National Survey of Vacancies in the Private Non-Agricultural Sector 1999/2000

A Report Prepared for FÁS and Forfás

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James Williams (Head of Survey Unit) is a Research Professor, Gerard Hughes is a Research Professor and Sylvia Blackwell is a Surveys Executive at The Economic and Social Research Institute. The paper has been accepted for publication by the Institute, which is not responsible for either the content or the views expressed therein.

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EXECUTIVE SUMMARY

Background

This report is based on a national survey of just over 1,200 private sector firms which was carried out on behalf of Forfás and FÁS in late 1999/early 2000. The data provided by respondents in the survey were statistically adjusted to ensure that they adequately represented the population of non-agricultural private sector employment. This adjustment was based on national population figures from various official Central Statistics Office sources such as the Quarterly National Household Survey; the Censuses of Industrial Production; Census of Services etc. The survey is the second in a series – the first was undertaken in the same period in late 1998/early 1999. As such, this provides us with a firm basis for making comparative statements on changes and trends in the incidence and levels of vacancies over the period 1998/1999 to 1999/2000.

The focus of the study is the incidence of vacancies (i.e. the percentage of different types of firms – by sector, size etc. – which experienced such vacancies); the number of vacancies; the incidence of difficult-to-fill vacancies; the problems posed by the vacancies in question as well as employers' responses to them etc. In addition, we examine issues such as the difficulties experienced by employers in retaining their existing staff; perceived changes in skill levels necessary among workers to ensure the continued efficient operation of companies; and broad regional variations in vacancy levels.

Employment Change

The unprecedented levels of economic growth of the last five years have been accompanied by equally unprecedented growth of the Irish labour force. This expansion of the labour force has been accompanied by a fall in the unemployment rate to a situation where current unemployment is largely of a frictional nature. In the twelve months preceding the survey the total number of persons at work in the economy as a whole rose from 1,544,700 to 1,647,400 – an increase of 102,700 persons or 6.7 per cent. These figures include three main exclusions to the figures contained in this report viz. the Agricultural sector; the Public sector and those employed in their own right without employees. When these exclusions are taken into account the estimated employment in the sectors covered by the survey grew from 1,053,000 in 1998/99 to 1,141,000 by end 1999/start 2000. This gives a growth level of the order of 88,000 persons at work in the sectors in question (representing a growth rate of 8.4 per cent). In the context of these substantial increases in the numbers of person at work, it is perhaps not surprising that supply-side constraints and labour shortages have arisen in the economy. The most rapid growth *rates* in employment in the relevant sectors over the period in question were experienced in the Construction sector (18 per cent or 17,000 persons); Finance/Insurance/Business Services (13 per cent or 19,000) and Transport/Personal/Other Services (11 per cent or 32,000). Growth rates in employment in the Distributive Services and Manufacturing sectors were somewhat softer. Employment growth in Distributive Services was 6 per cent (13,000 persons); Hi-Tech. Manufacturing grew by 4 per cent (7,000 persons) while Traditional Manufacturing remained largely constant.

Employment Forecasts

In the course of the survey firms were asked to project their employment growth to the end of 2000/beginning of 2001. The respondents' forecast employment growth throughout 2000 of 9.7 per cent (110,000 jobs) in the relevant sectors of the economy.

This figure seems to the authors to be somewhat bullish. Given the nature of the sample, a subset of firms which were interviewed in the first round of the survey were

also interviewed in the second round. By looking at this subset of firms (which was common to both rounds of the survey) the authors were able to compare the employment levels which were *forecast* for the end of 1999/2000 in the first wave of the survey with the *actual outturn* recorded in the second round of the survey for that same time (i.e. end 1999/beginning 2000). This allowed them to make an estimate of the degree to which forecast employment departed from the actual outturn. On this basis they derived a deflation factor for the *forecast* levels to bring them in line with the actual outturn. When they applied this "deflation factor" they derived a projected growth in private sector employment in the region of 7.5 per cent in private sector non-agricultural employment over the course of 2000 to the beginning of 2001. This gives an adjusted estimated growth forecast of the order of 85,000-90,000 persons over the period in question.

INCIDENCE OF VACANCIES

Vacancies were defined in the course of the survey as "…unmet demand for labour where the positions are currently unoccupied, available immediately and where the company is actually searching for workers". A very significant minority of firms (31 per cent) recorded that they currently had some such vacancies.

The incidence of vacancies was highest in the Manufacturing sectors in which over 50 per cent of all firms recorded have a vacancy.

In general, the incidence levels were substantially higher among large firms in each sector than among their smaller counterparts. This contrast between large and small firms was quite substantial for some sectors. For example, in Finance/Insurance/Business Services a total of just over 20 per cent of small as compared with 67 per cent of large firms said that they were experiencing a current vacancy. These differences between large and small firms may not be too surprising. By definition, the larger the firm the more employment "slots" it has. The more employment "slots" which the firm has the higher will be its probability of one or more of them being vacant at any time.

The 31 per cent of firms which reported having vacancies in the 1999/2000 survey reflects a four percentage point increase in the situation from the first round of the survey – when the corresponding figure was 27 per cent. In terms of sectoral change over the preceding year, the incidence of vacancies fell somewhat in both the Hi-Tech. and Traditional Manufacturing sectors by a few percentage points. They rose most substantially in the Construction sector – from 18 per cent of firms in the 1998/1999 survey to 34 per cent in the 1999/2000 survey.

Rate and Level of Vacancies

These incidence levels translated to a total of 77,600 vacancies in 1999/2000. This represents a growth of 12,900 in the number of vacancies over the previous year, when the figure stood at 64,700.

This level of vacancies represents a *vacancy rate* from the 1999/2000 survey of 6.5 per cent. In other words, 6.5 per cent of the total labour requirement in the economy is not being met. The comparable rate from the 1998/99 survey was 5.8 per cent. This increase represents a fairly strong upward trend in vacancy rates over the relatively short one-year period in question. The strength of this upward trend is further emphasised when one remembers that the increase has taken place over a rapidly expanding labour market base.

The occupational grades with the highest vacancy rate included: Engineering Technicians (15 per cent); Skilled Maintenance & Production Workers and Personal Service workers (each 11 per cent); Computer Technical Staff (Associate Professional level) (10 per cent); Computer Professionals and "Other" Professionals (each 9 per cent).

Whilst the occupational groups listed above had a particularly high vacancy rate, the report finds that rates were relatively high across a wide range of grades. There is a popular perception that vacancy levels are highest in some of the Professional and Computer occupations. It is undoubtedly the case that some of these occupations are

experiencing particularly high vacancy rates – in excess of 10 per cent. Notwithstanding this, the report shows that relatively high rates are in evidence in occupations which are often characterised as having a lower skill content. This would seem to clearly indicate that the vacancy problem is pervasive and extends across most occupational or employment categories.

In addition to considering vacancy *rates* the report also considers, in detail, the *level* of vacancies by sector and occupation and provides a comparison of changes in vacancy levels between the first and second survey. The most substantial growth in vacancy levels by sector was found in Construction where the figure rose from an estimated 5,700 in the earlier survey to 13,700 in the 1999/2000 round. This represents an increase of 143 per cent over the year.

Occupations which experienced a substantial *increase* in the number of vacancies between the first and second rounds of the survey include "Other Professionals" (by 3,000 persons); Engineering Technicians (by 1,500 persons); Skilled Maintenance & Production Workers (4,500 persons); Personal Services (4,500 persons) and Labourers (2,300 persons).

The report also finds that some occupational groups experienced a *fall* in the number of vacancies between 1998/99 and 1999/00. The most substantial absolute fall in vacancy numbers was in Production Operatives which declined from 10,000 in 1998/99 to 8,200 in 1999/2000. Vacancies in the Computer Technical (Associate Professional) and Computer Professional groups also fell somewhat in absolute terms – by 200 and 600 persons respectively. The authors surmise that this may, at least to some degree, be due to a build-up for the Y2K phenomenon in the 1998/99 round of the survey which was not repeated in 1999/00 round.

In terms of the *share* of vacancies, just five occupational groups account for over two-thirds of the total. These are: Skilled Maintenance & Production Workers (18 per cent); Personal Services (16 per cent); Clerical & Secretarial (13 per cent); Production Operatives (11 per cent) and Sales (9 per cent). The significance of these figures is the extent to which they clearly illustrate that the tightness in the labour market is felt in occupational grades at varying skill levels.

Recruitment Methods

A wide range of staff recruitment methods is open to firms which are experiencing vacancies. Respondents were asked to indicate which method (or methods) they were using from a list of six pre-coded responses on the questionnaire. By far the most widely used among firms which were experiencing vacancies was "Word-of-Mouth/Personal Contact". Almost 80 per cent of respondents used this approach. Just over 58 per cent cited "Advertisements in National/Local Paper", while 37 per cent mentioned State support agencies like FÁS, CERT etc. and 29 per cent mentioned private recruitment agencies. In general, small firms relied more heavily on informal approaches such as "Word of Mouth/Personal Contact" and less on advertising than did their larger counterparts. A substantially higher proportion of larger firms used private recruitment agencies.

One response to the problem of labour shortages is, of course, to recruit abroad. Just over 15 per cent of all firms which had a vacancy were attempting to recruit abroad. The incidence of this was highest in the Transport/Personal/Other Services and Hi-Tech. Manufacturing sectors (in each almost 30 per cent of all firms which were experiencing vacancies were attempting to recruit abroad). Rates were also higher than average in the Traditional Manufacturing and Finance/Insurance/Business Services sectors – both in the region of 18-20 per cent.

The report finds that although the percentage of firms which used the various recruitment methods varied somewhat between the two rounds of the survey, the relative importance of each method remained more-or-less consistent over the period in question. There was some evidence to suggest that there has been a slight increase in the use of informal or "Word-of-Mouth" contacts, with a reduction in the use of formal approaches through advertisements in the national/local papers or through the State agencies.

Difficult-to-Fill Vacancies

In general, it was found that almost 80 per cent of firms which were experiencing current vacancies felt that some or all of them were difficult-to-fill. This means that approximately one-quarter of all firms in the population were experiencing a difficult-to-fill vacancy. This level has remained constant between the two rounds of the survey.

The report finds that the most frequently cited types of jobs which were proving to be most difficult-to-fill were Skilled Trades Persons; Clerical; Retail Sales; Technical Sales and Unskilled Workers. In general, these were largely the same types of jobs which were identified as being problematic in the first round of the survey in 1998/99.

Consequences of Difficult-to-Fill Vacancies

The perceived consequences of difficult-to-fill vacancies principally included increased strain on management and staffing due to their covering the labour shortages in question (mentioned by 81 per cent of relevant respondents). This was followed by restricted business development (62 per cent), and loss of quality of services (57 per cent). Other consequences mentioned on a quite frequent basis included increased recruitment costs; increased running costs and loss of business to competitors (each mentioned by 30 – 40 per cent of relevant respondents).

Steps taken to Address Difficult-to-Fill Vacancies

In the course of the survey a set of pre-coded options for dealing with difficult-to-fill vacancies was presented to the respondent. These included short- to medium-term pay and non-pay options. The pay strategies obviously related to offering increased pay levels to employees. The short-term non-pay strategies ranged from hiring part-time or contract staff to considering a wider range of people for the jobs available. The medium-term strategies ranged from retraining existing staff, to developing greater links with schools and colleges. When presented with this set of options it was found that 55 per cent of firms which had experienced difficult-to-fill vacancies in the twelve months preceding the survey said that labour shortages had forced then to offer higher pay to staff. This was a full 11 percentage points higher than in the previous round of the survey. The incidence of using part-time and contract staff as a response to difficult-to-fill vacancies increased substantially between the two rounds of the survey. In contrast, lower percentages of firms seemed to be adopting policies related to the retraining of their existing staff or to the training of less qualified recruits.

Difficulties in Retaining Staff

One particularly positive consequence for employees of labour shortages is the extent to which they are offered a greater range of job opportunities from which to choose. As a result, however, firms may experience increasing levels of staff turnover as employees move more rapidly from one employer to another. This means that firms may experience not only difficulties in recruiting staff, they may also experience difficulties in retaining existing staff. The survey found that almost 20 per cent of all firms reported difficulties in retaining their current staff. This rate was highest in the Hi-Tech. Manufacturing sector, where over one-third of companies (36 per cent) said that they were experiencing difficulties in retaining staff. High rates were also reported in the Transport/Personal/Other Services and Traditional Manufacturing sectors (26 per cent and 29 per cent respectively).

The types of jobs which firms were finding most difficulties retaining staff were in areas such as Skilled Trades Persons; Retail Sales; Unskilled Workers; Clerical Workers and Technical Sales.

Levels of reported difficulties in retaining staff were up somewhat as compared with the situation in the 1998/99 round of the survey when just under 17 per cent of all firms reported that they were experiencing difficulties in holding on to their current staff base.

Changing Skill Levels Required in Business

The report finds that only 3 per cent of firms said that required skill levels among their workers were decreasing; 57 per cent said they were static while the remaining 39 per cent said they were increasing. At a broad sectoral level the highest percentage of firms stating that skill requirements among workers were increasing was in the following three sectors: Construction (57 per cent); Hi-Tech. Manufacturing (49 per cent); and Finance/Insurance/Business Services sector (41 per cent). Among large companies in the Hi-Tech. sector 74 per cent said that skill levels were increasing. The percentage of firms in the 1999/00 survey which said that skill levels are static has increased as compared to the 1998/99 survey and, consequently, the percentage saying they have increased has dropped somewhat. Nonetheless, there were only 3 per cent of firms in the 1999/00 survey who said that the average skill level required among workers was falling. These figures consistently indicate that higher levels of education and/or training will be needed by workers in the future.

Regional Variations in Vacancy Rates

The vacancy survey was somewhat constrained in the extent to which it could disaggregate the data geographically because of the relatively small number of sample responses in any resultant breakdown. Consequently, although the vacancies survey is based on a very large sample by the standards of firms-based surveys, it is not possible (for statistical reasons) to disaggregate the data beyond the level of Dublin and the Rest of the Country.

From this regional analysis the survey found that the percentage of firms in Dublin which were experiencing a current vacancy (35 per cent) was some 6 percentage points higher than that experienced in the remainder of the country.

The overall regional trends would suggest that the differences in the incidence of vacancies between Dublin and the Rest of the Country have narrowed somewhat between the 1998/99 and 1999/00 surveys. In the former survey the incidence levels in Dublin were some 40 per cent higher than those in the Rest of the Country. By the 1999/00 survey they had fallen to 21 per cent. This suggests that, in terms of incidence rates, the problem of labour shortages in the Rest of the Country has increased to go some way towards mirroring the situation in Dublin.

1. INTRODUCTION

The Irish economy has experienced an unprecedented level of economic and employment growth over the latter half of the 1990s. By the beginning of 2000 the total number of persons at work throughout the economy stood at 1.65 million. This represented an increase of 102,700 persons at work over the preceding 12 months or an increase of almost 175,000 persons over the preceding two years. This type of employment growth is unparalleled in Irish economic history and has meant that we have moved from an economy which was largely characterised by persistently high unemployment to one in which unemployment is principally of a frictional nature. Throughout the earlier years of the economic expansion experienced in the 1990s our demographic structure allowed us, at least in part, to accommodate the increasing demand for labour. This was assisted by a combination of increasing female labour-force participation rates and net immigration – the latter being accelerated by the pace of economic prosperity. The coincidence of these factors on the supply side was sufficient to allow the economy to flexibly respond to substantially increased demand for labour. As the successive years of economic prosperity continued the potential for supply-side responses to alleviate congestion became increasingly limited.

In recent years we have found ourselves in a situation in which supply and demand for labour have not been in balance in the labour market. Consequently, we now face capacity constraints as the economy finds itself in a new situation of not being able to meet the demand for labour from domestic supply.

In the context of this changing macro-economic environment it is clearly important to attempt to measure the extent of these supply side constraints to further expansion and development of the labour market. With this end in view, the Future Skills Identification Group was set up under the auspices of Forfás. This subsequently developed into the Government's Expert Group on Future Skills Needs. The function of these groups was the identification and monitoring of supply-side pressure points in the labour market. To this end, the groups commissioned various reports on skills shortages and vacancy levels.

The current paper is the second in a series of such reports published by FÁS, Forfás and the ESRI. The first of these was published as Williams and Hughes (1999) and examined the situation regarding vacancies in 1998/1999. The current report updates the earlier one and considers the situation in 1999/2000.

The study is based on a nationally representative sample of business enterprises. It was jointly commissioned by Forfás and FÁS with a view to assessing the incidence, level, nature and consequences of vacancies in Ireland today. Of particular interest is an examination of vacancies which businesses feel are "difficult-to-fill".

The information was collected in a postal survey with intensive phone follow up. In addition to details on the level and structure of employment, the report provides information on vacancy rates and where vacancies occur both by sector and occupational grade within sector. The impact and consequences of vacancies (and especially difficult-to-fill vacancies) are considered in detail as are the steps taken to address the problems caused by current vacancy levels. Issues related to the retention of existing staff within business and changes in the general level of skill required by companies to operate efficiently are also addressed.

The report is divided into seven chapters. In Chapter Two we consider methodology, questionnaire structure, response rates and re-weighting of the data. In Chapter Three we discuss the size and structure of the current labour force in terms of sectoral distributions and grade within sector. Chapter Four addresses the core issue of

the incidence, level, nature and consequences of current vacancies. Chapter Five examines vacancies which were experienced in the previous year. Chapter Six focuses on difficulties experienced by firms in retaining staff as well as their perceptions of changing skill levels. Chapter Seven provides some broad indications of regional variations in the incidence, level, nature and consequences of vacancies. Chapter Eight considers various aspects of training and its relationship with the experience of vacancies in the firm. Finally, Chapter Nine provides a general overview and summary of our main findings.

2. METHODOLOGY

In this section we consider the methodology used in the survey and subsequent analysis of the data. First, we consider the structure and content of the questionnaire; second, we discuss sample design and response rates; third, we consider the way in which the data were re-weighted. This third section presents a detailed breakdown, in terms of NACE composition, of the sectoral classification adopted throughout the report. This section also outlines the way in which the employment data from the 1998/1999 survey have been revised in the light of more up-to-date information from the Central Statistics Office's (CSO) Quarterly National Household Survey which was not available when the first report in this series (Williams and Hughes, 1999) was published. Finally, in the fourth section we discuss the way in which the survey was implemented.

2.1 The Questionnaire

The questionnaire was designed to collect details on, *inter alia,* current employment size and structure; projected employment; and vacancies. In the context of vacancies a large proportion of the survey form was devoted to recording information on the nature of difficult-to-fill vacancies both those which are currently being experienced as well as those which were experienced over the twelve months preceding the survey. The questionnaire contained a total of 9 sections as follows:

A. Background details and classificatory variables;
B. Current employment size and structure;
C. Level of current vacancies and incidence of difficult-to-fill vacancies;
D. Employment projections for one year's time;
E. Nature, characteristics and consequences of the current difficult-to-fill vacancies;
F. Incidence, nature, consequences and steps taken to address difficult-to-fill vacancies of the last year;
G. Difficulties in retaining current staff;
H. Firms' perceptions of changes in skill levels required to ensure the efficient running of their company;
I. The incidence, level and nature of training undertaken by companies.

2.2 Sample Design and Response Rates

The objective of the survey was to provide a representative picture of the issues surrounding vacancies among private sector employing entities. The sample used came from two sources. First, we approached all 1,069 firms which we successfully interviewed in the first round of the survey in 1998/99. A total of 1,012 of these firms was found to still be in business and so were included in the valid target sample. In addition, a fresh random stratified target sample of 1,881 businesses was selected from lists of firms which are maintained in The Economic and Social Research Institute. Prior to sample selection these firms were stratified according to sector; size (number of employees) and region. A total of 8 sectors was used for stratification prior to sample selection as follows: traditional manufacturing; hi-tech manufacturing; construction; wholesale/retail; property/renting/business services; finance/ insurance/banking, computer services; transport/personal/other services. Within each sector firms were also stratified according to number of employees. Firms were stratified by region within each of these broader stratifications. A disproportionate systematic sample was then selected with a view to ensuring that each sector/size

stratum would be reasonably represented in terms of absolute number of cases in the final effective sample for analysis and reporting.

These two sources left us with a total valid sample of 2,884 firms for interview. The response outcomes are as outlined in Table 2.1 below.[1] From this one can see that a total of 1,313 firms successfully completed the questionnaire and the report is based on the analysis of their responses. This means that the overall effective sample response rate is 45 per cent. The response among the sample from the 1998/99 survey was 67 per cent while that from the additional fresh sample was 34 per cent. These figures are largely in line with what one would expect from a general,[2] nationally representative survey of firms in the target sample. A definitive refusal was forthcoming from 2 per cent of all firms. A substantial proportion of firms, however, did not respond to the survey and their non-responses could be interpreted as a *de facto* refusal.

Table 2.1: Response Outcomes from 1999/2000 Survey of Vacancies

	Sample from 1998/1999 Survey		Fresh Sample for 1999/2000		Total Sample	
	No. of Cases	Per Cent	No. of Cases	Per Cent	No. of Cases	Per Cent
Successfully Completed	676	67	637	34	1,313	45
Non response	327	32	1,188	63	1,515	52
Refusal	9	1	56	3	65	2
Total	1,012	100	1,881	100	2,893	100

2.3 Re-weighting the Data

Prior to analysis, the 1,313 questionnaires from responding firms were statistically adjusted in order to ensure that the structure or composition of the effective sample is in line with the structure or composition of the population from which it has been selected according to a number of important classificatory variables such as size, sector etc. The re-weighting of the data is necessary for two reasons.

First, there may be systematic and differential levels of non-response as between one group of firms and another within the sample. For example, small firms in a given sector may have an above average propensity to respond. If this were the case then they would be over represented in the final sample for analysis and would consequently be contributing "too much" to the aggregate results. Accordingly, one should statistically adjust or re-weight the data to ensure that all subgroups of the population are approximately represented in the sample, in line with their representation in the overall population.

Second, the sample was selected on a disproportionate stratified basis. This meant that some size/sector strata were over-represented in the original sample so as to ensure adequate coverage in the final effective sample for analysis. This over-representation at sample selection was adjusted for in the re-weighting scheme.

In deriving the weights or adjustment factors two related but independent weighting systems were prepared. The first is based on the firm as the entity for most of the analysis. The second is based on the employee. In the latter weighting scheme each firm is regarded as a group of employees rather than as a simple entity in its own right.

To derive both sets of weights one has to establish the structure of the population from which the effective sample has been selected. The structure used in this survey was based on size and sector. A total of 8 sectors and two size categories was used. The size categories were 0-99 and 100+ employees for Traditional Manufacturing and High-tech. Manufacturing; and 0-9 and 10+ employees for the Service sector and Construction. This provides a total of 16 strata or size/sector cells in the re-weighting matrix (2 size categories by 8 sectors). Using a number of sources such as the Census

[1] This table excludes businesses which were initially selected but which were identified in the course of fieldwork as: having gone out of business; unknown at address; not relevant.

[2] A sample survey of firms from the membership lists of a representative body or industry group would achieve a slightly higher response rate. For example, the survey conducted by the ESRI on a sample of firms from the Forfás list of client companies in 1997 achieved a response rate of 51 per cent. This higher response rate in that earlier survey is attributable to the fact that the survey was being conducted for Forfás on a sample of its own client companies in contrast to a *general* sample of all firms with no specific link back to the commissioning body or research organisation.

of Industrial Production; the Annual Services Enquiries and the Labour Force Survey the overall structure of the population of businesses can be derived in terms of both enterprises (firms) and also employees within the 16 size/sector strata use in re-weighting. This is outlined in Table 2.2.

Table 2.2: Structure of Population of Enterprises as Derived from Census of Industrial Production, Various Annual Services Enquiries and the Labour Force Survey

Size/Sector/Stratum		No. of Enterprises (000s)	Nos. Engaged (000s)	NACE Sectors Covered
Traditional Manuf-acturing:	0-99 employees	2.1	59.9	10; 11; 12; 13; 14; 15; 16; 17; 18;
	100+ employees	0.2	80.1	19;20; 21; 22; 36; 37; 40 ;41
Hi-Tech. Manuf-acturing:	0-99 employees	1.9	56.5	23; 24; 25; 26; 27; 28; 29; 30; 31;
	100+ employees	0.3	122.5	32; 33; 34; 35
Construction:	0-9 employees	7.5	69.5	45
	10+ employees	0.5	42.5	
Wholesale/Retail:	0-9 employees	33.4	94.7	50; 51; 52
	10+ employees	4.6	133.3	
Property/Renting/ Business Services:	0-9 employees	12.6	34.2	70; 71; 73; 74
	10+ employees	1.6	59.8	
Finance/Insurance/ Banking:	0-9 employees	0.4	3.0	65; 66; 67
	10+ employees	0.2	61.0	
Computer Services:	0-9 employees	1.0	2.1	72
	10+ employees	0.2	7.9	
Transport/Personal/ Other Services	0-9 employees	13.0	59.0	55; 60; 61; 62; 63; 64; 74; 80; 91;
	10+ employees	3.3	254.9	92; 93
Total above			1,140.9	
Agriculture			140.0	
Non-Agric. Self Employment			124.0	
Public Admin/Defence/Education			239.0	

The classification in the table was used to re-weight the data using a standard ratio weighting technique in which each of the 1,313 responding enterprises was assigned a weight corresponding to the ratio of the population total to the sample total in the relevant cell. In other words, the weight is given as:

$$W_i = P_i/S_i$$

where the $_i$'s refer to the size/sector cells in Table 2.2. The P_i is the total number in the population of each cell and the S_i refers to the number in the corresponding cell in the sample which successfully completed the questionnaire and so were included in the analysis. The W_i's are the weights associated with each unit in the sample and it is this which ensures that the sample figures are adequately grossed to population totals.

The weights are derived using two bases, viz. the enterprise and the number of employees. The employee-based weight is used in deriving estimates of employment structures, vacancies and employment projections in Chapter 3 of this report. The enterprise-based weight is applied in deriving population estimates of the characteristics of *firms* in other sections.

The reader is cautioned that, although weighted, the grossed estimates presented in the report are subject to standard statistical sampling variances. These variances will be especially pronounced in the analysis of sub-groups based on a small number of respondents.

2.4 Revision of Weights for 1998/1999 Survey

When the data for the 1998/1999 survey were being analysed two weighting schemes were developed using the then most recently available information on the number and distribution of enterprises as well as employees. Since the publication in Williams and Hughes (1999) of the results from that survey more up-to-date information on the size and structure of the labour force at the end of 1998 has become available from the Quarterly National Household Survey (QNHS). Comparable information is also now available from the same source in respect of the reference period for the second survey. To ensure comparability of the results from both surveys we have revised the figures from the 1998/1999 survey in the light of these more recently available data on employment levels. The figures on the number of enterprises have not changed and so all enterprise-based tables in Williams and Hughes (1999) remain unchanged. The change relates only to employment-based tables. In general, the change is such that the structure or percentage breakdown of relevant figures does not change. Instead, it is only the *level* of figures in question which changes.

2.5 Survey Implementation

The survey was implemented on a so-called mixed mode postal/telephone basis. This involved initially sending the questionnaire to the respondent in the post, followed by a postal reminder two weeks later. There then followed an extended period of very intensive phone follow-up in which all respondents were repeatedly contacted by phone with a view to securing a completed questionnaire or other definitive outcome. This phase of the fieldwork involved posting and faxing questionnaires on request. Interviews were completed from December 1999 through February 2000.

When completed surveys were returned to the ESRI each was immediately inspected and checked to ensure completeness and also internal consistency of the data provided. By this latter means, the figures on total employment, for example, given at Q.9 of the questionnaire were reconciled with the sum of total employment by occupational grade given at Q.13a.

3. EMPLOYMENT LEVELS AND TRENDS

In this chapter we consider three aspects of trends in employment levels and structures. First we discuss changes in employment levels by broad sector in recent years. Second, we consider the structure of employment by sector and by detailed occupational grade within sector, along with changes therein between the 1998/1999 and 1999/2000 rounds of the survey. Third, we outline employment projections over 2000 by sector and occupational grade. Finally, we present a summary of the main trends identified in the chapter.

3.1 Sectoral Changes in Employment Structures

As noted in Chapter 1, the Irish labour market has undergone very substantial and quite unprecedented change in recent years. The figures in Table 3.1 outline general trends in employment levels at the end of 1998 and also 1999. The end-1999 levels are taken as representative of the size and structure of the labour market when fieldwork for the 1999/2000 survey was undertaken. These figures relate to the population of non-agricultural private sector employees at that time.

Table 3.1: General Trends in Employment Levels

	Q.4 1998 (000s)	Q.4 1999 (000s)	Absolute Change (000s)	Per Cent Change %
Traditional Manufacturing	140	140	0	0.0
Hi-Tech. Manufacturing	172	179	7	4.1
Wholesale/Retail	215	228	13	6.0
Finance/Insurance/Business Services	149	168	19	12.8
Construction	95	112	17	17.9
Transport/Personal/Other Services	282	314	32	11.3
Sub-total	1,053	1,141	88	8.4
Public Sector	233	239	6	2.6
Agricultural	137	140	3	2.2
Self-Employed with No Employees	121	127	6	5.0
Total	1,544	1,647	103	6.7

Source: After QNHS, Q4 99 release of 7 March 2000; relevant CIP; Census of Services; special runs by CSO from CIP and QNHS.

One can see that the total number of persons in employment at the end of 1999 was 1,647,000. Of these, a total of 239,000 were in the Public Sector, a further 140,000 were in agriculture while a further 127,000 were in employment in their own right with no employees. This group includes a mixture of all trades and professions. The exclusion of these three categories leaves us with a total of 1,141,000 persons which represent the non-agricultural private sector workforce to which all figures in the report have been grossed.[3]

[3] In reconciling the figures in Table 3.1 with those published in, for example, the QNHS one should take account of some Public Sector employment and self employment with no employees in several sectors. For

The figures in Table 3.1 illustrate the quite phenomenal nature of change in the Irish labour market over recent years. One can see that in the twelve months from the end of 1998 to the end of 1999 the total number of person at work grew by 103,000 (6.7 per cent). The target population for the study grew by 88,000 from 1,053,000 to 1,141,000 – representing a growth rate of 8.4 per cent over the period in question. Within our target population strongest growth rates were experienced in the Construction Sector (18 per cent) followed by Finance/Insurance/Business Services (13 per cent) and Transport/Personal/Other Services (11 per cent). Changes in Distributive Services and Hi-Tech. Manufacturing were somewhat lower (6 per cent and 4 per cent respectively) while employment in the Traditional Manufacturing sector remained stable over the period in question.

3.2 The Structure of Employment, 1999/2000

Table 3.2 provides details on the breakdown into occupational grades of current employment in the relevant private sector categories as recorded in the survey. The figures in the table are based on the detailed breakdown of persons engaged as recorded by the respondent in Q.13 of the Questionnaire (see Appendix A). This question presented the respondent with a total of 17 different pre-defined grades. This grading structure reflects different levels of skill and managerial content. It ranges from a number of professional grades such as Managers/Proprietors; through Engineering Professions; Science Professionals etc. to Associate Professional/Technical grades. Intermediate skill levels are reflected in grades such as Clerical/Secretarial; Skilled Maintenance/Skilled Production; Production Operatives; Sales Personnel through to Unskilled Labourers. A set of examples of the various jobs included in each of the grades was included on the questionnaire as an aid to the respondent when breaking down his/her workforce. Although the classification system presented to respondents appears to have worked well there is, understandably, a subjective element in the assignment of workers by the respondent to the categories in question.

The figures in Table 3.2 allow one to consider the structure of employment according to sector as well as by detailed occupation grade within sector. We first consider the sectoral distribution of employment before moving on to discuss the distribution of occupational grades.

3.2.1 EMPLOYMENT STRUCTURE ACCORDING TO SECTOR 1999/2000

The bottom row in Table 3.2 presents details on the percentage breakdown of relevant private sector employment according to broad industrial sector. From this one can see that a total of 28 per cent is involved in Manufacturing: 12.3 per cent in Traditional Manufacturing and 15.7 per cent in Hi-Tech. Manufacturing; Distributive Services account for 20 per cent of the relevant labour force; 14.7 per cent are accounted for by the Finance/ Insurance/Business Services sector; 9.8 per cent by Construction and 27.5 per cent by Transport/Personal/Other Services.

example, the QNHS Q.4 1999 figure for the construction Sector is 155,000. From special data rounds prepared by the CSO we estimate that 23,000 of these are employed in the Public Sector while a further 20,000 are employed in their own right with no employees. This leaves a total of 112,000 relevant workers in the sector.

Table 3.2: Breakdown of Current Employees by Occupational Grade

	Total All Sectors		Traditional Manufacturing		Hi-Tech. Manufacturing		Distributive Services		Finance/Insurance/ Business Services		Construction		Transport/Personal/Other Services	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Managers/Proprietors	142,600	13	11,800	8	11,600	6	34,700	15	31,300	19	19,100	17	34,100	11
Engineering Professionals	19,500	2	900	1	7,100	4	4,400	2	2,300	1	2,300	2	2,500	1
Science Professionals	7,700	1	1,500	1	2,800	2	900	0	2,200	1	0	0	300	0
Computer Professionals	8,700	1	700	1	1,500	1	1,500	1	4,300	3	0	0	700	0
Other Professionals	40,700	4	2,700	2	2,600	1	3,000	1	23,400	14	1,000	1	8,000	3
Engineering Technicians	18,500	2	1,100	1	5,200	3	2,400	1	4,000	2	4,400	4	1,500	0
Science Technicians	3,900	0	900	1	2,100	1	500	0	400	0	0	0	0	0
Computer Technical Staff/ Associate Professional Staff	9,400	1	1,800	1	1,600	1	1,100	0	4,300	3	0	0	600	0
Other Associate Professional	13,300	1	1,300	1	1,400	1	300	0	4,600	3	700	1	5,000	2
Clerical & Secretarial	158,600	14	13,200	9	12,000	7	27,500	12	59,200	35	8,800	8	37,900	12
Skilled Maintenance & Skilled Production	119,300	10	14,600	10	27,100	15	14,900	7	5,300	3	44,500	40	12,800	4
Production Operatives	181,500	16	63,000	45	87,400	49	15,700	7	4,700	3	1,600	1	9,100	3
Transport & Communications	82,900	7	3,800	3	3,700	2	9,700	4	2,900	2	1,500	1	61,300	20
Sales	138,200	12	8,700	6	3,700	2	92,400	41	10,200	6	2,300	2	20,900	7
Security	5,300	0	300	0	400	0	500	0	2,200	1	200	0	1,700	1
Personal Services	104,100	9	1,100	1	1,100	1	1,700	1	2,700	2	200	0	97,300	31
Labourers	86,800	8	12,600	9	7,700	4	16,800	7	4,100	2	25,300	23	20,300	6
Total	1,141,000	100	140,000	100	179,000	100	228,000	100	168,100	100	111,900	100	314,000	100
Per Cent	100.0%	–	12.3%	–	15.7%	–	20.0%	–	14.7%	–	9.8%	–	27.5%	–

3.2.2 EMPLOYMENT STRUCTURE ACCORDING TO GRADE WITHIN SECTOR

The figures in the first column of Table 3.2 provide details on the total number of persons engaged in each grade as well as the relevant percentage breakdown. From this one can see, for example, that a total of 142,600 persons are engaged as Managers/Proprietors. This represents a total of 13 per cent of all relevant employment. Other major employment categories include: Clerical & Secretarial (14 per cent); Skilled Maintenance & Skilled Production (10 per cent); Production Operatives (16 per cent); Sales (12 per cent) Personal Services (9 per cent); and Labourers (8 per cent).

One can see from the table that a total of 21 per cent of persons are engaged in professional grades (Managers/Proprietors to Other Professionals) while a further 4 per cent are classified in Associate Professional/Technical levels (Engineering Technicians to Other Associate Professionals).

The remainder of the table provides a comparable breakdown for each of the relevant sectors. (A more detailed breakdown by broad size category and sector is provided in Appendix Table A3.2).[4]

Traditional Manufacturing

The largest grade in Traditional Manufacturing is Production Operatives (accounting for 45 per cent of persons engaged). This is followed by the Skilled Maintenance & Skilled Production category (10 per cent). Three groups each represent 8-9 per cent of persons engaged, viz. Managers/Proprietors; Clerical & Secretarial; Labourers.

From the detail of Appendix Table A3.2 one can see that Production Operatives are relatively more important for the larger firms in this sector (53 per cent in firms employing 100 or more persons compared with 35 per cent in their smaller counterparts). In contrast, Managers/Proprietors and Clerical/Secretarial grades are relatively more important in the smaller than larger enterprises in the sector.

Hi-Tech. Manufacturing

The figures in Table 3.2 show that the Production Operative grades are of slightly greater relative importance for the Hi-Tech. sector than Traditional Manufacturing. Production Operatives account for 49 per cent of the Hi-Tech. sector compared with 45 per cent for their counterparts in Traditional Manufacturing, while Skilled Maintenance/Skilled Production grades account for 15 per cent of persons engaged in the Hi-Tech. sector compared with 10 per cent in the Traditional sector.

One can further see from the detail of Appendix Table A3.2 that the Skilled Maintenance & Skilled Production grades are substantially more important to smaller firms in the Hi-Tech. sector at the apparent expense of the Production Operative category. One can see, for example, that among businesses in the smaller Hi-Tech. sector Skilled Maintenance & Skilled Production account for 21 per cent of persons engaged while Production Operatives account for 29 per cent. Comparable figures for the larger Hi-Tech. sector are 12 per cent and 58 per cent respectively.

Distributive Services

As one would expect, the most important single occupational grade in Distributive Services is the sales category which accounts for a total of 41 per cent of all persons engaged. Other important grades include Managers/Proprietors (15 per cent) and Clerical/Secretarial (12 per cent). Three grades each account for 7 per cent of persons

[4] As noted in Section 2.4 above, the employment figures from the 1998 survey have been re-estimated in the light of more up-to-date information from the fourth quarter of the Quarterly National Household Survey, 1998. These were not available when the figure in Williams and Hughes (1999) were prepared. Appendix Table A3.2 provides a breakdown of the revised figure from the 1998 survey in respect of these and the structure of the labour force at the end of 1998. These revised figures from the 1998 survey are directly comparable within those in Appendix Table A3.2.

engaged. These are Skilled Maintenance & Skilled Production; Production Operatives and Labourers.

From the detail of Appendix Table A3.2 one can see that, in general, the same *broad* trends are apparent in terms of the occupational structure of large and small businesses in the sector. Managers/Proprietors assume a greater relative importance in smaller enterprises (26 per cent in the 1-9 persons category compared with 8 per cent in the 10 or more person group). In contrast, the Production Operative grade accounts for a recorded 11 per cent of those engaged in larger businesses in the sector while, in general, it is not recorded among smaller enterprises.

Finance/Insurance/Business Services

The figures in Table 3.2 indicate the relative importance of Clerical/Secretarial grades to this category (35 per cent of all persons engaged). Manager/ Proprietors account for 19 per cent of persons while "Other Professionals" account for 14 per cent of persons.

The detail of Appendix Table A3.2 shows that Managers/Proprietors are relatively more important in the smaller than the larger firms in this sector. These respectively account for 32 per cent and 15 per cent of persons engaged. The Clerical/Secretarial grade is relatively more important for larger firms in the sector. This grade accounts for 38 per cent of persons engaged among larger firms in the sector compared with 27 per cent among smaller ones.

Construction

A total of 40 per cent of persons engaged in this sector are classified in the Skilled Maintenance/Skilled Production category with a further 23 per cent being recorded as Labourers. Managers/Proprietors accounting for 17 per cent.

As one would expect, the detail of Appendix Table A3.2 shows that the Managers/Proprietors grade is relatively more important for the smaller firms in the sector, representing some 24 per cent of those engaged compared with only 6 per cent among their larger counterparts. As a corollary to this the relative percentage of the Labourer category is lower in the smaller firms (21 per cent compared with 26 per cent among larger businesses) in the sector.

Transport/Personal/Other Services

The importance of the Personal Services grades to this sector is underlined by the figures in Table 3.2 with this grade accounting for 31 per cent of all persons engaged. This is followed by Transport & Communications (20 per cent); Clerical & Secretarial (12 per cent and Managers/Proprietors (11 per cent).

From the detail of Appendix Table A3.2 one can see the substantially greater relative importance of Managers/Proprietors among the smaller as compared with the larger firms in this sector (28 per cent compared with 7 per cent). Three other grades show a substantial differential in terms of their relative importance for smaller and larger firms in the sector. These are Clerical & Secretarial accounting for 17 per cent of those engaged among smaller firms compared with 11 per cent among their larger counterparts; Sales Personnel (13 per cent among smaller firms compares with 5 per cent among larger firms); and Personal Services (15 per cent among smaller firms compares with 35 per cent among larger ones.

3.3 Changes in Employment Structures 1998/1999 to 1999/2000

Table 3.3 provides details of a comparison between the employment structure of relevant private sector firms as reflected in the 1998/1999 and 1999/2000 surveys. The left hand column in the table shows that, in aggregate, there is very limited evidence to suggest any systematic change in the structure of employment by occupational grade. This is, of course, entirely as one might expect, given the relatively short period between the two surveys in question. Such differences as exist at the aggregate level between the 1999/2000 and 1998/1999 situation are very small indeed.[5]

In general, the same level of constancy in employment structures is evident for each of the individual sectors in turn. In the Traditional Manufacturing sector there would appear to have been a slight reduction in the Production Operative grade in representing a fall from 50 per cent in 1998/1999 to 45 per cent in 1999/2000.

The Hi-Tech. Manufacturing sector showed virtually no change over the period in question. The Distributive Services sector showed a small increase in the relative importance of Sales Personnel (41 per cent in 1999/2000 compared with 37 per cent in the 1998/1999 survey).

The Financial/Insurance/Business Services sector appears to have experienced a reasonably substantial fall in the relative importance of the Personal Services grade from 9 per cent in 1998/1999 to 2 per cent in 1999/2000. This sector showed a very slight increase in the relative importance of the Manager/Proprietor category from 16 per cent in 1998/1999 to 19 per cent in 1999/2000.

The Construction sector showed a very high level of stability in terms of occupational structure. The only change in the sector was a very slight recorded fall (of 3 percentage points) in the relative importance of the Manager/Proprietor group and a minor increase (of 2 percentage points) in the Labourer category.

Finally, the Transport/Personal/Other Services category also showed stability in the breakdown of its occupational structure with only a slight fall in Clerical & Secretarial grades (4 percentage points) and a slight increase (of 3 percentage points) in the Personal Services sector.

Overall, therefore, the changes in the occupational structure of relevant private sector employment over the period in question have been extremely small and insignificant.

[5] From a sampling perspective the very minor differences which are presented in the table can be attributed entirely to sampling variances.

Table 3.3: Comparison of Employment Structures by Grade, 1998/99 and 1999/2000

Occupational Grade	Percentage Breakdown of Persons Engaged													
	All Sectors		Traditional Manufacturing		Hi-Tech Manufacturing		Distributive Services		Finance/Insurance/ Business Services		Construction		Transport/Personal/ Other Services	
	1999/00	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00	1998/99
Managers/Proprietors	13	13	8	7	6	7	15	18	19	16	17	20	11	11
Engineering Professionals	2	2	1	1	4	3	2	1	1	2	2	2	1	1
Science Professionals	1	0	1	1	2	1	0	0	1	1	0	0	0	0
Computer Professionals	1	1	1	1	1	1	1	0	3	3	0	0	0	0
Other Professionals	4	3	2	2	1	2	1	1	14	10	1	2	3	2
Engineering Technicians	2	1	1	1	3	3	1	1	2	2	4	1	0	1
Science Technicians	0	0	1	1	1	1	0	0	0	0	0	0	0	0
Computer Technical Staff/Associate Professional Level	1	1	1	1	1	1	0	0	3	2	0	0	0	0
Other Associate Professional	1	1	1	1	1	0	0	0	3	1	1	2	2	2
Clerical and Secretarial	14	15	9	9	7	7	12	13	35	36	8	5	12	16
Skilled Maintenance & Skilled Production	10	10	10	11	15	16	7	7	3	4	40	40	4	2
Production Operatives	16	17	45	50	49	47	7	3	3	3	1	4	3	3
Transport & Communications	7	8	3	2	2	1	4	7	2	1	1	2	20	20
Sales	12	12	6	4	2	3	41	37	6	7	2	1	7	9
Security	0	0	0	0	0	0	0	1	1	0	0	0	1	1
Personal Services	9	10	1	1	1	0	1	4	2	9	0	0	31	28
Labourers	8	7	9	8	4	5	7	7	2	3	23	21	6	5
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100

3.4 Employm Projections for One Year's Time

In the course of the survey respondents were asked to record an estimate of their projected employment level in one year's time (i.e. employment as it would relate to early 2001). From this information one can derive one-year employment projections according to grade and sector. In interpreting the figures the reader must remember that the figures are based on the respondents' perceptions of likely future trends in employment outturns. These will reflect his/her views and expectations of trends in the general economy and also trends within their sector within the broader economy. The estimated future employment figures will largely be based on past trends in respondents' markets and may also be based on a relatively narrow view of the firms' niche in its market. Respondents may not base their views on future trends in their *share* of a niche market. New entrants or expansion of existing competition may not be factored into the employment forecasts given by the respondent. The employment projections may well be driven by an implicit market share well in excess of 100 per cent.

These factors are likely to result in an over-optimistic or excessively bullish estimate of the level of total employment in one year's time. The relevance of the figures, however, is that they do provide a clear and unambiguous signal of firms' expectations about future short-term trends in employment over the coming twelve months. Consequently, they provide an important indication of the general scale and nature of expected employment growth by occupational grade and sector.[6] This optimism on the part of existing companies may, at least in part, be counterbalanced by the fact that the start-ups of the coming year will not, by definition, be factored into the estimates.

Table 3.4 provides a breakdown of employment projections by occupational grade for one year's time as recorded in the 1999/2000 survey. The figures show that in aggregate terms across all grades, sector and size categories employers are forecasting a further growth in employment of 9.7 per cent over 2000 to 2001. This would represent an employment growth in the order of 110,000 jobs over the twelve months in question. For the reasons given above, we feel that this is a bullish projection which is being substantially driven by the optimism of respondents to the survey. The firms' employment projections need to be considered in the context of the very rapid growth in employment of recent years and the resulting supply-side implications of such growth. Given supply-side constraints, we cannot continue to grow our labour market as rapidly as has taken place over recent years. The latest ESRI forecast for non-agricultural employment growth in 2000 is of the order of 80,000 (4.9 per cent).[7]

The detail of Table 3.4 shows that the greatest percentage growth is forecast among the Security grades 32 per cent; followed by Engineering Technicians (27 per cent); and Computer Professionals (22 per cent). Other grades with relatively high growth forecasts include Computer Technicians/ Associate Professional level (18 per cent); Transport & Communications (18 per cent); Skilled Maintenance/Production (15 per cent); Engineering Professionals and Personal Services (both 13 per cent); Science Professionals (12 per cent) and Clerical & Secretarial staff (10 per cent).

Table 3.4: Employment Projections by Occupational Grade for Twelve Month Period, 2000 to 2001

	All Sizes					All Sizes			
	Current	Projected	Change	% Change		Current	Projected	Change	% Change
Managers/Proprietors	142,600	147,300	4,700	3.3	Clerical and Secretarial	158,600	174,400	15,800	10.0
Engineering	19,500	22,100	2,600	13.3	Skilled Maintenance/	119,300	137,800	18,500	15.5

[6] See below for a discussion of the extent to which the authors feel these should be deflated on the basis of past trends in this approach to employment projections.

[7] Table 8, *Quarterly Economic Commentary*, December 2000, Dublin: The Economic and Social Research Institute.

Professionals				
Science Professionals	7,700	8,600	900	11.7
Computer Professionals	8,700	10,600	1,900	21.8
Other Professionals	40,700	44,300	3,600	8.8
Engineering Technicians	18,500	23,500	5,000	27.0
Science Technicians	3,900	4,300	400	10.3
Computer Technical/Associate Professional Level	9,400	11,100	1,700	18.1
Other Associate Professional Level	13,300	14,100	800	6.0
Production				
Production Operatives	181,500	189,200	7,700	4.2
Transport & Comm.	82,900	97,600	14,700	17.7
Sales	138,200	150,800	12,600	9.1
Security	5,300	7,000	1,700	32.1
Personal Services	104,100	117,600	13,500	13.0
Labourers	86,800	91,600	4,800	5.5
Total	1,141,000	1,251,900	110,900	9.7

* Based on unrounded figures.

In terms of *absolute* growth levels the firm's project the largest growth in numbers of employees among Skilled Maintenance/Production workers (18,500) followed by Clerical & Secretarial (15,800). Transport & Communications; Sales and Personal Services are also forecast to experience relatively high growth *levels* in terms of employee numbers all of the order of 12,000 – 15,000 persons.

Table 3.5 outlines projected growth levels by broad sector. From this one can see that strong continued growth trends are projected by all sectors. Highest growth is forecast in the Construction sector: 17 per cent or 19,000 employees. This is followed *in percentage terms* by the Transport/ Personal/Other Services sector which forecasts a 13 per cent growth (some 41,000 employees). The most conservative growth estimates are for the Traditional Manufacturing sector at 3.2 per cent or 4,500 employees.

Table 3.5: Summary Employment Projections by Broad Sector 2000 to 2001

Sector	Current	Project	Projected Absolute Change	Projected % Change
Traditional Manufacturing	140,000	144,500	4,500	3.2
Hi-Tech. Manufacturing	179,000	192,000	13,000	7.3
Distributive Services	228,000	245,300	17,300	7.6
Finance/Insurance/ Business Services	167,900	184,100	16,200	9.6
Construction	112,000	131,000	19,000	17.0
Transport/Personal/Other Services	314,000	355,200	41,200	13.1
Total	1,141,000	1,251,900	110,900	9.7

Table 3.6 and Appendix Table A3.6 present details on employment projections classified by grade within size/sector category. The main points to emerge from these tables are as follows:

Traditional Manufacturing

Growth projections in this sector are 4.7 per cent among smaller firms compared with 2.1 per cent among their larger counterparts giving an overall employment growth forecast of 3.2 per cent or 4,500 employees. Table 3.6 shows that the largest absolute growth forecast in terms of *numbers* of persons engaged is in the Production Operative grade – 2,000 workers representing an overall 3.1 per cent growth in this category. Although high growth forecasts of 14 per cent and 11 per cent respectively are returned for Computer Professionals and Science Technicians in this sector, the absolute numbers involved are small – only of the order of 100 persons in each category.

Hi-Tech. Manufacturing

Employment growth in this area is forecast at 7.3 per cent. Highest growth *levels* are for Production Operative (2,900 persons or 3.3 per cent); Skilled Maintenance/Production (2,200 or 8.1 per cent); Clerical & Secretarial (1,600 or 13 per cent); Labourers (1,400 or 18.2 per cent); Engineering Technicians (1,200 or 23.4 per cent) and Engineering Professionals (1,000 or 13.6).

Growth among smaller firms in the sector is forecast to grow by 12.2 per cent (representing 6,900 persons). This compares with 5.0 per cent among larger firms (6,100 persons).

One can see that in *percentage* growth terms the most optimistic forecasts are among Computer Technical/Associate Professional levels (34 per cent) and the Computer Professional and Engineering Technicians grades (both of the order of 23 – 24 per cent). The number of positions forecast to grow in these grades is relatively limited, however, at 2,100. This represents 16 per cent of the total growth forecast.

Construction

Firms in this sector return the most optimistic growth forecasts at nearly 17 per cent over the period 2000 to 2001. This represents a growth of 19,000 persons.

In absolute terms, the largest growth is forecast in the Skilled Maintenance/Production category – 11,000 persons (25.1 per cent). This represents just over 58 per cent of the entire growth forecast for the sector. Other grades which are expected to grow include Engineering Technicians (2000 jobs or 46 per cent) growth rates and Labourers (1,700 jobs or 6.5 per cent).

Distributive Services

This sector returned a growth forecast of 7.6 per cent for the period 2000 to 2001, representing some 17,300 persons. Largest growth *levels* are forecast among Sales persons (6,600 or 7.2 per cent). This is followed by Clerical & Secretarial (3,400 or 12.5 per cent) and Skilled Maintenance/Production workers (2,200 or 15.0 per cent).

Growth among smaller firms in the sector is running a few percentage points ahead of larger ones (9.7 per cent compared with 6.1 per cent respectively).

Finance/Insurance/Business Services

Overall growth in this sector is forecast at 9.6 per cent or 16,200 persons. In general, the highest forecasted growth rates are in the Professional and Engineering Technician grades.

Transport/Personal/Other Services

Table 3.6 indicates that aggregate growth forecasts in this sector are of the order of 13.1 per cent. Forecasts from smaller firms are 12 percentage points ahead of those for larger firms (22.9 per cent and 10.9 per cent respectively).

Greatest absolute growth is, as one would expect, in the Transport & Communications and Personal Services sectors (14,200 and 12,700 persons respectively). These two grades account for just under two-thirds of the absolute growth projections for the sector.

Table 3.6: Projected Employment Change 2000 to 2001 Classified by Occupational Grade and Broad Sector

Occupational Grade	Percentage Breakdown of Persons Engaged													
	Traditional Manufacturing		Hi-Tech. Manufacturing		Construction		Distributive Services		Finance/Insurance/ Business Services		Transport/Personal/ Other Services		All Sectors	
	Change 2000 to 2001		Change 2000 to 2001		Change 2000 to 2001		Change 2000 to 2001		Change 2000 to 2001		Change 2000 to 2001		Change 2000 to 2001	
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
Managers/Proprietors	0	-0.1	600	5.1	300	1.4	300	0.9	1,200	3.9	2,300	6.7	4,700	3.3
Engineering Professionals	0	3.7	1,000	13.6	400	17.1	500	10.9	600	23.8	100	6.3	2,600	13.3
Science Professionals	0	-1.4	300	11.1	0	0.0	200	19.8	400	22.6	0	0.0	900	11.7
Computer Professionals	100	14.0	400	24.0	0	12.5	100	11.9	1,200	27.5	100	12.5	1,900	21.8
Other Professionals	0	2.7	100	3.0	0	4.9	200	7.0	2,500	10.8	800	10.8	3,600	8.8
Engineering Technicians	0	0.8	1,200	23.4	2,000	46.5	600	26.0	1,000	23.2	200	11.6	5,000	27.0
Science Technicians	100	10.8	300	10.6	0	0.0	0	4.9	0	4.3	0	0.0	400	10.3
Computer Technical Staff/Associate Professional Level	100	9.6	500	33.8	0	28.6	400	34.8	600	15.6	100	19.4	1,700	18.1
Other Associate Professional	100	3.4	200	11.3	100	4.0	100	7.0	200	3.6	100	1.4	800	6.0
Clerical and Secretarial	100	0.9	1,600	13.0	300	3.3	3,400	12.5	5,700	9.7	4,700	12.4	15,800	10.0
Skilled Maintenance & Skilled Production	200	1.3	2,200	8.1	11,100	25.1	2,200	15.0	200	3.5	2,600	19.9	18,500	15.5
Production Operatives	2,000	3.1	2,900	3.3	900	52.6	500	3.2	300	7.0	1,100	11.2	7,700	4.2
Transport & Communications	100	3.4	100	3.1	500	35.9	500	5.9	-700	-23.6	14,200	23.0	14,700	17.7
Sales	700	8.3	400	10.4	1,600	71.2	6,600	7.2	700	6.9	2,600	12.8	12,600	9.1
Security	0	-4.2	0	0.0	0	11.1	200	34.7	1,500	63.3	0	3.2	1,700	32.1
Personal Service	200	13.8	0	-1.5	0	18.9	200	11.3	400	14.1	12,700	13.0	13,500	13.0
Labourers	700	5.7	1,400	18.2	1,700	6.5	1,200	7.0	200	7.2	-400	-1.6	4,800	5.5
Total	4,500	3.2	13,000	7.3	18,900	16.9	17,300	7.6	16,200	9.6	41,200	13.1	110,900	9.7

3.5 Accuracy of Growth Forecasts

As we noted at the start of Section 3.4 the authors caution that the growth forecasts outlined in that section would seem to be optimistic, especially in the context of the already rapid expansion in employment and corresponding contraction in unemployment which we have witnessed in recent years. It would, therefore, be most desirable to assess the accuracy or otherwise of the forecasts derived from an employer's survey. To do this we compare the one-year employment *forecasts* from the 1998/1999 survey[8] with the figures recorded for *current* employment in the 1999/2000 survey.[9]

Table 3.7 provides details of the sectoral breakdown of employees from the 1999/2000 survey along with one year projections from the 1998/1999 survey. The latter figures represent the grossed survey estimates of forecast 1999/2000 employment as recorded by respondents in the 1998/1999 survey. These figures should, if the forecasts are accurate, correspond with the grossed estimates of *actual* employment from the 1999/2000 survey.

Table 3.7: Comparison of One Year Employment Forecasts from 1998/1999 Survey with Actual Employment Outturns as Reflected in 1999/2000 Survey, Classified by Sector

	(A) Actual 1998/99	(B) Forecast 1999/00	(C) Forecast Abs. Change	(D) Forecast Per Cent Change	(E) Actual 1999	(F) Actual Abs. Change	(G) Actual Per Cent Change
Traditional Manufacturing	140,000	147,600	7,600	5.4	140,000	0	0.0
Hi-Tech. Manufacturing	172,000	185,600	13,600	7.9	179,000	7,000	4.1
Construction	95,000	102,400	7,400	7.8	112,000	17,000	17.9
Distributive Services	215,000	239,200	24,200	11.2	228,000	13,000	6.0
Finance/Investment/ Business Services	148,800	166,300	17,500	11.8	167,900	19,100	12.8
Transport/Personal/ Other Services	282,100	315,400	33,300	11.8	314,000	31,900	11.3
Total	1,052,900	1,156,000	103,000	9.8	1,141,000	88,100	8.4

If one initially concentrates on the bottom row of the table one can see that, from Column A, total estimated private sector employment in 1998/1999 stood at 1,052,900 persons. Column D of the table shows that firms forecast a one-year employment growth level of 9.8 per cent, representing an increase of 103,000 persons (Column C) resulting in a *forecast* employment in 1999/2000 of 1,156,000 (Column B).

From Column E of the table one can see that the actual estimated employment as used for grossing purposes in the 1999/2000 survey was 1,141,000. This means that actual growth in employment between the two rounds of the survey was 88,100 (Column F). This represents an *actual* growth rate of 8.4 per cent (Column G). The employer survey of 1998/1999, therefore, over-estimated employment growth by approximately 15,000 persons. This translated into a 17 per cent *over*-estimation of actual aggregate employment outturns.

The detail of Table 3.7 allows one to assess the accuracy or otherwise of the forecasts at the level of individual sector. From this one can see that employment levels in the Traditional Manufacturing sector were static over the period in question. This means that the firm's forecast of 5.4 per cent growth (7,600 jobs) in this sector failed to be realised.

[8] i.e. the employment level forecast for 1999/2000.

[9] In undertaking this exercise the figures from the 1998/99 survey are revised in the light of the more recently available QNHS data. See Section 2.4 above for a discussion of revisions to the 1998/1999 estimates.

The Hi-Tech. sector was also overestimated. Actual employment growth in this sector was of the order of 4.1 per cent (7,000 persons). This compares with a sectoral forecast of 7.9 per cent (13,600 persons) as recorded by the survey in 1998/1999.

The figures in the table also show that the actual employment growth in Distributive Services was lower than the corresponding level forecast for the 1998/99 survey. The forecast growth of 11.2 per cent (24,200) compares with the 1999/2000 actual estimate of 6 per cent growth (13,000 persons).

In contrast to the experience of the three sector mentioned above one can see that the estimated *actual* employment growth for the Construction sector (17.9 per cent or 17,000 persons) was higher than that forecast in the first round of the survey in 1998/99. The latter figures yielded an expected growth of 7.8 per cent (7,400 persons).

The final two rows in the table show that the 1998/99 forecast of 1999/00 employment levels were reasonably accurate in respect of the Finance/Insurance/Business Services and Transport/Personal/Other Service sectors. The former was forecast to grow by 11.8 per cent (representing a growth of 17,500 employees). This compared with an actual outturn of 12.8 per cent or 19,100 persons. Corresponding figures for Transport/ Personal/Other Services were a forecast of 11.8 per cent (33,300 persons) compared with an estimated actual growth 11.3 per cent (31,900 persons).

Overall, therefore, the figures in Table 3.7 confirm our earlier statements regarding the likely upward bias in employment estimates based on the responses of firms to a cross-sectional survey such as the one being reported on in this report. On the basis of the results from the first two rounds of the survey it would appear that at an aggregate level the employment growth overcasts are inflated by approximately 17 per cent. Obviously, as the data are disaggregated and the resulting number of cases for analysis in each sector is reduced, the margin of error on the estimates increases.

The significance of the figures in Table 3.7 lie in the fact that they give an order of magnitude by which the forecasts should be deflated. It would appear from the figures that one should reduce the forecast by at least 20 per cent – provided the ratio of forecast to actual outturns is relatively constant between the first and second rounds of the survey. This means that the projected growth level of 9.7 per cent (representing some 110,900 persons) between the beginning of 2000 and 2001 may be some 20 per cent in excess of actual future outturns. If we reduce the estimate by 20 per cent we would still be left with a very substantial growth of the order of 88,720 jobs over the period in question. If one were to take a much more conservative view (to accommodate supply-side constraints and a *relatively* more pessimistic view of growth in the economy to *reflect* capacity constraints one might arrive at an over-estimate of forecast employment of the order of 25 per cent. If this were the case one would still find that a forecast of relevant private sector employment growth in the region of 85,000 would be a realistic possibility, on the basis of the levels recorded by respondents to the survey of firms. This means that allowing for a 20-25 per cent deflation in the growth forecasts emerging from the firms' perceptions of future outturns we could experience an employment growth of the order of 83,000 – 89,000 over 2000/2001.

3.6 Summary

In this chapter we have examined trends in the structure of employment between the end of 1998/1999 and the end of 1999/2000. We saw from the Central Statistics Office figures that the number of persons in employment grow from 1,544,700 in November 1998 to 1,647,400 at the same period in 1999. This represented a total employment growth of 102,700 persons (6.7 per cent) over the year in question. These figures include three main exclusions to the figures contained in this report. First, the agricultural sector; second, the Public Sector and, third, those employed in their own right. When these exclusions are made we estimate from CSO figures that employment in the private sectors relevant to this report grew from 1,053,000 at the end of 1998 to 1,141,000 at the end of 1999. This gives a growth level of approximately 88,000 persons (8.4 per cent) according to CSO figures from the Quarterly National

Household Survey (QNHS). These give us the employment figures to which the report is grossed throughout.

In Section 3.2 we saw that Manufacturing accounted for approximately 28 per cent of the target employment group covered by this report. Distributive services account for a further 20 per cent; Finance/Insurance/Business Services account for 15 per cent; Construction for 10 per cent; and Transport/ Personal/Other Services for 27 per cent.

In terms of employment distributions in 1999/2000 according to occupational grade we saw that, in aggregate, the largest categories were Production Operatives (accounting for 16 per cent of relevant employees); Clerical & Secretarial (14 per cent); Managers/Proprietors (13 per cent) and Sales Personnel (12 per cent). As one might expect, there were very few changes in terms of the structure of employment by grade between the first and second rounds of the survey.

Sections 3.4 and 3.5 focused on employment projections for the next year – over the period end 1999/2000 to end 2000/2001. We saw that, based on the unadjusted figures provided by respondents to the survey, employment growth in the region of 9.7 per cent (110,000 jobs) was forecast for the period in question. This figure seems to the authors to be somewhat optimistic. On the basis of a comparison between the one-year employment forecast from the 1998/1999 survey with the *actual* employment outturn in the 1999/2000 round of the survey we estimate that the employers' forecast could overestimate growth by 20-25 per cent. If one reduced the figure by this amount, the employers' estimates would still result in an employment growth projection of 83,000-89,000.

Appendix Table A3.2: Breakdown of Current Employees by (i) Occupational Grade (ii) Size and (iii) Sector

	Traditional Manufacturing						Hi-Tech Manufacturing					
	1-99		100+		All Sizes		1-99		100+		All Sizes	
Occupational Grade	n	%	n	%	n	%	n	%	n	%	n	%
Managers/Proprietors	6,900	12	5,000	6	11,800	8	5,500	10	6,100	5	11,600	6
Engineering Professionals	300	0	600	1	900	1	1,800	3	5,300	4	7,100	4
Science Professionals	400	1	1,100	1	1,500	1	400	1	2,400	2	2,800	2

Computer Professionals	300	0	400	1	700	1	500	1	1,100	1	1,500	1
Other Professionals	1,100	2	1,600	2	2,700	2	700	1	1,800	1	2,600	1
Engineering Technicians	500	1	600	1	1,100	1	1,900	3	3,200	3	5,200	3
Science Technicians	200	0	700	1	900	1	400	1	1,700	1	2,100	1
Computer Technical Staff-Associate Professional Level	1,200	2	600	1	1,800	1	900	2	700	1	1,600	1
Other Associate Professional	600	1	700	1	1,300	1	600	1	800	1	1,400	1
Clerical and Secretarial	6,600	11	6,500	8	13,200	9	4,900	9	7,100	6	12,000	7
Skilled Maintenance & Skilled Production	8,500	14	6,200	8	14,600	10	12,000	21	15,000	12	27,100	15
Production Operatives	20,900	35	42,100	53	63,000	45	16,400	29	71,000	58	87,400	49
Transport & Communications	2,100	4	1,700	2	3,800	3	2,000	4	1,700	1	3,700	2
Sales	4,100	7	4,500	6	8,700	6	2,300	4	1,400	1	3,700	2
Security	100	0	200	0	300	0	0	0	300	0	400	0
Personal Service	400	1	700	1	1,100	1	400	1	700	1	1,100	1
Labourers	5,700	9	6,900	9	12,600	9	5,700	10	2,000	2	7,700	4
Total	59,900	100	80,100	100	140,000	100	56,400	100	122,300	100	179,000	100
	Distributive Services						**Finance/Insurance/Business Services**					
	1-9		**10+**		**All Sizes**		**1-9**		**10+**		**All Sizes**	
Occupational Grade	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Managers/Proprietors	24,300	26	10,500	8	34,700	15	12,500	32	18,800	15	31,300	19
Engineering Professionals	1,200	1	3,200	2	4,400	2	100	0	2,200	2	2,300	1
Science Professionals	0	0	900	1	900	0	0	0	2,200	2	2,200	1
Computer Professionals	400	0	1,000	1	1,500	1	1,400	4	2,900	2	4,300	3
Other Professionals	600	1	2,400	2	3,000	1	4,000	10	19,400	15	23,400	14
Engineering Technicians	900	1	1,500	1	2,400	1	800	2	3,200	3	4,000	2
Science Technicians	0	0	500	0	500	0	0	0	400	0	400	0
Computer Technical Staff-Associate Professional Level	100	0	1,000	1	1,100	0	600	2	3,600	3	4,300	3
Other Associate Professional	100	0	200	0	300	0	0	0	4,600	4	4,600	3
Clerical and Secretarial	11,400	12	16,100	12	27,500	12	10,600	27	48,600	38	59,200	35
Skilled Maintenance & Skilled Production	4,700	5	10,200	8	14,900	7	1,300	3	4,000	3	5,300	3
Production Operatives	400	0	15,300	11	15,700	7	300	1	4,500	3	4,700	3
Transport & Communications	4,100	4	5,600	4	9,700	4	2,300	6	600	0	2,900	2
Sales	38,000	40	54,400	41	92,400	41	3,500	9	6,700	5	10,200	6
Security	0	0	500	0	500	0	0	0	2,200	2	2,200	1
Personal Service	300	0	1,400	1	1,700	1	300	1	2,400	2	2,700	2
Labourers	8,200	9	8,700	6	16,800	7	1,600	4	2,500	2	4,100	2
Total	94,700	100	133,400	100	228,000	100	39,300	100	128,800	100	168,100	100
	Construction						**Transport/Personal/Other Services**					
	1-9		**10+**		**All sizes**		**1-9**		**10+**		**All Sizes**	
Occupational Grade	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Managers/Proprietors	16,400	24	2700	6	19,100	17	16,500	28	17,600	7	34,100	11
Engineering Professionals	0	0	2300	6	2,300	2	0	0	2,500	1	2,500	1
Science Professionals	0	0	0	0	0	0	0	0	300	0	300	0
Computer Professionals	0	0	0	0	0	0	0	0	700	0	700	0
Other Professionals	0	0	1000	2	1,000	1	1,500	3	6,500	3	8,000	3
Engineering Technicians	2,100	3	2300	5	4,400	4	0	0	1,500	1	1,500	0
Science Technicians	0	0	0	0	0	0	0	0	0	0	0	0
Computer Technical Staff-Associate Professional Level	0	0	0	0	0	0	0	0	600	0	600	0
Other Associate Professional	0	0	700	2	700	1	0	0	5,000	2	5,000	2
Clerical and Secretarial	6,200	9	2600	6	8,800	8	9,800	17	28,100	11	37,900	12
Skilled Maintenance & Skilled Production	27,500	40	17,000	40	44,500	40	800	1	12,100	5	12,800	4
Production Operatives	800	1	800	2	1,600	1	0	0	9,100	4	9,100	3
Transport & Communications	0	0	1500	3	1,500	1	13,200	22	48,200	19	61,300	20
Sales	2,100	3	200	1	2,300	2	7,500	13	13,400	5	20,900	7
Security	0	0	200	0	200	0	0	0	1,700	1	1,700	1
Personal Service	0	0	200	0	200	0	9,000	15	88,300	35	97,300	31
Labourers	14,400	21	10,900	26	25,300	23	800	1	19,500	8	20,300	6
Total	69,500	100	42,400	100	111,900	100	59,100	100	255,100	100	314,000	100

Appendix Table A3.6: Current Employment, Projected Employment in One Year's Time and Absolute Change and Percentage Change Classified by Sector and Size

	Traditional Manufacturing											
	1-99				**100 +**				**All Sizes**			
Occupation	**current**	**projected**	**change**	**% change**	**current**	**projected**	**change**	**% change**	**current**	**projected**	**change**	**% change**

Managers/Proprietors	6,900	6,900	0	0.0	5,000	4,900	(100)	-0.3	11,800	11,800	0	-0.1
Engineering Professionals	300	300	0	0.0	600	600	0	5.3	900	900	0	3.7
Science Professionals	400	400	0	-9.5	1,100	1,200	100	1.4	1,500	1,500	0	-1.4
Computer Professionals	300	300	0	20.0	400	500	100	10.2	700	800	100	14.0
Other Professionals	1,100	1,200	100	3.3	1,600	1,600	0	2.3	2,700	2,700	0	2.7
Engineering Technicians	500	500	0	-3.8	600	700	100	4.4	1,100	1,100	0	0.8
Science Technicians	200	300	100	33.3	700	700	0	3.5	900	1,000	100	10.8
Computer Tech/Assoc. Prof. Level	1,200	1,300	100	9.5	600	600	0	9.7	1,800	1,900	100	9.6
Other Assoc. Prof. Level	600	700	100	5.9	700	700	0	1.1	1,300	1,400	100	3.4
Clerical and Secretarial	6,600	6,700	100	0.8	6,500	6,600	100	1.0	13,200	13,300	100	0.9
Skilled Maintenance/ Production	8,500	8,600	100	1.5	6,200	6,200	0	1.0	14,600	14,800	200	1.3
Production Operatives	20,900	22,100	1,200	5.5	42,100	42,900	800	1.9	63,000	65,000	2,000	3.1
Transport & Comm.	2,100	2,200	100	5.3	1,700	1,700	0	1.0	3,800	3,900	100	3.4
Sales	4,100	4,700	600	14.0	4,500	4,700	200	3.2	8,700	9,400	700	8.3
Security	100	100	0	0.0	200	200	0	-5.2	300	300	0	-4.2
Personal Services	400	600	200	29.2	700	700	0	3.6	1,100	1,300	200	13.8
Labourers	5,700	6,100	400	6.9	6,900	7,200	300	4.7	12,600	13,300	700	5.7
Total	59,900	62,700	2,800	4.7	80,100	81,800	1,700	2.1	140,000	144,500	4,500	3.2

Hi-Tech

	1-99				**100 +**				**All Sizes**			
Occupation	**current**	**projected**	**change**	**% change**	**current**	**projected**	**change**	**% change**	**current**	**projected**	**change**	**% change**
Managers/Proprietors	5,500	6,000	500	9.4	6,100	6,200	100	1.2	11,600	12,200	600	5.1
Engineering Professionals	1,800	2,100	300	15.8	5,300	6,000	700	12.8	7,100	8,100	1,000	13.6
Science Professionals	400	400	0	21.9	2,400	2,600	200	9.5	2,800	3,100	300	11.1
Computer Professionals	500	600	100	23.3	1,100	1,300	200	24.4	1,500	1,900	400	24.0
Other Professionals	700	800	100	2.9	1,800	1,900	100	3.0	2,600	2,700	100	3.0
Engineering Technicians	1,900	2,300	400	18.8	3,200	4,100	900	26.2	5,200	6,400	1,200	23.4
Science Technicians	400	500	100	10.3	1,700	1,900	200	10.6	2,100	2,400	300	10.6
Computer Tech/Assoc. Prof. Level	900	1,200	300	41.8	700	900	200	24.2	1,600	2,100	500	33.8
Other Assoc. Prof. Level	600	700	100	20.8	800	900	100	4.7	1,400	1,600	200	11.3
Clerical and Secretarial	4,900	5,200	300	6.0	7,100	8,400	1,300	17.8	12,000	13,600	1,600	13.0
Skilled Maintenance/ Production	12,000	13,400	1,400	11.3	15,000	15,900	900	5.6	27,100	29,300	2,200	8.1
Production Operatives	16,400	17,900	1,500	9.1	71,000	72,400	1,400	2.0	87,400	90,300	2,900	3.3
Transport & Comm.	2,000	2,100	100	5.4	1,700	1,700	0	0.3	3,700	3,800	100	3.1
Sales	2,300	2,600	300	14.1	1,400	1,500	100	4.3	3,700	4,100	400	10.4
Security	0	0	0	0.0	300	300	0	0.0	400	400	0	0.0
Personal Services	400	400	0	0.0	700	700	0	-2.3	1,100	1,100	0	-1.5
Labourers	5,700	7,100	1,400	24.7	2,000	2,000	0	-0.3	7,700	9,100	1,400	18.2
Total	56,500	63,400	6,900	12.2	122,500	128,600	6,100	5.0	179,000	192,000	13,000	7.3

Appendix Table A3.6 (Cont'd)

	Construction											
	1-99				10+				All Sizes			
Occupation	current	projected	change	% change	current	projected	change	% change	current	projected	change	% change
Managers/Proprietors	16,400	16,400	0	0.0	2,700	2,900	200	9.9	19,100	19,400	300	1.4
Engineering Professionals	0	0	0	0.0	2,300	2,700	400	17.1	2,300	2,700	400	17.1
Science Professionals	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
Computer Professionals	0	0	0	0.0	0	0	0	12.5	0	0	0	12.5
Other Professionals	0	0	0	0.0	1,000	1,000	0	4.9	1,000	1,000	0	4.9
Engineering Technicians	2,100	3,700	1,600	80.0	2,300	2,600	300	15.8	4,300	6,300	2,000	46.5
Science Technicians	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
Computer Tech/Assoc. Prof. Level	0	0	0	0.0	0	0	0	28.6	0	0	0	28.6
Other Assoc. Prof. Level	0	0	0	0.0	700	800	100	4.0	700	800	100	4.0
Clerical and Secretarial	6,200	6,200	0	0.0	2,600	2,900	300	11.2	8,800	9,100	300	3.3
Skilled Maintenance/ Production	27,500	36,600	9,100	32.8	17,000	19,100	2,100	12.5	44,600	55,700	11,100	25.1
Production Operatives	800	1,600	800	100.0	800	800	0	4.2	1,600	2,500	900	52.6
Transport & Comm.	0	0	0	0.0	1,500	2,000	500	35.9	1,500	2,000	500	35.9
Sales	2,100	2,100	0	0.0	200	1,800	1,600	723.0	2,300	3,900	1,600	71.2
Security	0	0	0	0.0	200	200	0	11.1	200	200	0	11.1
Personal Services	0	0	0	0.0	200	200	0	18.9	200	200	0	18.9
Labourers	14,400	14,800	400	2.9	10,900	12,200	1,300	11.3	25,300	27,000	1,700	6.5
Total	69,500	81,400	11,900	17.2	42,500	49,500	7,000	16.56	112,000	130,900	18,900	16.9

	Distributive Services											
	1-9				10 +				All Sizes			
Occupation	current	projected	change	% change	current	projected	change	% change	current	projected	change	% change
Managers/Proprietors	24,300	24,000	(300)	-1.2	10,500	11,100	600	5.8	34,700	35,000	300	0.9
Engineering Professionals	1,200	1,500	300	25.0	3,200	3,400	200	5.8	4,400	4,900	500	10.9
Science Professionals	0	100	100	100.0	900	1,000	100	3.8	900	1,100	200	19.8
Computer Professionals	400	400	0	0.0	1,000	1,200	200	17.0	1,500	1,600	100	11.9
Other Professionals	600	600	0	0.0	2,400	2,600	200	8.7	3,000	3,200	200	7.0
Engineering Technicians	900	1,300	400	50.0	1,500	1,700	200	12.2	2,400	3,000	600	26.0
Science Technicians	0	0	0	0.0	500	500	0	4.9	500	500	0	4.9
Computer Tech/Assoc. Prof. Level	100	300	200	100.0	1,000	1,200	200	25.0	1,100	1,500	400	34.8
Other Assoc. Prof. Level	100	100	0	0.0	200	200	0	12.5	300	400	100	7.0
Clerical and Secretarial	11,400	13,700	2,300	20.5	16,100	17,200	1,100	6.8	27,500	30,900	3,400	12.5
Skilled Maintenance/ Production	4,700	6,300	1,600	34.4	10,200	10,800	600	6.2	14,900	17,100	2,200	15.0
Production Operatives	400	400	0	0.0	15,300	15,800	500	3.3	15,700	16,200	500	3.2
Transport & Comm.	4,100	4,400	300	7.1	5,600	5,900	300	5.0	9,700	10,200	500	5.9
Sales	38,000	41,200	3,200	8.5	54,400	57,800	3,400	6.2	92,400	99,000	6,600	7.2
Security	0	100	100	100.0	500	600	100	6.7	500	700	200	34.7
Personal Services	300	400	100	50.0	1,400	1,500	100	3.3	1,700	1,900	200	11.3
Labourers	8,200	8,900	700	8.9	8,700	9,100	400	5.2	16,800	18,000	1,200	7.0
Total	94,700	103,900	9,200	9.7	133,300	141,400	8,100	6.1	228,000	245,300	17,300	7.6

Appendix Table A3.6 (Cont'd)

Finance/Insurance/Business Services

Occupation	1-9 current	1-9 projected	1-9 change	1-9 % change	10 + current	10 + projected	10 + change	10 + % change	All Sizes current	All Sizes projected	All Sizes change	All Sizes % change
Managers/Proprietors	12,500	12,600	100	1.2	18,800	19,800	1,000	5.7	31,300	32,500	1,200	3.9
Engineering Professionals	100	200	100	100.0	2,200	2,700	500	21.1	2,300	2,900	600	23.8
Science Professionals	0	0	0	0.0	2,200	2,600	400	22.6	2,200	2,600	400	22.6
Computer Professionals	1,400	2,000	600	41.8	2,900	3,400	500	20.3	4,300	5,500	1,200	27.5
Other Professionals	4,000	4,700	700	18.8	19,400	21,200	1,800	9.2	23,400	25,900	2,500	10.8
Engineering Technicians	800	1,000	200	29.1	3,200	3,900	700	21.7	4,000	5,000	1,000	23.2
Science Technicians	0	0	0	0.0	400	400	0	4.3	400	400	0	4.3
Computer Tech/Assoc. Prof. Level	600	900	300	41.5	3,600	4,000	400	11.0	4,300	4,900	600	15.6
Other Assoc. Prof. Level	0	100	100	50.0	4,600	4,700	100	3.2	4,600	4,800	200	3.6
Clerical and Secretarial	10,600	13,100	2,500	24.0	48,600	51,700	3,100	6.6	59,200	64,900	5,700	9.7
Skilled Maintenance/ Production	1,300	1,300	0	-0.9	4,000	4,200	200	5.0	5,300	5,500	200	3.5
Production Operatives	300	300	0	0.0	4,500	4,800	300	7.4	4,700	5,000	300	7.0
Transport & Comm.	2,300	1,600	(700)	-32.8	600	700	100	13.6	2,900	2,200	(700)	-23.6
Sales	3,500	3,600	100	3.8	6,700	7,200	500	8.5	10,200	10,900	700	6.9
Security	0	0	0	0.0	2,200	3,700	1,500	63.3	2,200	3,700	1,500	63.3
Personal Services	300	300	0	0.0	2,400	2,800	400	15.6	2,700	3,100	400	14.1
Labourers	1,600	1,800	200	16.7	2,500	2,500	0	1.3	4,100	4,300	200	7.2
Total	39,300	43,600	4,300	10.8	128,600	140,500	11,900	9.2	167,900	184,100	16,200	9.6

Transport/Personal/Other Services

Occupation	1-9 current	1-9 projected	1-9 change	1-9 % change	10 + current	10 + projected	10 + change	10 + % change	All Sizes current	All Sizes projected	All Sizes change	All Sizes % change
Managers/Proprietors	16,500	17,700	1,200	6.8	17,600	18,700	1,100	6.6	34,100	36,400	2,300	6.7
Engineering Professionals	0	0	0	0.0	2,500	2,600	100	6.3	2,500	2,600	100	6.3
Science Professionals	0	0	0	0.0	300	300	0	0.0	300	300	0	0.0
Computer Professionals	0	0	0	0.0	700	800	100	12.5	700	800	100	12.5
Other Professionals	1,500	1,900	400	25.0	6,500	7,000	500	7.5	8,000	8,800	800	10.8
Engineering Technicians	0	0	0	0.0	1,500	1,700	200	11.6	1,500	1,700	200	11.6
Science Technicians	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
Computer Tech/Ass Prof. Level	0	0	0	0.0	600	700	100	19.4	600	700	100	19.4
Other Assoc. Prof. Level	0	0	0	0.0	5,000	5,100	100	1.4	5,000	5,100	100	1.4
Clerical and Secretarial	9,800	12,400	2,600	26.9	28,100	30,200	2,100	7.4	37,900	42,600	4,700	12.4
Skilled Maintenance/ Production	800	2,600	1,800	250.0	12,100	12,800	700	5.6	12,800	15,400	2,600	19.9
Production Operatives	0	0	0	0.0	9,100	10,200	1,100	11.2	9,100	10,200	1,100	11.2
Transport & Comm.	13,200	16,900	3,700	28.6	48,200	58,500	10,300	21.5	61,300	75,500	14,200	23.0
Sales	7,500	8,300	800	10.0	13,400	15,300	1,900	14.3	20,900	23,500	2,600	12.8
Security	0	0	0	0.0	1,700	1,700	0	3.2	1,700	1,700	0	3.2
Personal Services	9,000	12,000	3,000	33.3	88,300	97,900	9,600	10.9	97,300	110,000	12,700	13.0
Labourers	800	800	0	0.0	19,500	19,200	(300)	-1.7	20,300	19,900	(400)	-1.6
Total	59,000	72,600	13,600	22.9	255,000	282,600	27,600	10.9	314,000	355,200	41,200	13.1

4. INCIDENCE AND LEVELS OF CURRENT VACANCIES

In this chapter we consider several aspects of the incidence, level and characteristics of all vacancies as well as those which are considered by firms to be difficult-to-fill. In the first instance we focus on all current vacancies. We begin in Section 4.1 by considering their incidence in terms of the percentage of firms which say they are experiencing such vacancies followed by a discussion in Section 4.2 of the *level* or estimated number of such vacancies. In Section 4.3, we present details on the principal methods used by firms to fill current vacancies.

Having considered all vacancies generally we move on in Section 4.4 to discuss vacancies which firms consider to be difficult-to-fill. In Section 4.5 we discuss the nature of the firms' most difficult-to-fill vacancies following in Section 4.6 with a consideration of the reasons given by firms for encountering problems in filling their most difficult-to-fill vacancies.

Finally, Section 4.7 provides a general summary of our main findings in the chapter.

4.1 The Incidence of Current Vacancies

Vacancies were defined in the course of the survey as "…unmet demand for labour where the positions are currently unoccupied, available immediately and where the company is actually searching for workers". In the course of the questionnaire respondents were asked to record the incidence, and number of such current vacancies. The results are presented in Table 4.1.

From the table one can see that a total of 31.2 per cent of firms say that they are currently experiencing such vacancies. Incidence levels are highest in the Manufacturing sectors (Traditional and Hi-Tech.) with approximately 51 per cent of firms in both sectors recording that they experience some current vacancies. This is followed by Transport/Personal/Other Services (36 per cent); Construction (34 per cent); Distributive Services (28 per cent) and Finance/Insurance/Business Services (26 per cent).

In general, the incidence levels are substantially higher among large firms in each sector than among their smaller counterparts. This contrast between large and small firms is quite substantial for some sectors. For example, in Finance/Insurance/Business Services a total of just over 20 per cent of small as compared with 67 per cent of large firms say they are experiencing a current vacancy. These differences between large and small firms may not be too surprising. The larger the firm the more employment "slots" it has by definition). The more employment "slots" which the firm has the higher will be its probability of one or more of them being vacant at any time.

Table 4.1: Firms Classified by (a) Whether or Not They Currently Have Job Vacancies and (b) Size/Sector

Vacancies at Present?	Traditional/Manufacturing	Hi-Tech. Manufacturing	Construction	

	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	47.9	70.3	50.7	47.6	75.0	51.3	32.4	59.4	33.9	
No	52.1	29.7	49.3	52.4	25.0	48.7	67.7	40.6	66.1	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	2,100	300	2,400	1,800	300	2,200	8,000	500	8,500	
Vacancies at Present?	**Distributive Services**			**Finance/Insurance/ Business Services**			**Transport/Personal/ Other Services**			**All Firms**
	0-9	**10+**	**Total**	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	
Yes	23.7	60.4	28.2	20.3	67.4	26.2	28.6	65.7	36.1	31.2
No	76.3	39.6	71.8	79.7	32.6	73.9	71.4	34.3	63.9	68.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	33,500	4,600	38,100	14,000	2,000	13,500	13,300	3,300	16,300	83,500

Table 4.2 summarises changes in sectoral incidence rates for vacancies in 1998/1999 and in 1999/2000.

Table 4.2: Comparison of Sectoral Incidence Rates for Vacancies by Sector, 1998/1999 and 1999/2000

	Per Cent of Firms with Vacancies	
	1998/99	**1999/00**
Traditional Manufacturing	52.6	50.7
Hi-Tech. Manufacturing	57.9	51.3
Construction	18.5	33.9
Distributive services	23.6	28.2
Finance/Insurance/Business Services	21.7	26.2
Transport/Personal/Other	35.4	36.1
All Firms	27.0	31.2

From the table one can see that, at an aggregate level across all sectors, the incidence of vacancies among firms rose by just over 4 percentage points from 27 per cent to just over 31 per cent. When the figures are broken down by sector one can see that Traditional Manufacturing has experienced a slight fall (of just under 2 percentage points) while Hi-Tech. Manufacturing has experienced a fall of 6.3 points from 57.9 per cent to 51.3 per cent. All other sectors have shown an increase in the incidence of vacancies. It is clear from the figures that the largest increase has been experienced in the Construction sector where the incidence rates grew by 83 per cent (15.4 percentage points) from 18.5 per cent in 1998/1999 to 33.9 per cent in 1999/2000.

4.2 The Level of Current Vacancies and Changes Therein Over the Last Twelve Months

In the previous section we saw that a total of 31 per cent of all relevant private sector firms currently experience vacancies. We now turn to a consideration of how this translates to *number* of vacancies. By relating current vacancies to current employment levels one can derive an estimate of the total labour requirement and, consequently, of vacancy rates – the percentage of this requirement which is not currently being met.

4.2.1 THE LEVEL OF CURRENT VACANCIES

The figures in Table 4.3 provide summary details on the level of vacancies in each occupational grade across all sectors. From this one can see that there was a total of 77,600 vacancies in relevant private sector firms at the time of the survey in early 2000. This implies that, on the assumption that the full labour requirement is the sum of vacancies plus those currently in employment, a total of 94 per cent of the labour requirement was being met. This means that the overall vacancy rate was 6 per cent of the total labour requirement across all firms and all occupational grades. In other words, the 77,600 vacancies represent 6 per cent of the total labour requirement which is made up of the sum of the current 1.14 million persons at work in the relevant

sectors of the private sector[10] plus the number of vacancies recorded by private sector employers.

Table 4.3: Summary of Vacancies by Occupational Grade, All Sectors in Aggregate

Occupational Grade	Current Employment	Vacancies	% Labour Requirement Currently Being Met	Vacancy Rate (Per Cent)	Share of All Vacancies (Per Cent)
Managers/Proprietors	142,600	2,900	98	2	3.6
Engineering Professionals	19,500	1,500	93	7	2.1
Science Professionals	7,700	300	96	4	0.5
Computer Professionals	8,700	900	91	9	1.1
Other Professionals	40,700	4,000	91	9	5.1
Engineering Technicians	18,600	3,300	85	15	4.4
Science Technicians	3,900	100	98	2	0.2
Computer Technical Staff Associate Professional Level	9,400	1,000	90	10	1.2
Other Associate Professional	13,300	300	98	2	0.5
Clerical and Secretarial	158,600	10,300	94	6	13.1
Skilled Maintenance & Skilled Production	119,200	14,600	89	11	18.7
Production Operatives	181,500	8,200	96	4	10.6
Transport & Communications	82,900	4,400	95	5	5.7
Sales	138,200	7,400	95	5	9.4
Security	5,300	200	96	4	0.3
Personal Service	104,100	12,400	89	11	15.9
Labourers	86,800	5,800	94	6	7.5
Total	1,141,000	77,600	94	6	100.0

Table 4.3 show the breakdown of these figures by occupational grade. One can consider the breakdown of vacancies according to grade in a number of different ways. First, one can examine vacancy rates. One can see that grades which have the highest level of vacancy rate included Engineering Technicians (15 per cent); Skilled Maintenance & Skilled Production and Personal Service workers (each 11 per cent); Computer Technical Staff/ Associate Professional level (10 per cent); Computer Professionals and "Other" Professionals (each 9 per cent).

The importance of the figures in Tables 4.3 is the extent to which they indicate that vacancy levels are relatively high in all occupational grades. Much media speculation reflects a popular perception that vacancy levels are highest in some of the Professional and Computer grades. It is undoubtedly the case that some of these grades are experiencing particularly high vacancy rates in excess of 10 per cent (e.g. Engineering Technicians have a rate of 15 per cent and Computer Technical/Staff Associate Professional levels have a rate of 10 per cent). Notwithstanding these trends, the figures in Table 4.3 also show that higher rates are in evidence in grades which are characterised as having a lower skill content e.g. Personal Services (11 per cent) and Skilled Maintenance & Production (11 per cent). The information in Table 4.3 would seem to indicate, therefore, that the vacancy problem is pervasive and extends across all occupational or employment grades.

In addition to considering *vacancy rates* one can also discuss absolute levels of vacancies and also the share of vacancies according to occupational grade. It is clear from the table that the grades which experience the highest absolute levels of vacancies included the Skilled Maintenance & Skilled Production grades (14,600); Personal Services (12,400); Clerical and Secretarial Services (10,300); Production Operatives

[10] Agriculture is excluded from this analysis.

(8,200) and Sales Personnel (7,400). In terms of share of current vacancies one can see from the final column in Table 4.3 that just over two-thirds of all vacancies occur in five occupational grades viz. Skilled Maintenance & Skilled Production (19 per cent); Personal Services (16 per cent); Clerical & Secretarial (13 per cent); Production Operatives (10.6 per cent) and Sales Personnel (9 per cent).

This detail on the absolute number or percentage share of vacancies by occupational grade further emphasises that the bulk of the vacancy problem when measured in "headcount" terms is in many of the manual and lower skill grades in the economy – e.g. Skilled Maintenance & Skilled Production, Personal Services and Clerical & Secretarial. Many of the professional grades contribute only a relatively small share to the total levels of outstanding vacancies.

The detail of vacancy levels in each size/sector category is shown in Table 4.4. From this one can see that the Construction sector has the highest vacancy rate (11 per cent). Within that sector vacancy rates among smaller firms are highest (13 per cent). This compares with a figure of 7 per cent among their larger counterparts. All other sectors experience rates in the range of 4-7 per cent. In general vacancy rates are highest among smaller than larger firms in each sector. Thus, although a smaller percentage of small firms have vacancies these make up a greater proportion of their requirement.

Table 4.4 allows one to assess the degree of variations in terms of vacancy rates for occupational grades according to size/sector classification. The reader should note that in some size/sector categories the current level of employment is very low in absolute terms, as is the number of outstanding vacancies. Given the low absolute base in some of these size/sector categories even a relatively small number of outstanding vacancies registers as a relatively high vacancy rate.[11] In interpreting the figures on rates in Table 4.4, therefore, the reader is advised to also consider the absolute levels driving these rates as set out in Appendix Table A4.4 to this chapter.

From Table 4.4 one can see, for example, that there is a substantially higher than average vacancy rate among Engineering Technicians in the Construction sector. Vacancy rates among Computer Technical Staff/Associate Professional grades and among Skilled Maintenance & Skilled Production categories were also higher in Construction than in other sectors of economic activity. Notwithstanding the higher vacancy rates in some occupational grades, the general story told by the figures in Table 4.4 is, once again, that the current vacancy problem is pervasive in all grades and across all sectors. Possibly the most noteworthy aspect of Table 4.4 is the relative uniformity of vacancy rates in each occupational grade across all size/sector categories.

[11] For example, in Table 4.4 one can see that there is a 50 per cent vacancy level among Computer Technical/Staff Associate Professional grades in the smaller Distributive Services sector. This represents an estimated vacancy level of 100 per cent on an existing base of 100 employees (rounded). Similarly, the 46 per cent rate among Engineering Professionals in the smaller Finance/Insurance/Business sector also represents a total of 100 vacancies on the existing base of 100.

Table 4.4: Summary Rates* of Vacancies by Occupational Grade Within Each Size/Sector Category in Percentages

	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			Distributive Services			Finance/Insurance/ Business Services			Transport/Personal/ Other Services			All Firms
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
		(Per cent)			(Per cent)			(Per cent)			(Per cent)			(Per cent)			(Per cent)		(Per cent)
Managers/Proprietors	3	1	2	3	2	3	0	6	1	0	1	0	1	3	2	2	5	4	2
Engineering Professionals	0	6	4	7	7	7	0	11	11	20	4	9	46	11	13	0	1	1	7
Science Professionals	0	2	1	16	6	7	0	0	0	0	2	2	0	6	6	0	0	0	4
Computer Professionals	12	9	10	10	11	11	0	11	11	0	5	4	6	11	9	0	7	7	9
Other Professionals	6	3	4	3	2	3	0	4	4	0	4	3	15	11	12	20	4	8	9
Engineering Technicians	7	5	6	9	7	8	37	11	26	33	5	18	24	15	17	0	2	2	15
Science Technicians	0	2	2	0	7	6	0	0	0	0	0	0	0	8	8	0	0	0	2
Computer Technical Staff/Associate Professional Staff	3	1	2	11	14	13	0	22	22	50	10	18	11	7	8	0	8	8	10
Other Associate Professional	11	2	6	13	2	7	0	3	3	0	6	3	0	3	3	0	0	0	2
Clerical & Secretarial	3	2	3	5	4	5	0	5	2	12	5	8	16	3	6	16	4	8	6
Skilled Maintenance & Skilled Production	4	3	4	7	5	6	0	8	17	22	5	11	0	9	7	60	2	10	11
Production Operatives	9	4	6	7	2	3	21	3	1	0	2	2	0	5	5	0	6	6	4
Transport & Communications	5	0	3	6	1	4	0	8	8	7	5	6	0	6	1	10	4	5	5
Sales	9	2	5	8	6	7	0	2	0	7	3	4	0	6	4	9	7	8	5
Security	0	2	1	0	0	0	0	3	3	0	0	0	0	6	6	0	3	3	4
Personal Services	4	3	4	3	1	1	0	3	3	0	0	0	0	7	7	11	11	11	11
Labourers	11	5	7	8	2	7	12	5	9	8	4	6	0	8	5	0	2	2	6
Total	7	4	5	7	3	4	13	7	11	7	3	5	8	6	6	11	7	7	6

*Vacancies/(Current Employment + Vacancies).

An alternative perspective on vacancy levels and rates within firms is provided in Table 4.5. This shows the distribution of firms according to (a) their number of current vacancies and (b) their vacancies as a percentage of their current workforce. Thus, from the left-hand segment of the table one can see that (as noted in previous sections) a total of 69 per cent of firms recorded having no vacancies. A further 15 per cent recorded one vacancy; 6 per cent 2 vacancies; 3 per cent 3 vacancies and so on. Similarly, from the right-hand segment of Table 4.5 one can see that 3 per cent of firms experienced a vacancy level which represented less than 5 per cent of its workforce; in a further 3 per cent of firms vacancies represent 5 – 10 per cent of their existing workforce; in 8 per cent of firms between 10 – 20 per cent of the existing workforce and so on. There is clearly a sizeable proportion of firms which are recording very high percentage levels of vacancies. One can see, for example, that in 8.6 per cent of firms vacancies represent more than 40 per cent of the total workforce. These are, in general, relatively small firms with 2-4 persons currently engaged but which are also experiencing vacancies of an additional 2-5 persons.

Table 4.5: Distribution of Firms According to (a) Number of Current Vacancies and (b) Vacancies as a Percentage of Current Workforce

(a) Number of Current Vacancies	Per Cent of Firms	(b) Vacancies as a Percent of Workforce	Per Cent of Firms
0	68.8	0	68.8
1	14.7	LT5	2.7
2	5.6	5–LT10	2.9
3	3.0	10–LT20	7.9
4–5	3.9	20–LT30	5.8
6–10	2.4	30–LT40	3.3
10–20	0.7	40–LT50	0.8
21+	0.9	50–LT75	5.5
		75+	2.3
Total	100.0	Total	100.0

4.2.2 CHANGES IN VACANCIES IN THE LAST TWELVE MONTHS

In the previous section we saw that the survey estimates indicate a vacancy level 77,600 representing a vacancy rate of 6.5 per cent i.e. 6.5 per cent of the total labour requirement is not being met. It is clearly of interest to consider how these figures have changed over the previous twelve month period. Tables 4.6 and 4.7 provide comparative figures on various aspects of vacancy levels over the first two rounds of the survey in 1998/1999 and 1999/2000.[12]

Table 4.6 provides a comparison of vacancies at a broad sectoral level in 1999/00 as compared with those derived from in the 1998/99 round of the survey. One can see that, in aggregate terms, the estimated level of vacancies has risen from 64,700 in 1998/1999 to 77,600 in 1999/00. This represents an increase in vacancies of some 12,900 or 21.1 per cent over the period in question. One can see that the number of vacancies fell in the Manufacturing sectors and also the Distributive Services sector. This fall in the *number* of vacancies in Manufacturing is consistent with the fall in the *incidence* of vacancies in both the Traditional and also Hi-Tech. Manufacturing sectors. We saw in our discussion of Table 4.2 that the percentage of firms which reported experiencing a vacancy had fallen in both sectors between the two rounds of the survey. The trend in the number of vacancies in the Distributive Services sector is not consistent with the trend in incidence levels. We saw in our discussion in Section 4.1 above that the percentage of firms in that sector which reported experiencing a vacancy had increased somewhat between 1998/99 and 1999/00 from 24 per cent to 28 per cent. This implies that although the incidence of experiencing a vacancy was increasing the average number of vacancies experienced by firms in the sector was

[12] As noted in Chapters 2 and 3 above, the figures on number of persons engaged and vacancies have been revised upwards since the publication of the results of the 1998/1999 round of the survey in line with more recently available national aggregates on the size and structure of the labour force as published in, for example, the Quarterly National Household Survey release for Q.2, 2000.

falling slightly over the period in question. It is obvious from Table 4.6 that the most substantial growth in the number of vacancies experienced was in the Construction sector. This rose from an estimated 5,700 in 1998/99 to 13,700 by 1999/00. This represents a 5 percentage point growth in the vacancy rate or a growth of 143 per cent (almost 2½ times the level in the base year). Substantial growth was also experienced in the Transport/Personal/Other Services sector (33 per cent or 6,200 persons) and Finance/Insurance/
Business Services (44 per cent or 3,200 persons).

Table 4.6: Comparison of Vacancy Levels and Rates in 1999/2000 Compared with 1998/1999

Sector	1998/99 Survey		1999/00 Survey		Change		
	Total Number	Vacancy Rate	Total Number	Vacancy Rate	Total Number	Vacancy Rate	
	Per Cent Recording Difficult-to-Fill Vacancies in Last Year					Per Cent Change	Percentage Point Change
Traditional Manufacturing	9,000	6	7,200	5	-1,800	-18.1	-1
Hi-Tech. Manufacturing	9,600	5	8,300	4	-1,300	-11.2	-1
Construction	5,700	6	13,700	11	+8,000	142.7	+5
Distributive Services	13,600	6	12,200	5	-1,400	-10.7	-1
Finance/Insurance/Business Services	7,800	5	11,000	6	+3,200	44.3	+1
Transport/Personal/Other	19,000	6	25,200	7	+6,200	32.5	+1
All Firms	64,700	5.8	77,600	6.4	+12,900	21.1	+0.6

The level or number of vacancies is only one side of the picture. The overall vacancy rate incorporates aspects of both the demand for labour in a sector as well as its supply. In assessing changes in the magnitude of the problems caused by labour shortages one should, therefore, consider the *vacancy rate*. One can see from Table 4.6 that the overall vacancy level rose by 0.6 percentage points from 1998/99 to 1999/00 – going from 5.8 per cent to 6.4 per cent. The reader is reminded that this increased vacancy rate is spread over a private sector labour force which has substantially grown over the period in question. It is clear from Table 4.6 that, notwithstanding changes in the level of vacancies in each sector over the period in question, the *vacancy rate* within each sector has changed by only within +/– 1 percentage point in most sectors. The exception to the trend is the Construction sector which has experienced a very substantial growth in its vacancy rate from 6 per cent to 11 per cent between 1998/99 and 1999/00.

Table 4.7 turns from a consideration of changes in sectoral vacancy rates to their consideration at the level of occupational grade. The first segment of the table (Section A) outlines changes in employment levels in each grade as estimated by the survey. These (and changes between them over the two years in question) provide a frame of reference for interpreting the figures contained in Section B of the table on vacancies. Section B outlines the distribution of estimated vacancies over the two years of the survey. One can see that a total of eight of the seventeen grades showed a fall in their level of vacancies. The most substantial absolute fall was in the Production Operative grade where vacancies dropped by 1,800 from 10,000 in 1998/99 to 8,200 in 1999/00. Most other falls were in the order of 200 to 600 vacancies. Perhaps somewhat surprisingly, vacancies in the Computer Professional and also Computer Technical/Associate Professional grades fell by 600 and 200 respectively over the period in question. These falls represent a drop of 38 per cent and 26 per cent in the *levels of vacancies* between 1998/99 and 1999/00. The estimated employment levels in both categories grew by an

Table 4.7: Distribution of Number of Private Sector Employees, Vacancies and Vacancy Rates Classified by Occupational Grade, 1998 and 1999

	(A) Employment Level		(B) Vacancy Levels and Change, 1998/99 and 1999/00				(C) Vacancy Rate		(D) Share of Vacancies	
						Per Cent				
	1998/99	1999/00	1998/99	1999/00	98/99 – 99/00	98/99 – 99/00	1998/99	1999/00	1998/99	1999/00
Managers/Proprietors	133,600	142,600	3,100	2,900	-200	-7.5	2.3	2.0	4.8	3.6
Engineering Professionals	16,100	19,500	2,000	1,500	-500	-15.5	11.0	7.1	3.0	2.1
Science Professionals	3,900	7,700	300	300	0	22.5	7.1	3.8	0.5	0.5
Computer Professionals	8,600	8,700	1,500	900	-600	-38.3	14.9	9.4	2.1	1.1
Other Professionals	30,000	40,700	1,000	4,000	3,000	313.5	3.2	8.9	1.5	5.1
Engineering Technicians	15,200	18,600	1,800	3,300	1,500	93.4	10.6	15.1	2.7	4.4
Science Technicians	3,700	3,900	200	100	-100	-12.0	5.1	2.5	0.3	0.2
Computer Technical Staff/ Associate Professional Staff	8,100	9,400	1,200	1,000	-200	-26.0	12.9	9.6	2.0	1.2
Other Associate Professional	9,500	13,300	100	300	200	93.8	1.0	2.2	0.3	0.5
Clerical & Secretarial	156,900	158,600	8,800	10,300	1,500	17.7	5.3	6.1	13.5	13.1
Skilled Maintenance & Skilled Production	107,500	119,200	10,100	14,600	4,500	45.6	8.6	10.5	15.6	18.7
Production Operatives	174,400	181,500	10,000	8,200	-1,800	-16.8	5.4	4.3	15.4	10.6
Transport & Communications	80,100	82,900	3,900	4,400	500	11.4	4.6	5.0	6.2	5.7
Sales	125,100	138,200	8,900	7,400	-500	-17.4	6.6	5.1	13.8	9.4
Security	4,500	5,300	400	200	-200	-48.4	8.2	3.6	0.6	0.3
Personal Services	101,900	104,100	7,900	12,400	4,500	57.4	7.2	10.6	12.2	15.9
Labourers	73,700	86,800	3,500	5,800	2,300	68.9	4.5	6.3	5.4	7.5
Total	1,052,800	1,141,000	64,700	77,600	12,900	21.1	5.8	6.4	100.0	100.0

aggregate total of 1,400 over the period. One interpretation of this fall in vacancies between the two rounds of the survey may lie in the Y2K phenomenon in the computer industry and the planned expansion of that sector at the time of the first survey in 1998/99 to cope with any potential problems which could have arisen. By the time of the second survey in 1999/2000 the employment impact of this phenomenon may well have peaked at that time and this was consequently reflected in a fall in then current vacancy levels.

Other grades which experienced substantial *percentage* falls in vacancy levels included Security Personnel (a fall of 48 per cent); Production Operatives and Sales Personnel (both fell by 17 per cent). The vacancy numbers involved in the Security Personnel grades are coming off a relatively small base. The fall in both Production Operatives and Sales (1,800 and 500 respectively) are more substantial and come off substantially larger bases. The drop in Production Operatives is, of course, consistent with the estimated lower incidence of vacancies in the Manufacturing sectors by the second round of the survey as compared with the first.

Occupations which experienced a substantial increase in the number of vacancies include the Other Professional grade (3,000 or 313 per cent); Engineering Technicians (1,500 or 93 per cent); Skilled Maintenance & Skilled Production (4,500 or 46 per cent); Personal Services (4,500 or 57 per cent) and Labourers (2,300 or 69 per cent).

The figures on vacancy rates for each grade in both 1998/99 and 1999/00 are shown in Section C of Table 4.7. As noted above the vacancy rate figures combine the current level of employment as well as current vacancy level within each grade and so give a slightly different perspective. From the figures in this section of the table one can see that the vacancy rate in the two computer grades has fallen – Computer Professionals from 14.9 per cent to 9.4 per cent while the related Computer Technical/Associated Professional grades fell from 12.9 per cent to 9.6 per cent. The grades which have shown the most rapid growth in vacancy rates over the period in question include Other Professionals (3.2 per cent to 8.9 per cent); Engineering Technicians (10.6 per cent to 15.1 per cent); Personal Services (7.2 per cent to 10.6 per cent) and Labourers (4.5 per cent to 6.3 per cent).

Finally, Section D of Table 4.7 summarises the percentage share of vacancies in the two years accounted for by each of the occupational grades. Two main points of note can be seen from this section of the table. First, the trends are simply a reflection or re-expression of the figures presented in Sections B and C of the table. Consequently, one can see a substantial increase in the percentage of vacancies accounted for by Other Professionals, Skilled Maintenance & Skilled Production, and Personal Services. In the shares of vacancies across grades, the general story told by the figures in each survey is one of a wide spread of vacancies across all grades at all skill levels. As noted earlier in this chapter, the non-professional grades contain a proportionally higher share of vacancies than do their professional counterparts. This is equally true of both years of the survey.

4.3 Recruitment Methods Used to fill Current Vacancies

In the course of the survey firms were presented with five pre-coded recruitment methods and asked to state which they were using to fill their current vacancies. The results are presented in Table 4.8.

From the table one can see that "Word of Mouth/Personal Contact" is the most frequently recorded recruitment method (mentioned by just under 80 per cent of respondents). This is followed by "Advertisements in the National/Local Papers" (58 per cent of firms) the services of support agencies such as FÁS, CERT etc. (37 per cent) and "Private Agencies" (29 per cent).

Table 4.8: Firms Which Said "That They Had Current Job Vacancies Classified by Methods of Recruitment Which They are Using to Fill Those Vacancies"

	Trad. Manufacturing	Hi-Tech. Manufacturing	Construction	

Methods of Recruitment	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
1. Ads. in National/Local Papers	71.9	84.4	74.1	78.2	87.0	80.0	54.5	73.0	56.4	
2. Ads. in Trade/ Specialist Journals	12.3	22.2	14.0	10.3	13.0	10.8	18.2	9.5	17.3	
3. State Agencies (FÁS, CERT etc.)	49.1	48.9	49.1	47.4	38.9	45.7	54.5	31.7	52.2	
4. Private Agencies	31.6	75.6	39.2	46.2	85.2	54.0	0.0	44.4	4.6	
5. Word of Mouth/ Personal Contact	77.2	75.6	76.9	74.4	79.6	75.4	90.9	77.8	89.6	
6. Other Methods	7.0	13.3	8.1	14.1	27.8	16.9	0.0	1.6	0.2	
	Distributive Services			Finance/Insurance/ Business Services			Transport/Personal/ Other Services			All Firms
Methods of Recruitment	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
1. Ads. in National/Local Papers	53.1	76.4	59.2	35.9	65.8	45.6	40.0	91.2	58.7	58.2
2. Ads. in Trade/ Specialist Journals	3.1	9.0	4.7	1.2	27.3	9.6	10.0	19.1	13.3	9.6
3. State Agencies (FÁS, CERT etc.)	31.2	39.3	33.4	17.5	31.7	22.1	40.0	44.1	41.5	36.8
4. Private Agencies	12.5	43.8	20.7	37.2	62.0	45.2	30.0	48.5	36.8	28.9
5. Word of Mouth/ Personal Contact	81.2	67.4	77.6	82.8	72.4	79.5	80.0	82.4	80.9	79.9
6. Other Methods	0.9	6.7	4.1	14.7	22.2	7.1	7.5	20.6	7.5	7.3

Note: Because firms could specify more than one method of recruitment totals sum to more than 100 per cent.

There are clearly some variations in recruitment methods used as between one sector and another and, indeed, between large and small firms within sectors. For example, "Ads in the National/Local Papers" are relatively much more important for firms in the Manufacturing sectors than for those in other sectors. A total of 74 to 80 per cent of firms in Traditional and Hi-Tech. Manufacturing used this approach in their recruitment. This compares with 58 per cent for all firms in aggregate. The role of employment support agencies such as FÁS and CERT is relatively less significant for firms in the Finance/Insurance/Business Services sector than for other sectors. Only 22 per cent of firms in that sector which said they had a current vacancy cited this as a recruitment method. This compares with 37 per cent of all firms in aggregate. Although the informal approach of "word-of-mouth" is used by firms in all sectors it is relatively more important in the Construction sector than in other sectors (90 per cent) compared with 80 per cent of all firms in aggregate). Finally, private employment agencies assume a relatively higher importance among firms with vacancies in the Hi-Tech. Manufacturing (54 per cent) and Finance/Insurance/Business Services sectors (45 per cent) than among their counterparts in other sectors.

The figures in Table 4.8 suggest that the more formal (and expensive) recruitment methods such as "Advertisement in the National/Local Papers"; "Trade/Specialist Journals" and "Private Agencies" are used to a greater degree among larger than smaller organisations. Table 4.9 outlines changes in the recruitment methods used by firms which experienced a current vacancy in 1999/2000 as compared with those which experienced a vacancy(ies) one year earlier. From this one can see that although the percentage of relevant firms which used each of the methods varied somewhat between the two rounds of the survey the relative importance of each method remained more-or-less consistent over the period in question. There is some evidence from the table to suggest that there has been a slight increase in the use of informal or Word-of-Mouth Contacts with a reduction in the use of formal approaches through advertisements in the National/Local papers or through State Agencies such as FÁS, CERT etc.

Table 4.9: Comparison of Recruitment Practices Used by Firms Which Experienced Vacancies, 1998/99 and 1999/00

	Per Cent of Firms with Vacancies	
	1998/99	1999/00
Ads in National/Local Papers	64.0	58.2
Ads in Trade/Specialist Journals	9.9	9.6
State Agencies (FÁS, CERT etc.)	46.6	36.8

Private Agencies	30.1	28.9
Word-of-Mouth/Personal Contact	74.0	79.9
Other Methods	8.0	7.3

Note: Because firms could specify more than one method of recruitment total sums to more than 100 per cent.

Firms which were experiencing vacancies at the time of the survey were asked whether or not they were attempting to recruit abroad. The responses are summarised in Table 4.10. From this one can see that a total of 15 per cent of relevant firms record that they are attempting to recruit abroad. One can see that among larger firms in all sectors except Distributive Services, over 40 per cent of firms with vacancies were attempting to recruit abroad. The highest incidence of recruiting abroad is evident in the Transport/Personal/Other Services (29 per cent) and Manufacturing (30 per cent among firms in Hi-Tech. manufacturing and 20 per cent among firms in the Traditional Manufacturing sector). The lowest incidence of recruitment abroad is in the Construction sector (4 per cent) and Distributive Services (8 per cent). One should note that both sectors are characterised by a pre-dominance of smaller firms which, as is clear from Table 4.9, have a much lower incidence of recruiting abroad than do their larger counterparts. This tends to substantially depress the incidence of overseas recruitment in the two sectors in question.

Table 4.10: Firms Which Have Current Job Vacancies Classified According to Whether or Not They Are Attempting to Recruit Abroad

Recruitment Abroad?	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	14.0	46.4	19.7	25.3	47.1	29.6	0.0	42.0	4.3	
No	86.0	53.6	80.3	74.7	52.9	70.4	100.0	58.0	95.7	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	1,000	200	1,200	900	200	1,100	1,300	300	2,900	
Recruitment Abroad?	**Distributive Services**			**Finance/Insurance/ Business Services**			**Transport/Personal/Other Services**			**All Firms**
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Yes	6.1	13.3	7.9	4.5	45.8	17.6	20.0	47.1	28.9	15.5
No	93.7	86.7	92.1	95.5	54.2	82.4	80.0	52.9	70.1	84.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	8,000	2,800	10,700	2,800	1,300	4,200	3,700	2,000	5,900	26,100

Table 4.11 summarises changes in the incidence of overseas recruitment between the first and second rounds of the survey. From this one can see that the overall incidence has increased by 2 percentage points over the period in question from 13 per cent in the 1998/99 survey to 15 per cent in the 1999/00 survey. At a broad sectoral level one can see that the largest changes in the incidence of overseas recruitment was in the Hi-Tech. Manufacturing sector. In 1998/99 a total of 17 per cent of firms in that sector which were experiencing vacancies were attempting to recruit abroad. By 1999/00 the figure had risen to 30 per cent. Incidence levels in the Transport/ Personal/Other Services also increased – from 21 per cent in the 1998/99 survey to 30 per cent in 1999/00. Levels remained largely constant in other sectors.

Table 4.11: Comparison of the Incidence of Attempted Overseas Recruitment by Firms Which Were Experiencing Current Vacancies Classified by Size/Sector Classification

Sector	Small		Large		Total	
	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00
	Per Cent Recording That They Were Attempting to Recruit Abroad					
Traditional Manufacturing	17.5	14.0	32.0	46.4	19.4	19.7
Hi-Tech. Manufacturing	11.1	25.3	41.7	47.1	16.6	29.6
Construction	0.0	0.0	35.0	42.0	6.8	4.3
Distributive services	5.3	6.1	12.3	13.3	7.2	7.9
Finance/Insurance/Business Services	5.4	4.5	40.4	45.8	16.3	17.6
Transport/Personal/Other	10.0	20.0	41.5	47.1	21.0	29.9
All Firms	–	–	–	–	13.4	15.5

4.4 The Incidence of Difficult-to-Fill Vacancies

In addition to being asked to record details on the incidence and levels of current vacancies, respondents were also asked to record whether or not they considered such vacancies to be "difficult-to-fill". The results are presented in Table 4.12. This shows that a total of almost one-quarter of firms currently consider that they have job vacancies which they consider to be difficult-to-fill. The incidence of difficult-to-fill vacancies is substantially higher in Manufacturing (45–48 per cent for Traditional and Hi-Tech. respectively) than in the other sectors. Construction and Transport/Personal/Other Services have incidence levels in the region of 33–34 per cent. Rates are lowest among firms in Distributive Services with difficult-to-fill vacancies being recorded by 18 per cent of firms. The rates of difficult-to-fill vacancies are substantially higher among the larger firms in each sector and for all firms in aggregate.

Table 4.12: Firms Classified by Whether or Not They Currently have Job Vacancies Which They Consider Difficult-to-Fill

Current Vacancies Which are Difficult-to-Fill	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	42.9	64.0	45.5	44.0	72.3	47.8	32.4	59.4	33.9	
No	57.1	36.0	54.5	56.0	27.7	52.2	67.6	40.6	66.1	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	2,100	300	2,300	1,900	300	2,100	8,000	500	8,500	
Current Vacancies Which are Difficult-to-Fill	**Distributive Services**			**Finance/Insurance/ Business Services**			**Transport/Personal/ Other Services**			**All Firms**
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Yes	14.4	40.9	17.6	17.5	65.7	23.5	25.7	59.1	32.5	24.9
No	85.6	59.1	82.4	85.5	34.3	76.5	74.3	40.9	67.5	75.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	35,500	4,600	36,200	14,000	2,000	13,500	13,000	3,300	16,200	83,500

In general, the incidence of difficult-to-fill vacancies largely mirrors the incidence of all vacancies in each size/sector category. This suggests that a large percentage of the vacancies which are experienced by firms are perceived as being difficult-to-fill. Table 4.13 summarises the percentage of firms in each size/sector category which (a) have vacancies and (b) which feel that some or all of their vacancies are difficult-to-fill. From the table one can see, for example, that a total of 80 per cent of firms which had vacancies consider some or all of these vacancies to pose problems in filling. The rates are highest in the Construction sector where all firms which experience vacancies consider some or all of them to be difficult-to-fill. Approximately 90–93 per cent of firms which experience vacancies in all other sectors (with the exception of Distributive Services) consider them to be difficult-to-fill. In Distributive Services the rate is somewhat lower with only 62 per cent of firms reporting recruitment problems.

Table 4.13: Firms Which Have Current Vacancies Classified According to Whether or Not They Feel that Some or All of their Vacancies are Difficult-to-Fill

Some or All Vacancies Difficult-to-Fill	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	89.5	91.0	89.7	92.4	96.4	93.2	100.0	100.0	100.0	
No	10.5	9.0	14.8	7.6	3.6	16.9	0.0	0.0	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Some or All Vacancies Difficult-to-Fill	**Distributive Services**			**Finance/Insurance/ Business Services**			**Transport/Personal/ Other Services**			**All Firms**
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Yes	60.6	67.8	62.5	86.1	97.5	89.8	90.0	89.9	90.0	79.8
No	39.4	32.2	37.5	13.9	2.5	10.2	10.0	10.1	10.0	20.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4.14 provides a comparison between the two rounds of the survey of the percentage of firms in each size/sector category which experience current vacancies and which also feel that some or all of these vacancies are difficult-to-fill. From this one can see that, in general, the percentage of firms which have problematic vacancies increased in almost all sectors between the 1998/99 and 1999/00 rounds of the survey. This increase has been most substantial in Finance/Insurance/Business (almost 30 percentage points) and Hi-Tech. Manufacturing (10 percentage points). It is interesting that the relevant percentage in Distributive Services has fallen dramatically from 96 per cent to 62 per cent. This fall has taken place among both large and small enterprises in the sector. Given the size of the sector in question this substantial shift in Distributive Service has been sufficient to drive the fall in the aggregate figure from 88 per cent to 80 per cent.

Table 4.14: Comparison of Percentage of Firms in 1998/1999 and 1999/2000 Rounds of the Survey Which Experience Current Vacancies and Which Also Feel that Some of Those Vacancies are Difficult-to-Fill

	Small	Large	Total
Trad. Manufacturing			
1998/99	85.9	80.0	85.2
1999/00	89.5	91.0	89.7
Hi-Tech. Manufacturing			
1998/99	84.4	77.1	83.1
1999/00	92.4	96.4	93.2
Construction			
1998/99	100.0	95.1	99.1
1999/00	100.0	100.0	100.0
Distributive Services			
1998/99	100.0	86.4	96.3
1999/00	60.6	67.8	62.5
Finance/Insurance/Business			
1998/99	48.0	88.3	60.5
1999/00	86.1	97.5	89.5
Transport/Personal/Other Services			
1998/99	90.0	86.8	88.9
1999/00	90.0	89.9	90.0
Total			
1998/99	–	–	88.1
1999/00	–	–	79.8

4.5 Nature of Most Difficult-to-Fill Vacancy

Firms which said they were experiencing vacancies which were difficult-to-fill were asked to specify the nature of the job which they were finding hardest to fill. The respondent was asked to record the nature of the most difficult-to-fill job on a verbatim basis. These verbatim responses were then "closed down" to a set of 13 occupational types or categories. The constituents of the categories are summarised in Table 4.15.

Table 4.15: Examples of Constituent Responses in Categories

Vacancy Category	Verbatim Response	Vacancy Category	Verbatim Response
Financial Specialists	Accountants Fund Administrators Financial Controllers	Unskilled	General Operatives General factory worker
Computer Specialists	Programmers System Analysts Software Engineers IT Specialists Network Controllers	Technical Sales	Sales reps. Technical sales reps.
Engineers	Mechanical Civil Electrical Quantity Surveying	Managers	Sales Managers Production Managers Dispatch Managers Processing Managers Retail/Wholesale Buyers
Chemists	Industrial Chemists Industrial Pharmacists	Retail Sales	Sales Assistant Shop Assistant Telesales Operator Florists
Technicians	Instrumentation Specialists Test Technicians Electronic Technicians	Clerical	Secretaries Book-keepers Accounts Clerks Typists Data Entry/PC Operators (including Supervisors)
Skilled Trades Persons	Electrician Welder Toolmaker Service Engineer (including Supervisors) Chargehands Foreman Chef Drivers		
Semi-skilled	Machine Operators Sewing Machinists Boners Bakers Butchers	Other Professionals	Statisticians Journalists

These provide a flavour of the nature of the difficult-to-fill positions as reported in Table 4.16. The reader is reminded that the table, by definition, relates to the 25 per cent of firms which recorded in the survey that they were experiencing difficult-to-fill vacancies. Given the reduced base for the table we present only the aggregate sectoral figures from the most recent round of the survey along with the overall figures for all firms from the 1998/99 survey for comparative purposes.

One can see from Table 4.16 that in the 1999/00 round of the survey the most frequently cited vacancy which was felt by respondents to be difficult-to-fill was Skilled Trades Persons (mentioned by 28 per cent of firms). This was followed by Clerical Staff (20 per cent) and Retail Sales (10 per cent). Technical Sales Personnel and Unskilled Workers were also mentioned on a relatively frequent basis (by 8 per cent and 6 per cent of relevant firms respectively).

There are clearly some variations in the nature of the most difficult-to-fill vacancy according to sector. Many of these trends conform with the nature of the activity undertaken. For example, unskilled, semi-skilled and skilled workers are most

frequently mentioned in Traditional Manufacturing (23 per cent; 20 per cent; and 16 per cent respectively). In the Hi-Tech. sector it is clearly vacancies for skilled workers which are seen as most difficult-to-fill. In Construction it is Skilled Trades Persons which are most frequently mentioned while in Distributive Services it is Retail Sales and Clerical staff which are most often cited.

From the final column in Table 4.16 one can compare the extent of change in firms' perceptions of the most difficult-to-fill vacancy between the 1998/99 and 1999/00 rounds of the survey. One can see that, in general, the relativities with which each type of difficult-to-fill vacancy is mentioned by firms remain reasonably constant over the period in question, even though the percentages of firms which mention Technicians, Skilled Trades Persons, Unskilled Workers, Clerical Staff and "Other" categories have increased somewhat between the two rounds of the survey.

The overall story told by the figures is that Skilled Trades Persons, Clerical Staff and Retail Sales staff are the main areas of concern to employers in terms of difficulty in filling relevant vacancies.

Table 4.16: Nature of the Single Vacancy or Type of Vacancy Which the Firm was Finding (or Found) Most Difficult-to-Fill, 1998/99 and 1999/2000 Surveys

	1999/2000 Survey							1998/1999 Survey
	Trad. Manuf-acturing	Hi-Tech. Manuf-acturing	Const-ruction	Distrib-utive Services	Fin./Ins./ Business Services	Transport/ Personal Services	All Firms	All Firms
Financial Specialists	1.9	0.4	0.2	0.0	4.8	1.1	1.1	0.6
Computer Specialists	5.0	6.1	0.0	0.9	12.8	1.1	3.0	7.4
Engineers	0.8	10.5	0.8	2.9	5.6	0.0	2.6	4.1
Chemists	0.4	1.0	0.0	0.3	0.0	0.0	0.2	0.0
Technicians	0.8	7.7	8.6	2.9	0.2	0.0	2.6	0.6
Skilled Trades Persons	15.6	30.9	71.7	13.1	15.4	43.6	28.1	24.8
Semi-Skilled	19.7	3.5	8.1	4.9	0.7	2.7	4.8	7.1
Unskilled	23.3	17.6	0.5	8.7	0.8	3.2	6.4	4.7
Technical Sales	9.6	4.5	0.0	14.9	1.4	3.8	7.9	10.1
Managers	9.3	6.7	1.1	2.4	1.0	11.7	4.7	8.1
Clerical	6.5	2.8	0.5	22.4	42.4	16.5	19.9	13.8
Other Professionals	0.0	2.2	0.0	0.0	12.5	7.4	3.7	4.9
Retail Sales	0.4	0.0	0.0	23.3	0.6	1.1	10.0	10.9
Other	6.0	6.0	8.3	3.2	1.9	7.9	4.9	2.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

4.6 Reasons for Problems in Filling Firms' Most Difficult-to-Fill Vacancy

Those firms which were currently experiencing a difficult-to-fill vacancy were presented with a set of nine pre-coded reasons and were asked to indicate which of these was/were responsible for the problems which they were encountering in filling the relevant vacanc(ies). The results are presented in Table 4.17.

From the table one can see that the most frequently cited reason is "Too much competition from other employers" (mentioned by 38 per cent of respondents). This is followed by "Shortage of applicants with appropriate experience" (31 per cent) and "shortage of applicants with appropriate practical skills" (30 per cent). All three of these are directed, in some degree, to issues related to the tightness of the labour market. Other possible response outcomes are mentioned on a much less frequent basis.

Although there are some sectoral differences in the extent to which the various responses are cited by employers the overall picture is very similar for each of the sectors. It is clear that substantially higher percentages of firms in Construction than in other sectors mention a shortage of applicants with either practical skills or relevant experience (62 per cent and 53 per cent respectively). In the Finance/Insurance/Business Sector the level of competition from other employers is mentioned by almost 60 per cent of respondents.

Table 4.17: Reasons Given by Firms for Encountering Problems in Filling their Single Difficult-to-Fill Current Vacancy, 1998/1999 and 1999/2000 Surveys

	Percentage of Firms Mentioning Reason: 1999/2000 Survey	1998/1999 Survey All Firms

	Trad. Man.	Hi-Tech. Man.	Const-Ruction	Distrib-utive Services	Fin/Ins/ Business Services	Transport/ Personal Services	All Firms	
Wages lower than other firms	7.0	10.3	0.2	12.0	5.2	3.8	7.4	16.0
Conditions of employment	8.2	1.0	0.2	3.0	1.2	8.0	3.7	8.3
No career progression	13.1	2.9	0.2	11.3	4.6	8.5	8.1	7.7
Too much competition	40.4	43.7	36.2	26.5	57.9	43.2	37.7	37.2
Shortage of applicants with practical skills	22.4	32.5	61.7	26.1	30.6	21.4	29.9	46.2
Shortage of applicants with qualifications	7.1	18.5	25.8	8.1	5.8	17.1	12.3	20.9
Shortage of applicants with experience	20.6	32.9	53.0	22.5	27.3	40.6	31.4	42.6
Unsocial hours	4.4	3.2	8.3	3.3	2.8	38.4	12.1	9.8
Other	9.7	8.1	8.8	9.3	3.3	14.9	9.6	11.9
Total							152.2	200.6

The final column of Table 4.17 provides details on the overall breakdown of responses from the 1998/99 survey.[13] One can see that, in general, on a relative basis, the three main issues signalled by respondents in the 1999/00 survey as explaining their difficulties in filling their most difficult-to-till vacancy also emerge from the 1998/99 survey.

4.7 Summary

In this chapter we considered several aspects of the incidence, level and characteristics of vacancies. We began by noting that the incidence of vacancies in the 1999/2000 survey was 31 per cent. This represented a slight increase from 27 per cent in the previous year. At a sectoral level the biggest increases were in the Construction, Distribution Services and Finance/ Insurance/Business Service sectors.

We saw that total vacancies in the 1999/2000 survey were in the order of 77,600. This represents a vacancy rate of 6.5 per cent of total labour requirement. It also represents a growth in the number of vacancies of 12,900 over the previous year when the figure stood at 64,700 giving a vacancy rate for 1998/99 of 5.8 per cent.

The most substantial growth in vacancies was found in the Construction sector where the figures rose from 5,700 to 13,700, representing an increase of 143 per cent. This sector also had the highest vacancy rate at 11 per cent of total labour requirement in the 1999/2000 survey.

In terms of the share of vacancies we saw that five occupational grades accounted for over two-thirds of all vacancies in the economy in 1999/2000 survey. These were Skilled Maintenance & Production Operatives (18 per cent); Personal Services (16 per cent); Clerical & Secretarial (13 per cent); Production Operatives (11 per cent) and Sales (9 per cent). The significance of these figures lies in the extent to which they clearly indicate that the tightness of the labour market is felt in all occupational grades of varying skill levels.

We found that some occupational grades experienced a fall in the number of vacancies between 1998/99 and 1999/2000. The most substantial absolute fall in vacancy numbers was in the Production Operative grade which went from 10,000 in 1998/99 to 8,200 in 1999/2000. Vacancies in the Computer Technical/Associate Professional and Computer Professional grades also fell (by 200 and 600 respectively). This may be related to forward planning for the Y2K phenomenon in the 1998/99 survey which was not an issue one year later in 1999/2000.

Occupational grades which experienced a substantial increase in the number of vacancies included: "Other Professional" grades (3,000); Engineering Technicians (1,500); Skilled Maintenance & Production (4,500); Personal Services (4,500) and Labourers (2,300).

[13] The reader should note that the total response given in the 1998/99 Survey sum to 200.6 per cent. This means that on average respondents volunteered 2 response codes. The comparable total for the 1999/00 survey is 152.2 per cent, representing an average of 1.5 responses per firms.

The issue of difficult-to-fill vacancies was also addressed. Just over one-quarter of firms experienced difficult-to-fill vacancies. In general, the highest percentages of firms mentioned vacancies in Skilled Trades Persons as being among the most difficult-to-fill. These grades were cited by 28 per cent of relevant firms. Other grades mentioned on a frequently occurring basis include Clerical grades (mentioned by 20 per cent of firms), Retail Sales Personnel (10 per cent) and Unskilled Workers (6 per cent of firms).

Firms' perceptions of the reasons for experiencing these difficult-to-fill vacancies largely revolved around issues related to the tightness of the labour market. These included "too much competition from other employers" (mentioned by 38 per cent of firms); shortage of applicants with the appropriate experience (31 per cent of firms) and shortage of applicants with the appropriate practical skills (mentioned by 30 per cent of firms).

Appendix Table A4.4: Current Employment, Vacancies and Percentage of Labour Requirement Currently Being Met, Classified by Size and Sector

	Traditional Manufacturing								
	0-99			100+			Total		
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	6,900	200	97	5,000	100	99	11,800	300	98
Engineering Professionals	300	0	100	600	0	94	900	0	96
Science Professionals	400	0	100	1,100	0	98	1,500	0	99
Computer Professionals	300	0	88	400	0	91	700	100	90
Other Professionals	1,100	100	94	1,600	0	97	2,700	100	96
Engineering Technicians	500	0	93	600	0	95	1,100	100	94
Science Technicians	200	0	100	700	0	98	900	0	98
Computer Technical Staff-Associate Professional Level	1,200	0	97	600	0	99	1,800	0	98
Other Associate Professional	600	100	89	700	0	98	1,300	100	94
Clerical and Secretarial	6,600	200	97	6,500	200	98	13,200	400	97
Skilled Maintenance & Skilled Production	8,500	400	96	6,200	200	97	14,600	500	96
Production Operatives	20,900	2,100	91	42,100	1,900	96	63,000	4,000	94
Transport & Communications	2,100	100	95	1,700	0	100	3,800	100	97
Sales	4,100	400	91	4,500	100	98	8,700	500	95
Security	100	0	100	200	0	98	300	0	99
Personal Service	400	0	96	700	0	97	1,100	0	96
Labours	5,700	700	89	6,900	300	95	12,600	1,000	93
Total	59,900	4,300	93	80,100	2,800	96	140,000	7,200	95
	Hi-Tech Manufacturing								
	0-99			100+			Total		
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	5,500	200	97	6,100	100	98	11,600	300	97
Engineering Professionals	1,800	100	93	5,300	400	93	7,100	500	93
Science Professionals	400	100	84	2,400	100	94	2,800	200	93
Computer Professionals	500	100	90	1,100	100	89	1,500	200	89
Other Professionals	700	0	97	1,800	0	98	2,600	100	97
Engineering Technicians	1,900	200	91	3,200	300	93	5,200	400	92
Science Technicians	400	0	100	1,700	100	93	2,100	100	94
Computer Technical Staff-Associate Professional Level	900	100	89	700	100	86	1,600	200	87
Other Associate Professional	600	100	87	800	0	98	1,400	100	93
Clerical and Secretarial	4,900	300	95	7,100	300	96	12,000	600	95
Skilled Maintenance & Skilled Production	12,000	900	93	15,000	800	95	27,100	1,600	94
Production Operatives	16,400	1,300	93	71,000	1,700	98	87,400	3,000	97
Transport & Communications	2,000	100	94	1,700	0	99	3,700	200	96
Sales	2,300	200	92	1,400	100	94	3,700	300	93
Security	0	0	100	300	0	100	400	0	100
Personal Service	400	0	97	700	0	99	1,100	0	99
Labours	5,700	500	92	2,000	0	98	7,700	500	93
Total	56,400	4,200	93	122,300	4,100	97	179,000	8,300	96

Appendix Table A4.4 (Cont'd)

	Finance/Insurance/Business Services								
	0-9			10+			Total		
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	12,500	100	99	18,800	600	97	31,300	700	98
Engineering Professionals	100	100	54	2,200	300	89	2,300	300	87
Science Professionals	0	0	100	2,200	100	94	2,200	100	94
Computer Professionals	1,400	100	94	2,900	300	89	4,300	400	91
Other Professionals	4,000	700	85	19,400	2,300	89	23,400	3,000	88
Engineering Technicians	800	300	76	3,200	600	85	4,000	800	83
Science Technicians	0	0	100	400	0	92	400	0	92
Computer Technical Staff-Associate Professional Level	600	100	89	3,600	300	93	4,300	400	92
Other Associate Professional	0	0	100	4,600	100	97	4,600	100	97
Clerical and Secretarial	10,600	2,000	84	48,600	1,700	97	59,200	3,700	94
Skilled Maintenance & Skilled Production	1,300	0	100	4,000	400	91	5,300	400	93
Production Operatives	300	0	100	4,500	200	95	4,700	200	95
Transport & Communications	2,300	0	100	600	0	94	2,900	0	99
Sales	3,500	0	100	6,700	400	94	10,200	400	96
Security	0	0	100	2,200	100	94	2,200	100	94
Personal Service	300	0	100	2,400	200	93	2,700	200	93
Labours	1,600	0	100	2,500	200	92	4,100	200	95
Total	39,300	3,400	92	128,800	7,800	94	168,100	11,000	94
	Construction								
	0-9			10+			Total		
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	16,400	0	100	2,700	200	94	19,100	200	99
Engineering Professionals	0	0	100	2,300	300	89	2,300	300	89
Science Professionals	0	0	100	0	0	100	0	0	100
Computer Professionals	0	0	100	0	0	89	0	0	89
Other Professionals	0	0	100	1,000	0	96	1,000	0	96
Engineering Technicians	2,100	1,200	63	2,300	300	89	4,400	1,500	74
Science Technicians	0	0	100	0	0	100	0	0	100
Computer Technical Staff-Associate Professional Level	0	0	100	0	0	78	0	0	78
Other Associate Professional	0	0	100	700	0	97	700	0	97
Clerical and Secretarial	6,200	0	100	2,600	100	95	8,800	100	98
Skilled Maintenance & Skilled Production	27,500	7,400	79	17,000	1,500	92	44,500	8,900	83
Production Operatives	800	0	100	800	0	97	1,600	0	99
Transport & Communications	0	0	100	1,500	100	92	1,500	100	92
Sales	2,100	0	100	200	0	98	2,300	0	100
Security	0	0	100	200	0	97	200	0	97
Personal Service	0	0	100	200	0	97	200	0	97
Labours	14,400	2,100	88	10,900	500	95	25,300	2,600	91
Total	69,500	10,700	87	42,400	3,000	93	111,900	13,700	89

Appendix Table A4.4 (Cont'd)

	Distributive Services								
	0-9			10+			Total		
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	24,300	0	100	10,500	100	99	34,700	100	100
Engineering Professionals	1,200	300	80	3,200	100	96	4,400	400	91
Science Professionals	0	0	100	900	0	98	900	0	98
Computer Professionals	400	0	100	1,000	100	95	1,500	100	96
Other Professionals	600	0	100	2,400	100	96	3,000	100	97
Engineering Technicians	900	400	67	1,500	100	95	2,400	500	82
Science Technicians	0	0	100	500	0	100	500	0	100
Computer Technical Staff-Associate Professional Level	100	100	50	1,000	100	90	1,100	300	82
Other Associate Professional	100	0	100	200	0	94	300	0	97
Clerical and Secretarial	11,400	1,600	88	16,100	800	95	27,500	2,400	92
Skilled Maintenance & Skilled Production	4,700	1,300	78	10,200	500	95	14,900	1,800	89
Production Operatives	400	0	100	15,300	400	98	15,700	400	98
Transport & Communications	4,100	300	93	5,600	300	95	9,700	600	94
Sales	38,000	2,800	93	54,400	1,600	97	92,400	4,400	96
Security	0	0	100	500	0	100	500	0	100
Personal Service	300	0	100	1,400	0	100	1,700	0	100
Labours	8,200	700	92	8,700	400	96	16,800	1,100	94
Total	94,700	7,500	93	133,400	4,600	97	228,000	12,200	95

	Transport/Personal/Other Services								
	0-9			10+			Total		
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	16,500	400	98	17,600	900	95	34,100	1,300	96
Engineering Professionals	0	0	100	2,500	0	99	2,500	0	99
Science Professionals	0	0	100	300	0	100	300	0	100
Computer Professionals	0	0	100	700	100	93	700	100	93
Other Professionals	1,500	400	80	6,500	300	96	8,000	700	92
Engineering Technicians	0	0	100	1,500	0	98	1,500	0	98
Science Technicians	0	0	100	0	0	100	0	0	100
Computer Technical Staff-Associate Professional Level	0	0	100	600	100	92	600	100	92
Other Associate Professional	0	0	100	5,000	0	100	5,000	0	100
Clerical and Secretarial	9,800	1,900	84	28,100	1,200	96	37,900	3,100	92
Skilled Maintenance & Skilled Production	800	1,100	40	12,100	300	98	12,800	1,400	90
Production Operatives	0	0	100	9,100	600	94	9,100	600	94
Transport & Communications	13,200	1,500	90	48,200	1,900	96	61,300	3,400	95
Sales	7,500	800	91	13,400	1,000	93	20,900	1,800	92
Security	0	0	100	1,700	100	97	1,700	100	97
Personal Service	9,000	1,100	89	88,300	11,100	89	97,300	12,200	89
Labours	800	0	100	19,500	400	98	20,300	400	98
Total	59,100	7,200	89	255,100	18,000	93	314,000	25,200	93

5. VACANCIES OVER THE PREVIOUS YEAR

In the previous chapters we considered the incidence of *current* vacancies and the extent to which these vacancies were considered by the employer to be difficult-to-fill. In this chapter we broaden the reference period somewhat to consider the incidence of difficult-to-fill vacancies in the year preceding the survey. The chapter is divided into five sections. We begin in Section 5.1 by discussing the extent or incidence of difficult-to-fill vacancies in the year preceding the survey. In Section 5.2 we move on to discuss the nature of the vacancies in question. Section 5.3 considers the consequences for businesses of experiencing the difficult-to-fill vacancies while Section 5.4 discusses the steps taken to fill the vacancies in question. Finally, Section 5.5 provides a brief summary of our main findings.

5.1 Incidence of Difficult-to-Fill Vacancies of the Last Year

Table 5.1 presents information on the incidence of difficult-to-fill vacancies in the year preceding the survey. From this one can see that one-third of all firms recorded that they had experienced difficult-to-fill vacancies in the reference period. The highest incidence of such vacancies was in the Hi-Tech. Manufacturing sector where as many as 54 per cent of all firms said that they had experienced the problematic vacancies in question. This was followed by the Traditional Manufacturing sector (46 per cent); Transport/
Personal/Other Services (39 per cent) and Finance/Insurance/Business Services (35 per cent). The rates were lowest in Distributive Services (28 per cent) and Construction (26 per cent).

Table 5.1: Firms Classified According to Whether or Not They Have Had any Vacancies in the Last Year Which Were Particularly Difficult-to-Fill

Vacancies Difficult-to-Fill in Last Year	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	44.5	57.7	46.2	51.2	69.3	53.7	20.0	70.8	26.3	
No	55.5	42.3	53.8	48.8	30.7	46.3	76.5	29.2	73.7	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	(2,100)	(300)	(2,400)	(1,900)	(300)	(2,200)	(8,000)	(500)	(8,500)	
Vacancies Difficult-to-Fill in Last Year	**Distributive Services**			**Finance/Insurance/ Business Services**			**Transport/Personal/Other Services**			**All Firms**
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Yes	23.2	65.8	28.4	29.4	72.3	34.8	31.4	70.5	39.3	32.7
No	76.8	34.2	71.6	70.6	27.7	65.2	68.6	29.5	60.7	67.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	(33,259)	(4,600)	(37,859)	(13,989)	(2,000)	(15,989)	(13,000)	(3,300)	(16,300)	(83,248)

In general, the incidence of difficult-to-fill vacancies was higher among larger firms in each of the sectors. As noted in our discussion of current vacancies in Chapter 4 above, this may reflect the fact that there are more positions or employment "slots" in larger than smaller companies and, consequently, the chances of having one or more of

those positions falling vacant and posing difficulties in filling are higher than in smaller companies.

Table 5.2 provides details on the extent to which firms currently experience a difficult-to-fill vacancy and have also experienced such a vacancy in the year preceding the survey. From this one can see, for example, that just under 20 per cent of all private sector firms in the population currently experience a difficult-to-fill vacancy and also experienced one in the year preceding the survey while a further 13.1 per cent experienced at least one difficult-to-fill vacancy in the year preceding the survey but was not experiencing one currently. One can see from the figures that 62 per cent of firms did not experience a difficult-to-fill vacancy either currently or in the year preceding the survey.

Table 5.2: Firms Which Had Difficult-to-Fill Vacancies Throughout Last Year Classified According to Whether or Not They Also Had Current Vacancies Which Were Difficult-to-Fill

Difficult-to-Fill Currently?	Difficult-to-Fill in Last Year		
	Yes	No	Total
		(Total Per Cent)	
Yes	19.6	5.3	25.0
No	13.1	62.0	75.0
Total	32.7	67.3	100.0

It is of relevance to our understanding of the prevalence and persistence of vacancies to consider what type of firms experience problematic vacancies both currently and also in the year preceding the survey. In other words, can we identify any sectoral patterns in the distribution of the subgroup of 19.6 per cent of firms which appear to have experienced a slightly more persistent problem with difficult-to-fill vacancies over the period in question.

Table 5.3 provides a breakdown of the 19.6 per cent of firms which experienced both current and historic difficulties in filling some vacancies. The table also outlines the percentage breakdown of all firms in the population according to the size/sectoral classification. By comparing the distribution of firms which display persistence in their difficulties in filling some vacancies with the distribution of all firms one can get some indication as to whether or not concentrations of firms with these persistent difficulties exist within given size/sector categories.

Table 5.3: Percentage Breakdown of Firms Which Had Experienced Both a Current Difficult-to-Fill Job Vacancy and Also a Difficult-to-Fill Vacancy in the Year Preceding the Survey, Classified According to Size/Sector

Size/Sector		Per Cent	Population Per Cent	Size/Sector		Per Cent	Population Per Cent
Traditional Manufacturing	1-99	4.2	2.5	Distributive Services	1-9	22.1	40.1
	100+	0.8	0.4		10+	10.0	5.5
Hi-Tech. Manufacturing	1-99	4.1	2.3	Finance/Insurance/	1-9	9.4	16.8
	100+	1.1	0.4	Business Services	10+	6.5	2.4
Construction	1-9	11.5	9.6	Transport/Personal/	1-9	18.2	15.6
	10+	1.6	0.6	Other Services	10+	10.6	4.0
				Total		100.0	100.0

From the figures in Table 5.3, for example, one can see that 4.2 per cent of the firms which have experienced greater persistence in their difficult-to-fill vacancies are in the smaller Traditional Manufacturing sector. This set of firms represents 2.5 per cent of all private sector companies. This means that firms which are experiencing persistence in terms of difficulties in filling vacancies are over-represented in the smaller traditional manufacturing sector to the extent of 68 per cent (4.2 per cent compared with 2.5 per cent). Similarly, firms which are experiencing persistent problems in terms of difficult-to-fill vacancies are over-represented to the extent of

100 per cent among the larger Traditional Manufacturing sector (0.8 per cent compared with 0.4 per cent in the population).

Overall, one can see from Table 5.3 that persistence in terms of experiencing difficult-to-fill vacancies is substantially over-represented among firms in all sectors except for Distributive Services (retail and wholesale distribution) and Finance/Insurance/Business Services – though even in these two sectors there would appear to be an over-concentration of the persistent problem among larger firms. Overall, therefore, the figures would suggest that persistence of difficult-to-fill vacancies is generally widespread in all size/sector categories with the exception of smaller enterprises involved in Distributive Services and in the Finance/Insurance/Business Services sector.

It is obviously of interest to consider how the incidence of difficult-to-fill vacancies in the year preceding the survey has changed from 1998/99 to 1999/2000 (i.e. between the first and second rounds of the survey). Table 5.4 provides a comparison for the two years in question according to size sector category. The figures in the table refer to the percentage of firms in each category which said that they had experienced a difficult-to-fill vacancy in the year preceding the survey. Thus, for example, from the bottom row of the table one can see that a total of 26 per cent of all firms in the first round of the survey told us at the beginning of 1999 that they had experienced a difficult-to-fill vacancy in the year preceding the survey. By the second round of the survey in early 2000 a total of 33 per cent of firms recorded that they had experienced such a vacancy in the previous 12 months. If one concentrates on the last two columns one can see that the incidence of difficult-to-fill vacancies in the year preceding the survey fell from 53 per cent to 46 per cent in the Traditional Manufacturing sector while those in Hi-Tech. Manufacturing sector remained largely static at 53-54 per cent. One can see that the incidence of such vacancies increased in all other sectors, the largest increase being apparent in the Finance/Insurance/Business Services sector which rose from 19 per cent to 35 per cent between the two rounds of the survey. Manufacturing in general, therefore, appears to be relatively distinct from other sectors and in general to have been characterised by stable or slightly falling incidences of difficult-to-fill vacancy levels in the year preceding the survey.

Table 5.4: Percentage of Firms Reporting Having Experienced a Difficult-to-Fill Vacancy in the 1998/99 and 1999/00 Rounds of the Survey Classified by Size/Sector Category

Sector	Small[1]		Large[2]		Total	
	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00
	Per Cent Recording Difficult-to-Fill Vacancies in Last Year					
Traditional Manufacturing	51.2	44.5	66.7	57.7	52.9	46.2
Hi-Tech. Manufacturing	51.2	51.2	67.7	69.3	53.4	53.7
Construction	20.0	23.5	62.2	70.8	23.1	26.3
Distributive Services	17.3	23.2	59.3	65.8	22.2	28.4
Finance/Insurance/Business Services	13.8	29.4	65.8	72.3	19.2	34.8
Transport/Personal/Other	25.7	21.4	79.5	70.5	35.1	39.3
All Firms	–	–	–	–	26.1	32.7

[1] *Small* in the Manufacturing sectors refers to 1-99 persons employed; in Services to 1-9 persons.
[2] *Large* in the Manufacturing sectors refers to 100+ persons employed; in Services to 10+ persons.

5.2 Nature of Most Difficult-to-fill Vacancies

Table 5.5 outlines details on the nature of the single vacancy or type of vacancy which firms found difficult-to-fill in the twelve months preceding the survey. From the final column in the table one can see that, in aggregate across all sectors, the type of vacancy mentioned by the largest percentage of firms was Skilled Trades Persons (cited by 29 per cent of firms). This was followed by Clerical Staff (mentioned by 20 per cent of firms) and Retail Sales (10 per cent of firms).

Notwithstanding some variations by size/sector categories the Skilled Trades Persons and Clerical Grades are consistently mentioned by the largest percentage of firms. The Skilled Trades Person was, as one might expect, mentioned by a particularly high percentage in the Construction sector (74 per cent) and by 32 per cent of firms in Hi-Tech. Manufacturing. Clerical Grades were mentioned by 38 per cent of firms in

Finance/Insurance/
Personal Services.

Table 5.5: Nature of the Single Vacancy or Type of Vacancy Which the Firm Found Most Difficult-to-Fill in Last Year

	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Financial Specialists	0.0	2.9	0.5	2.4	1.9	2.3	0.0	0.0	0.0	
Computer Specialists	1.9	8.0	2.9	5.9	12.0	6.9	0.0	1.4	0.2	
Engineers	0.0	0.0	0.0	10.6	22.1	12.6	0.0	7.9	1.3	
Chemists	0.0	0.0	0.0	1.1	1.9	1.4	0.0	0.0	0.0	
Technicians	1.9	10.9	3.2	9.5	1.9	8.1	12.5	2.5	11.0	
Skilled Trades Persons	24.5	13.2	22.8	30.6	38.0	31.9	75.0	69.2	74.1	
Semi-Skilled	20.7	10.9	19.2	4.7	1.9	4.2	0.0	0.0	0.0	
Unskilled	20.7	21.8	20.9	12.9	6.3	11.7	0.0	5.4	0.8	
Technical Sales	9.4	8.0	9.2	4.7	0.0	3.9	0.0	0.0	0.0	
Managers	5.7	8.0	6.0	5.9	6.3	5.9	0.0	4.0	0.6	
Clerical	7.6	5.2	7.2	7.1	3.8	6.5	12.5	5.4	11.4	
Other Professionals	1.9	2.9	2.0	1.1	3.8	1.7	0.0	1.4	0.2	
Retail Sales	0.0	5.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	
Other	5.7	2.9	5.3	3.5	0.0	2.9	0.0	2.8	0.4	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	(936)	(174)	(1,109)	(900)	(200)	(1,100)	(1,400)	(300)	(1,700)	

	Distributive Services			Finance/Insurance/ Business Services			Transport/Personal/Other Services			All Firms
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Financial Specialists	0.0	6.1	1.7	10.1	12.1	10.6	0.0	8.1	2.9	3.7
Computer Specialists	0.0	2.0	0.6	17.4	15.4	16.8	0.0	1.3	0.5	4.2
Engineers	0.0	1.0	0.3	0.0	6.5	1.7	0.0	0.0	0.0	1.1
Chemists	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Technicians	3.1	3.1	3.1	0.0	0.2	0.1	0.0	0.0	0.0	2.6
Skilled Trades Persons	25.0	17.3	22.8	10.2	14.9	11.4	45.5	33.8	41.2	29.4
Semi-Skilled	6.3	2.0	5.1	9.6	0.0	7.1	0.0	4.0	1.5	4.8
Unskilled	3.1	10.2	5.1	0.0	0.5	0.1	0.0	8.1	2.9	4.2
Technical Sales	15.6	10.2	14.1	11.0	2.3	8.8	0.0	6.7	2.4	8.5
Managers	3.1	5.1	3.7	0.0	5.7	1.5	9.1	9.5	9.2	4.5
Clerical	15.6	15.3	15.5	40.4	32.0	38.2	18.2	17.6	18.0	19.7
Other Professionals	0.0	0.0	0.0	0.3	3.9	1.2	9.1	1.3	6.3	1.9
Retail Sales	25.0	25.5	25.1	0.0	1.7	0.4	0.0	2.7	1.0	10.3
Other	3.1	2.0	2.8	1.2	4.9	2.1	18.2	6.7	14.1	5.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	(7,712)	(3,027)	(10,739)	(4,113)	(1,447)	(5,561)	(4,084)	(2,326)	(6,411)	(27,239)

Table 5.6 presents a summary comparison of the aggregate figures for the single vacancy or type of job which firms found most difficult-to-fill in the year preceding the survey across all sectors and size categories for both 1998/99 and also 1999/00. From this one can see that although the frequency with which some occupational grades have been mentioned has changed somewhat between the first and second rounds of the enquiry the relative ranking of the most frequently cited grades has not changed substantially. One can see that there has been an increase in the percentage of firms which mention Skilled Trades Persons (22 per cent in 1998/99 to 29 per cent in 1999/00) and also Clerical grades (14 per cent to 20 per cent). Grades which have experienced a small absolute increase in the percentage of firms referring to them as being the single most difficult-to-fill vacancy of the last year include Financial Specialists (2.4 per cent to 3.7 per cent); Computer Specialists (3.5 per cent to 4.2 per cent) and Retail Sales (8.5 per cent to 10.3 per cent). The percentages of firms mentioning Semi-skilled and Unskilled Workers falls fairly substantially as do the percentages mentioning Managers, Technical Sales and Other Professional grades. The overall significance of the table derives from the extent to which it re-enforces the underlying trend that the tightness in the labour market is being experienced across all grades in all sectors. These figures indicate that vacancies and difficulties in filling them are not restricted to a small number of occupational grades at any level in the labour market.

Table 5.6: Comparison of the Nature of the Single Vacancy or Type of Vacancy Which the Firm Found the Most Difficult-to-Fill in the Year Preceding the Survey

Sector	Per Cent of Firms Mentioning			Per Cent of Firms Mentioning	
	1998/99	1999/00		1998/99	1999/00
Financial Specialists	2.4	3.7	Unskilled	8.0	4.2
Computer Specialists	3.5	4.2	Technical Sales	12.6	8.5
Engineers	2.4	1.1	Managers	8.0	4.5
Chemists	0.2	0.1	Clerical	14.4	19.7
Technicians	2.8	2.6	Other Professionals	4.5	1.9
Skilled Trades Persons	21.8	29.4	Retails Sales	8.5	10.3
Semi-Skilled	9.5	4.8	Other	1.3	5.2
			Total	100.0	100.0

5.3 Consequences of Difficult-to-Fill Vacancies

In the course of the survey respondents were presented with six pre-coded outcomes or impacts of difficult-to-fill vacancies in the year preceding the survey. They were asked to indicate whether or not the difficult-to-fill vacancy(ies) which they encountered in the year in question resulted in any of the six outcomes. The results are presented in Table 5.7.

One can see that, in aggregate, the most frequently cited outcome was an increased strain on management and staff in covering the shortages in question. This was mentioned by 81 per cent of relevant firms. Restricted business development was cited by 62 per cent while a loss of quality of service was recorded by 57 per cent. Just under 40 per cent of all relevant firms each mentioned "increased running costs" and "increased recruitment costs" while 31 per cent cited "a loss of business to competitors".

Some variations in perceived consequences of difficult-to-fill vacancies according to size/sector classification are apparent from the table. For example, a reduction in the quality of service provided is mentioned more frequently by firms in the Transport/Personal/Other Services and Construction sectors; the constraints imposed on business development are cited on an above average basis by the Construction and Financial/Insurance and Business Services sectors; increased strain on management and staff is referred to most frequently in the Distribution sector; increased running costs are mentioned most frequently by firms in Construction and Distribution.

The question on perceived consequences of difficulties associated with difficult-to-fill vacancies in the year preceding the survey presented the respondent with the six pre-coded response categories and asked him/her to tick all that applied. Consequently, the percentages in Table 5.7 add to more than 100 per cent. One can see that in aggregate, the percentages sum to 309.2 per cent. This implies that each relevant firm ticked just over three of the potential six codes for consequences of difficult-to-fill vacancies. It is worth noting that the total of the percentage in the Construction sector was 358.5 per cent, representing an average of 3.6 answers per relevant respondent. This implies that respondents in the Construction sector perceive that there were more consequences of perceived difficulties in filling difficult-to-fill vacancies than did respondents in other sectors. This seems to imply that the tightening labour market is having a disproportionately high impact on the Construction sector as compared with other areas of activity.

Table 5.7: Perceived Consequences of Difficulties Associated with Hard-to-Fill Vacancies Which Firm Experienced in the Last Year

	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
1. Loss of business to competitors	37.3	22.2	34.9	27.4	18.0	25.7	25.0	16.4	23.7	
2. Loss of quality of service	35.3	44.4	36.7	48.8	42.0	47.6	87.5	37.0	79.7	
3. Restricted business development	58.8	55.6	58.3	64.3	52.0	62.1	87.5	53.4	82.2	

4. Increased strain on management & staff in covering shortages	82.4	86.1	82.9	90.5	84.0	89.3	75.0	74.0	74.8	
5. Increased running costs	41.2	55.6	43.4	53.6	50.0	52.9	62.5	56.2	61.5	
6. Increased recruitment costs	47.1	75.0	51.5	38.1	72.0	44.1	37.5	31.5	36.6	
Total			307.7			321.7			358.5	
	Distributive Services			**Finance/Insurance/ Business Services**			**Transport/Personal/ Other Services**			**All Firms**
	0-9	**10+**	**Total**	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	
1. Loss of business to competitors	27.6	23.7	27.4	34.1	16.5	29.6	50.0	23.7	41.7	30.7
2. Loss of quality of service	41.4	74.2	48.8	55.5	49.5	54.0	70.0	79.7	68.0	57.4
3. Restricted business development	55.2	44.3	64.3	77.4	62.9	73.7	70.0	82.2	62.3	62.3
4. Increased strain on management & staff in covering shortages	82.8	87.6	90.5	66.8	85.7	71.6	80.0	74.8	83.0	80.6
5. Increased running costs	34.5	36.1	53.6	31.2	40.3	33.5	30.0	61.5	37.2	38.6
6. Increased recruitment costs	34.5	52.6	38.1	33.1	57.3	39.3	30.0	36.6	37.7	39.6
Total			322.7			301.7			329.9	309.2

Table 5.8 compares the perceived impacts of the tight labour market in the first two rounds of the survey. From this one can see that loss of quality of service, constraints to business development, and increases in recruitment costs were all mentioned by a higher percentage of firms in 1999/00 than in 1998/99. All these factors increased by 6-7 percentage points over the period in question. It is clearly of significance that increasing proportions of firms are saying that the *quality* of the goods or services which they provide has been adversely affected by labour shortages. This trend is particularly apparent in the Construction sector where the percentage mentioning changes in the quality of their output rises from 57 per cent in the 1998/99 survey to 80 per cent in the 1999/00 survey.

Table 5.8: Comparisons of Perceived Consequences of Difficulties Associated with Hard-to-Fill Vacancies Which Firm Experienced, in the Year Preceding the Survey in Both the 1998/99 and 1999/00 Rounds

	Trad. Manufacturing		**Hi-Tech. Manufacturing**		**Construction**		
	1998/99	**1999/00**	**1998/99**	**1999/00**	**1989/99**	**1999/00**	
1. Loss of business to competitors	26.5	34.9	26.3	25.7	35.8	23.7	
2. Loss of quality of service	43.0	36.7	51.7	47.6	56.7	79.7	
3. Restricted business development	58.2	58.3	65.5	62.1	74.0	82.2	

4. Increased strain on management & staff in covering shortages	75.7	82.9	84.6	89.3	79.5	74.8		
5. Increased running costs	54.8	43.4	52.1	52.9	59.8	61.5		
6. Increased recruitment costs	42.0	51.5	40.4	44.1	20.1	36.6		
	Distributive Services		**Finance/Insurance/ Business Services**		**Transport/Personal/ Other Services**		**All Firms**	
	1998/99	**1999/00**	**1998/99**	**1999/00**	**1998/99**	**1999/00**	**1998/99**	**1999/00**
1. Loss of business to competitors	23.2	26.4	22.6	29.6	43.4	41.7	30.2	30.7
2. Loss of quality of service	48.2	51.2	34.9	54.0	61.9	68.0	50.8	57.4
3. Restricted business development	53.9	51.9	45.5	73.7	57.8	62.3	56.3	62.3
4. Increased strain on management & staff in covering shortages	86.3	84.2	94.6	71.6	88.4	83.0	86.6	80.6
5. Increased running costs	32.8	35.0	28.3	33.5	43.6	37.2	39.8	38.6
6. Increased recruitment costs	32.4	39.9	34.5	39.3	29.4	37.7	31.8	39.6

5.4 Steps Taken to Address Difficult-to-Fill Vacancies

Table 5.9 outlines the response by firms to their difficult-to-fill vacancies of the 12 months preceding the survey. Firms were presented with the nine pre-coded response outcomes as outlined in the table and asked to indicate which steps they had taken to address their particularly problematic vacancies.

From the figures one can see that the most frequently recorded response to the tightening labour market is an increase in wages or salaries. This was mentioned by 55 per cent of relevant firms. The next most frequently cited responses were the consideration of a wider range of people for employment (mentioned by 47 per cent of firms); and the training of less qualified recruits (27 per cent). The retraining of existing staff, the establishment of greater links with schools and colleges, and the changing of job specifications were each mentioned by approximately 12–16 per cent of firms.

Table 5.9: Steps Taken by Firms to Address the Difficult-to-Fill Vacancies Which Were Experienced by Firms in the Last Year

	Trad. Manufacturing			**Hi-Tech. Manufacturing**			**Construction**		
	0-99	**100+**	**Total**	**0-99**	**100+**	**Total**	**0-9**	**10+**	**Total**
1. Offering higher pay	55.8	58.3	56.2	61.4	50.0	59.5	62.5	57.3	61.7
2. Wider range of people	42.3	58.3	44.8	48.2	60.4	50.3	50.0	38.7	48.2
3. Retrain existing staff	23.1	30.6	24.2	21.7	35.4	24.1	0.0	16.0	2.5
4. Train less qualified recruits	42.3	36.1	41.3	38.6	37.5	32.8	12.5	29.3	15.2
5. Hired part time/ contract staff	19.2	22.2	19.7	31.3	39.6	20.1	50.0	42.7	48.8
6. Links with School & Colleges	11.5	25.0	13.6	16.9	35.4	13.2	0.0	12.0	1.9
7. Change job specifications of other staff	5.8	11.1	6.6	12.0	18.8	13.2	0.0	10.7	1.7

8. Change job specs. by automating tasks	7.7	11.1	8.2	10.8	4.2	9.7	0.0	1.3	0.2	
9. Other	9.6	13.9	10.3	7.2	8.3	7.4	0.0	10.7	1.7	
	Distributive Services			**Finance/Insurance/ Business Services**			**Transport/Personal/ Other Services**			**All Firms**
	0-9	**10+**	**Total**	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	
1. Offering higher pay	56.2	66.3	59.1	25.0	64.6	35.2	66.1	58.9	63.5	55.2
2. Wider range of people	40.6	59.2	45.9	54.5	40.6	51.0	44.4	50.7	47.0	47.5
3. Retrain existing staff	6.2	21.4	10.5	3.1	23.2	8.3	11.1	23.3	16.1	11.7
4. Train less qualified recruits	25.0	35.7	28.0	30.6	37.5	32.4	11.1	30.1	18.9	26.9
5. Hired part time/contract staff	28.1	29.6	28.5	32.9	23.0	30.4	55.6	39.7	49.1	34.9
6. Links with School & Colleges	9.4	16.3	11.3	31.2	27.4	30.3	11.1	27.4	17.7	16.3
7. Change job specifications of other staff	6.2	14.3	8.5	12.2	16.5	13.3	22.2	16.4	19.9	11.5
8. Change job specs. by automating tasks	3.1	4.1	3.4	0.8	11.1	3.5	0.0	4.1	1.7	3.3
9. Other	9.4	4.1	7.9	12.6	9.8	11.9	11.1	15.1	12.7	9.3

Table 5.10 summarises the changes between 1998/99 and 1999/00 in firms' responses to the difficult-to-fill vacancies which they experienced over the year preceding the survey. From this one can see that there has been an 11 point increase in the percentage of firms citing an increase in pay – 44 per cent in 1998/99 and 55 per cent in 1999/00. The wage inflationary impact of this trend is clearly apparent. It is also obvious that there are sectoral differences in the extent to which this option is being increasingly used by firms. In the Construction sector, for example, this response was indicated by only 26 per cent in 1998/99 but was recorded by as many as 62 per cent in 1999/00. One can also see that the use of part-time or contract staff in response to the difficult-to-fill vacancies has increased substantially over the period in question for the Construction sector (from 24 per cent to 49 per cent).

Table 5.10: Comparisons of Steps Taken by Firms to Address the Difficult-to-Fill Vacancies Which They Had Experienced in the Preceding Twelve Months in Both 1998/99 and 1999/00

	Trad. Manufacturing		**Hi-Tech. Manufacturing**		**Construction**		
	1998/99	**1999/00**	**1998/99**	**1999/00**	**1998/99**	**1999/00**	
1. Offering higher pay	46.5	56.2	37.0	59.5	26.3	61.7	
2. Wider range of people	44.4	44.8	47.8	50.3	24.0	48.2	
3. Retrain existing staff	15.4	24.2	23.9	24.1	39.4	2.5	
4. Train less qualified recruits	31.1	41.3	33.5	38.4	5.0	15.2	
5. Hired part time/contract staff	34.7	19.7	32.3	32.8	23.6	48.8	
6. Links with School & Colleges	18.5	13.6	18.4	20.1	18.9	1.9	
7. Change job specifications of other staff	9.9	6.6	24.3	13.2	1.9	1.7	

8. Change job specs by automating tasks	13.1	8.2	9.9	9.7	0.8	0.2		
9. Other	8.5	10.3	10.4	7.4	1.2	1.7		
	Distributive Services		**Finance/Insurance/ Business Services**		**Transport/Personal/ Other Services**		**All Firms**	
	1998/99	**1999/00**	**1998/99**	**1999/00**	**1998/99**	**1999/00**	**1998/99**	**1999/00**
1. Offering higher pay	35.1	59.1	50.1	35.2	61.0	63.5	44.5	55.2
2. Wider range of people	37.4	45.9	55.7	51.0	60.3	47.0	46.2	47.5
3. Retrain existing staff	11.0	10.5	13.4	8.3	17.7	16.1	17.0	11.7
4. Train less qualified recruits	42.1	28.0	15.7	32.4	33.9	18.9	31.2	26.9
5. Hired part time/contract staff	32.6	28.5	26.5	30.4	35.4	48.1	21.7	34.9
6. Links with School & Colleges	22.7	11.3	11.1	30.3	18.4	17.7	18.9	16.3
7. Change job specifications of other staff	8.8	8.5	9.4	13.3	14.7	19.9	10.9	11.5
8. Change job specs by automating tasks	1.6	3.4	1.8	3.5	2.2	1.7	3.0	3.3
9. Other	6.1	7.9	5.7	11.9	9.5	12.7	7.0	9.3

It is noteworthy that the retraining of existing staff and the training of less qualified recruits both seem to have fallen in terms of their importance as a response to the difficult-to-fill vacancies. One possible interpretation of this would be that firms have reached an upper limit in terms of the number of their staff who can be re-skilled/up-skilled and the number of less qualified recruits who can be trained up in the first instance. If this is the case than it is clear that further expansion will be met with more labour constraints on the supply side which may further feed wage inflation.

5.5 Summary

In this chapter we have considered the incidence, nature and consequences of difficult-to-fill vacancies in the year preceding the survey as well as firms' responses to these problematic vacancies.

Overall, we found that just under one-third of firms had experienced difficult-to-fill vacancies in the year preceding the survey. The highest incidence of these were in the Manufacturing sector. The overall level of difficult-to-fill vacancies has increased from 26 per cent in the 1998/99 round of the survey to 33 per cent in the 1999/00 round.

In terms of the nature of the difficult-to-fill vacancies which were experienced in the year preceding the survey we found that by far the most frequently cited occupational categories were the Skilled Trades persons and Clerical grades. We also saw that the frequency with which both these grades were being mentioned was increasing. The former increased from 22 per cent in 1998/99 to 29 per cent in 1999/00 while the latter increased from 14 per cent in the earlier survey to 20 per cent in the later one.

The main consequence of the difficult-to-fill vacancies of the last year was the perceived strain which this placed on management and staff in covering for shortages. When the six pre-coded consequences were put to respondents as many as 81 per cent cited this additional strain on both management and staff. Restricted business development and loss of quality of services were also mentioned on a frequent basis. The former by 62 per cent and the latter by 57 per cent of relevant firms.

Perhaps one of the most notable aspects of difficult-to-fill vacancies of the last year was the extent to which they have exerted upward pressure on wage levels. When presented with nine pre-coded options relating to firms' responses to the difficult-to-fill vacancies experienced in the 12 months preceding the survey we found that 55 per cent of firms which experienced such vacancies said that the labour shortages had forced them to offer higher pay to staff. When compared with figures from the previous year's survey we found that the percentage of relevant firms citing this response had increased over the period by 11 percentage points. We noted that the extent to which firms had indicated that they would retrain existing staff had fallen while changing the job specification of existing staff or drawing from a wider range of

potential recruits had both stayed the same over the two surveys. The hiring of part-time or contract staff in response to the tightening labour market situation showed a fairly substantial increase from 22 per cent to 35 per cent over the two surveys.

6. DIFFICULTIES IN RETAINING STAFF AND PERCEIVED CHANGES IN SKILL LEVELS

In this chapter we consider two main aspect of the current labour market. First, we discuss the extent to which businesses are experiencing difficulties in retaining their existing staff, the nature and types of jobs where such difficulties are being experienced and the perceived reasons for those difficulties. We then move on to consider firms' perceptions of the extent of changes in skill levels among their workforce over the previous twelve months and their views, where relevant, of the reasons driving these changes.

6.1 Difficulties in Retaining Staff – Incidence levels and Nature of Jobs Affected

Table 6.1 presents details on the incidence of current difficulties experienced by firms in retaining their existing staff. One can see from the table that almost one in five (19 per cent) record that they are experiencing such difficulties. The incidence of these difficulties appear to be substantially greater in Manufacturing (particularly the Hi-Tech. end of Manufacturing) than in other sectors. Over 36 per cent of companies in the Hi-Tech. sector and 29 per cent of these in the Traditional Manufacturing sectors record that they are experiencing difficulties in retaining their current workforce. The lowest incidence of difficulties in retaining staff seem to be in Construction and Distributive Services. One can clearly see from the table that a much higher percentage of large than small companies in all sectors are experiencing these difficulties.

Table 6.1: Current Difficulties in Retaining Existing Staff

Difficulties in Retaining Staff	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	26.9	45.3	29.2	33.2	55.7	36.2	14.7	43.4	16.4	
No	73.1	54.7	70.8	66.8	44.3	63.8	85.3	56.6	83.6	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	(2,100)	(300)	(2,400)	(1,900)	(300)	(2,200)	(8,000)	(500)	(8,500)	
Difficulties in Retaining Staff	**Distributive Services**			**Finance/Insurance/ Business Services**			**Transport/Personal/Other Services**			**All Firms**
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Yes	12.2	41.9	15.8	14.5	50.0	19.0	20.0	50.5	26.2	19.4
No	87.8	58.1	84.2	85.5	50.0	81.1	80.0	49.5	73.8	80.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	(33,500)	(4,569)	(38,069)	(14,000)	(2,000)	(13,000)	(13,000)	(3,300)	(16,300)	(83,469)

Table 6.2 summarises the overall level of difficulties experienced in retaining staff at a sectoral level in 1998/99 and 1999/00. From this one can see that at an aggregate level across all firms there has been a slight increase in the percentage of firms reporting difficulties in retaining staff – 19.4 per cent in the 1999/00 survey compared with 16.7 per cent one year earlier.

Table 6.2: Percentage of Firms Reporting Difficulties in Retaining Staff in the 1998/99 and 1999/00 Rounds of the Survey Classified by Size/Sector Category

Sector	Small		Large		Total	
	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00
	Per Cent recording Difficult-To-Fill Vacancies in last year					
Traditional Manufacturing	34.4	26.9	48.7	45.3	35.9	29.2
Hi-Tech. Manufacturing	31.7	33.2	48.4	55.7	33.9	36.2
Construction	16.0	14.7	35.4	43.4	17.4	16.4
Distributive Services	8.3	12.2	35.9	41.9	11.5	15.8
Finance/Insurance/Business Services	14.5	14.5	48.2	50.0	18.0	19.0
Transport/Personal/Other	14.3	20.0	56.2	50.5	21.6	26.2
All Firms	–	–	–	–	16.7	19.4

This increase, however, has not been uniform across all sectors. The table shows that there has been a fall of almost 7 percentage points in the proportion of firms in the Traditional Manufacturing sector which report difficulties in retaining staff (36 per cent to 29 per cent). There has also been a small decrease in the percentage in the Construction sector who report difficulties in staff retention (17 per cent down to 16 per cent in the 1998/99 and 1999/00 surveys respectively). To greater or lesser degrees the incidence of difficulties in retaining staff has increased in the other sectors, this being largest in the Transport/Personal/Other Services sector.

Firms which indicated that they were experiencing difficulties in retaining staff were asked to specify the type of staff whom they were experiencing most difficulties in retaining. The results, along with comparisons for the previous year are shown in Table 6.3 below.

Table 6.3: Nature of Jobs Which Firms Currently Find Most Difficulties in Retaining Staff

Nature of Job	Per Cent of Firms Mentioning		Nature of Job	Per Cent of Firms Mentioning	
	1998/99	1999/00		1998/99	1999/00
Financial Specialists	2.5	1.4	Technical Sales	7.8	7.5
Computer Specialists	7.3	3.3	Managers	2.2	1.1
Engineers	2.3	1.7	Clerical	21.4	8.6
Chemists	0.3	0.2	Other Professionals	10.0	5.7
Technicians	5.4	4.4	Retail Sales	2.7	10.0
Skilled Trades Persons	13.5	29.6	Apprenticeship	0.2	2.1
Semi-Skilled	14.6	4.2	Catering	2.1	3.7
Unskilled	16.6	10.9	All Areas	0.2	5.6
			Total	100.0	100.0

Because only a relatively small proportion of firms (19 per cent in the 1999/00 survey) indicated that they were experiencing such difficulties the number of actual sample firms in question is smaller than desirable and so does not allow a detailed size/sector breakdown of the data. Consequently, only aggregate figures are presented in Table 6.3.

From the table one can see that in the 1999/00 survey almost 30 per cent of firms which are experiencing difficulties in retaining staff mentioned Skilled Trades Persons while 11 per cent mentioned Unskilled workers and 10 per cent mentioned Retail Sales Personnel. It is notable from the table that just under 6 per cent of all relevant firms in the more recent survey spontaneously mentioned workers in "All Areas".

Comparison with the situation in the 1998/99 survey shows that there have been some fairly substantial changes over the period in question in the types of workers mentioned by those firms which are experiencing difficulties in retaining staff. One can see, for example, that the percentages mentioning both Clerical staff and Semi-Skilled Workers have fallen substantially while the percentages mentioning Skilled Trades Personnel and Retail Sales staff have shown a major increase.

6.2 Perceived Reasons for Difficulties in Retaining Staff

Respondents who recorded that they were experiencing difficulties in retaining staff were presented with six pre-coded reasons as to why they felt they were experiencing these difficulties. The results are presented in Table 6.4 below. From this one can see that a total of 57 per cent of relevant respondents indicated that they felt that their difficulties in retaining staff was due to too much competition from other employers. The next most frequently cited reason was that the wages which the firms could offer were lower than those on offer from other companies. Although there are some variations across the sectors in terms of the frequency with which the six response categories were mentioned, one can see that by far the most frequently offered response by all categories was that there was too much competition from other firms. Perceived problems with relative wage pressures seem to be more important in the Construction and Distributive Services sector than in other areas of activity.

The final column in the table shows the percentage of all relevant firms which cited each of the outcomes in the 1998/99 survey. One can see that, in general, the relativities of each of the response outcomes remained largely unchanged between 1998/99 and 1999/00.

Table 6.4: Perceived Reason for Experiencing Difficulty in Retaining Staff

	Traditional Manuf-acturing	Hi-Tech. Manuf-acturing	Const-Ruction	Distributive Services	Finance/ Insurance/ Business Services	Transport/ Personal/ Other Services	All Firms 1999/00	All Firms 1998/99
1. Wages lower than in other firms	21.1	30.8	43.3	39.0	21.7	25.7	31.4	39.9
2. Unattractive conditions of employment	23.9	7.9	22.9	13.6	0.9	13.7	12.0	9.0
3. No career progression in the job	25.7	14.0	0.4	28.3	19.4	1.6	17.0	21.4
4. Too much competition from other firms	58.5	63.7	52.2	60.0	61.2	51.0	57.5	52.4
5. Long/unsocial hours	11.2	10.4	2.9	18.7	15.2	40.2	21.5	13.7
6. Other	19.7	20.8	23.7	8.7	7.0	25.7	14.8	24.3

Note: Because respondents could offer more than one response the total sums to more than 100 per cent.

6.3 Perceptions of Changes in Skill Requirements

In the course of the survey respondents were asked to consider the skill level necessary to ensure the continued effective running of their company. They were asked to record whether or not they felt that skill levels among the average worker today had increased, remained static or decreased as compared with the preceding twelve months. Firms which felt that skill levels had increased were then asked to say what they felt were the main factors driving this increase.

Table 6.5 outlines firms' views regarding changes in current skill levels. From this one can see that the overwhelming majority of firms (97 per cent) feel required skill levels have been either static (57 per cent) or increasing (39 per cent) over the period in question.

Table 6.5: Firms' Perceptions of Trends in the Overall Skills Needed to Keep Their Company Running Effectively

	Trad. Manufacturing			Hi-Tech. Manufacturing			Construction			
Skill Level is?	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Decreasing	3.5	0.0	3.0	3.0	0.0	2.6	0.0	3.9	0.2	

Static	57.7	51.7	57.0	52.1	26.3	48.6	41.9	55.8	42.8	
Increasing	38.8	48.3	40.0	44.9	73.7	48.6	58.1	40.3	57.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Distributive Services			**Finance/Insurance/ Business Services**			**Transport/Personal/Other Services**			
Skill Level is?	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	**All**
Decreasing	4.3	4.8	4.4	3.0	3.0	3.0	2.9	4.9	3.3	3.4
Static	60.9	39.7	58.3	59.6	27.4	55.6	70.6	47.1	65.8	57.5
Increasing	34.8	55.5	37.3	37.4	69.6	41.4	26.5	48.0	30.8	39.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

There are clearly some variations in these perceptions according to size/sector classification. An above average percentage of firms in Construction and Hi-Tech. Manufacturing feel that skill levels are increasing (49 per cent and 57 per cent respectively). This view is also very widely held by larger firms in the Hi-Tech. Manufacturing (74 per cent) and Finance/ Insurance/Business Services (70 per cent).

The figures in Table 6.6 provide a comparison of perceptions in changing skill levels in the 1999/00 survey as compared with those in 1998/99. From this one can see that, in aggregate across all firms, there appears to have been a slight reduction in the percentage of respondents which feel that skill levels are increasing and an increasing view that they have remained static as compared with the preceding twelve months. One can see that the percentage recording that skill levels have remained static has increased by 9 percentage points over the period in question. This increased view of static skill levels is apparent in all sectors with the exception of Construction. In that sector there appears to be a very substantial increase in the percentage of firms which feel that skill levels are increasing – 25 per cent in 1998/99 compared with 57 per cent in 1999/00.

Table 6.6: Comparison in Perceptions of Required Skill Levels in 1998/99 and 1999/00 Surveys

	Skill Level is			
	Decreasing	**Static**	**Increasing**	**Total**
Traditional Manufacturing				
1998/99	4.4	47.3	48.3	100.0
1999/00	3.0	57.0	40.0	100.0
Hi-Tech. Manufacturing				
1998/99	0.2	35.7	64.0	100.0

1999/00	2.6	48.6	48.6	100.0
Construction				
1998/99	8.8	66.1	25.2	100.0
1999/00	0.2	42.8	57.0	100.0
Distributive Services				
1998/99	6.1	53.8	40.2	100.0
1999/00	4.4	58.3	37.3	100.0
Finance/Insurance/Business				
1998/99	0.5	35.1	64.4	100.0
1999/00	3.0	55.6	41.4	100.0
Transport/Personal/Other Services				
1998/99	3.6	41.8	54.6	100.0
1999/00	3.3	65.8	30.8	100.0
Total				
1998/99	4.6	48.3	47.1	100.0
1999/00	3.4	57.5	39.1	100.0

The 39 per cent of firms in the 1999/2000 survey which felt that their skill requirement was increasing were asked to record their views of the main reason for this increase. The responses to the question were given in a spontaneous or open-ended fashion and were subsequently closed down to a set of eleven categorical response outcomes as follows:

1. Technology:	Advances in; Increased use of; New equipment; New processes.	6. Legislation:	General legislation; Safety legislation; EU Regulations.
2. Product:	Specialisation in; Changes in; Customisation of; Need to keep product current.	7. Efficiency:	Higher yield; Cost reduction; Cycle time reduction; Higher production efficiency; Increased productivity.
3. Competitive Position:	Increased Competitiveness; More competitive markets.	8. Staff:	Multiskilling; Teamwork; Flexibility; Employee involvement; Job Satisfaction.
4. Customer/Market:	Customer demands; Market demands. .	9. General Training:	More training needed.
5. Quality:	Higher quality control; Higher standards; Higher quality levels.	10. Business Levels:	Increased business; Rising business level; Increased business opportunities.
		11. Other:	Firm – specific response.

Table 6.7 provides a summary of the main reasons given by firms for this perceived increase in both years of the survey. From this one can see that the increased skill levels are most associated, almost tautologically, with advances in or introduction of new technology, equipment or processes. This is cited by just over one-third of relevant respondents in the 1999/2000 round of the survey. Customer/Market demands are the next most frequently recurring issue recorded by respondents (21 per cent) followed by increased business activity (13 per cent) and an increasingly competitive market (13 per cent).

Some sectoral variations are apparent. For example, technology is relatively more important in Manufacturing (especially in the Hi-Tech. end of the sector). "Other" firm-specific factors are mentioned on a substantially more frequent basis by respondents in the Construction sector than in other areas of activity. Competitive position seems to be more important in Finance/Insurance/Business Services than

other sectors while efficiency is mentioned more frequently in Transport/Personal/Other Services (19 per cent) than in other sectors.

In aggregate, one can see that the *relative* importance ascribed to the factors mentioned by firms as explaining increases in skills levels necessary for the running of their business appears to have remained reasonably stable across the two rounds of the survey (i.e. in 1998/99 and 1999/00) – even though the levels in question fall somewhat.

Table 6.7: Perceived Reason for Increases in Required Skill Levels in 1998/99 and 1999/00 Surveys

Reasons for Required Skill Levels Increasing:	Trad. Manufacturing		Hi-Tech. Manufacturing		Construction			
	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00		
1. Technology	38.2	44.8	36.4	48.6	25.6	13.7		
2. Product	10.0	5.6	11.1	11.5	3.4	17.9		
3. Competitive Position	15.2	13.7	13.5	11.2	22.2	0.5		
4. Customer/Market	17.1	8.7	12.1	6.1	1.5	6.1		
5. Quality Requirement	18.0	5.1	13.8	7.4	2.4	12.3		
6. Legislation	0.0	3.1	5.0	1.1	23.2	6.1		
7. Efficiency	2.5	4.6	6.7	6.6	1.9	0.2		
8. Staff	5.6	13.1	7.1	3.9	1.9	6.4		
9. General Training	5.3	0.0	2.7	0.0	0.5	0.0		
10. Business Levels	16.5	8.6	11.4	12.4	2.9	18.8		
11. Other	6.2	15.3	12.1	15.6	21.7	31.0		
Reasons for Required Skill Levels Increasing:	**Distributive Services**		**Finance/Insurance/ Business Services**		**Transport/Personal/ Other Services**		**All Firms**	
	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00	1998/99	1999/00
1. Technology	30.7	39.6	60.7	40.9	42.6	29.2	41.3	35.4
2. Product	14.6	7.8	0.8	2.4	5.5	1.4	8.1	7.2
3. Competitive Position	12.5	9.0	15.0	23.4	7.4	22.2	12.4	12.9
4. Customer/Market	24.8	24.8	10.1	18.9	28.9	32.6	20.5	21.2
5. Quality Requirement	4.5	0.7	4.0	7.0	16.0	0.7	8.0	3.8
6. Legislation	0.6	0.4	4.1	1.2	6.4	9.0	4.0	2.7
7. Efficiency	6.5	9.5	3.9	8.0	5.0	18.7	5.2	9.1
8. Staff	1.1	2.0	4.4	0.1	6.0	1.4	3.5	2.5
9. General Training	8.6	0.0	1.0	6.9	0.0	0.0	3.9	1.4
10. Business Levels	22.0	15.4	11.9	3.5	17.9	11.8	17.1	12.6
11. Other	0.3	12.6	17.1	11.9	0.5	14.6	6.0	15.3

Thus, one can see that in the 1998/99 round of the survey Technology was the most frequently cited reason (41 per cent of firms) followed by Customer/Market (20 per cent) Business Levels (17 per cent) and Competitive Position (12 per cent). These remained the four most important factors cited in the 1999/2000 round of the survey even though the percentage of firms mentioning each may have changed somewhat.

6.4 Summary

This chapter has considered two main aspects of the current labour market. First, we discussed in detail firms' difficulties in retaining staff and, second, we considered firms' perceptions of the changing skill requirement necessary among staff today to allow the efficient running of business.

We found that a total of 19 per cent of firms recorded that they were experiencing difficulties in retaining staff. The incidence of these difficulties was highest in the manufacturing sectors (both Traditional as well as Hi-Tech). The lowest incidence of this problem was in the Construction and Distributive Services sectors. In general, difficulties in retaining staff were encountered in a higher percentage of larger than smaller enterprises.

Overall, there would appear to have been only modest increases in the incidence of these difficulties between the first and second rounds of the survey. In the 1998/99 round of the survey a total of just under 17 per cent of firms recorded that they experienced difficulties in retaining staff. By the 1999/2000 round of the survey this had risen to just over 19 per cent.

By the latter survey the highest percentages of firms which were experiencing these problems were mentioning jobs among Skilled Trades Persons as being the ones in which they were experiencing difficulties in retaining staff. The main reasons recorded by relevant firms for experiencing these difficulties included too much competition

from other firms (mentioned by 57 per cent of respondents) and the wages which other firms were able to offer.

We also examined perceived changes in the skill requirement of staff to allow for an efficient running of businesses. We saw that 39 per cent of firms felt that skill requirements were increasing while 57 per cent felt that necessary skill levels were static. The main reason given for these increased skill levels included, almost tautologically, introduction of new technology or processes. This is followed by Customer/Market demands and an increasingly competitive market situation.

7. REGIONAL VARIATIONS

In this chapter we consider broad regional variations in the incidence and characteristics of vacancies as well as difficulties in retaining existing staff. Throughout the chapter we discuss variations in terms of Dublin (city and county) in contrast to the Rest of the Country.

Respondents were assigned to Dublin or elsewhere on the basis of address. In the case of multi-plant enterprises a respondent was assigned to Dublin if its head office address was in the Dublin city or county area. Although the sample is large relative to that normally reported in surveys of firms it is not sufficiently large to allow any spatial disaggregation of the data below this broad two-fold classification.

The chapter is divided into five sections. First, we consider broad regional variations in the incidence of current vacancies, second, we examine variations in vacancy rates between Dublin and the Rest of the Country. Third, we discuss the incidence of difficult-to-fill vacancies. Fourth, we consider regional differences in firms experiences of difficulties in retaining existing staff and, finally, we present a brief summary of our main findings.

7.1 Regional Trends in the Incidence of Current Vacancies and Vacancy Rates

Table 7.1 provides details on the incidence of vacancies in Dublin and the Rest of the Country classified by broad sector. In aggregate terms, a total of 35 per cent of firms in the Dublin region experience a vacancy or vacancies. The comparable figure for the rest of the county is 29 per cent. It is also clear that from the table there are substantial sectoral differences in regional variations in the incidence of vacancies. For example, there would appear to be little regional differentiation at all in terms of the incidence of vacancies in the Traditional Manufacturing and Finance/Insurance/Business Services sectors.[14] The situation in the Distributive Services and Transport/Personal/ Other Services sectors would indicate that vacancy incidence levels are higher in Dublin than in the remainder of the country. In the Distributive Services sector the differential is 5 percentage points. In Transport/Personal/Other Services the difference is just over 11 percentage points.

The Construction sector clearly stands out from the table as experiencing a particularly higher incidence of vacancies in Dublin as compared with the Rest of the Country. As many as 56 per cent of firms in that sector in Dublin compared with only 25 per cent of their counterparts elsewhere in the country record that they experience vacancies.

Only in the Hi-Tech. Manufacturing sector would it appear that the regional trends in the experience of vacancies is to any appreciable extent redressed, with a slightly higher percentage of firms outside Dublin experiencing vacancies (52 per cent compared with 47 per cent).

Table 7.1: Firms Classified by (a) Whether or Not They Currently Have Job Vacancies and (b) Broad Region

	Trad. Manufacturing	Hi-Tech. Manufacturing	

[14] As discussed in Chapter 4 and as is very clear from Table 7.1 the level in Traditional Manufacturing is substantially above the aggregate level for all firms as a whole where as the vacancy incidence rate for Finance/Insurance/Business Services is below the national average.

Vacancies at Present?	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total
Yes	50.3	51.0	50.7	47.3	52.4	51.3
No	49.7	49.0	49.3	52.7	47.6	48.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Construction			Distributive Services		
Vacancies at Present?	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total
Yes	56.5	25.5	33.9	31.5	26.5	28.2
No	43.5	74.5	66.1	68.5	73.5	71.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Finance/Insurance/Business Services			Transport/Personal/Other Services		
Vacancies at Present?	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total
Yes	26.3	26.0	26.2	44.1	32.6	36.1
No	73.7	74.0	73.9	55.9	67.4	63.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

	All Firms		
Vacancies at Present?	Dublin	Rest of Country	Total
Yes	35.1	29.0	31.2
No	64.9	71.0	68.8
Total	100.0	100.0	100.0

Table 7.2 provides some comparative details on the regional incidence of vacancies in each sector in the 1998/99 and 1999/00 rounds of the survey. The percentage figures in the table simply refer to the percentage of firms which experienced vacancies in each round of the survey. The ratio figures relate to the ratio of the incidence in Dublin to the Rest of the Country. Trends in these ratios provide a very crude measure of movements in regional differences over the two surveys. A fall in the ratio indicates that regional differences in the vacancy problem has narrowed somewhat while an increase in the ratio indicates that the differential between Dublin and other parts of the country has increased.

Table 7.2: Comparison of the Incidence of Vacancies by Sector and Region 1998/99 and 1999/00 Surveys

Percentage of Firms Experiencing Vacancies	Trad. Manufacturing			Hi-Tech. Manufacturing		
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99	58.6	49.5	1.18	68.3	55.6	1.23
1999/00	50.3	51.0	0.99	47.3	52.4	0.90
	Construction			Distributive Services		
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99	27.7	14.1	1.96	31.5	20.4	1.54
1999/00	56.5	25.5	2.21	31.5	26.5	1.19
	Finance/Insurance/ Business Services			Transport/Personal/ Other Services		
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99	22.3	20.6	1.08	44.5	29.1	1.53
1999/00	26.3	26.0	1.01	44.1	32.6	1.35

	All Firms		
	Dublin	Rest of Country	Ratio
1998/99	32.6	23.6	1.38
1999/00	35.1	29.0	1.21

In aggregate terms one can see that the figures indicate that the regional variations in the incidence of vacancies have narrowed somewhat over the period 1998/99 to 1999/00. The ratio of Dublin to the Rest of the Country was almost 1.4 in 1998/99. By 1999/00 this had fallen to 1.2. These figures suggest that although the problem increased in all parts of the country it increased more outside Dublin than in the capital itself. This resulted in the percentage point differential between Dublin and the Rest of the Country falling from 9 points in 1998/99 to 6 points in the 1999/00 survey.

One can see that there has been a reduction in the ratio figure in almost all sectors indicating that all sectors of economic activity have experienced this relative regional

equalisation in the incidence of vacancies over the period in question. The only exception to this general trend is the Construction sector. In the 1998/99 survey the incidence rate in Dublin was 96 per cent higher (1.96 times) than the rate in the remainder of the country. By the later survey in 1999/00 this differential had increased substantially so that the Dublin figure stood at 121 per cent (2.2 times) the level in the Rest of the Country. The figures in Table 7.2 very clearly illustrate, therefore, that the labour shortage problem has become much more acute for the Construction sector generally over the period in question and also that the problems encountered by that sector are displaying *increasing* regional imbalances being substantially worse in Dublin than in the Rest of the Country.

7.2 Regional Trends in Vacancy Rates

Table 7.3 provides a summary of broad regional variations by occupational grade in the percentage of the labour requirement which was not being met (the vacancy rate). Comparative figures for 1998/1999 are also included. As noted in Section 4.4 above, vacancy rates are based on the assumption that current employment plus current vacancy levels represent the total labour requirement. From this one can derive an estimate of the total requirement which is being met – the residual percentage representing the occupational vacancy rate.

From the table one can see that in overall terms (across all grades) there is no difference in the vacancy rate between Dublin and the Rest of the Country.[15] We saw in Chapter 4 that there were variations in vacancy rates between the occupational grades. One can see from Table 7.3 that there are also some regional variations across the occupational categories. For example, one can see that vacancy rates outside Dublin are higher among several of the professional categories such as Engineering Professionals, Science Professionals, Computer Professionals and, to a lesser degree, Computer Technical Staff/Associate Professional levels. In addition to these Professional grades, vacancy levels were higher in Transport & Communications and personal Services categories in the Rest of the Country as compared with Dublin. Vacancy rates were higher in Dublin in the Engineering Technician; Skilled Maintenance/Skilled Production; Security Categories.

Comparable figures from the 1998/99 survey are also presented in the table. One can see that, in aggregate terms, the overall vacancy rate has not changed from the 1998/99 to 1999/00 surveys – although the reader is reminded that the rate in the latter year is based on a much larger labour force and labour requirement. If one focuses at the level of Dublin on individual occupational grades one can see that there are some recorded changes in vacancy rates between the two surveys. Vacancy rates among Engineering, Science, Computer Professionals and Computer Technical Staff/

[15] In statistical terms there is really no difference.

Table 7.3: Summary of Labour Requirements Satisfied by Occupational Grade in Dublin and the Rest of the Country in 1998/99 and 1999/00

	1998/1999						1999/2000					
	Dublin		Rest of Country		All Firms		Dublin		Rest of Country		All Firms	
	Per Cent of Labour Requirement Being Met	Vacancy Rate	Per Cent of Labour Requirement Being Met	Vacancy Rate	Per Cent of Labour Requirement Being Met	Vacancy Rate	Per Cent of Labour Requirement Being Met	Vacancy Rate	Per Cent of Labour Requirement Being Met	Vacancy Rate	Per Cent of Labour Requirement Being Met	Vacancy Rate
Managers/Proprietors	97	3	99	1	98	2	97	3	98	2	98	2
Engineering Professionals	95	5	90	10	93	7	88	12	90	10	89	11
Science Professionals	100	0	95	5	96	4	91	9	93	7	93	7
Computer Professionals	95	5	91	9	91	9	85	15	88	12	85	15
Other Professionals	91	9	90	10	91	9	96	4	98	2	97	3
Engineering Technicians	77	23	80	12	85	15	95	5	86	14	89	11
Science Technicians	93	7	96	4	98	2	95	5	95	5	95	5
Computer Technical Staff-Associate Professional Level	94	6	90	10	90	10	87	13	85	15	87	13
Other Associate Professional	99	1	97	3	98	2	98	2	98	2	98	2
Clerical and Secretarial	93	7	95	5	94	6	94	6	95	5	95	5
Skilled Maintenance & Skilled Production	87	13	91	9	89	11	93	7	91	9	91	9
Production Operatives	97	3	95	5	96	4	95	5	94	6	95	5
Transport & Communications	97	3	92	8	95	5	96	4	94	6	95	5
Sales	95	5	95	5	95	5	93	7	93	7	93	7
Security	95	5	100	0	96	4	95	5	88	12	92	8
Personal Service	93	7	87	13	89	11	91	9	94	6	93	7
Labourers	95	5	92	8	94	6	94	6	97	3	95	5
Total	94	6	93	7	94	6	94	6	94	6	94	6

Associate Professional levels have all fallen quite substantially. In contrast the vacancy rates among Engineering Technicians and Skilled Maintenance & Skilled Production Staff have risen quite sharply. In general, vacancy levels in areas outside Dublin, did not display quite the same degree of fluctuation by occupational grade as did some of those in Dublin. The principal exception to this general trend is the "Other Professional" category whose vacancy level increased from 2 per cent in 1998/97 to 10 per cent in 1999/2000.

7.3 Regional Trends in Difficult-to-Fill Vacancies

7.3.1 CURRENT VACANCIES WHICH ARE DIFFICULT-TO-FILL

Table 7.4 outlines details on the extent of regional variations in current vacancies at the time of the 1999/00 survey which the firm considered to be difficult-to-fill. From the table one can see that a total of 31 per cent of firms in Dublin recorded that they had difficult-to-fill vacancies. This compares with 22 per cent of firms in the Rest of the Country. With the exception of the Hi-Tech. Manufacturing sector, the percentage of firms experiencing difficult-to-fill vacancies is higher in Dublin than in the Rest of the Country in all other areas of economic activity. The regional differential between Dublin and the Rest of the Country is lowest in the two manufacturing sectors. The percentage firms in the Traditional Manufacturing sector in Dublin which say they are experiencing difficult-to-fill vacancies is only 2 points higher than their counterpart in the Rest of the Country. In the Hi-Tech. Manufacturing sector the differential is only just under 4 percentage points, being slightly higher in the Rest of the Country than in Dublin.

It is clear from the table that by far the largest regional differential is in the Construction sector where 56 per cent of firms in Dublin compared with 25 per cent elsewhere in the country say they are experiencing difficult-to-fill vacancies.

Table 7.5 presents comparative figures on the regional incidence of difficult-to-fill vacancies in each sector at both rounds of the survey. As in previous tables in this chapter the data in Table 7.5 provides information on the percentage of firms which experienced difficult-to-fill vacancies in each sector in both rounds of the survey. In addition, the ratio figures relate to the ratio of the incidence of difficult-to-fill vacancies in Dublin relative to those in the Rest of the Country. As noted in Section 7.1 above, a fall in the ratio between the two surveys indicates that the regional gap in the incidence of difficult-to-fill vacancies has narrowed while an increase in the ratio indicates that the differentials between Dublin and the Rest of the Country have increased.

The detail of the table suggests that the overall incidence of difficult-to-fill vacancies has increased somewhat (but not substantially) between Dublin and the Rest of the Country over the period 1998/99 and 1999/00. One can see that in the early year a total of 28.4 per cent of firms in Dublin said that they were experiencing difficult-to-fill vacancies. This compared to a total of 21.0 per cent of firms in the Rest of the Country, giving a ratio of 1.35. By the later survey 31 per cent of Dublin firms recorded that they were experiencing a difficult-to-fill vacancy compared with 21.6 per cent of firms in the Rest of the Country. This results in a slight increase in the ratio to 1.43.

Table 7.4: Firms Classified by (a) Whether or Not They Currently Have Job Vacancies Which They Consider Difficult-to-Fill and (b) Broad Region

Current Vacancies Difficult-to-Fill	Trad. Manufacturing			Hi-Tech. Manufacturing			
	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total	

Yes	46.7	44.6	45.5	44.9	48.7	47.8			
No	53.3	55.4	54.5	55.1	51.3	52.2			
Total	100.0	100.0	100.0	100.0	100.0	100.0			
	Construction			Distributive Services					
Current Vacancies Difficult-to-Fill	**Dublin**	**Rest of Country**	**Total**	**Dublin**	**Rest of Country**	**Total**			
Yes	56.5	25.5	33.9	23.0	14.8	17.6			
No	43.5	74.5	66.1	77.0	85.2	82.4			
Total	100.0	100.0	100.0	100.0	100.0	100.0			
	Finance/Insurance/ Business Services			Transport/Personal/Other Services			All Firms		
Current Vacancies Difficult-to-Fill	**Dublin**	**Rest of Country**	**Total**	**Dublin**	**Rest of Country**	**Total**	**Dublin**	**Rest of Country**	**Total**
Yes	26.2	20.9	23.5	42.2	28.2	32.5	30.9	21.6	24.9
No	73.8	79.1	76.5	57.8	71.8	67.5	69.1	78.4	75.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7.5: Comparison of the Incidence of Vacancies by Sector and Region 1998/99 and 1999/00 Surveys

	Trad. Manufacturing			Hi-Tech. Manufacturing					
Percentage of Firms Experiencing Vacancies	**Dublin**	**Rest of Country**	**Ratio**	**Dublin**	**Rest of Country**	**Ratio**			
1998/99	51.1	41.6	1.23	28.8	45.8	1.28			
1999/00	46.7	44.6	1.05	44.9	48.7	0.92			
	Construction			Distributive Services					
	Dublin	**Rest of Country**	**Ratio**	**Dublin**	**Rest of Country**	**Ratio**			
1998/99	27.4	14.0	1.96	29.8	19.9	1.50			
1999/00	56.5	25.5	2.21	23.0	14.8	1.55			
	Finance/Insurance/ Business Services			Transport/Personal/ Other Services			All Firms		
	Dublin	**Rest of Country**	**Ratio**	**Dublin**	**Rest of Country**	**Ratio**	**Dublin**	**Rest of Country**	**Ratio**
1998/99	12.5	14.2	0.88	42.8	23.6	1.81	28.4	21.0	1.35
1999/00	26.2	20.9	1.25	42.2	28.2	1.50	30.9	21.6	1.43

From the detail of the table one can see that the regional differential between Dublin and the Rest of the Country has widened over the period in question in the Construction, Distributive Services and Finance/Insurance/ Business Services sectors while it has fallen in the other three sectors. It is clear from the figures in Table 7.5 that the regional gaps in the experience of difficult-to-fill vacancies has widened most in the Finance/Insurance/Business Services sector.

It is clear, therefore, that while the general regional trend in the experience of vacancies reflects a slight narrowing of the gap between Dublin and the Rest of the Country (from Section 7.1 above) the position regarding difficult-to-fill vacancies would seem to be moving in the opposite direction. In broad aggregate terms the gap in the incidence of difficult-to-fill vacancies between Dublin and the Rest of the Country would seem to be increasing somewhat. This indicates that while the general vacancy problem and tightness of the labour market seems to be more evenly distributed in 1999/200 than was the case in 1998/1999 the problem of difficult-to-fill vacancies is still disproportionately higher in Dublin than elsewhere in the country.

7.3.2 DIFFICULT-TO-FILL VACANCIES IN THE YEAR PRECEDING THE SURVEY

Table 7.6 considers regional trends in the incidence of vacancies in the year preceding the survey which the firm considered to be difficult-to-fill. At a broad aggregate level one can see that 38 per cent of firms in Dublin had experienced a vacancy (or vacancies) in the year preceding the survey which they considered to be difficult-to-fill. The comparable figure for their counterparts in the Rest of the Country was 30 per cent. The incidence of difficult-to fill vacancies in the year preceding the survey was slightly lower among firms in Dublin in the two Manufacturing sectors. In the Hi-Tech. sector a total of 49 per cent of firms in Dublin experienced difficult-to-fill vacancies in the year preceding the survey. The comparable figure for firms which were in that sector in the Rest of the Country was 55 per cent. This represents a regional differential of 6 percentage points. The regional differences in the Traditional Manufacturing sector were slightly lower in the order of 3 percentage points.

Table 7.6: Firms Classified According to (a) Whether or Not They Have Had any Vacancies in the Last Year Which Were Particularly Difficult-to-Fill and (b) Broad Region

	Trad. Manufacturing			Hi-Tech. Manufacturing		
Vacancies difficult-to-fill in last year?	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total
Yes	44.5	47.4	46.2	48.8	55.1	53.7
No	55.5	52.6	53.8	51.2	44.9	46.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Construction			**Distributive Services**		
Vacancies difficult-to-fill in last year?	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total
Yes	47.6	18.4	26.3	32.6	26.1	28.4
No	52.4	81.6	73.7	67.4	73.9	71.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
	Finance/Insurance/ Business Services			**Transport/Personal/Other Services**			**All Firms**		
Vacancies difficult-to-fill in last year?	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total	Dublin	Rest of Country	Total
Yes	39.1	30.6	34.8	45.4	36.7	39.3	38.3	29.6	32.7
No	60.9	69.4	65.2	54.6	63.3	60.7	61.7	70.4	67.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

It is clear from the table that the incidence of difficult-to-fill vacancies in the year preceding the survey in the other four sectors was higher in Dublin than in the Rest of the Country. This was particularly so in respect of the Construction sector where an incidence figure of 48 per cent for Dublin compares with 18 per cent for the Rest of the Country.

Table 7.7 presents a comparison of the incidence of difficult-to-fill vacancies in the year preceding both rounds of the survey, i.e. in 1998/99 and in 1999/00 surveys. The figures in the table relate to the incidence of difficult-to-fill vacancies in Dublin and the Rest of the Country for both years. As in previous tables in the chapter the ratio figures simply relate to the ratio of the incidence figure for Dublin to the Rest of the Country. As noted above, a reduction in the ratio between 1998/99 and 1999/00 indicates that the gap between Dublin and the Rest of the Country has narrowed over the two years in question.

Table 7.7: Comparison of the Incidence of Difficult-to-Fill Vacancies in the Year Preceding the Survey by Sector and Region 1998/99 and 1999/00 Surveys

Percentage of Firms Experiencing Difficult-to-Fill Vacancies	Trad. Manufacturing			Hi-Tech. Manufacturing		
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99	62.9	47.8	1.32	61.2	51.7	1.18
1999/00	44.5	47.4	0.94	48.8	55.1	0.88
	Construction			Distributive Services		
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99	28.8	20.4	1.41	29.0	19.4	1.49
1999/00	47.6	25.5	1.87	32.6	26.1	1.25
	Finance/Insurance/ Business Services			Transport/Personal/ Other Services		
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99	25.4	8.5	2.99	52.9	22.1	2.39
1999/00	39.1	30.6	1.28	45.4	36.7	1.24

All Firms		
Dublin	Rest of Country	Ratio
34.7	20.9	1.66
38.3	29.6	1.29

From the overall aggregate figure for all firms one can see that the differential in the incidence of difficult-to-fill vacancies between Dublin and the Rest of the Country in the year preceding each survey is narrowing. In the 1998/1999 survey the ratio of the incidence levels in Dublin to the Rest of the Country was 1.7 (i.e. Dublin was 70 per cent higher than the Rest of the Country). By the 1999/00 survey this had fallen to 1.3 – Dublin was only 30 per cent higher than firms in the Rest of the Country. This reduction in the difference between Dublin and elsewhere is evident in all sectors except in Construction. As with our interpretation from earlier tables, it is clear that the Construction sector has experienced substantially more problematic conditions than others – especially in Dublin. In the 1998/99 survey the incidence of difficult-to-fill vacancies in Construction in the year preceding the survey in Dublin was 41 per cent higher than that in the Rest of the Country. By the 1999/00 survey this had risen to 87 per cent.

7.4 Regional Trends in Difficulties in Retaining Existing Staff

Table 7.8 provides details on current difficulties encountered by firms in retaining staff classified by sector and broad region. This shows, for example, that at an aggregate level across all sectors a total of 22 per cent of firms in Dublin recorded that they were experiencing difficulties in retaining existing staff. This compares with a figure of 18 per cent among firms in the Rest of the Country.

With the exception of the Traditional Manufacturing sector, retaining existing staff would appear to be more problematic for firms in all sectors in Dublin than for those in the Rest of the Country. A total of 18 per cent of firms involved in Traditional Manufacturing in Dublin say they are experiencing difficulties in retaining staff. This compares with 37 per cent of firms in Traditional Manufacturing in the Rest of the Country.

In Hi-Tech. Manufacturing; Distributive Services and Transport/Personal/ Other Services the incidence of difficulties in retaining staff in Dublin is not substantially different to that among firms in the Rest of the Country. The difficulties in the Finance/Insurance/Business Services and Construction sectors is, however, quite substantial. In the former sector 28 per cent of firms in Dublin compared with only 10 per cent in the Rest of the Country experience difficulties in retaining staff. In the Construction sector 24 per cent of firms in Dublin and 13 per cent in the Rest of the Country record that they are experiencing difficulties in retaining their existing staff.

Table 7.8: Current Difficulties in Retaining Existing Staff Classified by Broad Region

Difficulty in Retaining Staff?	Trad. Manufacturing Dublin	Trad. Manufacturing Rest of Country	Trad. Manufacturing Total	Hi-Tech. Manufacturing Dublin	Hi-Tech. Manufacturing Rest of Country	Hi-Tech. Manufacturing Total
Yes	17.9	37.3	29.2	39.3	35.3	36.2
No	82.1	62.7	70.8	60.7	64.7	63.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Difficulty in Retaining Staff?	**Construction Dublin**	**Construction Rest of Country**	**Construction Total**	**Distributive Services Dublin**	**Distributive Services Rest of Country**	**Distributive Services Total**
Yes	24.3	13.5	16.4	16.3	15.5	15.8
No	75.7	86.5	83.6	83.7	84.5	84.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Difficulty in Retaining Staff?	**Finance/Insurance/ Business Services Dublin**	**Finance/Insurance/ Business Services Rest of Country**	**Finance/Insurance/ Business Services Total**	**Transport/Personal/Other Services Dublin**	**Transport/Personal/Other Services Rest of Country**	**Transport/Personal/Other Services Total**
Yes	28.4	10.0	19.0	26.6	26.0	26.2
No	71.6	90.0	81.1	73.4	74.0	73.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Difficulty in Retaining Staff?	All Firms Dublin	All Firms Rest of Country	All Firms Total
Yes	22.3	17.9	19.4
No	77.7	82.1	80.6
Total	100.0	100.0	100.0

Table 7.9 summarises changes in regional trends in difficulties experienced in retaining staff between the two years of the survey. As in previous tables in this chapter the ratio figures simply relate to the ratio of the incidence of difficulties in retaining staff among firms in Dublin relative to those in the Rest of the Country. One can see that, overall, across all sectors, the difficulties of retaining existing staff have narrowed between Dublin and the Rest of the Country. In the 1998/99 survey the incidence rate in Dublin was 81 per cent higher (1.81 times higher than that experienced in the Rest of the Country). By the 1999/00 round of the survey the rate in Dublin had fallen to 25 per cent higher than that experienced elsewhere. This convergence of rates between the capital and the Rest of the Country was in evidence in all other sectors with the exception of Finance/ Insurance/Business Services. In that sector it would appear that in the 1998/99 survey, firms located outside Dublin had a higher incidence of difficulties in retaining staff than their counterparts in Dublin. By the latter survey this situation had been dramatically reversed.

Table 7.9: Comparison of the Incidence of Difficulties in Retaining Staff by Sector and Region in the 1998/99 and 1999/00 Surveys

Percentage of firms Experiencing difficult-to-fill vacancies	Trad. Manufacturing Dublin	Trad. Manufacturing Rest of Country	Trad. Manufacturing Ratio	Hi-Tech. Manufacturing Dublin	Hi-Tech. Manufacturing Rest of Country	Hi-Tech. Manufacturing Ratio
1998/99	35.8	36.0	0.99	44.7	31.5	1.42
1999/00	17.9	37.3	0.48	39.3	35.3	1.11
	Construction Dublin	**Construction Rest of Country**	**Construction Ratio**	**Distributive Services Dublin**	**Distributive Services Rest of Country**	**Distributive Services Ratio**
1998/99	38.1	7.6	5.01	23.6	6.5	3.63
1999/00	24.3	13.5	1.80	16.3	15.5	1.05
	Finance/Insurance/ Business Services Dublin	**Finance/Insurance/ Business Services Rest of Country**	**Finance/Insurance/ Business Services Ratio**	**Transport/Personal/ Other Services Dublin**	**Transport/Personal/ Other Services Rest of Country**	**Transport/Personal/ Other Services Ratio**

	All Firms Dublin	All Firms Rest of Country	All Firms Ratio

1998/99	9.7	32.2	0.30	31.0	14.7	2.11	23.0	12.7	1.81
1999/00	28.4	10.0	2.84	26.6	26.0	1.02	22.3	17.9	1.25

In Table 7.10 we provide details on broad regional trends in the nature of jobs in which firms were finding difficulties in retaining staff. This table is based on the percentage of *firms* which mentioned each of the types of job in question, in contrast to the percentage of vacancies. One can see, in general, that a higher percentage of firms in Dublin mention professional jobs than do their counterparts in the Rest of the Country. For example, one can see that the percentages of firms in Dublin which mention each of the first three types of job is higher than that among firms which are located in the Rest of the Country. In addition, one can see that as many as 13 per cent of firms in Dublin mention some type of "other professional" compared with only 1 per cent among firms in the Rest of the Country. In contrast to the Dublin experience a substantially higher proportion of firms in the Rest of the Country record Skilled Trades Persons and Unskilled Workers (36 per cent and 14 per cent respectively) as being the ones in which they were experiencing difficulties in retaining their staff.

It is also noteworthy that as many as 13 per cent of firms in Dublin spontaneously cited "All Areas" of work as posing difficulties in retaining staff.[16]

Table 7.10: Comparison of the Nature of Jobs in Which Firms Find Difficulty in Retaining Staff, Classified by Broad Region in the 1998/99 and 1999/00 Surveys

Nature of Job	1998/1998 Survey		1999/2000 Survey	
	Dublin	Rest of Country	Dublin	Rest of Country
		(Per Cent)		
Finance Specialists	0.8	4.3	2.7	0.5
Computer Specialists	10.7	3.5	5.1	2.1
Engineers	1.7	2.9	1.9	1.5
Chemists	0.0	0.6	0.0	0.3
Technicians	5.6	5.2	5.3	3.7
Skilled/Trades Persons	18.2	8.3	19.8	36.1
Semi-Skilled	17.7	11.1	3.7	4.5
Unskilled	15.3	18.1	5.8	14.3
Technical Sales	3.9	12.0	12.3	4.4
Managers	1.1	3.5	1.1	1.1
Clerical	20.1	22.8	11.1	7.0
Other Professionals	1.8	0.1	13.5	0.6
"All Areas"			12.9	0.2
Retail Sales			2.9	14.6
Apprenticeship			0.3	3.3
Catering			1.5	5.2
Other			0.0	0.7
Total			100.0	100.0

7.5 Summary

In this chapter we considered some regional variations in several aspects of the incidence, rate and nature of vacancies. Given constraints of sample size we could only provide details on regional variations as between Dublin and the Rest of the Country. As noted in the introduction to the chapter, this is not a perfectly defined classification particularly in situations of multi-plant enterprises. In multi-plant situations (where

[16] The reader is reminded that the figures in Table 7.10 are based only on the 19.4 per cent of firms in 1999/00 and 16.7 per cent in the 1998/99 survey which said that they were having difficulties in retaining staff.

some outlets or branches are located in Dublin and some located elsewhere) the regional designation was based on the location of the Head Office of the company in question.

We began the chapter by noting that, in aggregate terms, the percentage of firms in Dublin which experienced a vacancy (35 per cent) was 6 points higher than the situation for their counterparts in the remainder of the country (29 per cent). The Construction sector stood out as being substantially differentiated in terms of broad regional variations. As many as 56 per cent of firms in that sector in Dublin recorded that they experienced vacancies compared with only 25 per of their counterparts located elsewhere in the country.

In terms of changes in regional trends in the incidence of vacancies over the two surveys (1998/99 and 1999/00), we found that in aggregate terms the incidence of vacancies between Dublin and the Rest of the Country had narrowed somewhat over the period 1998/99 to 1999/00. The figures suggested that the problems of labour shortages in the Rest of the Country had risen to meet those in Dublin over the period in question. In the first survey the incidence of vacancies among firms in Dublin was 40 per cent higher than among firms in the Rest of the Country. By the second round of the survey the figure for Dublin was only 20 per cent higher than that for the Rest of the Country. In general, this narrowing of the gap between Dublin and the Rest of the Country in terms of the incidence of vacancies affected all sectors except for the Construction sector. In that sector we found that the labour market appears to have become substantially tighter in Dublin as compared to the Rest of the Country.

We also extended the timescale from the current situation to vacancies in the year preceding the survey. In terms of the incidence of difficult-to-fill vacancies in this slightly extended period we found that, in general terms such problems were experienced by a larger percentage of firms in Dublin than in the Rest of the Country (38 per cent compared with 30 per cent respectively). Regional imbalances in difficult-to-fill vacancies in the year preceding the survey appear to have been somewhat lower in the Manufacturing sectors than in other sectors of the economy.

Finally, we considered regional trends in difficulties in retaining existing staff. These showed that, with the exception of the Traditional Manufacturing sector, retaining existing staff is currently more problematic for firms in Dublin than in the Rest of the Country. As was the case with regional trends over time for the other aspects of vacancies and labour shortage it would appear that, at an aggregate level across all sectors, the difficulties experienced in retaining existing staff have narrowed as between Dublin and the Rest of the Country. In the 1998/99 round of the survey the incidence rate in Dublin was 81 per cent higher than that experienced in the Rest of the Country. By the 1999/2000 survey the rate in Dublin was only 25 per cent higher than that experienced elsewhere. There was also some evidence to suggest that a higher percentage of firms which were located in Dublin were mentioning professional and related occupations as posing difficulties in retaining staff. In contrast, a higher percentage of firms located elsewhere outside the capital mentioned Skilled Trades Persons and Unskilled workers.

8. TRAINING

In this chapter we consider various aspects related to training in the private non-agricultural sector. The training in question relates, in the first instance, to *formal, structured* training courses undertaken in the twelve months preceding the survey. This training may have been undertaken in the company's premises or at locations outside the company. The definition provided on the questionnaire of formal, structured training explicitly excluded "on-the-job" training and related instead to systematic, supervised training courses during which the trainees were not engaged in productive activity. After consideration of the incidence and extent of structured training courses we go on to discuss the extent to which trainees undertook less formal training through "on-the-job" instruction, job rotation or other means.

We begin in Section 8.1 by considering the extent to which firms undertake formal, structured training and the intensity of such training. In addition, we consider the breakdown of such training into general and specific types. In Section 8.2 we continue by outlining the incidence of less formal training through on-the-job instruction, job rotation etc. In Section 8.3 we outline details on the combination of the training involved in terms of formal and informal methods. In Section 8.4 we consider the relationship between training and vacancies. Finally, Section 8.5 provides a brief summary of our main findings in the chapter.

Up to this point in the report we have principally used a grossing factor for all tables based on the number of *firms* in the population. In preparing these *firm-based* weights each firm is assigned a weight which allows one to provide unbiased estimates of the responses from the population if all relevant private sector firms had been successfully interviewed. Within each size/sector category each firm (in both the sample and the population) is considered as a single separate entity.

In the current chapter we introduce a further set of weights which are essentially firm-based but which take account not only of the size/sector classification of the firm but which also incorporate the number of employees engaged by the firm. This is equivalent to giving each firm a "vote" proportional to its total employment. Accordingly, the estimates derived when using this set of weights gives a measure of the percentage or proportion of persons who are engaged in firms which have a given set of characteristics. Specifically, these weights are used in this chapter to consider, for example, the proportion of persons engaged in firms which undertake formal, structured training etc. The reader should note that this is *not* the same as the percentage of persons engaged who attend such training courses.

8.1 Incidence of Formal, Structural Training

Respondents were asked to indicate whether or not anyone in the company (including the owner-manager or proprietor but excluding apprentices) had attended any formal, structured training in the twelve months preceding the survey. It was pointed out that the training in question could have taken place either on the company's premises or at locations outside the company. Formal, structured training involved systematic, supervised training during which the trainee was not engaged in the production process and hence excluded "on-the-job" training. The results are presented in Table 8.1.

From the table one can see that a total of 27 per cent of all firms said that they had undertaken this structured training in the year preceding the survey. The highest incidence levels were in the Manufacturing sectors – 50 per cent of firms in the Traditional sector and 60 per cent in the Hi-tech. sector. Approximately 25-32 per cent

of firms participated in this type of activity in Distributive Services; Finance/Insurance/Business Services and Transport/ Personal/Other Services. Rates were lowest in the Construction sector where only 15 per cent of firms were involved in this type of activity.

It is clear from the table that there was a fairly strong link between incidence of formal training and size of firm. Much higher percentages of larger firms recorded having participated in this type of activity. For example, in the Hi-Tech. Manufacturing sector as many as 97 per cent of larger firms engaged in formal structured training for staff. The comparable figure among smaller companies in that sector was 54 per cent.

The final column in Table 8.1 is based on the firm-based weight in which each company is assigned a weight or "vote" in proportion to its number of employees. These figures tell us that just under 72 per cent of all workers are engaged in companies which are involved with formal, structured training for their staff.

Table 8.1: Firms Classified According to Whatever or Not Anyone in the Company (Apart from Apprentices) Attended Formal, Structured Training Course in the Twelve Months Preceding the Survey

Formal Structured Training?	Trad. Manufacturing 0-99	100+	Total	Hi-Tech Manufacturing 0-99	100+	Total	Construction 0-9	10+	Total		
Yes	44.5	87.4	49.9	54.2	97.3	60.0	11.8	63.2	14.8		
No	55.5	12.6	50.1	45.8	2.7	40.0	88.2	36.8	85.2		
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
(Wgt'dn)	(2,100)	(301)	(2,400)	(1,900)	(295)	(2,196)	(8,000)	(500)	(8,500)		
Formal Structured Training?	**Distributive Services 0-9**	**10+**	**Total**	**Finance/Insurance/ Business Services 0-9**	**10+**	**Total**	**Transport/Personal/Other Services 0-9**	**10+**	**Total**	**All Firms**	**Total Firms Weighted by Employ-ment Levels**
Yes	19.4	70.3	25.5	25.5	79.0	32.2	11.4	70.5	23.4	26.9	71.8
No	80.6	29.7	74.5	74.5	21.1	67.8	88.6	29.5	76.6	73.1	28.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'dn)	(33,500)	(4,569)	(38,069)	(1,400)	(2,600)	(16,000)	(13,000)	(3,300)	(16,300)	(83,465)	(1.139,875)

Table 8.2 presents summary details on changes in the incidence of firms engaging in formal structured training between the 1998/99 and 1999/00 rounds of the survey. This shows that in the 1998/99 round of the survey approximately 33 per cent of firms participated in this type of training activity. By the more recent survey in 1999/00 the figure had fallen to 27 per cent. One can see from the detail of the table that the figures would suggest that there has been relatively little change in the incidence of formal training activity among the larger firms in each sector. In general, with two exceptions, the incidence of formal training activity among larger firms has increased slightly by a few percentage points over the period in question. There has, however, been a fairly dramatic fall in the incidence of such training among smaller firms in each sector. Given the preponderance of smaller firms this is reflected in an overall reduction in incidence levels at an aggregate level.

Table 8.2: Summary of the Incidence of Formal Training Among Companies 1998/99 and 1999/00. Percentage of Firms Participating in Formal, Structured Training

	1998/99 (Per cent Participating)	1999/00		1998/99 (Per cent Participating)	1999/00
Traditional Manufacturing			Distributive Services		
Small	54.4	44.5	Small	20.4	19.4
Large	90.0	87.4	Large	62.7	70.3

Total	58.3	49.9	Total	25.3	25.5
Hi-Tech. Manufacturing			Finance/Insurance/Business Services		
Small	56.1	54.2	Small	41.2	25.5
Large	93.6	97.3	Large	74.3	79.0
Total	61.1	60.0	Total	44.8	32.2
Construction			Transport/Personal/Other Services		
Small	20.8	11.8	Small	33.3	11.4
Large	60.9	63.2	Large	74.0	70.5
Total	23.9	14.8	Total	40.3	23.4
			All Firms	33.5	26.9

Table 8.3 presents details on a number of different measures of formal, structured training by size/sector category. From Row C in the table one can see that a total of 17.5 per cent of persons engaged in private sector companies received some form of formal, structured training. This represents almost 200,000 workers in the relevant sectors. The incidence is highest in the Manufacturing sectors and also in Distributive Services whilst being lowest in Construction. In the latter sector just under 9 per cent of those engaged were involved in some form of training.

It is clear from the table that a higher percentage of persons engaged in larger than smaller companies in each sector received some form of structured training. The differential in terms of receipt of training between large and small firms is greatest in the Distributive Services sector, where less than 8 per cent of workers in smaller enterprises received such training. This compares with almost 28 per cent in larger enterprises in this sector.

Details on the average number of days training received are presented in Rows E and F of the table. The figures in Row E are based on the average number of days among those who received any such training. The figures in Row F are based on all persons engaged in the sector. One can see that, on average, those who received any such training received an average of 2.9 days. It is obvious from the table that although the lowest *incidence* of training was evident in the Construction sector this sector had the highest average number of days spent on such training among those who participated in the relevant courses or programmes. It is also clear from the table, however, that the differences between the sectors are really quite small in absolute terms.

An equally valid interpretation of average number of days trained is provided in Row F of the table. This is based on *all* persons engaged in the sector and, consequently, incorporates a consideration of both incidence and also duration among those who receive the training in question. Accordingly, the figures in Row F provide an insight to the sectoral intensity of formal structured training received. When calculated on this basis one can see that persons engaged in the relevant private sectors received, on average, 0.5 days formal structured training. This level was highest in the Manufacturing Sectors (0.6 and 0.7 days in Traditional and Hi-Tech. respectively) while being lowest in Construction (0.3 days).

Table 8.3: Number of Persons Undertaking Formal, Structural Training; Total Days on Such Training Courses and Average Length of Such Training Classified by Size and Sector

	Trad. Manufacturing			Hi-Tech Manufacturing			Construction		
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total
A. Total Workforce	59,887	80,113	140,000	56,500	122,500	179,000	69,490	42,510	112,000
B. No. of persons on training courses	6,573	14,486	26,059	9,174	29,905	39,080	4,112	5,929	10,041
C. % persons on training courses	10.9	24.3	18.6	16.1	24.4	21.8	5.9	13.9	8.9
D. Days on training courses	32,268	50,289	82,557	29,935	97,886	127,821	16,447	20,835	37,268
E. Average no. of days on training									

courses for those trained	4.9	2.5	3.1	3.2	3.2	3.2	3.9	3.5	3.7	
F. Average no. of days on training course for all persons engaged	0.5	0.6	0.6	0.5	0.8	0.7	0.2	0.5	0.3	
	Distributive Services			**Finance/Insurance Business Services**			**Transport/Personal/Other Services**			
	0-9	**10+**	**Total**	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	**All**
A. Total Workforce	94,700	133,300	228,000	39,308	128,641	167,949	59,040	254,960	314,000	1,140,949
B. No. of persons on training courses	7,453	37,309	44,762	4,395	26,053	30,448	3,761	45,810	49,570	199,961
C. % persons on training courses	7.8	27.9	19.6	11.1	20.2	18.1	6.3	17.9	15.7	17.5
D. Days on training courses	71,458	75,661	115,120	13,953	63,970	77,922	7,145	137,203	144,348	585,051
E. Average no. of days on training courses for those trained	5.3	2.0	2.6	3.2	2.4	2.6	1.9	3.0	2.9	2.9
F. Average no. of days on training course for all persons engaged	0.4	0.6	0.5	0.3	0.5	0.5	0.1	0.5	0.4	0.5

An alternative perspective on the levels of training activity in the firm is provided in Table 8.4. This shows the percentage of the workforce engaged in the firms in question which went on training courses. The figures are based only on the 27 per cent of firms in which some persons attended formal training programmes or courses.

The second last column of Table 8.4 shows, for example, that in just over 11 per cent of firms which provided some such training, less than 10 per cent of the workforce was involved. A further 29 per cent of firms had 10-25 per cent of workers involved in such training and so on. As one would expect, in general, a larger proportion of smaller firms had a higher percentage of their workforce engaged in the formal structured training under consideration. For example, 50 per cent of smaller firms in the Transport/Personal/Other Services recorded that 50 per cent or more of their workforce was engaged in structured training. The comparable figure for their larger counterparts was 22 per cent. Similarly, just over 33 per cent of smaller firms in Finance/
Insurance/Business Services had 50 per cent or more of their workforce involved in training. This compares with just over 27 per cent of larger firms in the sector.

The final column in Table 8.4 presents information on the basis of the firm-based weight which assigns a "vote" or weight to each company in proportion to its total workforce. The figures indicate that just over 800,000 persons in private sector companies worked in firms which undertook any formal training. This means that approximately 70 per cent of persons are engaged in firms which participated in some form of the training in question. Just over one-third (35.4 per cent of the 800,000 persons who work in the relevant firms which undertook this type of training) worked in firms in which less than 10 per cent of workers attended formal training; a further 31 per cent worked in firms in which 10-25 per cent of their workforce attended structured training and so on.

Table 8.4: Firms Which were Engaged in Formal, Structured, Training in the Twelve Months Preceding the Survey Classified According to the Percentage of their Total Workforce which Attended Such Training

	Trad. Manufacturing			**Hi-Tech Manufacturing**			**Construction**			
Percentage of Workforce which Attended Formal Training	**0-99**	**100+**	**Total**	**0-99**	**100+**	**Total**	**0-9**	**10+**	**Total**	
<10 per cent	24.5	34.0	26.5	21.1	34.7	24.1	0.0	41.6	10.5	
10 to <25%	43.5	44.7	43.7	45.5	23.3	40.7	50.1	37.2	46.8	
25 to <50%	18.8	10.7	17.1	16.7	23.3	18.1	25.0	18.0	23.2	
50 to <75%	9.4	1.9	7.8	6.7	10.1	7.4	0.0	1.6	0.4	
75% or more	3.7	8.8	4.9	10.0	8.7	9.7	25.0	1.6	19.1	

Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
(Wgt'd n)	934	262	1,198	1,030	288	1,317	941	317	1,258		
	Distributive Services			**Finance/Insurance/ Business Services**			**Transport/Personal/ Other Services**				
	(Per cent of firms which engaged in formal, structured training)										
Percentage of Workforce which Attended Formal Training	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	**All Firms**	**Total Firms Weighted by Employment Levels**
<10 per cent	0.0	26.0	8.6	0.0	17.1	5.2	0.0	27.0	16.5	11.1	35.4
10 to <25%	25.9	33.7	28.5	13.0	30.4	18.3	25.0	36.5	32.0	29.3	30.6
25 to <50%	51.9	21.1	41.7	53.7	25.2	45.0	25.0	14.9	18.8	34.8	15.5
50 to <75%	18.5	7.7	14.9	6.9	16.8	9.9	50.0	14.9	28.6	14.5	9.5
75% or more	3.7	11.5	6.3	26.4	10.5	21.6	0.0	6.7	4.1	10.3	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	6,507	3,211	9,718	3,574	1,576	5,150	1,485	2,327	3,812	22,452	800,427

Much of the debate on issues related to training revolves around the degree to which it is "general" or "specific" in nature. The former implies training in skills or courses which have a general applicability and which are not specific to the current employment of the individual worker. General training raises the overall level of human capital for the worker in question and, by and large, results in him/her becoming much more mobile within the workforce. In contrast, specific training refers to an increase in human capital skills which are much more job-specific and non-transferable within the workplace. In many respects, firms may display a reluctance in investing heavily in the general skill levels of their workforce as it may be interpreted by the employer as representing an effective subsidy to other employers by providing an increase in generally trained staff. Accordingly, employers may favour involvement in specific rather than general training activity.

To assess the extent to which formal training is, in fact, general or specific in nature, Table 8.5 presents details on the breakdown of training days. One can see that a total of 31 per cent of all training days were of a general nature while the remaining 69 per cent were specific. Although sectoral differences in the breakdown of training in terms of general or specific were relatively limited one can see from the table that there is some evidence to suggest that the incidence of specific training was highest in Distributive Services where 74 per cent of all training days were specific in nature. This was followed by the Transport/Personal/Other Services sector (72 per cent) and Construction (69 per cent). The Manufacturing sectors appear to have the lowest percentage of specific training days – Hi-Tech Manufacturing, 63 per cent; Traditional Manufacturing, 65 per cent. One can see that, with the exception of Traditional Manufacturing and Distributive Services, smaller firms make a relatively higher investment in specific training days than do their larger counterparts.

Table 8.5: Training Days Classified According to Whether or Not General or Specific Training Days by Size and Sector

	Trad. Manufacturing			**Hi-Tech Manufacturing**			**Construction**			
	0-99	**100+**	**Total**	**0-99**	**100+**	**Total**	**0-9**	**10+**	**Total**	
General Days	40	32	35	35	38	37	26	34	31	
Specific Days	60	68	65	65	62	63	74	66	69	
Total	100	100	100	100	100	100	100	100	100	
	Distributive Services			**Finance/Insurance/ Business Services**			**Transport/Personal/ Other Services**			
	0-9	**10+**	**Total**	**0-9**	**10+**	**Total**	**0-9**	**10+**	**Total**	**All**
General Days	26	26	26	27	34	33	21	28	28	31
Specific Days	74	74	74	73	66	67	79	72	72	69
Total	100	100	100	100	100	100	100	100	100	100

8.2 Training Through On-the-Job Instruction

In addition to the formal, structured training activity outlined above, firms may also engaged in less structured or formal training "through doing" or through "on-the-job" instruction. This latter type of training activity is generally carried out while the person

being trained is actively engaged in the production process. Table 8.6 presents details on the incidence of this type of training activity.

From the table one can see that just under 40 per cent of all firms were engaged in this type of less formal training. Unlike the situation relating to more formal training activity, there appears to be substantial sectoral differences in the incidence of on-the-job training. At an aggregate level a total of 40 per cent of all firms engage in this type of activity. Recorded incidence levels are much higher in the Manufacturing sectors – both Traditional (61 per cent) and Hi-Tech (71 per cent) – than in other areas of economic activity. These two sectors are followed at some distance by Finance/Insurance/Business Services (45 per cent). The incidence of on-the-job training is lowest in Construction where only 28 per cent of firms record that they engage in this type of activity. In general, the incidence of on-the-job training is substantially higher among larger than smaller firms in each sector.

The final column in Table 8.6 indicates that three-quarters of all relevant private sector workers are engaged in firms which participate in training through on-the-job instruction or related job rotation.

Table 8.6: Firms Classified According to Whether or Not their Workers (Excluding Apprentices) Undertook Training Through On-the-Job Instruction, Job Rotation or Other Means. (This Latter Training was Apart from or Additional to the Formal Structured Training Courses Referred to in Table 8.1 above)

Training Through on-the-Job Instruction	Trad. Manufacturing			Hi-Tech Manufacturing			Construction				
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total		
Yes	57.9	87.9	61.5	67.5	92.4	70.8	26.5	54.8	28.1		
No	42.1	12.1	38.5	32.5	7.6	29.2	73.5	45.2	71.9		
Total	(100.0)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
(Wgt'd n)	(2,012)	(272)	(2,284)	(1,797)	(275)	(2,072)	(8,000)	(491)	(8,491)		
	Distributive Services			Finance/Insurance/ Business Services			Transport/Personal/ Other Services			All Firms	Total Firms Weighted by Employ-ment Levels
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total		
Yes	33.8	63.1	37.3	40.0	82.3	45.2	30.3	77.0	39.8	39.8	75.2
No	66.2	36.9	62.7	60.0	17.7	54.8	69.7	23.0	60.2	60.2	24.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	(32,777)	(4,353)	(37,130)	(13,501)	(1,893)	(15,393)	(12,257)	(3,143)	(15,400)	(80,770)	(1,078,816)

Note: The reader should note that this table relates to all firms in the population.

8.3 Combined Formal and On-the-Job Training

Table 8.7 provides details on the extent to which firms combine formal, structured training with less formal on-the-job instruction or job rotation. One can see from the second last column in the table that a total of 15 per cent of firms indicate that they undertake *both* formal and informal or on-the-job training activity; a further 11 per cent undertake formal training but not on-the-job instruction; and a total of 24.6 per cent are involved in the latter but not the former. It is somewhat disconcerting to note that just under one-half of firms indicated that they engage in neither type of training activity. It is very clear from the figures that the incidence of engaging with neither type of training is much more common among smaller firms in each sector.

The figures in the table show that there are very substantial variations in the incidence of combinations of training across the various sectors. The complete absence of all training is lowest in Manufacturing and highest in Construction. For example, only 15 per cent of firms in Hi-Tech Manufacturing say they are not involved in any type of training. In contrast, as many as 68 per cent of firms in the Construction sector record that they do not engage in either type of training while as many as 55 per cent of firms in Transport/Personal/Other Services do not engage in any training activity.

The final column in Table 8.7 is based on the percentage of persons engaged in the four categories of firm involved. The concentration of lower incidences or absence of training activity among smaller firms is indicated by these figures. One can see that only 16 per cent of workers are engaged in firms which recorded that they did not

provide any type of training – formal or informal in nature. At the other extreme, a total of just over 62 per cent of persons *engaged* in the relevant sectors covered by the survey are working in enterprises in which both types of training activity are undertaken. A further 9 per cent of workers are engaged in companies in which formal training takes place without on-the job instruction and 13 per cent in companies which do not engage in more formal training but which do engage in less formal approaches.

Table 8.7: Firms Classified According to Whether or Not their Workers (Excluding Apprentices) Undertook a Combination of Formal Structured Training and also On-the-Job Instruction, Job Rotation

Combination of		Trad. Manufacturing			Hi-Tech Manufacturing			Construction		
Formal	On-the-job training	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total
Yes	Yes	34.2	77.9	39.4	38.2	90.9	45.2	8.8	39.4	10.6
Yes	No	8.8	8.5	8.8	15.3	6.2	14.0	2.9	24.1	4.2
No	Yes	23.7	10.3	22.1	29.3	1.5	25.6	17.7	15.3	17.5
No	No	33.4	3.3	29.8	17.2	1.5	15.1	70.6	21.2	67.7
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)		(2,011)	(271)	(2,284)	(1,798)	(275)	(2,072)	(8,000)	(490)	(8,490)

Formal training	On-the-job training	Distributive Services 0-9	Distributive Services 10+	Distributive Services Total	Finance/Insurance/ Business Services 0-9	Finance/Insurance/ Business Services 10+	Finance/Insurance/ Business Services Total	Transport/Personal/ Other Services 0-9	Transport/Personal/ Other Services 10+	Transport/Personal/ Other Services Total	All Firms	Total Firms Weighted by Employ-ment Levels
Yes	Yes	6.6	46.8	11.3	11.6	64.6	18.1	6.1	58.0	16.7	15.2	62.3
Yes	No	12.5	24.1	13.9	14.1	14.6	14.2	3.0	12.0	4.9	11.0	8.8
No	Yes	27.2	16.3	25.9	28.4	17.6	27.1	24.2	19.0	23.2	24.6	12.9
No	No	53.7	12.8	48.9	45.9	3.2	40.7	66.7	11.0	55.3	49.1	16.0
Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)		(32,777)	(4,354)	(37,130)	(13,500)	(1,893)	(15,393)	(12,256)	(3,143)	(15,401)	(80,768)	(1,075,816)

8.4 Training a Experience of Vacancies

Having examined the incidence and nature of training activity undertaken by firms it is clearly of interest to consider whether or not there is a relationship between a firm engaging in training and the incidence of job vacancies.

Table 8.8 presents details on the distribution of firms according to whether or not they engaged in formal or informal training and also whether they had experience of *difficult-to-fill* vacancies in the year preceding the survey. Section A of the table indicates that a total of 56 per cent of firms which had engaged in formal, structured training had also experienced difficult-to-fill vacancies in the year preceding the survey. In contrast, only 24 per cent of those firms which did not engaged in formal training had experience of difficult-to-fill vacancies in the year preceding the survey. The firms which engaged in formal training were, therefore, 2.3 times more likely to have experienced a difficult-to-fill vacancy than their counterparts who did not carry out any such instruction.

From Section B of the table one can see that just under two-thirds (64 per cent) of firms which had engaged in both types of training (formal and informal) had experienced a difficult-to-fill vacancy in the twelve months leading up to the survey. The comparable figure for those who engage in formal training only was 46 per cent and 35 per cent for those who participated in on-the-job training only. One can, finally, see from the table that only 19 per cent of firms which engaged in neither form of training experienced a difficult-to-fill vacancy in the year preceding the survey. Overall, these figures would tend to suggest that the risk of a difficult-to-fill vacancy was substantially higher for firms which had participated in some form of training in the year preceding the survey. One can only surmise as to the extent to which this is a cause or an effect. It may be that the firms which were experiencing difficult-to-fill vacancies tried to train/retrain staff to cover current labour shortages. Alternatively, the act of training (and related increase in the human capital of the staff involved) may have resulted in their greater mobility in the workplace and, consequently, the creation of a vacancy for their former employer who provided the training in the first instance.

Table 8.8: Firms Classified According to Whether or Not (a) they Engaged in Formal, Structured Training and/or On-the-Job Instruction/Job Rotation and (b) Whether or Not they had Any Vacancies which were Difficult-to-Fill in the Year Preceding the Survey

Combination of Formal and On the-Job Training		Difficult-to-Fill Vacancies?			
		Yes	No (Row Per Cent)	Total	(Wgt'd n)
Section A					
Firms with formal Training		56.4	43.6	(100.0)	21,214
All other firms		24.2	75.8	(100.0)	59,314
Section B					
Formal	**On-the-Job**				
Yes	Yes	64.1	35.9	100.0	12,290
Yes	No	45.7	54.3	100.0	8,924
No	Yes	34.7	65.3	100.0	19,887
No	No	18.9	81.1	100.0	39,428
Total		32.7	67.3	100.0	
Total		25.8	74.2	100.0	
(Wgt'd n)		(26,335)	(54,194)	(80,529)	(80,529)

8.5 Summary

In this chapter we considered several aspects of the incidence and nature of training as well as its relationship to the experience of difficult-to-fill vacancies in the year preceding the survey.

We saw that a total of 27 per cent of firms engage in formal, structured training of such sort. There is a much higher incidence among larger than smaller companies. This latter trend reflects itself in the fact that 72 per cent of persons engaged in the relevant private sectors considered throughout the report work in firms which undertake this type of formal training activity. A total of 17 per cent of persons engaged in relevant private sector companies received this type of training. The incidence was much higher in Manufacturing and Distributive Services than in other sectors. It was lowest in the

Construction sector. On average, those who received formal structured training received 2.9 days in the year preceding the survey.

Training can be classified in terms of either general or specific. The former refers to activity which enhances the human capital of the industrial in a general way which is not related to the specific job which he/she carried out. We found that a total of 31 per cent of all training days in the year preceding the survey were general in nature, the remaining 69 per cent being specific. The level of specific training was highest in the Distributive Services and Transport/Personal/Other Services sectors (74 per cent and 72 per cent respectively). It was lowest in Manufacturing (63 per cent in Hi-Tech. and 65 per cent in the Traditional sectors).

In addition to formal, structured training we also examined less formal approaches through on-the-job training, job rotation etc. We found that a total of 40 per cent of all private sector firms participated in this type of activity. The levels in Manufacturing were very substantially higher than in other sectors (71 per cent in Hi-Tech. Manufacturing and 61 per cent in traditional Manufacturing).

We also considered the degree to which firms undertook a combination of formal and informal training activity. We saw that 15 per cent of firms were involved in both types of instruction, 11 per cent engaged in formal training only while 25 per cent carried out only informal training. It is perhaps disconcerting that as many as 49 per cent of firms said they were not involved in any form of training at all. This lack of involvement in training was much more common among smaller than larger companies. The incidence of non-engagement was lowest in Manufacturing (for example,. Only 15 per cent of firms in High-Tech. Manufacturing said they were not involved in training activity. In contrast, as many as 68 per cent of firms in the Construction sector said they did not engage in this type of instruction.

Finally, we found that there was a strong relationship between the experience of a difficult-to-fill vacancy and involvement with training activity. Firms which engage in formal structured training were 2.3 times more likely to have experienced a difficult-to-fill vacancy than their counterparts who did not carry out any such instruction.

9. MAIN FINDINGS

9.1 Background

The Irish economy has experienced unprecedently high levels of economic and employment growth over the last five years. Given demographic trends this has been accompanied by a fall in the potential for further increases in the domestic supply of labour. These factors have combined to produce a situation which has gone from unemployment rates which were traditionally above the EU level to one where we now have a situation of virtual full employment. The unemployment levels currently being experienced could best be described as frictional in nature. The labour market has, therefore, over the latter half of the last decade been transformed from a position of excess supply to one of excess demand. The purpose of this study was to assess the level, extent and consequences of these increasingly tight labour market conditions.

9.2 Size and Forecasted Growth of the Labour Market

In Chapter 3 we considered trends in the size and structure of the relevant sectors of the non-agricultural labour market which we were addressing in the report. We saw that this has grown by some 88,000 persons from the end of 1998 to the end of 1999 when it stood at 1,141,000 persons. This represented a growth of 8.4 per cent over the previous year.

Of particular significance to the tightness of the labour market were employers' perceptions and forecasts of future likely growth levels in their labour requirements. Even when we deflated the employer's forecasts by a substantial degree we found that, based on their own figures, the relevant non-agricultural private sector labour market looks likely to grow by another 83,000–89,000 persons between the first quarter of 2000 and the same period in 2001. This will obviously have implications in terms of further tightening of the labour market and so it is particularly appropriate that we understand the incidence, nature and consequences of labour shortage problems.

9.3 Incidence and Level of Vacancies

In Chapter 4 we saw that a total of 31 per cent of firms in the 1999/2000 survey indicated that they were experiencing vacancies. This represented a four percentage point increase from the position of one year earlier when the rate stood at 27 per cent. The most substantial sectoral increases in the incidence of vacancies were found in the Construction sector, followed by Distributive Services and the Finance/Insurance/Business Services sectors.

The 1999/2000 survey indicated that there were approximately 77,600 vacancies in the economy at the time of interviewing. This represents a vacancy rate of 6.5 per cent. In other words, 6.5 per cent of the total labour requirement of the relevant private sector labour market could not be met. This level of vacancies represents a 20 per cent increase (12,900 persons) as compared to the previous year when the level stood at 64,700.

The Construction sector stood out as having experienced the most substantial growth in vacancies over the period in question. We found that vacancy levels rose from 5,700 in 1998/99 to 13,700 in 1999/2000, representing an increase of 143 per cent. This sector also had the highest vacancy rate, at 11 per cent of its total labour requirement in the 1999/2000 survey.

Of particular significance, we found that vacancies were extensively spread throughout the economy across all occupational grades. Contrary to some popular media focus on vacancies in professional areas, we found that five broad occupational categories accounted for two-thirds of all vacancies. These were Skilled Maintenance &

Production Operatives (18 per cent); Personal Services (16 per cent); Clerical & Secretarial (13 per cent); Production Operatives (11 per cent) and Sales Personnel (9 per cent).

9.4 Difficult-to-Fill Vacancies

In addition to questions relating to the experience of *current* vacancies, firms were also questioned about difficult-to-fill vacancies which they may have experienced in the year preceding the survey. We found that 33 per cent of respondents said that they had experienced such problematic vacancies. This represented an increase of seven percentage points in terms of incidence levels as compared with the previous year. The most frequently cited occupational categories which were mentioned by firms as being difficult-to-fill were Skilled Trades Persons and Clerical grades.

When faced with difficult-to-fill vacancies the vast majority of employers (81 per cent) indicated that these vacancies had imposed an extra strain on management and staff in covering current staff shortages. A majority of employers also mentioned that the problematic vacancies resulted in restrictions to business development (62 per cent) while 57 per cent noted that the tightness of the labour market resulted in a loss of the quality of services. One aspect of the consequences of difficult-to-fill vacancies which is of concern is the substantial proportion of firms (55 per cent) who say that as a consequence of labour shortages they have to offer higher wage and salary levels. It is of particular note that the percentage of respondents who mention this outcome had increased by the second survey in 1999/00 by 11 percentage points as compared with the enquiry conducted in 1998/99. This trend towards a higher percentage of respondents who mention increased wage levels as a response to tightening labour market conditions occurs in the context of falling percentages of employers who say that they would retrain existing staff or train less qualified recruits. The option of offering increased pay rates will clearly have a substantial effect in exerting upward pressure on wage levels.

9.5 Difficulties in Retaining Staff

We saw that a total of 19 per cent of firms recorded that they were experiencing difficulties in retaining their existing staff. The incidence of such difficulties was highest in the Manufacturing sectors in Traditional and Hi-Tech. In general, there would appear to have been only modest increases in the percentage of the firms which experienced these difficulties, rising by only 2 percentage points from 17 per cent in 1998/99 to 19 per cent in 1999/2000. The type of jobs which were most frequently mentioned by firms as posing difficulties in retaining staff were Skilled Trades Persons.

9.6 Regional Trends

The final issues considered in the report were related to regional variations in aspects of the incidence, rate and nature of vacancies as between Dublin and the Rest of the Country.

We found that the percentage of firms in Dublin which were experiencing a vacancy (35 per cent) was 6 points higher than that experienced in the remainder of the country. The Construction sector stood out as being substantially differentiated in terms of regional variations. As many as 56 per cent of firms in that sector in Dublin recorded that they had experienced vacancies compared with only 25 per cent of firms which are located elsewhere in the country.

In terms of changes in regional trends in the incidence of vacancies over the two surveys (1998/99 and 1999/00), we found that, in aggregate terms, the incidence of vacancies between Dublin and the Rest of the Country had narrowed somewhat over the period 1998/99 to 1999/00. The figures suggest that the problems of labour shortages in the Rest of the Country had risen to meet those in Dublin over the period in question. In the first survey the incidence of vacancies among firms in Dublin was 40 per cent higher than among firms in the Rest of the Country. By the second round of the survey the figure for Dublin was only 20 per cent higher than that for the Rest of the Country. In general, this narrowing of the gap between Dublin and the Rest of the Country, in terms of the incidence of vacancies, affected all sectors except for the

Construction sector. In that sector we found that the labour market appears to have become substantially tighter in Dublin as compared with the Rest of the Country.

Finally, we considered regional trends in difficulties in retaining existing staff. These showed that, with the exception of the Traditional Manufacturing sector, retaining existing staff is currently more problematic for firms in Dublin than in the Rest of the Country. As was the case in regional trends over time for the other aspects of vacancies and labour shortages it would appear that, at an aggregate level across all sectors, the difficulties experienced in retaining existing staff have become somewhat equalised as between Dublin and the Rest of the Country. In the 1998/99 round of the survey the incidence rate in Dublin was 81 per cent higher than that experienced in the Rest of the Country. By the 1999/2000 survey the rate in Dublin was only 25 per cent higher than that experienced elsewhere. There was also some evidence to suggest that a higher percentage of firms which were located in Dublin were mentioning professional and related occupations as posing difficulties in terms of staff retention. In contrast, a higher percentage of firms located elsewhere outside the capital mentioned Skilled Trades Persons and Unskilled workers.

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National Survey of Vacancies in Ireland, 1999/2000

The Economic and Social Research Institute has been commissioned by FÁS and Forfás to carry out a survey into the current level of vacancies in Ireland. This is a nationally representative sample of all businesses throughout the country. Your firm was selected, at random, for participation in the survey. The information collected will be treated in the strictest confidence. The report which we will prepare will contain only aggregate details, percentages etc. It will not be possible to identify individual firms or their responses from this report. The results will be used to inform policy makers on the problems employers are facing in recruiting workers in Ireland today. It is *your* experience and *your* views on such issues that we want to measure in this survey. Your assistance in completing the questionnaire would be greatly appreciated.

Q.1 Name of Company_____

Q.2 Name of person completing the questionnaire_____

Q.3 What is your own position within the company?_____

Q.4 Please describe as fully as possible the nature of your businesses_____

_____

_____

Q.5a Is your company in any way involved in the development and/or customising of computer software?

Yes..... ☐ 1 → Go to Q.5b No ..... ☐ 2 → Go to Q.6

Q.5b Approximately what percentage of the value of your total turnover would be accounted for by the development and/or customising of software?

_____per cent

Q.6 Is the majority of shares in the company Irish owned?

Yes, Irish owned..... ☐ 1 No, not Irish owned ..... ☐ 2

Q.7 Which of the following best describes your company? [Tick one only].

Irish owned private company..... ☐ 1
Irish owned public company..... ☐ 2
Subsidiary of overseas company ..... ☐ 3
International franchise in Ireland..... ☐ 4
Semi-state..... ☐ 5
Co-Operative..... ☐ 6
Other (please specify) _____ ☐ 7

Q.8 How many branches or outlets does your company currently have throughout the Republic of Ireland?

Branches/outlets _____

Q.9 How many people currently work in your company in all its branches throughout the Republic of Ireland? (Please give the total of full-time and part-time workers (or persons engaged) including managers, owners, proprietors etc.)

Full-time _____ Part-time _____

Q.10a How many new recruits (in total) has your company taken on in the past 12 months in all its branches throughout the Republic of Ireland?

Total new recruits_____

Q.10b How many workers (in total) have left your company including all its branches throughout the Republic of Ireland in the last 12 months?

Total Left_____

Q.11 How many people worked in your organisation in all its branches throughout the Republic of Ireland 12 months ago? (Please give the total of all full-time and part-time staff including and transient staff.

Full-time staff_____ Part-time staff _____

Q.12 Approximately what percentage of your total sales go to export markets and what percentage to domestic markets

Export Markets:_____ per cent Domestic Markets:_____ per cent

Q.13a I would like you to think of the total number of persons who currently work in your firm (as recorded at Q.9). Please indicate, in Column A of the table below, how many people currently work in each of the occupational categories. If you have no-one in a given category please put a stroke or Ø through the relevant box in Column A.

Q.13b Do you currently have any vacancies in your company? By vacancies we mean unmet demand for labour where the positions are currently unoccupied, available immediately and where the company is actively searching for workers.

Yes....☐$_1$ → Go to Q13c No..... ☐$_2$ → Go to Q.13e

Q.13c Please indicate in Column B of the table below, how many vacancies you currently have in each of these occupational categories. If you have no vacancies in a given category please put a stroke or Ø through the relevant box in Column B.

Q.13d Please indicate in Column C whether or not you consider the vacancies which you currently have in the relevant occupational categories are proving to be difficult to fill.

Q.13e Please indicate in Column D your estimated number of total workers in each grade in one year's time.

OCCUPATIONAL CATEGORIES	A Total CURRENT Staff	B Total CURRENT Vacancies	C Do you consider current vacancies are difficult to fill in this Category	D Estimated total staff in 1 years time
1.Managers/Proprietors (e.g. production; marketing; purchasing; & computer systems managers)			Y…☐ N…☐	
2.Engineering Professionals .(e.g. civil, chemical, electrical, electronic, and plastics engineers)			Y…☐ N…☐	
3.Science Professionals (e.g. physicists, chemists, technologists)			Y…☐ N…☐	
4.Computer Professionals (e.g. graduate software staff)			Y…☐ N…☐	
5.Other Professionals (e.g. architects, accountants, solicitors)			Y…☐ N…☐	
6.Engineering Technicians (e.g. electrical, electronic, production, engineering, plastics, and instrumentation technicians)			Y…☐ N…☐	
7.Science Technicians (e.g. plastics technicians, laboratory technicians)			Y…☐ N…☐	
8.Computer Technical Staff – Associate Professional Level (e.g. systems analysts, computer programmers, technical support, computer technicians)			Y…☐ N…☐	
9.Other Associate Professional (e.g. industrial designers, technical inspectors)			Y…☐ N…☐	
10. Clerical and Secretarial (e.g. Telebusiness operators, computer operators, clerical supervisors, telephonists, typists)			Y…☐ N…☐	
11.Skilled Maintenance & Skilled Production (e.g. electricians, fitters, electronic workers, welders, printers, carpenters)			Y…☐ N…☐	
12.Production Operatives (e.g. millers, bakers, dyers, bleachers, machinists, paper makers, plastics workers)			Y…☐ N…☐	
13.Transport & Communications (e.g. drivers, couriers, messengers)			Y…☐ N…☐	
14.Sales (e.g. shop assistants, sales representatives)			Y…☐ N...☐	
15. Security (e.g. caretakers, watchmen, security guards)			Y…☐ N...☐	
16. Personal Service (e.g. catering workers, domestic servants and cleaners, laundry workers)			Y…☐ N...☐	
17. Labourers (e.g. dock labourers, other unskilled labourers)			Y…☐ N...☐	
TOTAL				

Q.14a What method(s) of recruitment are you using to fill your current vacancies. Tick all that apply.

1. Ads in Irish national/local papers ..... ☐ 1
2. Ads. in trade/specialist journals ..... ☐ 2
3. State Agencies (FÁS, Cert etc.) ..... ☐ 3
4. Private agencies ..... ☐ 4
5. Word of mouth/Personal Contacts ..... ☐ 5
6. Other Method (specify) ..... ☐ 6

_____

7. We have no current vacancies ..... ☐ 7

Q.14b Are you attempting to recruit abroad as well as in Ireland? Yes….. ☐ 1 No ..... ☐ 2

Q.14c In the last 12 months have you directly recruited anyone from abroad?

Yes ..... ☐ 1 how many _____ No ..... ☐ 2

Q. 15a We would like you to think of the single vacancy or type of vacancy which you are CURRENTLY finding hardest to fill, could you describe the job involved:

(i) Job title:_____(ii) Main duties:_____

(iii) Type of education/qualifications needed:_____

(iv) Type of experience needed:_____

Q.15b. Which of the following would you say is the MAIN reason you are encountering problems in filling this single most difficult-to-fill vacancy at the moment? (Tick one box only)

(i) The wages we are offering are lower than those offered by other employers ..... ☐ 1 → Go to Q. 16a
(ii) Unattractive conditions of employment ..... ☐ 2 → Go to Q. 16a
(iii) There is no career progression in the job ..... ☐ 3 → Go to Q. 16a
(iv) There is too much competition from other employers ..... ☐ 4 → Go to Q. 16a
(v) There is a shortage of applicants with the right PRACTICAL skills ..... ☐ 5 → **Go to Q. 15c**
(vi) There is a shortage of applicants with the right QUALIFICATIONS ..... ☐ 6 → Go to Q. 16a
(vii) There is a shortage of applicants with the right EXPERIENCE ..... ☐ 7 → Go to Q. 16a
(viii) Long/unsocial hours ..... ☐ 8 → Go to Q. 16a
(ix) Other reason (please specify) ..... ☐ 9 → Go to Q. 16a

Q.15c I would like you to think of the shortage of applicants with the right practical skills. Please rank 1, 2 and 3 in order of importance the three skills which you find the applicants are most usually lacking. Assign a rank of '1' to the skill most often lacking, a rank of '2' to the next skill which is most often lacking and a rank of '3' to the third skill which applicants most often lack.

	Rank		*Rank*
Good level of education	_____	Specific vocational preparation	_____
Ability to work with little supervision	_____	Literacy	_____
Technical Ability	_____	Numeracy	_____
Manual dexterity	_____	Reliability	_____
Interpersonal skills	_____	Other (specify)	_____

Q. 16a Within the last year, have you had any vacancies which were particularly difficult-to-fill ?

Yes.....1 → Go to Q.16b No.....2 → Go to Q. 18a

Q.16b If yes, which type of vacancy posed the biggest problem for your firm?

(i) Job title:_____(ii) Main duties: _____

(iii) Type of education/qualifications needed_____

(iv) Type of experience needed:_____

Q. 16(c) Did these difficult-to-fill vacancies cause: (Tick all that apply)

Loss of business or orders to competitors ..... ☐ 1
Loss of quality of service to customers ..... ☐ 2
Restrictions to the development of your business ..... ☐ 3
Extra strain on management and other staff in covering current staff shortages ..... ☐ 4
An increase in running costs due to overtime, subcontracting or use of temporary staff ..... ☐ 5
An increase in recruitment costs due to more advertising or use of a recruitment agency ..... ☐ 6

Q.17 What steps did you take to fill these difficult-to-fill vacancies? (Tick all that apply)

Offered higher pay ..... ☐ 1
Considered a wider range of people ..... ☐ 2
Retrained existing staff ..... ☐ 3
Trained less qualified recruits ..... ☐ 4
Hired part-time or contract staff ..... ☐ 5
Developed links with schools and colleges ..... ☐ 6
Changed job specification by giving some tasks to other staff ..... ☐ 7
Changed job specification by automating some tasks ..... ☐ 8
Other Steps (please specify) ..... ☐ 9

Q.18 Thinking of your existing staff, are there specific jobs in which it is CURRENTLY difficult to retain staff?

Yes.....1→Go to Q.18(b) No.....2→Go to Q.19

Q.18b If yes, could you describe the job in which you are finding it hardest to retain staff:

(i) Job title:_____(ii) Main duties: _____

(iii) Type of education/qualifications needed_____

(iv) Type of experience needed:_____

Q.18c Which of the following would you say is the MAIN reason why it is difficult to retain staff in that job? (Tick ONE only)

(i) The wages we are offering are lower than those offered by other firm .....☐1
(ii) Unattractive conditions of employment .....☐2
(iii) There is no career progression in the job .....☐3
(iv) There is too much competition from other employers.....☐4
(v) Long/unsocial hours .....☐5
(vi) Other reason (please specify) .....☐6

Q19 Turning now to the overall skills needed by your company to keep it running effectively. Compared with the same situation a year ago, would you say that the need for skills in your average worker was

Decreasing.....☐1 → Go to Q.21 Static.....☐2 → Go to Q.21 Increasing.....☐3 → Go to Q.20

Q.20 If the need for skills is increasing, what would you say are the main factors causing this increase?

_____

Q.21 Apart from any apprentices, did anyone working in the company (including the owner-manager or proprietor) attend any FORMAL, STRUCTURED TRAINING COURSES in the past 12 months, either on the company's premises or at locations outside the company. We are talking here about systematic, supervised training during which the trainees are not engaged in production – this <u>excludes</u> "on the-the-job" training.

Yes..... ☐1 → Go to Q.22 No..... ☐2 →Go to Q.25a

Q.22 Approximately how many people from your company (excluding apprentices) went on formal, structured training courses in the last 12 months?

_____ people on formal, structured training courses in last 12 mths.

Q.23 Approximately how many days in total were spent on formal, structured training courses by your workers (excluding apprentices) in the last 12 months?

_____days on formal training courses

Q.24 I would like you to think about the main reasons which your company had for undertaking this formal structured training in the last 12 months. Please assign a rank of 1 to 4 to the following 4 reasons in terms of their importance to your company for carrying out this formal, structured training. Assign a rank of '1' to most important reason, a rank of '4' to the least important reason. *Rank*

(i) to increase the general level of technical skill in your workforce ..... _____
(ii) in response to problems you had in finding workers with the appropriate level of skills .... _____
(iii) in response to problems you had in retaining your existing staff ..... _____
(iv) Other please specify _____ ..... _____

Q.25 Some training is *general* in nature in the sense that it could be used in any organisation. Other training is *specific* to the needs of your organisation in the sense that it could not be easily transferred to another organisation. *General* training would include training in general literacy or numeracy skills; general communication skills, general computing or word processing skills etc. *Specific* training would include training related to your *specific* organisation such as specific technical or business training, specific computer training; specific skills in communicating with your customers or clients etc. Approximately what percentage of the total number of days spent on formal structured training courses in the last year by your workers would have been on (a) general training and (b) specific training.

Percentage of days:- General Training _____ per cent; Specific Training _____ per cent

Q.26 Apart from formal structured training courses, did your employees (excluding apprentices) undertake training through on-the-job instruction, job rotation or other means? Yes…☐1 No…☐2+

Q.27 Approximately what percentage of your workforce is a member of a Trade Union? _____per cent

Q.28 Thinking back over the last 12 months would you say your company's profile has increased, remained or decreased as compared to the previous 12 months?

Increase .....☐1 Remain unchanged.....☐2 Decrease .....☐3

Increase/Decrease by approximately: [Please tick one box]

0 – less than 5% .....☐1 5 – less than 10%.....☐2 10 – less than 15% .....☐3 15% or more ....☐4