However, of the total 215,000 non-nationals, more than half are located in the east of the country – Dublin, South-East and Mid-East combined – with more than one third being located in the Dublin region alone. Of the total population in Dublin, which was 1.4 million in 2004, 7% were non-nationals. In other regions, the non-national share of population ranged between 4% and 5%.

¹¹ The EU consists of 15 countries, given that the data refers to the pre-accession period for the remaining 10 new EU countries.

Figure 8.3 Non-national Population in Ireland by Region, 2004

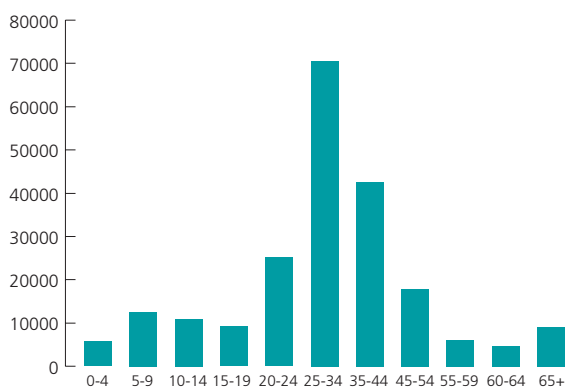


Source: CSO

Figure 8.4 presents the breakdown of the non-national population by age. The data reveals that non-nationals are concentrated in the younger age cohorts. In 2004, more than 82% (185,000 persons) of the non-national population were of working age. Moreover, almost 70% were aged between 15 and 45, with more than 70,000 persons in the 25-34 age cohort.

The non-national population in Ireland is distributed relatively equally between males and females. This is true for all age cohorts.

Figure 8.4 Non-national Population in Ireland by Age, 2004



Source: CSO

Figure 8.5 presents the non-national population by the ILO classified labour status. Of the total 176,000 non-nationals aged between 15 and 65 in 2004, 111,000 persons were in employment. Those not economically active accounted for 58,000 (one third) and the remainder were unemployed.

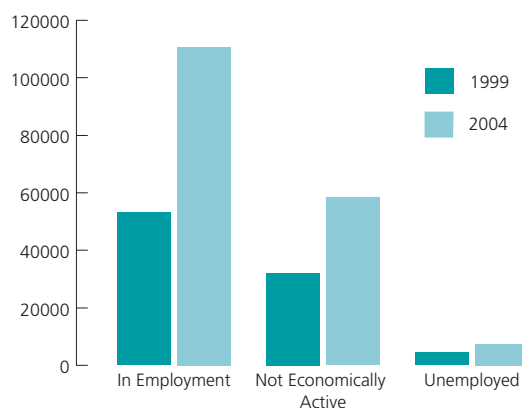
While the total number of non-nationals increased by 82% since 1999, the number of those in employment increased by 108%. Furthermore, the composition of the non-national population has changed. In 2004, those in employment accounted for 63% – up from 59% in 1999. On the other hand, those not economically active accounted for 36% of the total number of non-nationals in 1999, decreasing to 33% in 2004. The share of unemployed in the non-national population declined from 5% in 1999 to 4% in 2004.

Of the 58,000 economically inactive, working age non-nationals, 55% were from outside the EU, 29% were from the UK, 12% were from the rest of EU and 4% were American.

Examining economically inactive working age non-nationals by their Principal Economic Status (PES) reveals that 42% of this group are engaged in home duties, 31% are students, 4% are retired and 23% are classified as 'other'. This distribution does not hold for all individual nationality groups; EU nationals (excluding UK nationals) are mostly students (54%), while 12% of the UK nationals are classified as retired. Almost one quarter of economically inactive non-EU nationals (excluding Americans) are classified as 'other', as compared to 10% on average for other nationality groups. The difference arises from the fact that asylum seekers, who are captured in this figure, are not permitted to work or study in Ireland.

There were 22,200 non-national students in Ireland in 2004. Of this, almost 13,000 were from non-EU countries. Interestingly, 20% of all non-EU students were in part-time employment, as opposed to 15% of EU non-nationals.

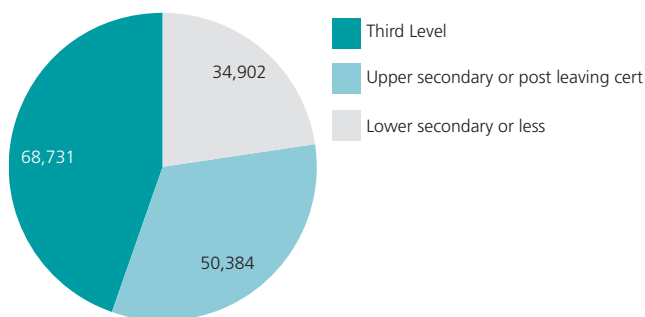
Figure 8.5 Working Age Non-national Population by the ILO Labour Status, 2004



Source: CSO

In general, the non-national population of Ireland has a high educational attainment. Figure 8.6 presents non-nationals aged between 15 and 65 classified by the level of education. Of the 154,000 persons who stated their education level, approximately 69,000 or 45% had third level qualifications. Moreover, 73% of those with third level qualifications were holders of degrees or higher awards.

Figure 8.6 Working Age Non-national Population by the Highest Level of Education Attained, 2004



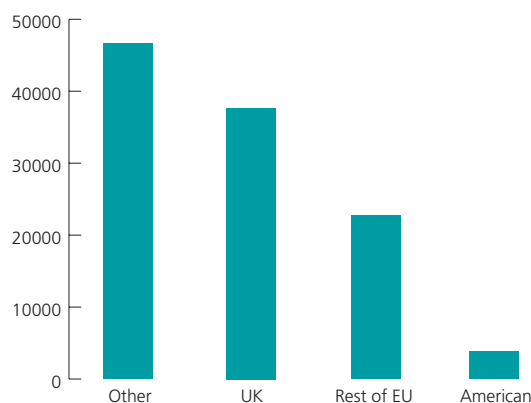
Source: CSO

In terms of the individual nationality groups, more than 60% of Americans in Ireland have a third level qualification; this is compared to 54% of EU-nationals (excluding UK), 46% of non-EU nationals (excluding Americans) and 37% of UK nationals. Interestingly, 31% of all economically inactive non-nationals have a third level qualification, of which 9,000 come from non-EU countries (excluding the US). While one quarter of economically inactive non-nationals with a third level education are students, the remaining 12,000 are mainly inactive, probably due to the low participation rates and/or impediments to their participation in the labour market.

8.3 NON-NATIONALS: EMPLOYMENT BY SECTOR

In 2004, there were 111,000 non-nationals in employment in Ireland, accounting for 6% of the total labour force. Of these, 85% were in full time employment. Figure 8.7 presents non-nationals in employment by region of origin. Most of the non-national labour originated from non-EU countries. Excluding Americans, there were 48,000 non-EU nationals in employment in 2004. This is followed by UK nationals, of whom there were 38,000.

Figure 8.7 Non-nationals in Employment by Region of Origin, 2004



Source: CSO

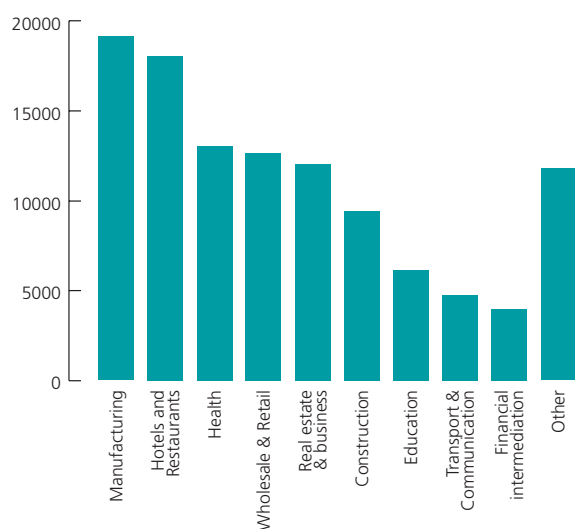
Non-nationals are employed across all sectors of the economy. Figure 8.8 presents the distribution of employment across NACE sectors.

In 2004, 19,000 non-nationals were employed in manufacturing, which represents almost 7% of the total employment in the sector (Table 8.1). Of the total non-nationals employed in the manufacturing sector, just over 6,000 were employed in manufacturing food products and beverages. The manufacturing of office machinery and computers sub-sector employed 3,000 non-nationals and 1,500 non-nationals were employed in the manufacture of chemicals and chemical products.

More than 40% of non-nationals in the manufacturing sector originated from non-EU countries, 30% came from the UK, while the remainder came from the rest of the EU. Almost 40% of non-nationals employed in the manufacturing sector had third level education. Of those employed in this sector, 2,200 were operatives and 1,700 were butchers and meat cutters.

The hotel and restaurant sector employed 18,000 non-nationals in 2004, which is 16.7% of the total employment in the sector. Of the total, 65% were from non-EU countries and 35% were from the EU. Almost one third of all non-nationals employed in the hotel and restaurant sector had third level qualifications. In terms of the occupational breakdown, the sector employed 4,400 waiters, 3,800 chefs, 1,200 bar staff and 1,000 kitchen porters, while the remainder was composed of other occupations.

Figure 8.8 Employment of Non-nationals by NACE Sector, 2004



Source: CSO

The health and social work sector employed 13,000 non-nationals in 2004, of whom approximately two thirds came from non-EU countries and the remainder were from the EU. The non-national component of the total employment in the health sector accounted for 7.4%. Of the total, 74% had third level education. In terms of individual occupations, the sector employed 4,000 non-national nurses, 2,400 medical practitioners and 1,300 care assistants and attendants. The rest of the non-nationals employed in this sector were scattered across a large variety of occupations.

Table 8.1 Share of Non-nationals in Sectoral Employment

| Sector | % of Non-nationals |
|-----------------------------|--------------------|
| Hotels and Restaurants | 16.7% |
| Real estate and business | 7.8% |
| Health | 7.4% |
| Manufacturing | 6.8% |
| Education | 5.2% |
| Wholesale and Retail | 4.9% |
| Financial intermediation | 4.8% |
| Construction | 4.6% |
| Transport and Communication | 4.2% |

Source: CSO

The wholesale and retail sector employed 260,000 persons in 2004. Of this total, 12,600, or 4.9%, were non-nationals. The retail trade sub-sector employed 70% of the non-nationals, while the remainder was almost evenly divided between the wholesale and motor vehicle sale sub-sectors. Just over 60% of the total non-nationals employed in the retail and wholesale sector were EU nationals, of whom 5,500 came from the UK. Almost 30% of all non-nationals employed in this sector had third level education. One third of the total non-nationals employed in wholesale and retail sector were sales assistants.

In 2004, there were 154,000 persons employed in real estate, renting and other business activities, of whom 12,000, or 7.8%, were non-nationals. Non-nationals in this sector are mostly from the UK (37% of the total), followed by non-EU countries (35%). The remainder came from other EU countries. The majority were classified in the other business activities sub-sector (61%), 28% were in computer related activities and 10% in real estate, renting and research sub-sectors.

More than 60% of all non-nationals employed in real estate, renting and other business sector had third level qualifications. Given that business activities relate to a variety of fields, occupations employed in this sector vary from computer related (e.g. computer analysts and software engineers – 1,600 non-nationals) to security guards and cleaners (1,700 non-nationals for both occupations combined).

The construction sector had 205,000 persons employed in 2004, of which approximately 9,500, or 4.6%, were non-nationals. Of the total number of non-nationals employed in the construction sector, 4,000 were from the UK, 3,500 from non-EU countries and the remainder were from the rest of the EU. The total number of non-nationals who held third level qualifications was 2,500. Just over 1,200 non-nationals in the construction sector were classified as labourers and an equal number were classified as carpenters/joiners. The rest were classified across a variety of occupations.

Of the total of 117,000 persons employed in the education sector, 6,200 were non-Irish. Of the non-nationals in this sector, 47% came from the UK, a further 26% from the rest of EU and the remainder from non-EU countries. Most of the non-nationals in this sector are employed as university or institute of technology lecturers (1,200), and primary and nursery education teachers (900).

Non-nationals accounted for 4% of the total employment in the transport, storage and communications sector in 2004. Of this, 70% came from the EU, of which more than 50% were UK nationals. The largest number of non-nationals in this sector was employed as drivers.

The financial intermediation sector employed 83,000 persons in 2004, of whom 4.8% were non-nationals. Almost half of the non-nationals were from the UK, 29% were from the rest of the EU and the remainder was from non-EU countries. Non-nationals in this sector were mostly employed in clerical occupations.

8.4 EMPLOYMENT BY BROAD OCCUPATIONAL GROUPS

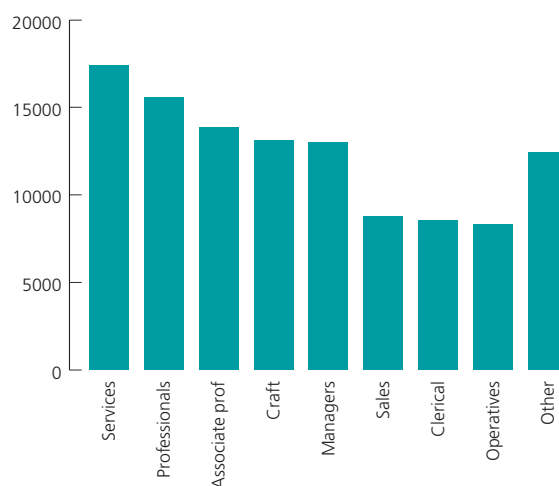
Figure 8.9 presents employment of non-nationals by broad occupational group in 2004. 15% of non-nationals were employed in the services broad occupational group. This is followed by professional and associate professional occupations, which employed 14% and 12.5% of non-nationals, respectively.

In 2004, the total number employed in services occupations was 185,000 persons, of whom 9.4% were non-Irish. Thus, the services occupational group had the largest non-national level of employment in both absolute and relative terms. Of the total 17,400 non-nationals employed in this grouping, 11,000 were from non-EU countries.

One third of all non-nationals employed in this grouping had third level qualifications. The main occupations where non-nationals are employed are as waiters (4,400), chefs (4,000), childcare workers (1,500), care assistants (1,400), bar staff (1,300) and security guards (1,100).

Of the 211,000 persons employed in professional occupations, 7.4% were non-nationals. 63% of non-nationals in professional occupations were from EU countries. 88% had third level education. The majority were teachers (teaching professionals – 1,400; university lecturers – 1,300; primary and nursery – 1,000; secondary – 800), medical practitioners (2,600)¹², software engineers (1,400) and chartered accountants (1,000).

Figure 8.9 Employment of Non-nationals by Broad Occupational Group, 2004



Source: CSO

¹² The difference in the number of medical practitioners in the health sector and in the medical practitioners' occupational category arises from the classification of some medical practitioners in the education and business activity sectors.

There were 13,800 non-national associate professionals in 2004. This represents 8.3% of the total employment in the associate professional occupational category. More than 50% were EU nationals, of whom 5,300 came from the UK. Equally, 5,300 non-nationals came from non-EU countries (excluding US). 76% of non-nationals in this occupational group had third level education. The highest number of non-nationals in this category was nurses (4,000) and computer analysts/programmers (1,800).

Of the 13,200 non-nationals employed in craft related occupations in 2004, 48% were from non-EU countries, 34% from the UK and the remainder from the rest of EU. Non-nationals represented 5.4% of the total employment in this occupational group. The majority were employed as butchers and meat cutters (1,900), carpenters and joiners (1,700) and builders and building contractors (1,100).

Of the 319,000 managers employed in Ireland in 2004, 4% were non-nationals. Of the total number of non-nationals in this category, 75% were from the EU, of whom 6,000 were from the UK. Managers/proprietors of shops accounted for 1,500 persons employed.

Of the total employment in sales occupations 8,800, or 5.8%, were non-nationals. Approximately 3,900 were from the UK, 3,000 from non-EU countries and the remainder were from the rest of the EU. There were 5,000 non-national sales assistants employed in this occupational category and 1,000 technical and wholesale representatives.

Non-nationals accounted for 3.9% of the total clerical employment of 221,000 in 2004. They were mostly from EU countries (65%).

In 2004, 5.2% of the total number of operatives employed were non-nationals. More than half of them were from non-EU countries. They were mostly employed as food and drink operatives (2,200) and drivers of road goods vehicles (1,400).

8.5 NON-NATIONALS: EMPLOYMENT BY INDIVIDUAL OCCUPATIONS

Table 8.2 lists occupations where the highest number of non-nationals are employed¹³. In 2004, the sales assistant category employed 5,000 non-nationals. Of the total 95,500 employed in this occupation, 5.2% were non-national. Of the total non-national sales assistants, 44% came from outside the EU, 36% were from the UK and the remaining 20% were from the rest of the EU.

Table 8.2 Occupations with the Highest Number of Non-nationals in 2004

| Occupation | Non-nationals employed | % of occupation |
|--|-------------------------------|------------------------|
| Sales assistants | 5,000 | 5.2% |
| Waiters, waitresses | 4,400 | 25.6% |
| Nurses | 4,100 | 8.2% |
| Chefs, cooks | 4,000 | 20.8% |
| Medical practitioners | 2,600 | 23.1% |
| Cleaners, domestics | 2,500 | 8.2% |
| Other food, drink and tobacco process operatives | 2,200 | 20.2% |
| Butchers, meat cutters | 1,900 | 25.9% |
| Other clerks (not specified) | 1,900 | 3.7% |
| Computer analyst/programmers | 1,800 | 11.0% |

Source: CSO

¹³ In order to minimize sampling errors, only records with a count of more than 500 were considered in the analysis and all data is rounded to the nearest hundred.

There were 4,400 non-nationals employed as waiters/waitresses in 2004. The figure represented one quarter of the total employment in this occupation. Over 65% of non-nationals in this occupation originated from non-EU countries.

There were 49,500 nurses employed in Ireland in 2004. Of this, 4,100 were non-nationals. 70% of non-nationals in this occupation were from non-EU countries.

Non-nationals accounted for 21% of the total employment of chefs in Ireland in 2004. More than 70% of non-nationals in this occupation were from non-EU countries.

Of 11,400 medical practitioners working in Ireland in 2004, 23% were non-nationals. Almost 90% of them were non-EU nationals.

With 2,500 employed, non-nationals accounted for 8.2% of total employment of cleaners. 60% of the non-nationals in this occupation were from non-EU countries.

Of the total of 11,100 persons employed as unspecified food, drink and tobacco process operatives, one fifth were non-nationals. 85% of the non-nationals were from outside the EU.

One quarter of all butchers and meat cutters employed in Ireland in 2004 were non-nationals, of whom 95% were non-EU nationals.

Most of the non-nationals employed in clerical occupations are classified as unspecified clerks, an occupation that consisted of 1,900 non-nationals in 2004. Overall, there were approximately 5,000 non-nationals employed as clerks of whom 70% were from the EU.

Non-nationals employed as computer analysts/programmers accounted for 11% of the total employment in that category in 2004. Over 50% were from EU countries.

8.6 DISCUSSION

Our analysis suggests that 5% of the total population in Ireland in 2004 was made up of non-nationals. In the data that we used in this analysis, the nationality variable took the following values: Irish, UK, US, rest of EU and other. Hence, we could not identify naturalized or foreign-born Irish citizens in the survey. As a result, it was impossible to make international comparisons using this data. According to some measurements¹⁴ Ireland is above the OECD average in terms of the size of the non-national population relative to the native one. A recent study conducted by the OECD¹⁵ suggests that the percentage of foreign workers in the labour force is higher in Ireland than in the UK and most other EU countries.

While UK nationals used to account for the majority of the non-nationals in Ireland – indicating high labour mobility between the countries – in recent times, the number of non-EU nationals (excluding Americans) has been increasing rapidly, both in absolute and relative terms. The composition of the non-national population is expected to be altered further once the expansion of the EU is taken into account. It is likely that the EU component of the non-national stock will increase sharply when nationals of the accession countries shift from the non-EU to the EU category. In the coming years, new immigration is expected to occur predominantly from the new member states, while a decline in the number of new applications for asylum¹⁶ is expected to continue.

Most of the non-nationals in Ireland are located in the east of the country, with the Dublin region being host to more than a third of non-nationals. Non-nationals in Ireland are relatively young, with one third in the 25-34 age cohort.

¹⁴ *Counting Immigrants and Expatriates in OECD Countries: A New Perspective*, OECD, 2002

¹⁵ *OECD Trends in International Migration 2004*

¹⁶ *There were 4,766 new applications for a declaration as a refugee in 2004 – down from 11,634 in 2003 (Monthly Statistics, Office of the Refugee Applications Commissioner, May 2005)*

The results suggest that non-nationals are highly skilled, with 44% of them holding a third level qualification. There appears to be a significant number of non-nationals with third level education employed in low skilled occupations (i.e. personal and protective services) or else they are economically inactive. This would suggest an underutilized pool of skills in the existing non-national population. However, the true representation of educational attainment of the non-national population is unclear given that in many cases it is impossible to validate or compare educational standards between the host and home country.

More than 60% of the total working age non-national population is in employment. Non-nationals are mostly employed in the manufacturing, hotel, health and retail sectors. The ratio of non-nationals to Irish is, by far, the highest in the hotel and restaurant sector. Non-nationals are mainly employed in services, professional and associate professional occupations. The ratio of non-nationals to Irish is the highest in services occupations, closely followed by associate professionals and professionals. In terms of individual occupations, most non-nationals are employed as sales assistants, waiters, nurses and chefs. The ratio of non-nationals to Irish is the highest for butchers and meat cutters, followed by housekeepers and waiters.

There is some evidence to suggest that the situation described in this document will change markedly when the quarter 2 2005 QNHS data is analysed. This will result from developments brought about by the expansion of the EU and Ireland's policy of free labour market access for the new member states.

There were almost 85,000 PPS numbers issued to non-nationals from accession countries in the period May 2004 to April 2005. Some of the PPS numbers issued in this period, particularly those issued soon after 1 May 2004, refer to persons who had already been residing in Ireland at the time of accession¹⁷. However, the significant majority were issued to new migrants. In fact, April 2005 saw the highest number of PPS allocations to migrants from the new member states, indicating continued new migration into the country.

By taking into account data on PPS numbers issued to the nationals of accession countries and some anecdotal evidence it is likely that the results presented here will change in the following direction:

1. The size of the non-national population is likely to increase significantly
2. The composition of the non-national population is likely to shift towards those originating from the enlarged EU
3. The number of non-nationals employed in the construction sector is likely to increase in absolute and relative terms
4. The new Employment Permits Bill (2005) will also have an impact on the composition of the non-national population in Ireland.

¹⁷ It is likely that a significant number of nationals from the new member states, who resided in Ireland prior to accession exited the work permit scheme, work visa scheme or black economy after 1 May 2004 and registered with the Department of Social and Family Affairs.

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*FÁS activities are funded
by the Irish Government,
the National Training Fund
and the European Union*