

National Survey of Vacancies in the Private Non-Agricultural Sector 2001/2002

10 MEX 2
9 3
8 Clart
4
CA study for the Expert Group on Future Skills Needs by the Economic and Social Research Institute
Firs
Forfás

NATIONAL SURVEY OF VACANCIES IN THE PRIVATE NON-AGRICULTURAL SECTOR 2001/2002

A study for the Expert Group on Future Skills Needs by the Economic and Social Research Institute

ESRI Project Team

Gerard Hughes James Williams Sylvia Blackwell Barra Casey

Final Report December 2002

FOREWORD

This report is submitted by the Expert Group on Future Skills Needs to Mary Harney, T.D., Tanáiste, and Minister for Enterprise, Trade ane Employment. The report presents the results of research into national vacancies in the private non-agricultural sector in Ireland. It is the third in a series of national vacancy studies undertaken by the Economic and Social Research Institute, who were appointed by Forfás and FAS, acting on behalf of the Expert Group on Future Skill Needs.

The aim of the work was to assess the incidence, level, nature and consequences of vacancies in Ireland today. The survey, which was based on a nationally representative sample, was carried out the end of 2001 and in the first quarter of 2002 and this report summarises the key findings of the work. In addition to detailing the extent and nature of vacancies, the study provides useful information about firms experiencing difficulties in retaining staff, the extent of recruitment from abroad, perceptions of changes in skills and on the regional variations of vacancies.

The report highlights the changes that have taken place in the labour market since the second national vacancy survey was undertaken in 1999/00. It charts the changes in the number of reported vacancies, by sector and by occupation, and provides details on those occupations and sectors in which vacancies have either increased or decreased.

On behalf of the Expert Group on Future Skill Needs, we wish to thank the steering group who guided the work, Prof. Gerard Hughes and Prof. James Williams of the Economic and Social Research Institute for their dedicated work on the project, and in particular, all the firms who participated in the study. The findings of this study are important and provide a valuable insight into the changes in the Irish labour market over the period 1999/00 to 2001/02.

Dr Daniel O'Hare,

Chairman Expert Group on Future Skills Needs

CONTENTS

Executive Summary XI

Chapter

1.	INTRODUCTION	1
2.	SURVEY DESIGN AND IMPLEMENTATION 2.1 The Questionnaire 2.2 Sample Design and Response Rate 2.3 Re-weighting the Data 2.4 Survey Implementation	3
3.	EMPLOYMENT LEVELS AND TRENDS 3.1 Sectoral Changes in Employment Structures 3.2 The Structure of Employment, 2001/2002 3.3 Changes in Employment Structures 1998/1999 to 2001/2002 3.4 Employment Projections for One Year's Time 3.5 Summary	12 12 16
4.	INCIDENCE AND LEVELS OF CURRENT VACANCIES 4.1 The Incidence of Current Vacancies 4.2 The Level of Current Vacancies and Changes Therein Over the Last Twelve Months 4.3 Recruitment Abroad 4.4 The Incidence of Difficult-to-Fill Vacancies 4.5 Summary	23 23 25 32 34 35
5.	VACANCIES OVER THE PREVIOUS YEAR 5.1 Incidence of Difficult-to-Fill Vacancies of the Last Year 5.2 Nature of Most Difficult-to-Fill Vacancies 5.3 Consequences of Difficult-to-Fill Vacancies 5.4 Steps Taken to Address Difficult-to-Fill Vacancies 5.5 Summary	42 42 45 46 47 51
6.	DIFFICULTIES IN RETAINING STAFF AND PERCEIVED CHANGES IN SKILL LEVELS 6.1 Difficulties in Retaining Staff -Incidence Levels and Nature of Jobs Affected 6.2 Perceptions of Changes in Skill Requirements 6.3 Summary	52 52 54 55
7.	REGIONAL VARIATIONS 7.1 Regional Trends in the Incidence of Current Vacancies and Vacancy Rates 7.2 Regional Trends in Vacancy Rates 7.3 Regional Trends in Difficult-to-Fill Vacancies 7.4 Regional Trends in Difficulties in Retaining Existing Staff 7.5 Summary	56 58 60 64 66

8. TRAINING	68
8.1 Incidence of Formal, Structural Training	68
8.2 Summary	72
9. MAIN FINDINGS	73
9.1 Background	73
9.2 Size and Forecasted Growth of the Labour Market	73
9.3 Incidence and Level of Vacancies	73
9.4 Difficult-to-Fill Vacancies	74
9.5 Difficulties in Retaining Staff	74
9.6 Regional Trends	75

LIST OF TABLES

Table		Page
2.1	Response Outcomes from 2001/2002 Survey of Vacancies	4
2.2	Structure of Population of Enterprises as Derived from Census of Industria Production, Various Annual Services Enquiries and the Labour Force Survey	
3.1	General Trends in Employment Levels	7
3.2 3.3	Breakdown of Current Employees by Occupational Grade Comparison of Employment Structures by Grade, 1998/99, 1999/00 and	9
	2001/02	13
3.4	Employment Projections by Occupational Grade for Twelve Months Period, 2002 to 2003	14
3.5	Summary Employment Projections by Broad Sector 2002 to 2003	15
3.6	Projected Employment Change 2002 to 2003 Classified by Occupational	
4.1	Grade and Broad Sector	17
4.1	Firms Classified by (a) Whether or Not They Currently Have Job Vacancies and (b) Size/Sector	24
4.2	Comparison of Sectoral Incidence Rates for Vacancies by Sector, 1998/99,	4
1.2	1999/00 and 2001/02	24
4.3 4.4	Summary of Vacancies by Occupational Grade, All Sectors in Aggregate Summary Rates of Vacancies by Occupational Grade Within Each	26
1. 1	Size/Sector Category in Percentages	28
4.5	Distribution of Firms According to (a) Number of Current Vacancies and (b) Vacancies as a Percentage of Current Workforce	29
4.6	Comparison of Vacancy Levels and Rates in 1998/99, 1999/00 and 2001/02	29
4.7	Distribution of Number of Private Sector Employees, Vacancies	
	and Vacancy Rates Classified by Occupational Grade, 1998/99,	
	1999/00 and 2001/02	31
4.8	Firms Which Have Current Job Vacancies Classified According to Whether or Not They Are Attempting to Recruit Abroad	32
4.9	Comparison of the Incidence of Attempted Overseas Recruitment by	34
1.7	Firms Which Were Experiencing Current Vacancies Classified by	
	Size/Sector Classification	33
4.10	Number of Persons Recruited from Other EU Countries or from the	
4.44	Rest of the World in the 12 Months Preceding the 2001/02 Survey	34
4.11	Firms Classified by Whether or Not They Currently have Job Vacancies Which They Consider Difficult-to-Fill	34
4.12	Firms Which Have Current Vacancies Classified According to Whether	54
	or Not They Feel that Some or All of their Vacancies are Difficult-to-Fill	35
4.13	Comparison of Percentage of Firms in 1998/99, 1999/00 and 2001/02	
	Rounds of the Survey Which Experience Current Vacancies and Which	
	Also Feel that Some of those Vacancies are Difficult-to-Fill	36
5.1	Firms Classified According to Whether or Not They Have Had any	4.0
F 2	Vacancies in the Last Year Which Were Particularly Difficult-to-Fill	42
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	43
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	43

5.4	Percentage of Firms Reporting Having Experienced a Difficult-to-Fill Vaca in the 1998/99, 1999/00 and 2001/02 Rounds of the Survey Classified by	ncy
	Size/Sector Category	45
5.5	Nature of the Single Vacancy or Type of Vacancy Which the Firm	15
J.J	Found Most Difficult-to-Fill in Last Year	45
5.6		43
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	4.0
	the Survey	46
5.7	Perceived Consequences of Difficulties Associated with Hard-to-Fill	
	Vacancies Which Firm Experienced in the Last Year	47
5.8	Comparisons of Perceived Consequences of Difficulties Associated	
	with Hard-to-Fill Vacancies Which Firm Experienced, in the Year	
	Preceding the Survey in the 1998/99, 1999/00 and 2001/02 Rounds	48
5.9	Steps Taken by Firms to Address the Difficult-to-Fill Vacancies	
	Which Were Experienced by Firms in the Last Year	49
5.10	Comparisons of Steps Taken by Firms to Address the Difficult-to-Fill	
0.10	Vacancies Which They Had Experienced in the Preceding Twelve	
	Months in 1998/99, 1999/00 and 2001/02	50
6.1		
	Current Difficulties in Retaining Existing Staff Properties of Figure Properties Difficulties in Province Staff in the	52
6.2	Percentage of Firms Reporting Difficulties in Retaining Staff in the	
	1998/99, 1999/00 and 2001/02 Rounds of the Survey Classified by	
	Size/Sector Category	53
6.3	Nature of Jobs in Which Firms Currently Find Most Difficulties in	
	Retaining Staff	53
6.4	Firms' Perceptions of Trends in the Overall Skills Needed to Keep Their	
	Company Running Effectively	54
6.5	Comparison in Perceptions of Required Skill Levels in 1998/99,	
	1999/00 and 2001/02 Surveys	55
7.1	Firms Classified by (a) Whether or Not They Currently Have Job	
	Vacancies and (b) Broad Region	57
7.2	Comparison of the Incidence of Vacancies by Sector and Region	
	1998/99, 1999/00 and 2001/02 Surveys	58
7.3	Summary of Labour Requirements Satisfied by Occupational Grade in	
7.0	Dublin and the Rest of the Country in 1998/99, 1999/00 and 2001/02	59
7.4	Firms Classified by (a) Whether or Not They Currently Have Job	37
/ . 4		61
7 -	Vacancies Which They Consider Difficult-to-Fill and (b) Broad Region	01
7.5	Comparison of the Incidence of Vacancies by Sector and Region 1998/99,	
	1999/00 and 2001/02 Surveys	61
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	62
7.7	Comparison of the Incidence of Difficult-to-Fill Vacancies in the	
	Year Preceding the Survey by Sector and Region 1998/99, 1999/00	
	and 2001/02 Surveys	63
7.8	Current Difficulties in Retaining Existing Staff Classified by Broad Region	64
7.9	Comparison of the Incidence of Difficulties in Retaining Staff by Sector	
	and Region in the 1998/99, 1999/00 and 2001/02 Surveys	65
7.10	Comparison of the Nature of Jobs in Which Firms Find Difficulty	
. • - 0	in Retaining Staff, Classified by Broad Region in the 1998/99, 1999/00 and	
	2001/02 Surveys	65
	2001/ 02 Out Veys	00

EXECUTIVE SUMMARY

Background

I his report is based on a national survey of just over 4,600 private sector firms which was carried out on behalf of The Expert Group on Future Skills Needs in late 2001/early 2002. 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 third in a series – the first and second were undertaken in the same period in late 1998/early 1999 and late 1999/early 2000. 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 2001/2002.

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, and 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, and broad regional variations in vacancy levels.

Employment Change

 ${
m T}$ he unprecedented levels of economic growth in the five years up to 2000 were accompanied by equally unprecedented growth in employment. During the period April 1995 to March-May 2000 the number employed grew by almost 78,000 annually. Since then employment growth has slowed down to about half that figure with employment growing at about 40,000 annually between March-May 2000 and March-May 2002. The current vacancies survey took place in late 2001/early 2002 which was well into the period of slower employment growth. 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 to 1,181,000 in 2001/2002. This gives a growth level of the order of 88,000 persons at work in the sectors in question between 1998/99 (representing a growth rate of 8.4 per cent) and an annual growth of 20,000 between 1999/2000 and 2001/2002 (representing a growth rate of less than 2 per cent). In the context of the slow down in the number of persons at work, it is not surprising that labour shortages have reduced 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 (20 per cent or 23,000 persons) and Finance/Insurance/Business Services (14 per cent or 23,000 persons). Employment in Traditional Manufacturing and Hi-Tech. Manufacturing fell by 4 and 2 per cent respectively (5,000 and 4,000 persons) and there was also a small fall in employment in Transport/Personal/Other Services.

Employment Forecasts

In the course of the survey firms were asked to project their employment growth to the end of 2002 beginning of 2003. The respondents' forecast employment growth throughout 2002 of 1 per cent (12,000 jobs) in the relevant sectors of the economy.

This figure may be a little pessimistic as The Economic and Social Research Institute (ESRI) is forecasting 2 per cent employment growth in 2002.

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 significant minority of firms (22 per cent) recorded that they currently had some such vacancies.

The incidence of vacancies was highest in the Manufacturing sectors in which about one-third of firms recorded having a vacancy.

In general, the incidence levels were substantially higher amongst 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 25 per cent of small as compared with 52 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 22 per cent of firms which reported having vacancies in the 2001/02 survey represents a nine percentage point decrease in the situation from the second round of the survey – when the corresponding figure was 31 per cent. In terms of sectoral change over the preceding survey, the incidence of vacancies fell in all sectors except Finance/Insurance/Business Services in which the percentage of firms reporting vacancies increased from 26 to 28 per cent. The decrease was greatest in Distributive Services where the percentage of firms reporting vacancies almost halved from 28 per cent in 1999/00 to 15 per cent in 2001/02 and in Construction where the percentage reporting vacancies fell by almost 40 per cent from 34 per cent to 21 per cent between the 1999/00 and 2001/02 surveys. The proportion of firms reporting vacancies in the remaining sectors fell by 30-35 per cent.

Rate and Level of Vacancies

f I hese incidence levels translated to a total of 40,000 vacancies in 2001/02. This represents a fall of nearly 50 per cent in the number of vacancies over the previous survey, when the figure stood at 77,600.

This level of vacancies represents a vacancy rate from the 2001/02 survey of 3 per cent. In other words, 3 per cent of the total labour requirement in the economy is not being met. The comparable rate from the 1999/00 survey was over 6 per cent.

The occupational grades with the highest vacancy rates were Skilled Maintenance & Production Workers (8 per cent) and Science Professionals and Engineering Technicians (both 5 per cent). Comparison of vacancy rates by occupational category with those in the previous survey indicates that they have fallen for all occupational groups except Science Professionals, Science Technicians, and Other Associate Professionals. In terms of the share of vacancies accounted for by particular occupations most of the existing vacancies are for jobs requiring intermediate or lower level skills. Between them five occupational categories accounted for almost two-thirds of all

vacancies in the economy in the 2001/02 survey: Skilled Maintenance & Production Workers (21 per cent), Sales (12 per cent), Production Operatives (11 per cent), Personal Services, and Labourers & Security (both 10 per cent).

In addition to considering vacancy rates and shares of vacancies 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 second and third survey. The most substantial change in vacancy levels by sector was found in the Transport/Personal/Other sector where the figure fell from an estimated 25,200 in the second survey to 9,400 in the 2001/02 round. This represents a decrease of 60 per cent over the previous survey.

There were only two occupations which experienced an increase in the number of vacancies between the second and third rounds of the survey. These were Science Technicians and Other Associate Professionals which had an increase of 300 and 200 vacancies respectively.

The report finds that the remaining occupational groups experienced a fall or no change in the number of vacancies between 1999/00 and 2001/02. The most substantial absolute fall in vacancy numbers was in Personal Services which declined from 12,400 in 1999/00 to 4,200 in 2001/02. Vacancies in the Computer Technical (Associate Professional) and Computer Professional groups also fell in absolute terms - by 400 persons in each case.

Recruitment **Abroad**

One response to the problem of labour shortages is, of course, to recruit abroad. Just over 27 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 (42 per cent of such firms) and Traditional Manufacturing sectors (35 per cent of such firms). Rates were lower than average in the Hi-Tech. Manufacturing, Construction, and Distributive Services sectors – all in the region of 18 per cent.

Additional information was collected in the current survey on the areas from which firms recruited abroad. Approximately 21,000 workers were recruited from outside Ireland in the twelve months preceding the survey. Over one-third of these came from other EU countries and the remainder from countries outside the EU. The Finance/Insurance/Business Services sector had the highest percentage of overseas recruits from other EU countries (67 per cent) while Construction and Traditional Manufacturing recruited 75 per cent and 83 per cent respectively of their overseas recruits from countries outside the EU. The data on the sourcing of labour from overseas suggests that relatively high-skill sectors are likely to find the workers they require in other EU countries whereas relatively low-skill sectors are likely to fill their vacancies by recruiting from countries outside the EU.

Difficult-to-Fill **Vacancies**

 $oldsymbol{1}$ t was found that 56 per cent of firms which were experiencing current vacancies felt that some or all of them were difficult-to-fill. This means that about one-eighth of all firms in the population were experiencing a difficultto-fill vacancy. This is substantially lower than the levels recorded in both of the previous rounds of the survey when around one-quarter of all firms experienced difficult-to-fill vacancies. The reduction in the percentage of firms experiencing current vacancies reporting some difficult-to-fill vacancies was spread across all sectors. The reduction was greatest in Transport/Personal/Other Services and Construction and least in Traditional Manufacturing.

Consequences of Difficult-to-Fill Vacancies

I he 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 (56 per cent), and loss of quality of services (53 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 28-37 per cent of relevant respondents). Comparing the responses in the current survey with those in previous surveys it is evident that decreasing proportions of firms are saying that their business development is restricted or their recruitment costs are increased by difficult-to-fill vacancies.

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 strategy 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 51 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 4 percentage points lower 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 fell by 5 percentage points from 35 per cent in the previous survey to 30 per cent in the current survey. In contrast, about the same 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**

ne particularly positive consequence of labour shortages for employees 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 about 12 per cent of all firms reported difficulties in retaining their current staff. This rate was highest in the Hi-Tech.. Manufacturing sector, where about one-fifth of companies (21 per cent) said that they were experiencing difficulties in retaining staff and in the Transport/Personal/Other Services and Traditional Manufacturing sectors (16 per cent in both cases). The percentage of firms experiencing difficulties in retaining staff was significantly lower in the current survey, 12 per cent, than in the previous survey, 19 per cent.

The types of jobs for which firms were finding most difficulty retaining staff were in areas such as Skilled Trades Persons, Unskilled Workers, and Clerical Workers.

Compared with the previous survey there were some fairly substantial changes in the types of workers mentioned as being most difficult to retain. For example, the percentages of firms mentioning both Skilled Trades Persons and Retail Sales staff have fallen substantially while the percentages mentioning Unskilled Workers and Clerical Workers have increased.

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, 68 per cent said they were static while the remaining 29 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: Finance/Insurance/Business Services sector (44 per cent), Hi-Tech. Manufacturing (38 per cent), and Traditional Manufacturing (34 per cent). Among large companies in the Finance/Insurance/Business Services sector 48 per cent said that skill levels were increasing. The percentage of firms in the current survey which said that skill levels are static has increased as compared to the 1999/00 survey and, consequently, the percentage saying they have increased has dropped. Nonetheless, these responses indicate that a significant minority of firms in all sectors believe that higher levels of education and/or training will be needed by workers in the future.

Regional Variations in Vacancy Rates

Previous vacancy surveys were somewhat constrained in the extent to which they could disaggregate the data geographically because of the relatively small number of sample responses in any resultant breakdown. The sample size for the current survey was increased to permit analysis of vacancies data for three regions: Dublin (city and county), the Border, Midlands and Western region and the Southern and Eastern region.

From this regional analysis the survey found that the percentage of firms in Dublin which were experiencing a current vacancy (25 per cent) was somewhat higher than the percentage in the Border, Midlands and Western region (22 per cent) and in the Southern and Eastern region (18 per cent).

The overall regional trends suggest that the differences in the incidence of vacancies between Dublin and the Rest of the Country narrowed somewhat between the 1998/99 and 1999/00 surveys but widened between the 1999/00 and 2001/02 surveys. In the first survey the incidence levels in Dublin were some 40 per cent higher than those in the Rest of the Country. In the second survey they had fallen to 21 per cent while in the current survey they had increased to 28 per cent. These figures suggest that the upswing in demand for labour occurred initially in the Dublin region and then spread to the Rest of the Country while the downswing in demand was initially felt in the Rest of the Country.

Training

Firms were asked to indicate if anyone in the company (including the owner-manager or proprietor (but excluding apprentices and on-the-job training) had attended formal structured training in the twelve months preceding the survey. About one-third of firms said that some of their staff had participated in such training. The incidence levels were highest in the Manufacturing sectors with 60 per cent of firms in the Hi-Tech. sector and 53 per cent in Traditional Manufacturing reporting such training. The Transport/Personal/Other Services sector reported the lowest incidence level with only about a quarter of firms reporting that some of their staff had participated in formal structured training in the twelve months before the survey. Much higher percentages of larger than smaller firms reported some staff participating in such training.

1. INTRODUCTION

The Irish economy has experienced a slow down in employment growth since the last vacancies survey was carried out at the end of 1999 and the beginning of 2000. In the quarter December to February 2000 the total number of persons at work 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. In the same quarter in 2002 total employment amounted to 1.75 million, an increase of 35,600 over the preceding year or of almost 95,000 over the preceding two years. This slow down in the growth of employment was expected as expansion at the rate experienced during the last half of the 1990s was unsustainable. Nevertheless, the increasing demand for labour continued to be accommodated by an increase in the female labour-force participation rate from 46.8 in 2000 to 48.7 in 2002 and continuing net immigration.

In the context of a slow down in employment growth it is clearly important to attempt to measure the extent of constraints to further expansion and development of the labour market in both the private and public sectors of the economy. The 2001/2002 survey extended the scope of the previous surveys to encompass public sector organisations. The results for the public sector will be presented in a separate report. The current report is the third in the series published by FÁS, Forfás and the ESRI. The first report was authored by Williams and Hughes (1999) and the second by Williams, Blackwell, and Hughes (2001). The two reports examined the situation regarding vacancies in 1998/1999 and 1999/2000. The present report updates the earlier ones and presents information on vacancies and other labour market indicators for 2001/2002 for the private non-agricultural sector.

This report is based on a nationally representative sample of private sector firms. It was jointly commissioned by Forfás and FÁS for the *Expert Group on Futures Skills Needs* 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 postal surveys 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 group within sector. The impact and consequences of vacancies (and especially difficult-to-fill vacancies) are considered in detail. Issues related to the retention of existing staff within business are also addressed.

The report is divided into nine chapters. In Chapter 2 we discuss survey design, questionnaire structure, response rates and re-weighting of the data. In Chapter 3 we discuss the size and structure of the current labour force in terms of sectoral distributions and grade within sector. Chapter 4 addresses the core issue of the incidence, level, nature and consequences of current vacancies. Chapter 5 examines vacancies which were experienced in the

¹ James Williams and Gerard Hughes, 1999. *National Survey of Vacancies in the Private Non-Agricultural Sector 1998*. Dublin: The Economic and Social Research Institute, and James Williams, Sylvia Blackwell and Gerard Hughes, 2001. *National Survey of Vacancies in the Private Non-Agricultural Sector 1999/2000*. Dublin: The Economic and Social Research Institute.

•

previous year. Chapter 6 focuses on difficulties experienced by firms in retaining staff. Chapter 7 provides information at regional level on the incidence, level, nature and consequences of vacancies. Chapter 8 considers some aspects of training and its relationship with the experience of vacancies in the firm. Finally, Chapter 9 provides a general overview and summary of our main findings.

2. SURVEY DESIGN AND IMPLEMENTATION

In this section we explain how the survey was designed and outline our approach to the 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. 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 questionnaires 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;
- Nature, characteristics and consequences of the current difficult-to-fill vacancies;
- F. Incidence, nature, and consequences of difficult-to-fill vacancies;
- 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.

A common questionnaire was used to survey both the public and private sectors with some questions amended to take account of upper limits on the number who can be employed in public sector organisations. In the 2001/02 survey firms were asked to provide for each broad occupational category information on the job titles of the types of vacancies which currently exist along with the number of each type of vacancy. This required an increase in the number of questions relating to type of vacancy. In order to accommodate this increase it was necessary to drop some of the questions asked in previous surveys relating to reasons for problems in filling vacancies, reasons for difficulties in retaining staff, and type of training provided. The sample size was increased substantially from about 2,900 firms in the 1999/00 survey to almost 3,900 in the current survey to permit analysis of the vacancies data for three regions: Dublin (city and county), the Border, Midlands and Western Region (BMW), and the Southern and Eastern region (S&E).

2.2 Sample Design and Response Rates

1 he 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 firms which we successfully interviewed in the second round of the survey in 1999/00. A total of 969 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 just over 2,900 private sector 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 as follows: traditional manufacturing, hi-tech manufacturing, construction, property/renting/business services, finance/insurance/ wholesale/retail, 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 target sample of 3,880 firms for interview. The response outcomes are as outlined in Table 2.1 below.² From this one can see that a total of 1,635 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 42 per cent. The response among the sample from the 1999/00 survey was 60 per cent while that from the additional fresh sample was 36 per cent. These figures are largely in line with what one would expect from a general,³ nationally representative survey of firms in the target sample. Only 4 per cent of all firms explicitly refused to participate in the survey. 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 2001/02 Survey of Vacancies

	Sample fror Surv		Fresh San 2001/	•	Total Sa	mple
	No. of Cases	Per Cent	No. of Cases	Per Cent	No. of Cases	Per Cent
Successfully Completed	586	60	1,049	36	1,635	42
Partially Completed but Unusable	13	1	26	1	39	1
Non Response	345	36	1,695	58	2,040	53
Refusal	25	3	141	5	166	4
Total	969	100	2,911	100	3,880	100

2.3 Re-weighting the Data Prior to analysis, the 1,635 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.

² 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.

³ 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.

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 reweight 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 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.

The classification in the table was used to re-weight the data using a standard ratio weighting technique in which each of the 1,635 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.

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-	0-99 employees	2.4	58.0	10; 11; 12; 13; 14; 15; 16; 17; 18;
acturing:	100+ employees	0.3	77.0	19;20; 21; 22; 36; 37; 40 ;41
Hi-Tech. Manuf-	0-99 employees	2.1	56.0	23; 24; 25; 26; 27; 28; 29; 30; 31;
acturing:	100+ employees	0.3	119.0	32; 33; 34; 35
Construction:	0-9 employees	12.0	68.8	45
	10+ employees	2.0	66.3	
Wholesale/Retail:	0-9 employees	29.5	99.0	50; 51; 52
	10+ employees	4.2	134.0	
Property/Renting/	0-9 employees	14.6	38.0	70; 71; 73; 74
Business Services:	10+ employees	1.6	57.8	
Finance/Insurance/	0-9 employees	2.3	10.9	65; 66; 67
Banking:	10+ employees	0.5	54.4	
Computer Services:	0-9 employees	1.5	3.3	72
	10+ employees	0.3	26.5	
Transport/Personal/	0-9 employees	20.9	58.7	55; 60; 61; 62; 63; 64; 74; 80; 91;
Other Services	10+ employees	4.2	253.8	92; 93
Total above			1181.5	
Agriculture			127.0	
Non-Agric. Self Emp	loyment		148.0	
Public Admin/Defend	ce/Education		289.0	
Total in Employment	E		1,745.5	

2.4 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 2001 through March 2002.

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, were reconciled with the sum of total employment by occupational grade.

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 1998/99, 1999/00 and 2001/02 rounds of the survey. Third, we outline employment projections over 2002 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 change in recent years. The figures in Table 3.1 outline general trends in employment levels at the end of 1999 and the beginning of 2002. The levels during the first quarter of 2002 are taken as representative of the size and structure of the labour market when fieldwork for the 2001/02 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 1999 (000s)	Q.1 2002 (000s)	Absolute Change (000s)	Per Cent Change %
Traditional Manufacturing	140	135	-5	-3.6
Hi-Tech. Manufacturing	179	175	-4	-2.2
Wholesale/Retail	228	233	5	2.2
Finance/Insurance/Business				13.7
Services	168	191	23	
Construction	112	135	23	20.5
Transport/Personal/Other Services	314	312	-2	-0.6
Sub-total	1,141	1,181	40	3.5
Non-Commercial Public Sector	239	289	50	20.9
Agricultural	140	127	-13	-9.3
Self-Employed with No Employees	127	148	21	16.5
Total	1,647	1,745	98	5.9

Source: QNHS, Q4 99 release of 7 March 2000 and Q1 02 release of 30 May 2002; 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 2001 and the beginning of 2002 was 1,745,000. Of these, a total of 289,000 were in the Non-Commercial Public Sector, a further 127,000 were in agriculture while a further 148,000 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 1,181,000 persons which represent the non-agricultural private sector workforce to which all figures in the report have been grossed.⁴

The figures in Table 3.1 illustrate the continuing growth in the size of the Irish labour market over recent years. In the two years from 1999/00 to 2001/02 the total number of persons at work grew by 40,000 (3.5 per cent). This came in the wake of very rapid growth in the number at work between the 1998/99 and 1999/00 surveys. In the 1998/99 survey the target population for the study was 1,053,000 persons whereas for the current survey it was 1,181,000 persons. Within our target population the strongest growth rates were experienced in the Construction Sector (20 per cent) followed by Finance/Insurance/Business Services (14 per cent). Employment fell in three of the target sectors with Traditional Manufacturing down by about 4 per cent, Hi-Tech. Manufacturing down by 2 per cent, and Transport/Personal/Other services down by about half a per cent.

3.2 The Structure of Employment, 2001/2002

L able 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 respondents to the survey. Respondents were presented 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 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 2001/2002

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 26 per cent is involved in Manufacturing: 11 per cent in Traditional Manufacturing and 15 per cent in Hi-Tech. Manufacturing. Distributive Services account for 20 per cent of the relevant labour force, 16 per cent are accounted for by the Finance/Insurance/Business Services sector, 11 per cent by Construction and 26 per cent by Transport/Personal/Other Services.

⁴ 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 example, the QNHS Q1 2002 figure for the Construction sector is 186,000. From special data rounds prepared by the CSO we estimate that 51,000 of these are employed in the Public Sector or in their own right with no employees. This leaves a total of 135,000 relevant workers in the sector.

Table 3.2: Breakdown of Current Employees by Occupational Grade

	Total	ý.	Traditional	nal	Hi-Tech.		Distributive Services	ervices	Finance/Insurance/	surance/	Construction	tion	Transport/Personal/	ersonal/
	Z	, % 5	% N	» *	Z	, %	z	%	Z	\$3% ************************************	z	%	2	%
Managers/Proprietors	149,300	13	10,500	80	12,900	7	40,900	18	29,800	16	21,200	16	34,000	-
Engineering Professionals	24,800	2	1,500	~	8,000	2	800	0	6,500	က	6,800	ro	1,300	0
Science Professionals	6,800	~	200	~	3,200	7	200	0	1,800	~	0	0	800	0
Computer Professionals	15,800	~	009	0	1,400	_	200	0	9,400	2	200	0	3,200	~
Other Professionals	48,600	4	3,600	ო	3,800	7	2,500	_	23,000	12	4,200	ო	11,600	4
Engineering Technicians	20,600	7	1,500	_	7,100	4	1,600	_	5,100	က	3,000	7	2,200	~
Science Technicians	8,900	~	1,400	_	3,300	7	100	0	009	0	009	0	3,000	~
Computer Technical Staff/ Associate Professional Staff	14,700	~	1,100	~	1,700	-	200	0	8,600	5	300	0	2,400	←
Other Associate Professional	17,000	~	1,100	-	1,300	~	800	0	006	0	1,900	~	10,900	ო
Clerical & Secretarial	170,400	4	13,300	10	13,700	∞	31,400	13	58,400	31	12,700	O	40,900	13
Skilled Maintenance & Skilled Production	101,100	0	13,900	10	17,300	10	12,300	2	6,300	က	46,500	8	4,900	7
Production Operatives	187,300	16	58,300	43	78,200	45	8,900	4	000'6	2	8,700	9	24,200	∞
Transport & Communications	75,600	9	4,000	ო	2,400	~	009'6	4	3,200	2	4,000	ო	52,500	17
Sales	139,900	12	7,800	9	8,000	2	97,600	42	8,200	4	006	_	17,600	9
Personal Services	99,700	80	1,100	_	700	0	5,000	7	12,100	9	800	_	80,000	26
Labourers & Security	101,000	∞	14,600	10	12,000	_	20,000	∞	7,900	2	23,200	17	23,200	∞
Total	1,181,500	100	135,000	100	175,000	100	232,900	100	190,800	100	135,300	100	312,700	100
Per Cent	100.0%	I	11.4%	I	14.8%	ı	19.7%	I	16.1%	1	11.5%	ı	26.5%	ı

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 149,300 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 (9 per cent), Production Operatives (16 per cent), Sales (12 per cent), Personal Services and Labourers & Security (both 8 per cent).

A total of 21 per cent of persons are engaged in professional grades (Managers/Proprietors to Other Professionals) while a further 5 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).

Traditional Manufacturing

The largest grade in Traditional Manufacturing is Production Operatives (accounting for 43 per cent of persons engaged). This is followed by the Labourers & Security category (11 per cent). Three groups each represent 8-10 per cent of persons engaged, viz. Managers/Proprietors, Clerical & Secretarial, Skilled Maintenance & Skilled Production.

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 (50 per cent in firms employing 100 or more persons compared with 34 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 45 per cent of the Hi-Tech. sector compared with 43 per cent for their counterparts in Traditional Manufacturing, while Skilled Maintenance/Skilled Production grades account for the same percentage, 10, of persons engaged in the Hi-Tech. sector as 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. For example, among businesses in the smaller Hi-Tech. sector Skilled Maintenance & Skilled Production account for 16 per cent of persons engaged while Production Operatives account for 34 per cent. Comparable figures for the larger Hi-Tech. sector are 7 per cent and 50 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 42 per cent of all persons engaged. Other important grades include Managers/Proprietors (18 per cent) and Clerical/Secretarial (13 per cent). Three grades each account for 4-5 per cent of persons engaged. These are Skilled Maintenance & Skilled Production, Production Operatives and Transport & Communications.

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 (29 per cent in the 1-9 persons category compared with 9 per cent in the 10 or more person group). In contrast, the Production Operative grade accounts for a recorded 5 per cent of those engaged in larger businesses in the sector compared with 2 per cent among smaller enterprises.

Finance/Insurance/Business Services

The figures in Table 3.2 indicate the relative importance of Clerical/Secretarial grades to this category (31 per cent of all persons engaged). Manager/Proprietors account for 16 per cent of persons while "Other Professionals" account for 12 per cent of persons.

The detail of Appendix Table A3.2 shows that Managers/Proprietors are relatively twice as important in the smaller than the larger firms in this sector. These respectively account for 24 per cent and 12 per cent of persons engaged. The Clerical/Secretarial grade is relatively more important for larger firms in the sector. This grade accounts for 32 per cent of persons engaged among larger firms in the sector compared with 28 per cent among smaller ones.

Construction

A total of 34 per cent of persons engaged in this sector are classified in the Skilled Maintenance/Skilled Production category with a further 17 per cent being recorded as Labourers & Security. Managers/Proprietors account for 16 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 7 per cent among their larger counterparts. As a corollary to this the relative percentage of the Labourer & Security category is lower in the smaller firms (13 per cent compared with 20 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 26 per cent of all persons engaged. This is followed by Transport & Communications (17 per cent), Clerical & Secretarial (13 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 (29 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 21 per cent of those engaged among smaller firms compared with 11 per cent among their larger counterparts; Transport & Communications Personnel (12 per cent among smaller firms compared with 18 per cent among larger firms); and Personal Services (1 per cent among smaller firms compared with 31 per cent among larger ones.

3.3 Changes in Employment Structures 1998/1999 to 2001/2002 Table 3.3 provides details of a comparison between the employment structure of relevant private sector firms as reflected in the 1998/99, 1999/00 and 2001/02 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 three surveys in question. Such differences as exist at the aggregate level between the three surveys are very small indeed.

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 reduction in the Production Operative grade with a fall from 50 per cent in 1998/99 to 45 per cent in 1999/00 and to 43 per cent in 2001/02.

The Hi-Tech. Manufacturing sector showed some change over the period in question. Engineering Professionals and Engineering Technicians both increased their share of employment by 2 and 1 percentage points respectively and the share of the Skilled Maintenance & Skilled Production category fell from 16 per cent in 1998/99 to 10 per cent in 2001/02. The Distributive Services sector showed an increase in the relative importance of Sales Personnel (37 per cent in 1998/99, 41 per cent in 1998/1999 and 42 per cent in 2001/02).

The Finance/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 1998/99 to 2 per cent in 1999/00 but the share recovered to 6 per cent in 2001/02. This sector showed a decrease in the relative importance of the Clerical and Secretarial category from 36 per cent in 1998/99 to 35 per cent in 1999/00 and to 31 per cent in 2001/02

The Construction sector showed a reasonable level of stability in terms of occupational structure. The main changes in the sector were an increase of 4 percentage points in the relative importance of the Clerical and Secretarial category and a fall of 6 percentage points in the Skilled Maintenance & Skilled Production category.

Finally, the Transport/Personal/Other Services category also showed stability in its occupational structure with only a slight fall of 3 percentage points in Clerical & Secretarial grades and an increase of 5 percentage points in the Production Operatives category.

Overall the changes in the occupational structure of private sector employment over the three surveys in question have been rather small.

3.4 Employment 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 2003). 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 are likely to be based on past trends in respondents' markets and, as a consequence of the recent slow down in employment growth, they may be based on a pessimistic view of the firms' niche in its market.

Table 3.3: Comparison of Employment Structures by Grade, 1998/99, 1999/2000 and 2001/02

	rsonal/	2001/		0	0	←	4	F	-	~	ო	13	7	∞	17	9	26	۷	100
	Transport/Personal/	1999/ 00	7	_	0	0	က	0	0	0	8	4	4	က	20	7	31	7	100
	Tran	1998/ 99	7	-	0	0	7	-	0	0	8	16	8	ო	20	6	28	9	100
	u	2001/	16	2	0	0	က	7	_	0	~	O	8	9	ო	_	_	17	100
	Construction	1999/ 00	17	7	0	0	-	4	0	0	-	∞	40	~	-	7	0	23	100
	ပိ	1998/ 99	70	7	0	0	7	-	0	0	8	2	40	4	7	_	0	21	100
	nce/	2001/	16	က	~	2	12	က	0	4	~	31	က	2	7	4	9	4	100
	Finance/Insurance/	1999/	19	~	_	ო	4	7	0	ო	ო	35	ო	က	8	9	7	7	100
ngaged	Financ	1998/ 99	16	7	~	ო	10	7	0	7	~	98	4	ო	~	7	6	က	100
Percentage Breakdown of Persons Engaged	ices	2001/ 02	∞	0	0	0	_	~	0	0	0	5	S	4	4	45	7	o	100
own of Po	Distributive Services	1999/ 00	15	8	0	_	~	_	0	0	0	72	7	7	4	14	~	7	100
Breakd	Distribu	1998/ 99	8	~	0	0	-	~	0	0	0	5	_	ო	7	37	4	7	100
ercentage	ıring	2001/	7	Ŋ	7	-	7	4	7	₹	~	®	10	45	-	2	0	7	100
ď	lanufact ı	1999/	9	4	8	-	10	ო	~	←	-	7	15	49	8	2	_	4	100
	Hi-Tech Manufacturing	1998/ 99	7	ო	~	-	7	ო	-	-	0	_	16	47	-	ო	0	2	100
			œ	~	~	0	ო	~	_	-	~	10	10	43	က	9	~		100
	Traditional	98/ 1999/ 2001/ 9 00 02	œ	_	_	-	7	-	~	-	_	O	10	45	ო	9	~	6	100
	Trac	1998/ 1 99	7	_	_	-	7	_	-	-	_	თ		50	7	4	-	œ	100
		2001/ 1	13	8	-	_	4	7	_	-	-	4	o	16	9	12	· ·	80	,
	All Sectors	1999/ 2 ¹	13	7	-	-	4	2	0	-	-	4	10	16	7	12	o	œ	100
	All S	1998/ 19 99	13	7	0	_	က	_	0	_	_	15	10	17	œ	12	10	7	100
	-	£ 0,					als		ans	cal						, -			7
	Occupational Grade	5	Managers/Proprietors	Engineering Professionals	Science Professionals	Computer Professionals	Other Professionals	Engineering Technicians	Science Technicians	Computer Technical Staff/Associate Professional Level	Other Associate Professional	Clerical and Secretarial	Skilled Maintenance & Skilled Production	Production Operatives	Transport & Communications	Sales	Personal Services	Labourers & Security	Total

These factors may result in an under 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.

Table 3.4 provides a breakdown of employment projections by occupational grade for one year's time as recorded in the 2001/02 survey. The figures show that in aggregate terms across all grades, sector and size categories employers are forecasting a further growth in employment of around 1.0 per cent over 2002 to 2003. This would represent an employment growth of about 12,000 jobs in the private non-agricultural sector over the twelve months in question. In the Spring of 2002, shortly after the survey was taken, the ESRI forecast for non-agricultural employment growth between 2002 and 2003 was 2 per cent but this was reduced to 1.8 per cent in the Summer 2002 *Quarterly Economic Commentary*. Although it is somewhat more pessimistic the employers' employment forecast for the year following the survey is, therefore, broadly in line with the ESRI forecast.

The detail of Table 3.4 shows that the greatest percentage growth is forecast among the Skilled Maintenance & Skilled Production category (7 per cent); followed by Other Professionals (5 per cent), Computer Professionals and Sales (both 3 per cent). Categories in which employment is projected to decline are: Science Technicians (down 4 per cent), Personal Services (down 10 per cent), and Labourers & Security (down 1 per cent).

In terms of *absolute* growth levels the firms project the largest growth in numbers of employees among Skilled Maintenance/Production workers (7,600) followed by Sales (4,800), Transport & Communications (3,000) and Other Professionals (2,600). The largest losses in absolute terms are expected to occur in Personal Services (a decrease of nearly 10,000) and Labourers & Security (a fall of 1,000).

Table 3.4: Employment Projections by Occupational Grade for Twelve Month Period, 2002 to 2003

		All Si	zes				All Siz	zes	
	Current	Projected	Change	% Change		Current	Projected	Change	% Change
Managers/Proprietors	149,300	150,800	1,500	1.0	Clerical and Secretarial	170,400	171,800	1,400	8.0
Engineering					Skilled Maintenance/				
Professionals	24,800	25,300	500	2.0	Production	101,100	108,700	7,600	7.5
Science					Production Operatives	187,300	187,600	300	0.2
Professionals	6,800	6,900	100	1.5		,	,	000	0.2
Computer					Transport & Comm.	75,600	78,600	3,000	4.0
Professionals	15,800	16,300	500	3.2	Transport of Commi	. 0,000	. 0,000	0,000	
Other Professionals	48,600	51,200	2,600	5.3	Sales	139,900	144,700	4,800	3.4
Engineering									
Technicians	20,600	21,500	900	4.4					
Science Technicians	8,900	8,500	-400	-4.5	Personal Services	99,700	89,800	-9,900	-9.9
Computer									
Technical/Associate									
Professional Level	14,700	14,700	0	0	Labourers & Security	101,000	100,000	-1,000	-1.0
Other Associate									
Professional Level	17,000	17,200	200	1.2	Total	1,181,500	1,193,600	12,100	1.0

⁵ Table 8, *Quarterly Economic Commentary*, Spring 2002 and Summer 2002, Dublin: The Economic and Social Research Institute.

Table 3.5 outlines projected growth levels by broad sector. Growth is projected for four sectors and decline for the remaining two. Highest growth is forecast in the Finance/Insurance/Business Services sector: 6 per cent or 10,000 employees. This is followed by Distributive Services with growth of around 3 per cent or 6,000 employees and by Construction with growth of about 1 per cent or 1,200 employees. The Transport/Personal/Other Services sector is projected to lose over 5,000 jobs while Traditional Manufacturing is expected to lose 1,300 jobs.

Table 3.5: Summary Employment Projections by Broad Sector 2002 to 2003

Sector	Current	Project	Projected Absolute Change	Projected % Change
Traditional Manufacturing	135,000	133,700	-1,300	-1.0
Hi-Tech. Manufacturing	175,000	175,800	800	0.4
Distributive Services	233,000	239,000	6,000	2.6
Finance/Insurance/				
Business Services	190,900	201,300	10,400	5.5
Construction	135,100	136,300	1,200	0.9
Transport/Personal/Other				
Services	312,500	307,300	-5,200	-1.7
Total	1,141,000	1,251,900	110,900	1.0

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 3 per cent among smaller firms compared with -4 per cent among their larger counterparts giving an overall employment forecast of minus 1 per cent or a loss of 1,300 jobs. Table 3.6 shows that the largest absolute loss in terms of *numbers* of persons engaged is in the Production Operative grade – 1,800 workers representing an overall 3 per cent loss in this category. Although a high growth forecast of 10 per cent is returned for Computer Professionals in this sector, the absolute numbers involved are small – only of the order of 100 persons.

Hi-Tech. Manufacturing

Employment growth in this sector is forecast at less than 0.5 per cent. Highest growth *levels* are for Engineering Professionals (300 persons or 3 per cent), Engineering Technicians (300 or 4 per cent), Science Professionals (200 or 6 per cent), Engineering Technicians (300 or 4 per cent) and Sales (200 or 3 per cent).

Employment in smaller firms in the sector is forecast to grow by 2 per cent or 1,100 persons. This compares with a projected decline in employment in larger firms of 400 persons.

Construction

Firms in this sector return a very modest growth forecast of around 1 per cent over the period 2002 to 2003. This represents a growth of about 1,200 persons.

In absolute terms, the largest growth is forecast in the Skilled Maintenance/Production category, 6,300 persons (14 per cent). Other grades which are expected to grow include Other Professionals (300 jobs or 7 per cent) and Engineering Technicians (400 jobs or 14 per cent). Most categories, however, are expected to experience no growth or to suffer job losses. The largest decreases are projected for Transport & Communications workers (a

decrease of 2,600 or 64 per cent), Labourers & Security (a fall of 1,300 or 6 per cent) and Clerical & Secretarial (a decline of 1,000 or 8 per cent).

Distributive Services

This sector returned a growth forecast of 3 per cent for the period 2002 to 2003, representing some 6,000 persons. Largest growth *levels* are forecast among Sales persons (2,300 persons or 2 per cent). This is followed by Skilled Maintenance/Production workers (900 or 7 per cent).

Growth among smaller firms in the sector is running very much ahead of larger ones (7 per cent compared with 0 per cent respectively).

Finance/Insurance/Business Services

Overall growth in this sector is forecast at 5 per cent or 10,400 persons. The highest forecasted growth rates, about 25 per cent, are for the Science Technician and Other Associate Professional grades but the actual number of jobs projected is only around 200 in each case. Although the projected growth rates are smaller much larger numbers of jobs are projected for Other Professionals (2,100), Clerical and Secretarial (2,600), Skilled Maintenance/Production and Sales (1,000 in each case), and Personal Services (1,200).

Transport/Personal/Other Services

Table 3.6 indicates that aggregate growth forecasts in this sector are of the order of minus 2 per cent. Employment is projected to decline by 3 per cent in larger firms and to increase by 4 per cent in smaller firms. As the bulk of employment is in larger firms these different growth trends result in an overall projected loss in employment of 5,200 jobs in the sector.

The largest job losses are expected to be in the Personal Services category with nearly 10,000 less workers likely to be employed in 2003 than in 2002. Job losses are projected for all categories except Managers/Proprietors, Other Professionals, Other Associate Professionals, Production Operatives, Transport & Communications, and Sales.

3.5 Summary In this chapter we have examined trends in the structure of employment between the end of 1999/00 and the first quarter of 2002. We saw from the Central Statistics Office figures that the number of persons in employment grow from 1,647,000 in 1999/00 to 1,745,000 in 2001/02. This represented a total employment growth of 98,000 persons (6 per cent) over the period in question. These figures include three main exclusions to the figures contained in this report. First, the agricultural sector; second, the Non-Commercial 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 1,141,000 in 1999/00 to 1,181,000 in 2001/02. This gives a growth level of 40,000 persons (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 26 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 16 per cent; Construction for 11 per cent; and Transport/Personal/Other Services for 27 per cent.

Table 3.6: Projected Employment Change 2002 to 2003 Classified by Occupational Grade and Broad Sector

Occupational Grade	Traditional Manufacturir	Traditional Manufacturing	Hi-T Manufa	Hi-Tech. Manufacturing	Construction	ıction	ction Distributive Services Finance/In	Services	Finance/Insurance/ Business Services	surance/ Services	Transport/Personal/ Other Services	/Personal/ ervices	All Sectors	iors
	Change 20	Change 2002 to 2003	Change 2002 to 20	002 to 2003	Change 2002 to 2003	12 to 2003	Change 2002 to 2003		Change 2002 to 2003	02 to 2003	Change 2002 to 2003	02 to 2003	Change 2002 to 2003	2 to 2003
	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%	Nos.	%
Managers/Proprietors	200	4.6	100	0.4	009-	-3.0	400	1.0	200	4.8	700	2.0	1,500	1.0
Engineering Professionals	0	-2.4	300	3.3	-200	-2.9	200	27.0	200	3.4	0	-0.5	200	1.9
Science Professionals	0	2.5	200	6.4	0	0.0	0	5.6	0	-0.1	-200	-22.2	0	0.7
Computer Professionals	100	10.5	0	1.8	0	7.7-	0	1.5	400	4.5	0	-0.7	200	2.9
Other Professionals	-100	-4.0	0	-0.7	300	8.9	100	5.9	2,100	9.0	300	2.6	2,500	5.2
Engineering Technicians	0	-0.2	300	3.8	400	13.9	400	23.2	200	8.4	-300	-14.0	1,000	8.4
Science Technicians	0	-0.4	100	3.2	-200	-36.6	0	3.8	200	26.5	-400	-14.8	400	4.2
Computer Technical Staff/Associate Professional Level	0	<u>7.</u> 8.	100	5.7	0	-2.5	0	7.1	200	6.7	-300	-10.7	0	0.1
Other Associate Professional	-100	-6.5	0	1.7	0	9.0	-100	-16.9	200	25.3	100	1.0	200	6.0
Clerical and Secretarial	-100	-0.8	0	-0.3	-1,000	-8.0	200	1.6	2,600	4.5	-600	-1.5	1,400	8.0
Skilled Maintenance & Skilled Production	100	0.5	-500	-2.6	6,300	13.6	006	7.3	1,000	15.6	-200	4.8-	7,600	7.6
Production Operatives	-1,800	-3.1	100	0.1	009	7.2	200	5.2	200	2.4	200	3.0	300	0.2
Transport & Communications	-100	-2.6	100	5.6	-2,600	-63.8	200	7.5	0	0.2	4,700	9.0	2,900	3.9
Sales	200	2.2	200	2.9	300	37.0	2,300	2.3	1,000	12.5	200	4.1	4,700	3.4
Personal Service	0	1.3	-100	-15.5	-200	-86.1	009-	-11.1	1,200	10.1	-9,700	-12.2	006'6-	6.6-
Labourers & Security	200	- -	-100	9.0-	-1,300	-5.7	800	3.9	300	3.5	-700	-3.2	006-	6.0-
Total	-1,300	-1.0	800	0.4	1,200	6.0	6,100	2.6	10,400	5.5	-5,200	-1.7	12,000	1.0

In terms of employment distributions in 2001/2002 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 relatively minor changes in terms of the structure of employment by grade between the first, second and third rounds of the survey.

Sections 3.4 and 3.5 focused on employment projections for the next year – over the period end 2001/2002 to end 2002/2003. We saw that, based on the figures provided by respondents to the survey, modest employment growth in the region of 1 per cent (12,100 jobs) was forecast for the period in question. This is a little pessimistic relative to the forecast of 2 per cent made in the ESRI *Quarterly Economic Commentary* around the same time as the vacancies survey was carried out.

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

		Tr	aditional Ma	nufacti	ırina		` ' li-Tech. Manul	factuu	ring
	1-9		100+		All Sizes	1-99	100+	uctui	All Sizes
Occupational Grade	n	%	n	%	n %	n %		%	n %
Managers/Proprietors	5,700	10	4,800	6	10,500 8	6,200 11	6,600	6	12,900 7
Engineering Professionals	600	1	900	1	1,500 1	2,200		5	8,000 5
Science Professionals	300	0	500	1	700 1	1,000 2		2	3,200 2
Computer Professionals	200	0	400	0	600 0	400		1	1,400 1
Other Professionals	1,400	2	2,200	3	3,600 3	1,000 2	2,800	2	3,800 2
Engineering Technicians	600	1	900	1	1,500 1	2,100	5,000	4	7,100 4
Science Technicians	300	1	1,100	1	1,400 1	800	2,500	2	3,200 2
Computer Technical Staff-Associate Professional Level	400	1	700	1	1,100 1	400	1,200	1	1,700 1
Other Associate Professional	500	1	600	1	1,100 1	300	1,000	1	1,300 1
Clerical and Secretarial Skilled Maintenance & Skilled	6,300 9,500	11 16	7,000 4,400	9 6	13,300 10 13,900 10	6,200 11 8,800 16	7,500 8,500	6 7	13,700 8 17,300 10
Production	.,		,		,	ŕ	ŕ		·
Production Operatives	19,400	34	38,900	50	58,300 43	19,000 34	59,300	50	78,200 45
Transport & Communications	2,400	4	1,500	2	4,000 3	1,700		1	2,400 1
Sales	3,600	6	4,200	5	7,800 6	3,000	-,	4	8,000 5
Personal Service	600	1	400	1	1,100 1	300 1	400	0	700 0
Labourers & Security	6,100	10	8,600	11	14,600 10	2,600 5	9,400	8	12,000 7
Total	58,000	100	77,000		135,000 100	56,000 100	-,	100	175,000 100
			Distributive				/Insurance/Bu	sines	
Occupational Grade	1-9 N	%	10+	%	All Sizes n %	1-9 n %	10+ N	%	All Sizes N %
Occupational Grade Managers/Proprietors	28,600	29	n 12,300	9	n % 40,900 18	12,700 24	17,100	12	29,800 16
Engineering Professionals	20,000	0	600	0	800 0	1,900 4		3	6,500 3
Science Professionals	0	0	200	0	200 0	1,100 2	,	1	1,800 1
Computer Professionals	200	0	500	0	700 0	1,000 2		6	9,400 5
Other Professionals	1,000	1	1,600	1	2,500 1	8,400 16		11	23,000 12
Engineering Technicians	600	1	1,000	1	1,600 1	600 1	4,500	3	5,100 3
Science Technicians	0	0	100	0	100 0	100 0		0	600 0
Computer Technical Staff-Associate Professional Level	0	0	500	0	500 0	1,600 3	7,100	5	8,600 5
Other Associate Professional	300	0	500	0	800 0	100 0	800	1	1,000 0
Clerical and Secretarial	14,500	15	17,000	13	31,400 13	14,600 28	43,800	32	58,400 31
Skilled Maintenance & Skilled Production	5,100	5	7,200	5	12,300 5	2,600 5	ŕ	3	6,300 3
Production Operatives	2,200	2	6,600	5	8,900 4	1,100 2	-,	6	9,000 5
Transport & Communications	6,000	6	3,500	3	9,600 4	2,000 4	,	1	3,100 2
Sales	30,800	31	66,700	50	97,600 42	1,800 4	-,	5	8,200 4
Personal Service	1,000	1	4,100	3	5,000 2	1,000 2	,	8	12,100 6
Labourers & Security	8,600	9	11,400	8	20,000 8	1,600 3	-,	4	7,900 5
Total	99,000	100	134,000 Constru		233,000 100	52,200 100		100	190,900 100
	4.0				NII -!		oort/Personal/0	Juler	
Occupational Grade	1-9 n	%	10+ N	%	All sizes N %	1-9 n %	10+ n	%	All Sizes n %
Managers/Proprietors	16,500	24	4,700	70 7	21,200 16	17,000 29		70	34,000 11
Engineering Professionals	2,300	3	4,500	7	6,800 5	100 (0	1,300 0
Science Professionals	0	0	0	0	0 0	0 (0	800 0
Computer Professionals	300	0	200	0	500 0	0 (1	3,200 1
Other Professionals	2,300	3	1,900	3	4,200 3	3,300		3	11,600 4
Engineering Technicians	1,700	2	1,300	2	3,000 2	0 (1	2,200 1
Science Technicians	0	0	600	1	600 0	0 (3,000	1	3,000 1
Computer Technical Staff-Associate Professional Level	0	0	300	0	300 0	900	1,600	1	2,400 1
Other Associate Professional	1,700	2	200	0	1,900 1	3,600	7,300	3	10,900 3
Clerical and Secretarial	8,000	12	4,700	7	12,700 9	12,400 21	28,400	11	40,900 13
Skilled Maintenance & Skilled Production	21,000	31	25,400	38	46,500 34	800	ŕ	2	4,900 2
Production Operatives	5,400	8	3,300	5	8,700 6	4,000		8	24,200 8
Transport & Communications	300	0	3,800	6	4,000 3	7,100 12		18	52,500 17
Sales	600	1	300	0	900 1	4,000		5	17,600 6
Personal Service	0	0	800	1	900 1	600	-,	31	80,000 26
Labourers & Security	8,800	13	14,300	20	23,200 17	4,900 8		7	23,200 8
Total	68,800	100	66,300	100	135,100 100	58,700 100	253,800	100	312,500 100

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

					Trac	ditional Ma	anufactu	ıring				
		1-9	99			100	+			All Siz	zes	
Occupation	Current	Projected	Change	% Change	Current	Projected	Change	% Change	Current	Projected	Change	% Change
		.,	. 3.					. 3.		.,	. 3.	
Managers/Proprietors Engineering	5,700	5,800	100	2	4,800	5,200	400	8	10,500	11,000	500	5
Professionals Science Professionals	600 300	600 300	100 0	10 4	900 500	800 500	-100 0	-10 2	1,500 700	1,400 800	0 0	-2 2
Computer Professionals	200	300	0	16	400	400	0	7	600	600	100	10
Other Professionals Engineering	1,400	1,400	Ö	2	2,200	2,100	-200	-7	3,600	3,500	-100	-4
Technicians	600	700	100	18	900	800	-100	-12	1,500	1,500	0	0
Science Technicians	300	300	0	7	1,100	1,000	0	-3	1,400	1,400	0	0
Computer Tech/Assoc. Prof. Level Other Assoc. Prof.	400	400	0	3	700	600	0	-5	1,100	1,100	0	-2
Level	500	500	0	-7	600	600	0	-6	1,100	1,000	-100	-7
Clerical and Secretarial Skilled Maintenance/	.,	6,400	100	2	7,000	6,800	-200	-3	13,300	13,200	-100	-1
Production Operatives	9,500 19,400	9,700 19.700	300 200	3 1	4,400 38,900	4,200 36,900	-200 -2000	-4 -5	13,900 58,300	14,000 56,500	100	1 -3
Transport & Comm.	2,400	2,400	-100	-3	1,500	1,500	-2000	-3 -2	4,000	3,900	-1,000	-3
Sales	3,600	3,800	200	6	4,200	4,100	0	-1	7,800		200	2
Personal Services	600	700	0	3	400	400	0	-2	1,100	1,100	0	1
Labourers & Security	6,100	6,600	500	8	8,600	8,200	-300	-4	14,600	14,800	200	1
Total	58,000	59,600	1600	3	77,000	74,100	-2900	-4	135,000	133,700	-1,300	-1
						Hi-Te	ech.					
		1-9	99	0/.		Hi-Te 100		0/.		All Siz	zes	0/.
Occupation	Current	1-t		% Change	Current		+	% Change	Current	All Siz		% Change
Managers/Proprietors	Current 6,200				Current 6,600	100	+		Current 12,900			
·		Projected	Change	Change		100 Projected	+ Change	Change		Projected	Change	Change
Managers/Proprietors Engineering Professionals Science Professionals	6,200	Projected 6,300	Change 0	Change 1	6,600	100 Projected 6,700	+ Change	Change 0	12,900	Projected 12,900	Change	Change 0
Managers/Proprietors Engineering Professionals Science Professionals Computer	6,200 2,200 1,000	6,300 2,400 1,200	0 200 200	1 8 17	6,600 5,800 2,300	100 Projected 6,700 5,900 2,300	+ Change 0 100 0	0 1 2	12,900 8,000 3,200	Projected 12,900 8,200 3,400	100 300 200	0 3 6
Managers/Proprietors Engineering Professionals Science Professionals	6,200 2,200	Projected 6,300 2,400	Change 0 200	Change 1 8	6,600 5,800	100 Projected 6,700 5,900	+ Change 0 100	Change 0	12,900 8,000	Projected 12,900 8,200	Change 100 300	Change 0 3
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering	6,200 2,200 1,000 400 1,000	9,300 2,400 1,200 400 1,000	Change 0 200 200 0 0	1 8 17 3 -3	6,600 5,800 2,300 1,000 2,800	100 Projected 6,700 5,900 2,300 1,100 2,800	+ Change 0 100 0 0 0 0	0 1 2 1 0	12,900 8,000 3,200 1,400 3,800	Projected 12,900 8,200 3,400 1,400 3,700	100 300 200 0	0 3 6 2 -1
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians	6,200 2,200 1,000 400	Projected 6,300 2,400 1,200 400	Change 0 200 200 0	1 8 17 3	6,600 5,800 2,300 1,000 2,800 5,000	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300	+ Change 0 100 0	0 1 2	12,900 8,000 3,200 1,400 3,800 7,100	Projected 12,900 8,200 3,400 1,400 3,700 7,400	Change 100 300 200 0	0 3 6 2 -1 4
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering	6,200 2,200 1,000 400 1,000 2,100 800	9,400 1,200 400 1,000 2,200 800	Change 0 200 200 0 100	1 8 17 3 -3 2	5,800 2,300 1,000 2,800 5,000 2,500	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600	+ Change 0 100 0 0 0 200 100	0 1 2 1 0	12,900 8,000 3,200 1,400 3,800 7,100 3,200	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400	100 300 200 0 0 300 100	0 3 6 2 -1
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof.	6,200 2,200 1,000 400 1,000 2,100 800 400	9,400 1,200 400 1,000 2,200 800 500	Change 0 200 200 0 100 0	Change 1 8 17 3 -3 2 5	5,800 2,300 1,000 2,800 5,000 2,500 1,200	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300	+ Change 0 100 0 0 200 100 100	0 1 2 1 0 4 3 6	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800	Change 100 300 200 0 0 300 100	Change 0 3 6 2 -1 4 3 6
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level	6,200 2,200 1,000 400 1,000 2,100 800 400 300	Projected 6,300 2,400 1,200 400 1,000 2,200 800 500 300	Change 0 200 200 0 100 0 0 0	Change 1 8 17 3 -3 2 5 0	5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300 1,000	+ Change 0 100 0 0 200 100 100 0 0	0 1 2 1 0 4 3 6 2	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700 1,300	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800 1,300	Change 100 300 200 0 0 300 100 100 0	Change 0 3 6 2 -1 4 3 6 2
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200	9.00 Projected 6,300 2,400 1,200 400 1,000 2,200 800 500 300 6,300	Change 0 200 200 0 100 0 100 0 100	Change 1 8 17 3 -3 2 5 0 1	5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300 1,000 7,300	+ Change 0 100 0 0 200 100 100 0 -100	0 1 2 1 0 4 3 6 2 -2	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700 1,300 13,700	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800 1,300 13,600	Change 100 300 200 0 0 300 100 100 0 0	Change 0 3 6 2 -1 4 3 6 2 0
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800	Projected 6,300 2,400 1,200 400 1,000 2,200 800 500 300 6,300 8,500	Change 0 200 200 0 100 0 0 0	Change 1 8 17 3 -3 2 5 0	5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300 1,000 7,300 8,300	+ Change 0 100 0 0 200 100 100 0 0	0 1 2 1 0 4 3 6 2	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700 1,300 13,700	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800 1,300 13,600 16,800	Change 100 300 200 0 0 300 100 100 0	Change 0 3 6 2 -1 4 3 6 2
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800	9.00 Projected 6,300 2,400 1,200 400 1,000 2,200 800 500 300 6,300	Change 0 200 200 0 100 0 100 0 100 -300	Change 1 8 17 3 -3 2 5 0 1 -4	5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300 1,000 7,300	+ Change 0 100 0 0 200 100 100 0 -100 -100	0 1 2 1 0 4 3 6 2 -2	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700 1,300 13,700	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800 1,300 13,600 16,800 78,300	Change 100 300 200 0 0 300 100 100 -500	Change 0 3 6 2 -1 4 3 6 2 0 -3
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800 19,000	Projected 6,300 2,400 1,200 400 1,000 2,200 800 500 300 6,300 8,500 19,500	Change 0 200 200 0 100 0 100 0 100 -300 500	Change 1 8 17 3 -3 2 5 0 1 -4 3	5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500 59,300	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300 1,000 7,300 8,300 58,800	+ Change 0 100 0 0 200 100 100 0 -100 -100 -400	0 1 2 1 0 4 3 6 2 -2 -1	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700 1,300 13,700 17,300 78,200	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800 1,300 13,600 16,800 78,300	Change 100 300 200 0 0 300 100 100 -500 100	Change 0 3 6 2 -1 4 3 6 2 0 -3 0
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives Transport & Comm.	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800 19,000 1,700	Projected 6,300 2,400 1,200 400 1,000 2,200 800 500 300 6,300 8,500 19,500 1,800	Change 0 200 200 0 100 0 100 -300 500 200	Change 1 8 17 3 -3 2 5 0 1 -4 3 9	5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500 59,300 800	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300 1,000 7,300 8,300 58,800 700	+ Change 0 100 0 0 200 100 100 0 -100 -100 -400 0	0 1 2 1 0 4 3 6 2 -2 -1 -3	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700 1,300 13,700 17,300 78,200 2,400	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800 1,300 13,600 16,800 78,300 2,600	Change 100 300 200 0 0 300 100 100 -500 100 200 -100	Change 0 3 6 2 -1 4 3 6 2 0 -3 0 6
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives Transport & Comm. Sales	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800 19,000 1,700 3,000 3,000 2,600	Projected 6,300 2,400 1,200 400 1,000 2,200 800 500 300 6,300 8,500 19,500 1,800 3,200	Change 0 200 200 0 100 0 100 -300 500 200 200	Change 1 8 17 3 -3 2 5 0 1 -4 3 9 7	5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500 59,300 800 5,000	100 Projected 6,700 5,900 2,300 1,100 2,800 5,300 2,600 1,300 1,000 7,300 8,300 58,800 700 5,000 300 9,300	+ Change 0 100 0 0 200 100 100 -100 -100 -400 0 0	0 1 2 1 0 4 3 6 2 -2 -1 -3 1	12,900 8,000 3,200 1,400 3,800 7,100 3,200 1,700 1,300 13,700 17,300 78,200 2,400 8,000	Projected 12,900 8,200 3,400 1,400 3,700 7,400 3,400 1,800 13,600 16,800 78,300 2,600 8,200 600 12,000	Change 100 300 200 0 0 300 100 100 -500 100 100 200	Change 0 3 6 2 -1 4 3 6 2 0 -3 0 6 3

Appendix Table A3.6 (Cont'd)

Appendix Table A3.	6 (Cont	(d)										
						Const	ruction					
		0-	9			10)+			All S	izes	
	_			%	_			%				%
Occupation	Current	Projected	Change	Change	Current	Projected	Change	Change	Current	Projected	Change	Change
Managers/Proprietors Engineering	16,500	16,200	-300	-2	4,700	4,300	-400	-8	21,200	20,500	-600	-3
Professionals Science Professionals	2,300 0	2,600 0	300 0	13 0	4,500 0	4,000 0	-500 0	-11 0	6,800 0	6,600 0	-200 0	-3 0
Computer Professionals Other Professionals	300	300 2,600	0 300	0 13	200 1,900	200 1,900	0	-17 0	500 4,200	500	0 300	-8 7
Engineering Technicians	2,300 1,700	2,000	300	17	1,300	1,400	100	10	3,000	4,400 3,400	400	14
Science Technicians Computer Tech/Assoc.	0	0	0	0	600	400	-200	-37	600	400	-200	-37
Prof. Level Other Assoc. Prof.	0	0	0	0	300	300	0	-3	300	300	0	-3
Level Clerical and Secretarial Skilled Maintenance/	1,700 8,000	1,700 7,700	-300	0 -4	200 4,700	200 4,000	-700	3 -15	1,900 12,700	1,900 11,700	-1,000	0 -8
Production Operatives	21,000 5,400	28,100 5,400	7,100 0	34 0	3,300	24,600 3,900	-800 600	-3 19	46,500 8,700	52,800 9,300	6,300 600	14 7
Transport & Comm. Sales	300 600	300 900	0 300	0 50	3,800 300	1,200 300	-2,600 0	-69 12	4,000 900	1,500 1,200	-2,600 300	-64 37
Personal Services	0	0	0	0	800	100	-700	-86	900	100	-700	-86
Labourers & Security	8,800	9,100	300	3	14,300	12,700	-1,600	-11	23,200	21,800	-1,300	-6
Total	68,800	76,800	8,000	12	66,300	59,600	-6,700	-10	135,100	136,300	1,200	1
						N - 4 - 11 41-						
		4	0		ı	Distributiv		es		AII C	·	
		1-	9	%	I	Distributiv 10				All S	izes	%
Occupation	Current			% Change		10	+	%	Current	All S		% Change
Managers/Proprietors Engineering	28,600	Projected 28,900	Change	Change 1	Current 12,300	10 Projected 12,400	+ Change 100	% Change	40,900	Projected 41,300	Change 400	Change 1
Managers/Proprietors Engineering Professionals	28,600	Projected 28,900 300	Change 300 200	Change 1 100	Current 12,300 600	10 Projected 12,400 70(+ Change 100 100	% Change	40,900 800	Projected 41,300 1,000	Change 400 200	Change 1 27
Managers/Proprietors Engineering Professionals Science Professionals Computer	28,600	Projected 28,900	Change	Change 1	Current 12,300	10 Projected 12,400	+ Change 100	% Change	40,900	Projected 41,300 1,000 200	Change 400	Change 1
Managers/Proprietors Engineering Professionals Science Professionals	28,600 200 0	28,900 300 0	300 200 0	1 100 0	Current 12,300 600 200	10 Projected 12,400 70(20(+ Change 100 100 0	% Change 1 9 5	40,900 800 200	Projected 41,300 1,000 200 700	400 200 0	1 27 5
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals	28,600 200 0 200	28,900 300 0 200	300 200 0	1 100 0 0	Current 12,300 600 200 500	10 Projected 12,400 700 200 600	+ Change 100 100 0 0	% Change 1 9 5 2	40,900 800 200 700	Projected 41,300 1,000 200 700 2,600 2,000	Change 400 200 0	1 27 5 2
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level	28,600 200 0 200 1,000 600	28,900 300 0 200 1,000	300 200 0 0 0 300	1 100 0 0 0 50	Current 12,300 600 200 500 1,600	10 Projected 12,400 700 200 600 1,600	+ Change 100 100 0 0 100 100 100 0	% Change 1 9 5 2 5	40,900 800 200 700 2,500 1,600	Projected 41,300 1,000 200 700 2,600 2,000 100	Change 400 200 0 0 100 400	1 27 5 2 3 23
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level	28,600 200 0 200 1,000 600 0	28,900 300 0 200 1,000 1,000	200 0 0 0 300 0	1 100 0 0 0 50 0	Current 12,300 600 200 500 1,600 1,000 100	10 Projected 12,400 700 200 600 1,600 1,000 100	+ Change 100 100 0 0 100 100 100 0	% Change 1 9 5 2 5 6 4	40,900 800 200 700 2,500 1,600 100	Projected 41,300 1,000 200 700 2,600 2,000 100 600	Change 400 200 0 0 100 400 0	Change 1 27 5 2 3 23 4
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof.	28,600 200 0 200 1,000 600 0	28,900 300 0 200 1,000 0 0	Change 300 200 0 0 0 300 0 0	Change 1 100 0 0 0 50 0 0	Current 12,300 600 200 500 1,600 1,000 100 500	10 Projected 12,400 700 200 600 1,600 1,000 100 600	+ Change 100 100 0 0 100 100 0 100 0 0 0	% Change 1 9 5 2 5 6 4 7	40,900 800 200 700 2,500 1,600 100	Projected 41,300 1,000 200 700 2,600 2,000 100 600 700	Change 400 200 0 0 100 400 0 0	Change 1 27 5 2 3 23 4 7
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production	28,600 200 0 200 1,000 600 0 300 14,500 5,100	28,900 300 0 200 1,000 0 200 14,800 6,000	Change 300 200 0 0 300 0 -200 300 1,000	Change 1 100 0 0 0 50 0 -50 2 19	Current 12,300 600 200 500 1,600 1,000 100 500 17,000 7,200	10 Projected 12,400 70(20(60(1,600 1,000 10(50(17,200 7,100	+ Change 100 100 0 0 100 100 0 0 200 -100	% Change 1 9 5 2 5 6 4 7 3 1	40,900 800 200 700 2,500 1,600 100 500 800 31,400 12,300	Projected 41,300 1,000 200 700 2,600 2,600 100 600 700 31,900 13,200	Change 400 200 0 100 400 0 -100 500	Change 1 27 5 2 3 23 4 7 -17 2 7
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives	28,600 200 0 200 1,000 600 0 300 14,500 5,100 2,200	28,900 300 0 200 1,000 0 200 14,800 6,000 2,900	Change 300 200 0 0 300 0 -200 300 1,000 600	Change 1 100 0 0 0 50 0 -50 2 19 29	Current 12,300 600 200 500 1,600 1,000 100 500 17,000 7,200 6,600	10 Projected 12,400 70(20(60(1,600 1,000 10(50(17,200 7,100 6,500	+ Change 100 100 0 0 100 100 0 200 -100 -200	% Change 1 9 5 2 5 6 4 7 3 1 -1 -3	40,900 800 200 700 2,500 1,600 100 500 800 31,400 12,300 8,900	Projected 41,300 1,000 200 700 2,600 2,600 100 600 700 31,900 13,200 9,300	Change 400 200 0 100 400 0 -100 500	Change 1 27 5 2 3 23 4 7 -17 2 7 5
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives Transport & Comm.	28,600 200 200 1,000 600 0 300 14,500 5,100 2,200 6,000	28,900 300 0 200 1,000 0 200 14,800 6,000 2,900 6,700	Change 300 200 0 0 300 0 -200 300 1,000 600 600	Change 1 100 0 0 0 50 0 -50 2 19 29 11	Current 12,300 600 200 500 1,600 1,000 500 17,000 7,200 6,600 3,500	10 Projected 12,400 70(20(60(1,600 1,000 10(50(17,200 7,100 6,500 3,600	+ Change 100 100 0 0 100 100 0 200 -100 -200 100	% Change 1 9 5 2 5 6 4 7 3 1 -1 -3 2	40,900 800 200 700 2,500 1,600 100 500 800 31,400 12,300 8,900 9,600	Projected 41,300 1,000 200 700 2,600 2,600 100 600 700 31,900 13,200 9,300 10,300	Change 400 200 0 100 400 0 -100 500 700	Change 1 27 5 2 3 23 4 7 -17 2 7 5 7
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives	28,600 200 0 200 1,000 600 0 300 14,500 5,100 2,200 6,000 30,800	Projected 28,900 300 0 200 1,000 0 200 14,800 6,000 2,900 6,700 33,500	Change 300 200 0 0 300 0 -200 300 1,000 600	Change 1 100 0 0 0 0 50 0 -50 2 19 29 11 9	Current 12,300 600 200 500 1,600 1,000 500 17,000 7,200 6,600 3,500 66,700	10 Projected 12,400 70(20(60(1,600 1,000 10(50(17,200 7,100 6,500 3,600 66,300	+ Change 100 100 0 0 100 100 0 200 -100 -200 100 -400	% Change 1 9 5 2 5 6 4 7 3 1 -1 -3	40,900 800 200 700 2,500 1,600 500 800 31,400 12,300 8,900 9,600 97,600	Projected 41,300 1,000 200 700 2,600 2,600 100 600 700 31,900 13,200 9,300 10,300 99,800	Change 400 200 0 100 400 0 -100 500 700 2,300	Change 1 27 5 2 3 23 4 7 -17 2 7 5 7 2
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Assoc. Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives Transport & Comm. Sales	28,600 200 200 1,000 600 0 300 14,500 5,100 2,200 6,000	28,900 300 0 200 1,000 0 200 14,800 6,000 2,900 6,700	Change 300 200 0 0 300 0 -200 300 1,000 600 600 2,700	Change 1 100 0 0 0 50 0 -50 2 19 29 11	Current 12,300 600 200 500 1,600 1,000 500 17,000 7,200 6,600 3,500	10 Projected 12,400 70(20(60(1,600 1,000 10(50(17,200 7,100 6,500 3,600	+ Change 100 100 0 0 100 100 0 200 -100 -200 100 -400	% Change 1 9 5 2 5 6 4 7 3 1 -1 -3 2 -1	40,900 800 200 700 2,500 1,600 100 500 800 31,400 12,300 8,900 9,600	Projected 41,300 1,000 200 700 2,600 2,600 600 700 31,900 13,200 9,300 10,300 99,800 4,500	Change 400 200 0 100 400 0 -100 500 700	Change 1 27 5 2 3 23 4 7 -17 2 7 5 7

Appendix Table A3.6 (Cont'd)

	(Cont'c	^/										
				ı	Finance/li	nsurance/l		s Service	es			
		1	-9	%		10 +	+	%		All Siz	zes	%
Occupation	Current	Projected	Change		Current	Projected	Change		Current	Projected	Change	
Managers/Proprietors	12,700	13,100	400	3	17,100	17,300	200	1	29,800	30,400	500	2
Engineering Professionals	1,900	1,900	0	0	4,600	4,800	200	5	6,500	6,800	200	3
Science Professionals	1,100	900	-100	-13	700	900	100	17	1,800	1,800	0	0
Computer Professionals	1,000	1,100	100	13	8,400	8,700	300	3	9,400	9,800	400	4
Other Professionals	8,400	10,000	1,600	19	14,600	15,100	500	3	23,000	25,000	2,100	9
Engineering Technicians	600	800	200	35	4,500	4,600	100	1	5,100	5,300	200	5
Science Technicians	100	300	100	100	500	500	0	6	600	800	200	26
Computer Tech/Assoc. Prof. Level	1,600	15,300	0	-3	7,100	7,300	200	3	8,600	8,800	200	2
Other Assoc. Prof. Level	100	300	100	100	800	900	100	13	1,000	1,200	200	25
Clerical and Secretarial	14,600	16,600	2,000	14	43,800	44,500	600	1	58,400	61,000	2,600	5
Skilled Maintenance/	2,600	3,600	900	35	3,600	3,700	100	2	6,300	7,200	1,000	16
Production	1,100	1,200	100	13	8,000	8,000	100	1	9,000	9,200	200	2
Production Operatives	2,000	2,000	0	0	1,100	1,100	0	1	3,100	3,200	0	0
Transport & Comm. Sales	1,800	2,700	800	46	6,400	6,500	200	3	8,200	9,200	1,000	13
Personal Services	1,000	1,000	0	0	11,100	12,300	1,200	11	12,100	13,300	1,200	10
	1,600	1,900	300	16	6,300	6,300	0	0	7,900	8,200	300	4
Labourers & Security Total		58,800	6,600	13	138,700	•	3,800	3	190,900	-	10,400	5
Total	,_,_,	,	-,		,	,	-,	_	,		,	
					Transpo	rt/Persona	al/Other	Services	;			
		1	-9			10 +	+			All Siz	zes	
Occupation	Current	Projected	Change	% Change	Current	Drojected	Change	% Chango	Current		Chango	%
Managers/Proprietors						riojecieu		Change	Current	Projected	Change	Change
•	17.000	17.000	0	0	16.900	-	700	_		_	700	_
Engineering	17,000	17,000 100	0 0	0 0	16,900 1,200	17,600 1,200	_	4 -1	34,000 1,300	34,600 1,300	_	Change 2 -1
Professionals	100	100	0	0	1,200	17,600 1,200	700 0	4 -1	34,000 1,300	34,600 1,300	700 0	2 -1
Professionals Science Professionals	100	100	0	0	1,200	17,600 1,200 600	700 0 -200	4 -1 -22	34,000 1,300 800	34,600 1,300 600	700 0 -200	2 -1
Professionals Science Professionals Computer Professionals	100 0 0	100 0 0	0 0 0	0 0	1,200 800 3,200	17,600 1,200 600 3,200	700 0 -200 0	4 -1 -22 -1	34,000 1,300 800 3,200	34,600 1,300 600 3,200	700 0 -200 0	2 -1 -22 -1
Professionals Science Professionals Computer Professionals Other Professionals	100 0 0 3,300	100 0 0 3,300	0 0 0	0 0 0	1,200 800 3,200 8,200	17,600 1,200 600 3,200 8,500	700 0 -200 0 300	4 -1 -22 -1 4	34,000 1,300 800 3,200 11,600	34,600 1,300 600 3,200 11,900	700 0 -200 0 300	2 -1 -22 -1 3
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians	100 0 0 3,300 0	100 0 0 3,300 0	0 0 0 0	0 0 0 0 0 0	1,200 800 3,200 8,200 2,200	17,600 1,200 600 3,200 8,500 1,900	700 0 -200 0 300 -300	4 -1 -22 -1 4 -14	34,000 1,300 800 3,200 11,600 2,200	34,600 1,300 600 3,200 11,900	700 0 -200 0 300 -300	2 -1 -22 -1 3 -14
Professionals Science Professionals Computer Professionals Other Professionals	100 0 0 3,300 0	100 0 0 3,300 0	0 0 0 0 0	0 0 0 0 0 0 0	1,200 800 3,200 8,200 2,200 3,000	17,600 1,200 600 3,200 8,500 1,900 2,500	700 0 -200 0 300 -300 -400	4 -1 -22 -1 4 -14 -15	34,000 1,300 800 3,200 11,600 2,200 3,000	34,600 1,300 600 3,200 11,900 1,900 2,500	700 0 -200 0 300 -300 -400	2 -1 -22 -1 3 -14 -15
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians	100 0 0 3,300 0 0	100 0 0 3,300 0 0	0 0 0 0 0	0 0 0 0 0 0 0	1,200 800 3,200 8,200 2,200 3,000 1,600	17,600 1,200 600 3,200 8,500 1,900 2,500	700 0 -200 0 300 -300 -400	4 -1 -22 -1 4 -14 -15	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400	34,600 1,300 600 3,200 11,900 1,900 2,500	700 0 -200 0 300 -300 -400	2 -1 -22 -1 3 -14 -15
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass	100 0 0 3,300 0	100 0 0 3,300 0	0 0 0 0 0	0 0 0 0 0 0 0	1,200 800 3,200 8,200 2,200 3,000	17,600 1,200 600 3,200 8,500 1,900 2,500	700 0 -200 0 300 -300 -400	4 -1 -22 -1 4 -14 -15	34,000 1,300 800 3,200 11,600 2,200 3,000	34,600 1,300 600 3,200 11,900 1,900 2,500	700 0 -200 0 300 -300 -400	2 -1 -22 -1 3 -14 -15
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass Prof. Level Other Assoc. Prof. Level Clerical and Secretarial	100 0 0,3,300 0 0 900 3,600	100 0 0 3,300 0 0	0 0 0 0 0	0 0 0 0 0 0 0	1,200 800 3,200 8,200 2,200 3,000 1,600	17,600 1,200 600 3,200 8,500 1,900 2,500	700 0 -200 0 300 -300 -400	4 -1 -22 -1 4 -14 -15	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400	34,600 1,300 600 3,200 11,900 1,900 2,500	700 0 -200 0 300 -300 -400	2 -1 -22 -1 3 -14 -15
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass Prof. Level Other Assoc. Prof. Level	100 0 0 3,300 0 900 3,600 12,400	100 0 0 3,300 0 0 900 3,800 12,300 800	0 0 0 0 0 0 0 200 -100	0 0 0 0 0 0 0 0 6	1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100	17,600 1,200 600 3,200 8,500 1,900 2,500 1,300 7,200 27,900 4,000	700 0 -200 0 300 -300 -400 -100 -500	4 -1 -22 -1 4 -14 -15 -17 -1 -2	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900	34,600 1,300 600 3,200 11,900 2,500 2,200 11,000 40,300 4,700	700 0 -200 0 300 -300 -400 -300 100 -600	2 -1 -22 -1 3 -14 -15 -11 1 -1 -3
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/	100 0 3,300 0 900 3,600 12,400 800 4,000	100 0 0 3,300 0 0 900 3,800 12,300 800 4,800	0 0 0 0 0 0 200 -100	0 0 0 0 0 0 0 0 6 -1 0	1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100	17,600 1,200 600 3,200 8,500 1,900 2,500 1,300 7,200 27,900 4,000 20,100	700 0 -200 0 300 -300 -400 -100 -500 -200 0	4 -1 -22 -1 4 -14 -15 -17 -1 -2 -4 0	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900 4,900 24,200	34,600 1,300 600 3,200 11,900 2,500 2,200 11,000 40,300 4,700 24,900	700 0 -200 0 300 -300 -400 -300 100 -600 -200 700	2 -1 -22 -1 3 -14 -15 -11 1 -1 -3 3
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production	100 0 0 3,300 0 900 3,600 12,400 800 4,000 7,100	100 0 0 3,300 0 0 900 3,800 12,300 800 4,800 7,800	0 0 0 0 0 0 200 -100 0 800 700	0 0 0 0 0 0 0 0 6 -1 0 19	1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100 45,500	17,600 1,200 600 3,200 8,500 1,900 2,500 1,300 7,200 27,900 4,000 20,100 49,500	700 0 -200 0 300 -300 -400 -100 -500 -200 0 4,000	4 -1 -22 -1 4 -14 -15 -17 -1 -2 -4 0 9	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900 4,900 24,200 52,500	34,600 1,300 600 3,200 11,900 2,500 2,200 11,000 40,300 4,700 24,900 57,300	700 0 -200 0 300 -300 -400 -300 100 -600 -200 700 4,700	2 -1 -22 -1 3 -14 -15 -11 1 -1 -3 3 9
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives	100 0 3,300 0 900 3,600 12,400 800 4,000 7,100 4,000	100 0 0 3,300 0 0 900 3,800 12,300 800 4,800 7,800 4,100	0 0 0 0 0 0 200 -100 0 800 700 100	0 0 0 0 0 0 0 0 6 -1 0 19 11 3	1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100 45,500 13,600	17,600 1,200 600 3,200 8,500 1,900 2,500 1,300 7,200 27,900 4,000 20,100 49,500 14,200	700 0 -200 0 300 -300 -400 -300 -100 -500 0 4,000 600	4 -1 -22 -1 4 -14 -15 -17 -1 -2 -4 0 9 5	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900 4,900 24,200 52,500 17,600	34,600 1,300 600 3,200 11,900 2,500 2,200 11,000 40,300 4,700 24,900 57,300 18,300	700 0 -200 0 300 -300 -400 -300 100 -600 -200 700 4,700 700	2 -1 -22 -1 3 -14 -15 -11 1 -1 -3 3 9 4
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives Transport & Comm. Sales Personal Services	100 0 3,300 0 900 3,600 12,400 800 4,000 7,100 4,000 600	100 0 0 3,300 0 0 900 3,800 12,300 800 4,800 7,800 4,100 1,400	0 0 0 0 0 0 200 -100 0 800 700 100 800	0 0 0 0 0 0 0 6 -1 0 19 11 3 119	1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100 45,500 13,600 79,300	17,600 1,200 600 3,200 8,500 1,900 2,500 1,300 7,200 27,900 4,000 20,100 49,500 14,200 68,800	700 0 -200 300 -300 -400 -300 -100 -500 0 4,000 600 10,500	4 -1 -22 -1 4 -14 -15 -17 -1 -2 -4 0 9 5 -13	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900 4,900 24,200 52,500 17,600 80,000	34,600 1,300 600 3,200 11,900 2,500 2,200 11,000 40,300 4,700 24,900 57,300 18,300 70,200	700 0 -200 0 300 -300 -400 -300 100 -600 -200 700 4,700 700 -9,700	2 -1 -22 -1 3 -14 -15 -11 1 -3 3 9 4 -12
Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Tech/Ass Prof. Level Other Assoc. Prof. Level Clerical and Secretarial Skilled Maintenance/ Production Production Operatives Transport & Comm. Sales	100 0 3,300 0 900 3,600 12,400 800 4,000 7,100 4,000 600 4,900	100 0 0 3,300 0 0 900 3,800 12,300 800 4,800 7,800 4,100	0 0 0 0 0 0 200 -100 0 800 700 100	0 0 0 0 0 0 0 0 6 -1 0 19 11 3	1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100 45,500 13,600	17,600 1,200 600 3,200 8,500 1,900 2,500 1,300 7,200 27,900 4,000 20,100 49,500 14,200 68,800 17,400	700 0 -200 0 300 -300 -400 -100 -500 -200 0 4,000 600 10,500 -800	4 -1 -22 -1 4 -14 -15 -17 -1 -2 -4 0 9 5	34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900 4,900 24,200 52,500 17,600	34,600 1,300 600 3,200 11,900 2,500 2,200 11,000 40,300 4,700 24,900 57,300 18,300 70,200 22,400	700 0 -200 0 300 -300 -400 -300 100 -600 -200 700 4,700 700 -9,700 -700	2 -1 -22 -1 3 -14 -15 -11 1 -1 -3 3 9 4

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.

Having considered all vacancies generally we move on in Section 4.3 to discuss the extent to which firms attempt to address staff shortages by recruiting abroad. In Section 4.4 we discuss the vacancies which firms' consider to be difficult-to-fill. Finally, Section 4.5 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.

A total of 22 per cent of firms say that they have current vacancies. Incidence levels are highest in Hi-Tech. Manufacturing with 36 per cent of firms recording that they experience some current vacancies. This is followed by Traditional Manufacturing (32 per cent), Finance/Insurance/Business Services (28 per cent), and Transport/Personal/Other Services (23 per cent), Construction (21 per cent), and Distributive Services (15 per cent). The incidence levels are higher amongst 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 Distributive Services just 11 per cent of small as compared with 39 per cent of large firms say they are experiencing a current vacancy and the differential is similar in Finance/Insurance/Business Services with 25 per cent of small firms having current vacancies compared with 52 per cent of large firms. 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.

Vacancies at Present?	Traditio	nal/Manufa	ecturing	Hi-Tecl	h. Manufac	cturing	C	onstructio	n	
Present?	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	31.4	41.8	32.4	32.4	58.5	35.9	19.2	31.5	20.9	
No	68.6	58.2	67.6	67.6	41.5	64.1	80.9	68.6	79.1	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	2,400	300	2,600	2,100	300	2,400	12,000	2,000	14,000	
			•			•	•		•	
Vacancies at	Distri	butive Ser	vices		nce/Insura			sport/Pers		All Firms
Vacancies at Present?	Distri 0-9	butive Ser 10+	vices Total		nce/Insura ness Serv 10+			sport/Pers her Servic 10+		All Firms
				Busi	ness Serv	ices	Ot	her Servic	es	All Firms
				Busi	ness Serv	ices	Ot	her Servic	es	All Firms
Present?	0-9	10+	Total	Busi 0-9	ness Serv 10+	ices Total	Ot 0-9	her Servic 10+	es Total	
Present? Yes	0-9	10+ 39.1	Total 14.6	Busi 0-9 25.2	ness Serv 10+ 52.3	ices Total 28.2	Ot 0-9 19.1	her Servic 10+ 44.8	es Total 23.4	21.6
Present? Yes	0-9	10+ 39.1	Total 14.6	Busi 0-9 25.2	ness Serv 10+ 52.3	ices Total 28.2	Ot 0-9 19.1	her Servic 10+ 44.8	es Total 23.4	21.6

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

Table 4.2 summarises incidence rates for vacancies by sector in 1998/99, 1999/00, and 2001/02.

Table 4.2: Comparison of Sectoral Incidence Rates for Vacancies by Sector, 1998/99, 1999/00 and 2001/02

	Per Cer	nt of Firms with Va	cancies
	1998/99	1999/00	2001/02
Traditional Manufacturing	52.6	50.7	32.4
Hi-Tech. Manufacturing	57.9	51.3	35.9
Construction	18.5	33.9	20.9
Distributive Services	23.6	28.2	14.6
Finance/Insurance/Business			
Services	21.7	26.2	28.2
Transport/Personal/Other	35.4	36.1	23.4
All Firms	27.0	31.2	21.6

At the aggregate level across all sectors, the incidence of vacancies among firms fell by 9 percentage points from 31 per cent in 1999/00 to 22 per cent in 2001/02 having increased by over 4 percentage points from 27 per cent to 31 per cent between 1998/99 and 1999/00. The slow down in employment growth in the last two years has, therefore, resulted in a softening of demand pressure in the labour market. When the figures are broken down by sector it is evident that the largest declines in the last two years have occurred in Traditional Manufacturing, which has experienced a fall of 18 percentage points from 51 to 33 per cent, and Hi-Tech. Manufacturing, which has experienced a fall of 15 percentage points from 51 to 36 per cent. With one exception the remaining sectors have also experienced significant decreases in the percentage of firms reporting current vacancies. The exception is the Finance/Insurance/Business sector. The percentage of firms reporting vacancies in this sector increased by 2 percentage points from 26 to 28 per cent.

Relative to the percentage of firms reporting vacancies in the previous survey in 1999/00, the biggest impact of the slow down in employment was experienced in Distributive Services where the percentage of firms reporting vacancies nearly halved from 28 per cent in 1999/00 to 15 per cent in 2001/02 and in Construction where the percentage of firms reporting vacancies fell by almost two-fifths from 34 per cent in 1999/00 to 21 per cent in 2001/02. Apart from the Finance/Insurance/Business sector, the proportion

of firms reporting vacancies in the remaining sectors fell by 30-35 per cent. In the Finance/Insurance/Business sector it rose by 8 per cent. There has been a considerable easing of demand pressure in the labour market, therefore, in nearly all sectors and the decline in the availability of job vacancies has been particularly noticeable in the Distributive Services and Construction sectors.

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 22 per cent of all relevant private sector firms currently experience vacancies and that there continue to be vacancies in all sectors despite the slow down in employment growth in the last two years. In this section we look at how the vacancies are spread across occupations. We consider vacancies by occupation from two perspectives. First, we show how many vacancies there are in each major occupational group. Second, we relate current vacancies to current employment levels to derive an estimate of the total labour requirement for each occupation group. This enables us to calculate vacancy rates which show the percentage of the labour requirement for each occupation group 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 group across all sectors. There was a total of 40,000 vacancies in relevant private sector firms at the time of the survey in early 2002. This implies that, on the assumption that the full labour requirement is the sum of vacancies plus those currently in employment, a total of 97 per cent of the labour requirement was being met. This means that the overall vacancy rate was about 3 per cent across all firms and all occupational groups. In other words, the 40,000 vacancies represent 3 per cent of the total labour requirement which is made up of the sum of the current 1.18 million persons at work in the relevant sectors of the private sector⁶ plus the number of vacancies recorded by private sector employers.

Table 4.3 show the breakdown of these figures by occupational group. The breakdown of vacancies by occupation group is presented in terms of the number of vacancies, the percentage of the labour requirement being met, the vacancy rate, and the distribution of vacancies across the groups. Focusing first on vacancy rates, the groups which have the highest vacancy rates are Skilled Maintenance & Skilled Production (8 per cent), Science Professionals, Engineering Technicians, (both 5 per cent), Other Professionals, Science Technicians, Computer Technical Staff/Associate Professional Level, Personal Service workers, and Labourers/Security (4 per cent in each case).

The vacancy rates in Tables 4.3 indicate that vacancies continue to exist in all occupational groups, although for most groups the rates are from a half to a third the level they were at two years ago. For example, the previous vacancy rates for Computer Professionals, Computer Technical Staff, and Other Professionals were about 9 to 10 per cent whereas they are now 3 to 4 per cent The decline in the vacancy rates are particularly marked for Engineering Professionals (down from 7 to 3 per cent), Computer Professionals (down from 9 to 3 per cent), Engineering Technicians (down from 15 to 5 per cent), Computer Technical Staff (down from 10 to 4 per cent), Clerical and Secretarial workers (down from 6 to 2 per cent), Personal Service workers (down from 11 to 4 per cent), and for Labourers & Security workers (down from 6 to 4 per cent). The vacancy rates for the Managers/ Proprietors, Clerical and Secretarial, Transport and Communications, and Sales groups are all at around 3 per cent or less so some of them are likely to

⁶ Agriculture is excluded from this analysis.

be approaching a position where most of their vacancies are due to normal staff turnover rather than to excess demand for labour. The only occupation groups for which excess demand appears to be hardening are Science Professionals, Science Technicians, and Other Associate Professionals (e.g. industrial designers and technical inspectors).

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

Occupational Grade	Current Employment	Vacancies	% Labour Requirement Currently Being	Vacancy Rate	Share of All Vacancies
			Met	(Per Cent)	(Per Cent)
Managers/Proprietors	149,300	1,800	99	1	4.5
Engineering Professionals	24,800	900	97	3	2.2
Science Professionals	6,800	300	95	5	0.7
Computer Professionals	15,800	500	97	3	1.2
Other Professionals	48,600	2,000	96	4	5.0
Engineering Technicians	20,600	1,100	95	5	2.7
Science Technicians	8,900	400	96	4	1.0
Computer Technical Staff Associa	ate				
Professional Level	14,700	600	96	4	1.5
Other Associate Professional	17,000	500	97	3	1.2
Clerical and Secretarial	170,400	4,100	98	2	10.3
Skilled Maintenance & Skilled					
Production	101,100	8,300	92	8	20.8
Production Operatives	187,300	4,400	98	2	11.0
Transport & Communications	75,600	2,000	97	3	5.0
Sales	139,900	4,800	97	3	12.0
Personal Service	99,700	4,200	96	4	10.5
Labourers & Security	101,000	4,200	96	4	10.5
Total	1,181,500	40,000	97	3	100.0

In addition to information on vacancy rates Table 4.3 contains data on the absolute number of vacancies and on the share of vacancies accounted for by each occupational group. It is clear from the table that the groups which have the highest number of vacancies include Skilled Maintenance & Skilled Production workers (8,300), Sales Personnel (4,800), Personal Service workers (4,200), and Clerical and Secretarial occupations (4,100). Although their vacancy rates remain higher than average the number of vacancies for Science and Computer Professionals and Computer Technicians is 600 or less in each case. In terms of share of current vacancies one can see from the final column in Table 4.3 that somewhat less than two-thirds of all vacancies occur in five occupational groups, viz. Skilled Maintenance & Skilled Production (21 per cent), Sales (12 per cent), Production Operatives (11 per cent), Labourers and Security and Personal Service (both 10 per cent). This information on the absolute number or percentage share of vacancies by occupational group further emphasises that the bulk of the vacancy problem when measured in "headcount" terms is in many of the intermediate and lower skill grades in the economy - e.g. Skilled Maintenance & Skilled Production and Clerical & Secretarial. Many of the professional occupations contribute only a relatively small share to the total number of outstanding vacancies.

A more detailed breakdown of the number of vacancies is given in Appendix Table 4.3 in terms of the 44 occupational sub-groups which are used in the FÁS/ESRI occupational forecasting model.

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 (6 per cent). Within that sector vacancy rates among smaller firms are highest (9 per cent). This compares with a figure of 2 per cent among their larger counterparts. All other sectors experience rates in the range of 2 to 4 per cent. Vacancy rates are higher 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 variation in terms of vacancy rates for occupational grades according to the 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. 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 4.4 to this chapter.

From Table 4.4 one can see, for example, that there is a substantially higher than average vacancy rate for Engineering Technicians in the Construction sector and for Skilled Maintenance & Skilled Production workers in Construction, Distributive Services, and Finance/Insurance/Business Services. Notwithstanding the higher vacancy rates in some occupational groups, the general picture revealed by the data in Table 4.4 is that vacancy rates have fallen substantially across all sectors and nearly all occupational groups in the period since the last survey.

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, the second column shows that 78 per cent of firms recorded having no vacancies. A further 10 per cent recorded one vacancy; 4 per cent 2 vacancies; 2 per cent 3 vacancies, 3 per cent between 4 and 5 vacancies and 3 per cent 6 or more vacancies. From the last column it can be seen that 3 per cent of firms experienced a vacancy rate which represented less than 5 per cent of its workforce; 2 per cent of firms had vacancy rates lying between 5 and 10 per cent, 5 per cent of firms had vacancy rates of between 10 to 20 per cent of the existing workforce and the remaining 11 per cent of firms had vacancy rates of more than 20 per cent. Although the proportion of firms which are recording high vacancy rates has fallen significantly since the previous survey, 6 per cent of firms still have vacancy rates representing more than 40 per cent of their total workforce. However, these are generally relatively small firms with 2-4 persons currently engaged.

 $^{^7}$ For example, in Table 4.4 one can see that there is a 50 per cent vacancy level among Science Technicians and Other Associate Professionals in small firms in the Finance/Insurance/Business Services sector. This represents an estimated vacancy level of 100 per cent on an existing base of about 150 employees in both cases .

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

All	(Per cent)	~	ო	S	ო	4	2	4	4	ო	2	ω	7	ო	ო	4	4	က
'sonal/ ices	Total t)	2	0	0	0	~	~	~	-	ო	2	7	4	2	က	2	7	က
Transport/Personal/ Other Services	10+ (Per cent)	4	0	0	0	7	_	_	8	8	7	7	_	0	ო	4	ო	2
Trans	6-0	0	0	0	0	0	0	0	0	ო	4	0	16	7	ო	24	0	2
rance/	Total	~	ო	4	4	2	4	21	Ŋ	8	က	13	2	~	7	~	9	4
Finance/Insurance/ Business Services	10+ (Per cent)	~	4	10	7	က	7	9	7	∞	2	4	4	7	က	~	7	2
Fina Bus	6-0	0	0	0	19	о	19	20	4	20	7	23	7	0	16	0	20	∞
services	Total	~	ო	10	~	က	က	13	8	8	~	7	9	9	က	~	7	က
Distributive Services	10+ (Per cent)	2	ო	10	~	4	2	13	8	ო	2	←	~	7	7	2	7	2
Distr	6-0	_	0	0	0	0	0	0	0	0	_	4	18	7	4	0	13	5
tion	Total nt)	0	Ŋ	0	2	∞	7	0	0	0	က	-	0	ო	26	0	4	9
Construction	10+ (Per cent)	_	7	0	10	4	7	0	0	ო	2	ო	0	က	7	0	_	7
	6-0	0	7	0	0	7	4	0	0	0	က	19	0	0	33	0	0	6
acturing	Total	7	က	9	2	_	2	က	4	-	~	က	7	က	7	_	7	2
Hi-Tech. Manufacturing	100+ (Per cent)	7	ო	4	~	_	9	4	4	~	7	8	~	~	0	~	~	2
Hi-Tecl	66-0	7	ო		က	2	က	~	гO	0	_	4	က	ო	2	0	9	က
ıring	Total	2	ო	2	∞	2	2	7	ო	~	~	ო	2	2	က	2	7	2
Trad. Manufacturing	100+ (Per cent)	7	4	က	7	2	_	7	ო	-	0	~	~	7	7	0	~	~
Trad. M	99 P)	7	7	0	10	က	က	က	7	7	က	ო	4	2	2	က	4	က
		Managers/Proprietors	Engineering Professionals	Science Professionals	Computer Professionals	Other Professionals	Engineering Technicians	Science Technicians	Computer Technical Staff/Associate Professional Staff	Other Associate Professional	Clerical & Secretarial	Skilled Maintenance & Skilled Production	Production Operatives	Transport & Communications	Sales	Personal Services	Labourers/Security	tal
		Ma	П	Sci	S	₹	Ë	Sci	ပိ	₽	Cle	SK	Pro	Tra	Sal	Pe	Lat	Total

 $\ ^*Vacancies/(Current\ Employment\ +\ Vacancies).$

100.0

(a) Number of Current Vacancies	Per Cent of Firms	(b) Vacancies as a Percent of Workforce	Per Cent of Firms
0	78.4	0	78.4
1	9.7	LT5	3.2
2	4.3	5-LT10	1.7
3	1.7	10-LT20	4.8
4–5	2.9	20-LT30	3.1
6–10	2.1	30-LT40	2.5
10–20	0.5	40-LT50	1.3
21+	0.4	50-LT75	3.3
		75+	1.7

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

4.2.2 CHANGES IN VACANCIES IN THE LAST TWELVE MONTHS

In the previous section we saw that the survey estimates indicate that there are 40,000 vacancies representing a vacancy rate of 3 per cent i.e. 3 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 period since the previous survey. Tables 4.6 and 4.7 provide comparative figures on various aspects of vacancy levels over the three rounds of the survey in 1998/99, 1999/00, and 2001/02.

Total

Table 4.6 provides a comparison of vacancies at a broad sectoral level in 2001/02 as compared with those derived from the 1998/99 and 1999/00 rounds of the survey. In aggregate terms, the estimated number of vacancies rose from 64,700 in 1998/99 to 77,600 in 1999/00 and then fell to 40,000 in 2001/02. This represents a fall in vacancies of some 37,600 or nearly 50 per cent between 1999/00 and 2001/02. One can see that the number of vacancies fell in all sectors but the largest declines occurred in Transport/Personal/Other Services where the number of jobs available fell from 25,200 in 1999/00 to 9,400 in 2001/02.

100.0

Total

Sector	Survey	2001/02	Survey			
	Total	Vacancy	Total	Vacancy	Total	Vacancy
	Number Vacancies	Rate	Number Vacancies	Rate	Number Vacancies	Rate
	1 4 6 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		7.0.00		7.000	
Traditional Manufacturing	9,000	6	7,200	5	3,000	2
Hi-Tech. Manufacturing	9,600	5	8,300	4	3,700	2 2
Construction	5,700	6	13,700	11	8,600	6 3
Distributive Services	13,600	6	12,200	5	7,700	3
Finance/Insurance/Business						
Services	7,800	5	11,000	6	7,700	4
Transport/Personal/Other	19,000	6	25,200	7	9,400	3
All Firms	64,700	5.8	77,600	6.4	40,000	3.3
	CI	nange 1999/0	0 - 2001/02			
	O.	Vacancy	Percentage			
	Total	Rate	Point			
	Number	Per Cent	Change			
		Change	. 3			
Traditional Manufacturing	-4,300	-57.2	-3			
Hi-Tech. Manufacturing	-4,600	-53.8	-2			
Construction	-5,100	-45.7	-5			
Distributive Services	-4,500	-37.0	-2			
Finance/Insurance/Business						
Services	-3,300	-38.7	-2			
Transport/Personal/Other	-15,800	-60.3	-4			
All Firms	-37,600	-48.9	-3			

The level or number of vacancies is only one side of the picture. The overall vacancy measure 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 rate fell by 3 percentage points from 1999/00 to 2001/02 – halving from 6 per cent to 3 per cent.

In Table 4.7 we turn from consideration of changes in vacancy rates by sector to changes by major occupation group. The first segment of the table (Section A) presents data on employment levels in each group as estimated by the three surveys undertaken to date. These employment figures provide a frame of reference for interpreting the data contained in Section B of the table on the number of vacancies by occupation. Section B also shows estimates of changes in vacancies in each occupation group over the three years of the survey. Between 1999/00 and 2001/02 thirteen of the sixteen occupational groups showed a fall in the number of vacancies. The most substantial absolute declines are in the Personal Services group, where vacancies fell by 8,200 from 12,400 to 4,200, the Skilled Maintenance and Skilled Production group, where vacancies fell 6,300 from 14,600 in 1999/00 to 8,300 in 2001/02, Clerical and Secretarial, where vacancies fell by 6,200 from 10,300 to 4,100, and Production Operatives, which experienced a decline of 3,800 in the number of jobs which were vacant. Other occupation groups experiencing significant decreases in the number of vacancies are Sales and Transport and Communications, both with about 2,500 less jobs on offer than at the time of the previous survey, Engineering Technicians and Other Professionals, and Labourers and Security workers, all down by around 2,000. Apart from Managers and Proprietors, for which the number of vacant jobs fell by 1,100, most of the remaining groups experienced falls in the order of 400 to 600 vacancies. Vacancies in the Computer Professional and Computer Technical/Associate Professional groups, for which high levels were recorded in the first survey, fell by 400 in each case over the period from 1999/00 to 2001/02. These falls represent a drop of about 40 per cent in each case in the number of vacancies for jobs for Computer Professionals and Computer Technicians.

We surmised in our report on the 1999/2000 survey that the fall in vacancies for computer jobs may have been partly due to 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 might arise. By the time of the second survey the peak employment impact of this phenomenon had passed as considerably less vacancies were reported than in the first survey. Demand for Computer Professionals and Computer Technical Staff has continued to weaken following a widespread down turn in demand in 2001 for computing and electronic products and telecommunications services.

Other grades which experienced substantial *percentage* falls in vacancy levels included Engineering Technicians and Personal Services (both down by 66 per cent), Clerical and Secretarial (down by 60 per cent) and Transport and Communications (down by 55 per cent). The absolute decreases for both Production Operatives and Sales (3,800 and 2,600 respectively) are substantial. The decline for both occupation groups is, of course, consistent with the estimated lower incidence of vacancies in the Traditional and Hi-Tech. Manufacturing and Distributive Services sectors in the third round of the survey as compared with the second.

Two occupation groups experienced an increase in the number of vacancies with 300 more jobs available for Science Technicians, and 200 more for Other Associate Professionals.

Table 4.7: Distribution of Number of Private Sector Employees, Vacancies and Vacancy Rates Classified by Occupational Grade, 1998/99, 1999/00, and 2001/02

	E	(A) Employment Level	iel		Vacancy	Vacancy Levels and) od Changes	(B) ss, 1998/99, 1	(B) Changes, 1998/99, 1999/00 and 2001/02	2001/02		Va	(C) Vacancy Rate		Share	(D) Share of Vacancies	ies
	1998/99	1999/00	2001/02	1998 /99	1999	2001	- 66/86 - 66/86	99/00- 01/02	98/99 – 01/02	00/66 -66/86 %	% 99/00- 01/02	1998 /99	1999	2001	1998/99	1999/00	2001/02
Managers/Proprietors	133,600	142,600	149,300	3,100	2,900	1,800	-200	-1,100	-1,300	-7.5	-35.4	2.3	2.0	1.2	4.8	3.7	4.5
Engineering Professionals	16,100	19,500	24,800	2,000	1,500	006	-500	009-	-1,100	-15.5	-43.6	11.0	7.1	3.5	3.1	6.	2.2
Science Professionals	3,900	7,700	008'9	300	300	300	0	0	0	22.5	9.0-	7.1	3.8	4.3	0.5	0.4	0.7
Computer Professionals	8,600	8,700	15,800	1,500	006	200	-600	-400	-1,000	-38.3	-40.6	14.9	9.6	3.1	2.3	1.2	1.2
Other Professionals	30,000	40,700	48,600	1,000	4,000	2,000	3,000	-2,000	1,000	313.5	-50.9	3.2	8.9	4.0	1.5	5.2	5.0
Engineering Technicians	15,200	18,600	20,600	1,800	3,300	1,100	1,500	-2,200	-700	93.4	-67.2	10.6	15.1	5.1	2.8	4.3	2.7
Science Technicians	3,700	3,900	8,900	200	100	400	-100	300	200	-12.0	150.0	5.1	2.5	4.3	0.3	0.1	1.0
Computer Technical Staff/Associate Professional Staff	8,100	9,400	14,700	1,200	1,000	009	-200	-400	009-	-26.0	-39.1	12.9	9.6	დ.	1 6:1	1.3	د ت
Other Associate Professional	9,500	13,300	17,000	100	300	200	200	200	400	93.8	66.4	1.0	2.2	2.9	0.2	0.4	1.2
Clerical & Secretarial	156,900	158,600	170,400	8,800	10,300	4,100	1,500	-6,200	-4,700	17.7	-60.3	5.3	6.1	2.3	13.6	13.3	10.3
Skilled Maintenance & Skilled Production	107,500	119,200	101,100	10,100	14,600	8,300	4,500	-6,300	-1,800	45.6	-43.1	8.6	10.9	7.6	15.6	18.8	20.8
Production Operatives	174,400	181,500	187,300	10,000	8,200	4,400	-1,800	-3,800	-5,600	-16.8	-47.0	5.4	4.3	2.3	15.5	10.6	11.0
Transport & Communications	80,100	82,900	75,600	3,900	4,400	2,000	200	-2,400	-1,900	4.11	-54.5	4.6	5.0	2.6	0.9	5.7	5.0
Sales	125,100	138,200	139,900	8,900	7,400	4,800	-1,500	-2,600	-4,100	-17.4	-35.4	9.9	5.1	3.3	13.8	9.5	12.0
Personal Services	101,900	104,100	99,700	7,900	12,400	4,200	4,500	-8,200	-3,900	57.4	-66.0	7.2	10.6	4.0	12.2	16.0	10.5
Labourers/Security	73,700	92,100	101,000	3,900	000'9	4,200	2,100	-1,800	300	6.99	-30.9	4.8	6.1	4.0	0.9	7.7	10.5
Total	1,052,800	1,141,000	1,181,500	64,700	77,600	40,000	12,900	-37,600	-24,.700	21.1	-48.5	5.8	6.4	3.3	100.0	100.0	100.0

The figures on vacancy rates for each grade in 1998/99, 1999/00, and 2001/02 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 occupation group and so give a somewhat different perspective. From the figures in this section of the table one can see that the vacancy rate in the two computer grades has declined considerably since the first survey – Computer Professionals down from 15 per cent to 9 per cent to 3 per cent while the related Computer Technical/Associated Professional group fell from 13 per cent to 10 per cent to 4 per cent. Other groups which have shown big falls in vacancy rates over the last two years include Engineering Technicians (down from 15 per cent to 5 per cent), Personal Services (down from 11 per cent to 4 per cent), Other Professionals (down from 9 per cent to 3 per cent), and Clerical and Secretarial (down from 6 per cent to 2 per cent).

Finally, Section D of Table 4.7 summarises the percentage share of vacancies in the three years accounted for by each of the occupational groups. Two main points are worth noting. First, the changes in the rankings of groups which account for most of the vacancies which are available have been relatively minor in the three periods in which the surveys have been carried out. For example, four of the groups which were ranked in 1998/99 among the five groups with the largest shares of vacancies continued to be ranked in the top five in 2001/02. These four groups are Skilled Maintenance & Skilled Production, Sales, Production Operatives, and Personal Services. Second, the shares of vacancies for jobs requiring mainly lower levels of education have risen: Labourers & Security and Sales workers share of vacancies rose from 8 per cent and 9 per cent in 1999/00 to 11 and 12 per cent in 2001/02 respectively.

4.3 Recruitment Abroad

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 4.8. From this one can see that a total of 27 per cent of relevant firms record that they are attempting to recruit abroad. Among larger firms in all sectors the proportion with vacancies attempting to recruit abroad is larger than the proportion of smaller firms although the difference in Distributive Services is fairly small. The highest incidence of recruiting abroad is evident in the Transport/Personal/Other Services (42 per cent) and Traditional Manufacturing (35 per cent). The lowest incidence of recruitment abroad is in the Hi-Tech. Manufacturing sector (18 per cent) and the rates in Construction, Distributive Services, and Finance/Insurance/Business Services are only one or two percentage points higher.

Table 4.8: Firms Which Have Current Job Vacancies Classified According to Whether or Not They Are Attempting to Recruit Abroad

Recruitment Abroad?	Trac	I. Manufac	turing	Hi-Te	ch. Manufa	cturing	(Constructi	on	
ADIOGU:	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	33.9	39.5	34.6	12.2	35.0	17.9	16.6	23.0	18.2	
No	66.1	60.5	65.4	87.8	65.0	82.1	83.4	77.0	81.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgr'd n)	(700)	(100)	(800)	(500)	(200)	(700)	(1,500)	(500)	(2,000)	
Recruitment Abroad?	Dist	ributive Se	rvices		ance/Insura		Transp	ort/Persor Services		All Firms
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Yes	16.7	21.0	18.2	15.6	36.5	21.5	37.5	51.5	42.0	27.3
No	83.3	79.0	81.8	84.4	63.5	78.5	62.5	48.5	58.0	72.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(2,600)	(1,400)	(4,000)	(2,600)	(1,000)	(3,600)	(3,600)	(1,700)	(5,300)	16,400

Table 4.9 summarises the incidence of overseas recruitment at the time the three rounds of the vacancies survey were carried out. The overall incidence increased by 10 percentage points from 16 per cent in the 1999/00 survey to 27 per cent in the 2001/02 survey. At a broad sectoral level the largest changes in the incidence of current overseas recruitment were in Construction and Traditional Manufacturing. In 1999/00 only 4 per cent of firms in Construction which were experiencing vacancies were attempting to recruit abroad. By 2001/02 the figure had risen to 18 per cent. Incidence levels in Traditional Manufacturing increased from 20 per cent in the 1999/00 survey to 35 per cent in 2001/02. Firms attempting to recruit abroad increased in all of the remaining sectors except Hi-Tech. Manufacturing: it experienced a fall of 12 percentage points from 30 per cent to 18 per cent between 1999/00 and 2001/02. These results reflect very different patterns of current behaviour by large and small firms. Between the first survey in 1998/99 and the second survey in 1999/00 there was an increase in nearly all sectors in the percentage of both small and large firms which had vacancies which were attempting to recruit abroad. In the latest survey in 2001/02 the percentage of large firms attempting to recruit abroad has fallen, with the exception of large firms in Distributive Services and Transport, Personal, and Other Services, whereas the percentage of small firms attempting to recruit abroad has increased markedly in all sectors except Hi-Tech. Manufacturing. The most striking example of this is in construction with 17 per cent of small firms reporting that they were attempting to recruit abroad. This compares with none of the small firms with vacancies in Construction saving that they were recruiting abroad in the survey carried out in 1999/00.

Table 4.9: 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	2001/02	1998/99	1999/00	2001/02	1998/99	1999/00	2001/02
Totalities of Manager at orders	47.5	44.0	00.0	00.0	40.4	00.5	40.4	40.7	04.0
Traditional Manufacturing	17.5	14.0	33.9	32.0	46.4	39.5	19.4	19.7	34.6
Hi-Tech. Manufacturing	11.1	25.3	12.2	41.7	47.1	35.0	16.6	29.6	17.9
Construction	0.0	0.0	16.6	35.0	42.0	23.0	6.8	4.3	18.2
Distributive services	5.3	6.1	16.7	12.3	13.3	21.0	7.2	7.9	18.2
Finance/Insurance/Business									
Services	5.4	4.5	15.6	40.4	45.8	36.5	16.3	17.6	21.5
Transport/Personal/Other	10.0	20.0	37.5	41.5	47.1	51.5	21.0	29.9	42.0
All Firms	_	_	_	_	_	_	13.4	15.5	27.3

The questions asked in previous surveys about recruitment abroad were expanded in the survey for 2001/02 to collect information on whether those recruited abroad in the previous 12 months came from within the countries of the European Union or from the Rest of the World. Table 4.10 shows estimates of the number recruited abroad by sector. Approximately 21,000 workers were recruited outside Ireland in the 12 months preceding the survey. A little more than one-third of these came from other EU countries and a little less than two-thirds came from countries outside the EU. The largest number of foreign workers was recruited by the Transport/ Personal/Other Services sector which hired about 9,800 people. The Traditional Manufacturing, Distributive Services and Finance/Insurance/ Business Services sectors each recruited in the region of 3,000 workers from abroad. Hi-Tech. Manufacturing recruited 1,500 and Construction 700. The Finance/Insurance/Business Services sector had the highest percentage of overseas recruits from the EU (67 per cent). This was followed by Hi-Tech. Manufacturing (48 per cent). EU recruits accounted for 39 per cent of overseas recruits in Distributive Services and for 33 per cent in Transport/Personal/Other Services. The Construction and Traditional Manufacturing sectors had the lowest percentages of overseas recruits coming from the EU (25 and 17 per cent respectively). These sectoral differences in

the origin of overseas recruits suggest that relatively high-skill sectors are likely to find the workers they require in other EU countries whereas relatively low-skill sectors are likely to fill their vacancies by recruiting from countries outside the EU.

Table 4.10: Number of Persons Recruited from Other EU Countries or from the Rest of the World in the 12 Months Preceding the 2001/02 Survey

	No. Recruited	Per Cent from EU	Per Cent from Rest of World	Total
Traditional Manufacturing	3,200	17	83	100
Hi-Tech. Manufacturing	1,500	48	52	100
Construction	700	25	75	100
Distributive Services	3,000	39	61	100
Finance/Insurance/Business Services	3,200	67	33	100
Transport/Personal/Other Services	9,800	33	67	100
Total	21,300	37	63	100

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 4.11. This shows that about one-eighth of firms have job vacancies which they consider difficult-to-fill. The incidence of difficult-to-fill vacancies is substantially higher in Manufacturing (23 per cent for both Traditional and Hi-Tech.) and Finance/Insurance/Business Services (17 per cent) than in the other sectors. Construction and Transport/Personal/Other Services have incidence levels in the region of 12 to 14 per cent. Rates are lowest among firms in Distributive Services with difficult-to-fill vacancies being recorded by only 7 per cent of firms. The incidence of difficult-to-fill vacancies is significantly higher among the larger than the smaller firms in each sector and for all firms in aggregate.

Table 4.11: 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.	Manufactu	ıring	Hi-Tech	n. Manufac	cturing	C	onstruction	on	
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	22.5	26.8	22.9	20.0	42.5	23.0	12.8	20.0	13.8	
No	77.5	73.2	77.1	80.0	57.5	77.0	87.2	80.0	86.2	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	2,400	200	2,600	2,100	300	2,400	12,000	2,000	14,000	
Current Vacancies Which are Difficult- to-Fill	Distrib	outive Ser	vices		nce/Insura ness Serv			sport/Pers ther Servic		All Firms
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Yes	5.2	17.2	6.7	15.6	30.9	17.3	8.5	29.4	12.0	12.1
No	94.8	82.8	93.3	84.4	69.1	82.7	91.5	70.6	88.0	87.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The incidence of difficult-to-fill vacancies reflects to a large extent the incidence of all vacancies in each size/sector category. This suggests that a sizeable proportion of firms which are currently experiencing vacancies are finding them difficult-to-fill. Table 4.12 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 that over half of the firms which have vacancies consider some or all of these

vacancies to be difficult-to-fill. The rates are highest in Traditional Manufacturing, Hi-Tech. Manufacturing, Construction, and the Finance/Insurance/Business Services sectors where about three-fifths of the firms in each group which experience vacancies consider some or all of them to be difficult-to-fill. Approximately half of the firms which experience vacancies in the remaining sectors consider them to be difficult-to-fill.

Table 4.12: 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			(
10-1 111	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	71.6	64.4	70.8	61.7	72.6	64.1	66.7	63.6	66.0	
No	28.4	35.6	29.2	38.3	27.4	35.9	33.3	36.4	34.0	
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	Distrib	outive Ser	vices		ice/Insura ness Serv			nsport/Per ther Servi		All Firms
	0-9	10+	Total	0-9	10+	Tatal	0-9	10+	Total	
			Total	0-3	10+	Total	0-9	10+	IOlai	
Yes	46.7	44.1	45.8	61.9	59.1	61.3	44.4	65.8	51.3	56.1
Yes No										56.1 43.9

Table 4.13 provides a comparison between the three 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. In general, the percentage of firms which had difficult-to-fill vacancies increased in almost all sectors between 1998/99 and 1999/00 and fell between the 1999/00 and 2001/02 rounds of the survey. The decrease has been most substantial in Transport/Personal/Other Services (a fall of 43 per cent), Construction (a decline of 34 per cent), Hi-Tech. Manufacturing (and Finance/Insurance/Business Services (both down by 31 per cent). The fall has taken place among both large and small enterprises in all sectors. The absolute decrease in percentage point terms is greatest for large firms in Finance/Insurance/Business Services and Construction and for small firms in Transport/Personal/Other Services and Construction.

4.5 Summary In this chapter we considered several aspects of the incidence, level and characteristics of vacancies. We began by noting that 22 per cent of firms reported having vacancies in the 2001/02 survey. This represents a significant decrease from the figure of 31 per cent of firms recorded in the previous survey in 1999/00. At a sectoral level the biggest decreases were in the Distributive Services, Construction, and Traditional Manufacturing sectors.

Total vacancies in the 2001/02 survey were in the order of 40,000. This represents a vacancy rate of 3 per cent of total labour requirement. It also represents a substantial fall in the number of vacancies of 37,600 over the previous survey when the figure stood at 77,600 giving a vacancy rate for 1999/00 of 6 per cent.

The most substantial decline in vacancies was found in the Transport/Personal/Other Services sector where the figure fell from 25,200 to 9,400 representing a decrease of 60 per cent. The sectors which had the lowest vacancy rates at 2 per cent of total labour requirement in the 2001/02 survey were Traditional and Hi-Tech. Manufacturing.

In terms of the share of vacancies, five occupational grades accounted for over two-thirds of all vacancies in the economy in the 2001/02 survey. These

were Skilled Maintenance & Production Operatives (21 per cent), Sales (12 per cent), Production Operatives (11 per cent), Personal Services, and Labourers & Security (both 10 per cent). The significance of these figures lies in the extent to which they indicate that the softening of the labour market is felt in occupational groups of varying skill levels and that the bulk of the existing vacancies are for jobs requiring intermediate or lower level skills.

Table 4.13: Comparison of Percentage of Firms in 1998/1999, 1999/2000, and 2001/2002 Surveys 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
2001/02	71.6	64.4	70.8
Hi-Tech. Manufacturing			
1998/99	84.4	77.1	83.1
1999/00	92.4	96.4	93.2
2001/02	61.7	72.6	64.1
Construction			
1998/99	100.0	95.1	99.1
1999/00	100.0	100.0	100.0
2001/02	66.7	63.6	66.0
Distributive Services			
1998/99	100.0	86.4	96.3
1999/00	60.6	67.8	62.5
2001/02	46.7	44.1	45.8
Finance/Insurance/Business			
1998/99	48.0	88.3	60.5
1999/00	86.1	97.5	89.5
2001/02	61.9	59.1	61.3
Transport/Personal/Other Services			
1998/99	90.0	86.8	88.9
1999/00	90.0	89.9	90.0
2001/02	44.4	65.8	51.3
Total			
1998/99	-	_	88.1
1999/00	-	-	79.8
2001/02	-	-	56.1

We found only two occupational groups experienced an increase in the number of vacancies between 1999/00 and 2001/02. These were Science Technicians (an increase of 300 vacancies and Other Associate Professionals (an increase of 200 vacancies). Vacancies in the Computer Professional, and Computer Technical/Associate Professional groups fell (by 400 in each case). This reflects the downturn which has occurred since the last survey in demand for computing and electronic products and telecommunications services.

Occupational grades which experienced a substantial fall in the number of vacancies include Personal Services (a decrease of 8,200), Skilled Maintenance & Production (down by 6,300), Clerical & Secretarial (a decrease of 6,200), and Production Operatives (down by 3,800).

Just over a quarter of firms which have current vacancies said that they had recruited staff from abroad. Large firms tend to recruit abroad to a greater extent than small firms although the differences in the percentages of large and small firms recruiting overseas were fairly small in the Traditional Manufacturing, Construction, and Distributive Services sectors. The inclusion of a new question in the survey for 2001/02 on the sources of labour supply from abroad revealed that about two-thirds of the workers recruited by the

37

Finance/Insurance/Business Services sector and about half of the workers recruited by the Hi-Tech. Manufacturing sector came from other EU countries while the majority of the workers recruited by the remaining sectors came from the Rest of the World. These differences in sourcing labour from abroad suggest that sectors which have jobs requiring higher level skills concentrate their recruitment effort on other EU countries whereas sectors which have jobs for people with lower level skills focus their recruitment drive on countries outside the EU.

The issue of difficult-to-fill vacancies was also addressed and it was shown that just about one-eighth of firms experienced difficult-to-fill vacancies. In addition, over half of the firms which had vacancies found them difficult-to-fill.

Appendix Table A4.3: Current Vacancies Classified by FÁS/ESRI Occupational Sub-Group

FÁS/ESRI Occupation Group	FÁS/ESRI Occupation Sub- Group Code	FÁS/ESRI Occupation Sub- Group	Number of Vacancies	Total
	1.1	Agricultural		
Manager/Proprietor	2.1	Higher managers	300	
	2.2	Other managers	1,500	
	3.1	Proprietors in services	0	1,800
Eng/Science/Computer Prof	4.3	Engineering professionals	900	
	4.3	Science professionals	300	
	4.3	Computer professionals	500	1,700
Other Professional	4.10+4.20	Health & Education professionals	100	
	4.4	Business/finance/legal professions	1,300	
	4.5	Religious	0	
	4.6	Other professions	600	2,000
Eng/Sci/Comp/Oth Assoc Technical	5.1	Health	200	
	5.2	Science technicians	400	
	5.2	Engineering technicians	1,100	
	5.3	Others	900	2,600
Clerical/Secretarial	6.1	Clerks	3,400	
	6.2	Typists, telephonists etc	400	
	6.3	Warehouse, dispatch clerks	300	4,100
Skilled Maintenance/Skilled Prod.	7.1	Electricians, electrical fitters	2,200	
	7.2	Fitters and mechanics	800	
	8.1	Metal/engineering workers	300	
	8.2	Woodworkers	1,500	
	8.3	Clothing/textile workers	500	
	8.4	Printers	100	
	8.5	Skilled building workers	700	
	8.6	Foremen, supervisors	100	
	8.7	Other skilled workers	2,100	8,300
Production Operatives	9.1	Electrical/electronics	100	
	9.2	Metal/engineering	1,700	
	9.3	Food, drink and tobacco processing	600	
	9.4	Clothing/textile operatives	0	
	9.5	Other plant and production operatives	1,800	
	9.6	Packers/bottlers	300	4,400
Transport and Communications	10.10+10.20+ 10.30	Transport/Communications workers	2,000	2,000
Sales	11.1	Sales agents	2,400	
	11.2	Retail sales assistants	2,400	
	11.3	other sales workers	0	4,800
Personal Services	13.1	Catering occupations	3,400	
	13.2	Domestic servants and cleaners	400	
	13.3	Other personal service workers	300	4,200
Security/Labourers	12.1	Army/Gardai (excl. officers)	0	
	12.2	Other security workers	400	
	14.1	Agricultural labourers	0	
T-4-LAN O	14.2	Other labourers	3,800	4,200
Total All Occupations				40,000

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

Being wet, C									
				Traditi	ional Manufa	cturing			
		0-99			100+			Total	
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	5,700	100	98	4,800	100	98	10,500	200	98
Engineering Professionals	600	0	98	900	0	96	1,500	0	97
Science Professionals	300	0	100	500	0	97	700	0	98
Computer Professionals	200	0	90	400	0	93	600	0	92
Other Professionals	1,400	0	97	2,200	0	98	3,600	100	98
Engineering Technicians	600	0	97	900	0	99	1,500	0	98
Science Technicians	300	0	97	1,100	0	98	1,400	0	98
Computer Technical Staff- Associate Professional							1,100	0	97
Level	400	0	98	700	0	97			
Other Associate	500	•	00	000	•	00	1,100	0	99
Professional	500	0	98	600	0	99	13,300		99
Clerical and Secretarial	6,300	200	97	7,000	0	100	13,300	200	99
Skilled Maintenance &							13,900	400	97
Skilled Production	9,500	300	97	4,400	0	99			98
Production Operatives Transport &	19,400	800	96	38,900	300	99	58,300		
Communications	2,400	100	98	1,500	0	98	4,000	100	98
Sales	3,600	200	95	4,200	100	98	7,800	300	97
Personal Service	600	0	97	400	0	100	1,100	0	98
Labours & Security	6,100	300	96	8,600	100	99	14,600	400	98
Total	58,000	2,100	97	77,000	900	99	135,000	3,000	98
				Hi To	ch. Manufac	4			
				HI-16	cii. Mailulac	turing			
		0-99		111-16	100+	turing		Total	
		0-99	% Lab	m-1e		% Lab		Total	% Lab
Occupational Grade		Vacancies	Req	Current	100+ Vacancies	% Lab Req		Vacancies	Req
Managers/Proprietors	6,200	Vacancies 100	Req 98	Current 6,600	100+ Vacancies 100	% Lab Req 98	12,900	Vacancies 200	Req 98
·	6,200 2,200	Vacancies	Req	Current 6,600 5,800	100+ Vacancies 100 200	% Lab Req	12,900 8,000	Vacancies 200 200	Req 98 97
Managers/Proprietors Engineering Professionals Science Professionals	6,200 2,200 1,000	Vacancies 100	Req 98	Current 6,600	100+ Vacancies 100	% Lab Req 98	12,900 8,000 3,200	Vacancies 200 200 200	Req 98 97 94
Managers/Proprietors Engineering Professionals	6,200 2,200 1,000 400	Vacancies 100 100	Req 98 97	Current 6,600 5,800	100+ Vacancies 100 200	% Lab Req 98 97 96	12,900 8,000 3,200 1,400	Vacancies 200 200 200 0	Req 98 97 94 98
Managers/Proprietors Engineering Professionals Science Professionals	6,200 2,200 1,000	Vacancies 100 100 100	98 97 89	Current 6,600 5,800 2,300 1,000 2,800	100+ Vacancies 100 200 100 0	% Lab Req 98 97 96	12,900 8,000 3,200	Vacancies 200 200 200 0	Req 98 97 94
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals	6,200 2,200 1,000 400	Vacancies 100 100 100 0	Req 98 97 89 97	Current 6,600 5,800 2,300 1,000	100+ Vacancies 100 200 100 0	% Lab Req 98 97 96	12,900 8,000 3,200 1,400 3,800 7,100	Vacancies 200 200 200 0 100 400	Req 98 97 94 98 99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals	6,200 2,200 1,000 400 1,000	Vacancies 100 100 100 0 0	98 97 89 97 98	Current 6,600 5,800 2,300 1,000 2,800	100+ Vacancies 100 200 100 0	% Lab Req 98 97 96 99	12,900 8,000 3,200 1,400 3,800	Vacancies 200 200 200 0 100 400	Req 98 97 94 98 99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians	6,200 2,200 1,000 400 1,000 2,100	Vacancies 100 100 100 0 0 100	Req 98 97 89 97 98	Current 6,600 5,800 2,300 1,000 2,800 5,000	100+ Vacancies 100 200 100 0 0 300	% Lab Req 98 97 96 99 99	12,900 8,000 3,200 1,400 3,800 7,100	Vacancies 200 200 200 0 100 400 100	Req 98 97 94 98 99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional	6,200 2,200 1,000 400 1,000 2,100 800	Vacancies 100 100 100 0 0 100 0	98 97 89 97 98 97 98	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500	100+ Vacancies 100 200 100 0 0 300 100	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300	Vacancies 200 200 200 0 100 400 100	Req 98 97 94 98 99 95 97
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional	6,200 2,200 1,000 400 1,000 2,100 800 400	Vacancies 100 100 100 0 0 100 0 0 0 0 0	Req 98 97 89 97 98 97 99 95	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200	100+ Vacancies 100 200 100 0 300 100 0 0	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700	Vacancies 200 200 200 0 100 400 100 66	Req 98 97 94 98 99 95 97
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial	6,200 2,200 1,000 400 1,000 2,100 800	Vacancies 100 100 100 0 0 100 0 100 0	Req 98 97 89 97 98 97 99	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500	100+ Vacancies 100 200 100 0 0 300 100	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300	Vacancies 200 200 200 0 100 400 100 66	Req 98 97 94 98 99 95 97
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance &	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200	Vacancies 100 100 100 0 0 100 0 100 0 100 0	98 97 89 97 98 97 99 95	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500	100+ Vacancies 100 200 100 0 300 100 0 0 100	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 1,300	Vacancies 200 200 200 0 100 400 100 66	Req 98 97 94 98 99 95 97 96
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800	Vacancies 100 100 100 0 0 100 0 100 0 300	98 97 89 97 98 97 99 95 100 99	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500	100+ Vacancies 100 200 100 0 300 100 0 100 0 200	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 1,300 17,300	Vacancies 200 200 200 0 100 400 100 66 0 200 500	Req 98 97 94 98 99 95 97 96
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance &	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200	Vacancies 100 100 100 0 0 100 0 100 0 100 0	98 97 89 97 98 97 99 95	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500	100+ Vacancies 100 200 100 0 300 100 0 0 100	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 1,300 17,300 78,200	Vacancies 200 200 200 0 100 400 100 66 0 200 500 1,200	Req 98 97 94 98 99 95 97 96 99 99 97 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800	Vacancies 100 100 100 0 0 100 0 100 0 300	98 97 89 97 98 97 99 95 100 99	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500	100+ Vacancies 100 200 100 0 300 100 0 100 0 200	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 13,700 17,300 78,200 2,400	Vacancies 200 200 200 0 100 400 100 66 0 200 500 1,200	Req 98 97 94 98 99 95 97 96 99 99 97 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport &	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800 19,000	Vacancies 100 100 0 0 0 100 0 100 0 100 0 300 500	Req 98 97 89 97 98 97 99 95 100 99 96 97	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500 59,300	100+ Vacancies 100 200 100 0 300 100 0 0 100 200 700	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 1,300 17,300 78,200	Vacancies 200 200 200 0 100 400 100 66 0 200 500 1,200	Req 98 97 94 98 99 95 97 96 99 99 97 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800 19,000	Vacancies 100 100 0 0 0 100 0 100 0 100 0 100 10	Req 98 97 89 97 98 97 99 95 100 99 96 97 97	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500 59,300	100+ Vacancies 100 200 100 0 300 100 0 100 0 200 700 0	% Lab Req 98 97 96 99 99 94 96	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 13,700 17,300 78,200 2,400	Vacancies 200 200 200 0 100 400 100 66 0 200 500 1,200 100 200	Req 98 97 94 98 99 95 97 96 99 99 97 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications Sales	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800 19,000 1,700 3,000	Vacancies 100 100 100 0 0 100 0 100 0 100 100 10	98 97 89 97 98 97 99 95 100 99 96 97 97 95	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500 59,300 800 5,000	100+ Vacancies 100 200 100 0 0 300 100 0 100 0 200 700 0 0 0	% Lab Req 98 97 96 99 99 94 96 96 98 99 98 98 99 100	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 1,300 13,700 17,300 78,200 2,400 8,000	Vacancies 200 200 200 0 100 400 100 66 0 200 500 1,200 100 200 0	Req 98 97 94 98 99 95 97 96 99 97 98 97 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technicial Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications Sales Personal Service	6,200 2,200 1,000 400 1,000 2,100 800 400 300 6,200 8,800 19,000 1,700 3,000 300	Vacancies 100 100 100 0 0 100 0 100 0 100 0 100 100 300 500 100 100 0	98 97 89 97 98 97 99 95 100 99 96 97 95 100	Current 6,600 5,800 2,300 1,000 2,800 5,000 2,500 1,200 1,000 7,500 8,500 59,300 800 5,000 400	100+ Vacancies 100 200 100 0 0 300 100 0 100 0 200 700 0 0 0 0	% Lab Req 98 97 96 99 99 94 96 96 98 98 99 100 99	12,900 8,000 3,200 1,400 3,800 7,100 3,300 1,700 1,300 17,300 78,200 2,400 8,000 700	Vacancies 200 200 200 0 100 400 100 66 0 200 500 1,200 100 200 0 200	Req 98 97 94 98 99 95 97 96 99 97 98 97 98 99

Appendix Table A4.4 (Cont'd)

Appointing Tubio Attit (o			Fin	ance/Insu	rance/Busi	ness Servic	es		
		0-9			10+			Total	
			% Lab			% Lab Req			% Lab Req
Occupational Grade	Current	Vacancies	Req	Current	Vacancies	•	Current	Vacancies	•
Managers/Proprietors	12,700	0	100	17,100	200	99	29,800	200	99
Engineering Professionals	1,900	0	100	4,600	200	96	6,500	200	97
Science Professionals	1,100	0	100	700	100	90	1,800	100	96
Computer Professionals	1,000	200	81	8,400	200	98	9,400	400	96
Other Professionals	8,400	800	91	14,600	500	97	23,000	1,300	95
Engineering Technicians	600	100	81	4,500	100	98	5,100	200	96
Science Technicians	100	100	50	500	0	94	600	200	79
Computer Technical Staff-									
Associate Professional							8,600	400	95
Level	1,600	300	86	7,100	200	98	0,000	100	
Other Associate							900	200	82
Professional	100	100	50	800	100	92			
Clerical and Secretarial	14,600	1,200	93	43,800	700	98	58,400	1,900	97
Skilled Maintenance &							6,300	900	87
Skilled Production	2,600	800	77	3,600	200	96			
Production Operatives	1,100	100	89	8,000	300	96	9,000	500	95
Transport &							3,100	0	99
Communications	2,000	0	100	1,100	0	98	•		
Sales	1,800	400	84	6,400	200	97	8,200		93
Personal Service	1,000	0	100	11,100	100	99	12,100		99
Labours & Security	1,600	400	80	6,300	100	98	7,900		94
Total	52,200	4,600	92	138,700	3,100	98	190,900	7,700	96
				•	Constructio	n			
		0-9			10+			Total	
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req
Managers/Proprietors	16,500	0	100						
		U	100	4,700	0	99	21,200	0	100
Engineering Professionals	2,300	300	89	4,700 4,500	0 100	99 98	21,200 6,800		100 95
Engineering Professionals Science Professionals	2,300						·	400	
	1	300	89	4,500	100	98	6,800	400 0	95
Science Professionals Computer Professionals	300	300 0 0	89 100 100	4,500 0 200	100 0 0	98 100 90	6,800 0	400 0 0.	95 0
Science Professionals Computer Professionals Other Professionals	0	300 0	89 100	4,500	100 0	98 100	6,800 0 600	400 0 0. 400	95 0 95
Science Professionals Computer Professionals	0 300 2,300	300 0 0 300	89 100 100 89	4,500 0 200 1,900	100 0 0 100	98 100 90 96	6,800 0 600 4,200	400 0 0. 400 400	95 0 95 92
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians	0 300 2,300 1,700	300 0 0 300 300	89 100 100 89 86	4,500 0 200 1,900 1,300	100 0 0 100 100	98 100 90 96 93	6,800 0 600 4,200 3,000	400 0 0. 400 400	95 0 95 92 89
Science Professionals Computer Professionals Other Professionals Engineering Technicians	0 300 2,300 1,700	300 0 0 300 300	89 100 100 89 86	4,500 0 200 1,900 1,300	100 0 0 100 100	98 100 90 96 93	6,800 0 600 4,200 3,000 600	400 0 0. 400 400 0	95 0 95 92 89 0
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff-	0 300 2,300 1,700	300 0 0 300 300	89 100 100 89 86	4,500 0 200 1,900 1,300	100 0 0 100 100	98 100 90 96 93	6,800 0 600 4,200 3,000	400 0 0. 400 400 0	95 0 95 92 89
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional	0 300 2,300 1,700 0	300 0 0 300 300 0	89 100 100 89 86 100	4,500 0 200 1,900 1,300 600	100 0 0 100 100 0	98 100 90 96 93 100	6,800 0 600 4,200 3,000 600	400 0 0. 400 400 0	95 0 95 92 89 0
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level	0 300 2,300 1,700 0	300 0 0 300 300 0	89 100 100 89 86 100	4,500 0 200 1,900 1,300 600	100 0 0 100 100 0	98 100 90 96 93 100	6,800 0 600 4,200 3,000 600 3,000	400 0 0. 400 400 0	95 0 95 92 89 0
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate	0 300 2,300 1,700 0	300 0 0 300 300 0	89 100 100 89 86 100	4,500 0 200 1,900 1,300 600	100 0 0 100 100 0	98 100 90 96 93 100	6,800 0 600 4,200 3,000 600	400 0 0. 400 400 0	95 0 95 92 89 0
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional	0 300 2,300 1,700 0	300 0 0 300 300 0	89 100 100 89 86 100	4,500 0 200 1,900 1,300 600	100 0 0 100 100 0	98 100 90 96 93 100	6,800 0 600 4,200 3,000 600 1,900 12,700	400 0 0. 400 400 0	95 0 95 92 89 0
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial	0 300 2,300 1,700 0	300 0 0 300 300 0	89 100 100 89 86 100	4,500 0 200 1,900 1,300 600	100 0 0 100 100 0	98 100 90 96 93 100	6,800 0 600 4,200 3,000 600 1,900 12,700 46,500	400 0 0. 400 400 0 0 400 5,500	95 0 95 92 89 0 0 0 97
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance &	0 300 2,300 1,700 0 0 1,700 8,000	300 0 300 300 0	89 100 100 89 86 100 100 97	4,500 0 200 1,900 1,300 600 300 200 4,700	100 0 0 100 100 0	98 100 90 96 93 100 100 97 98	6,800 0 600 4,200 3,000 600 1,900 12,700	400 0 0. 400 400 0 0 400 5,500	95 0 95 92 89 0
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport &	0 300 2,300 1,700 0 0 1,700 8,000 21,000 5,400	300 0 300 300 0 0 0 4,800 0	89 100 100 89 86 100 100 97 81 100	4,500 0 200 1,900 1,300 600 300 200 4,700 25,400 3,300	100 0 100 100 0 0 0 100 700 0	98 100 90 96 93 100 100 97 98 97	6,800 0 600 4,200 3,000 600 1,900 12,700 46,500 8,700	400 0 0. 400 400 0 0 400 5,500	95 0 95 92 89 0 0 0 97 89
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications	0 300 2,300 1,700 0 0 1,700 8,000 21,000 5,400	300 0 300 300 0 0 0 4,800 0	89 100 100 89 86 100 100 97 81 100	4,500 0 200 1,900 1,300 600 300 200 4,700 25,400 3,300 3,800	100 0 0 100 100 0 0 0 100 700 0	98 100 90 96 93 100 100 97 98 97 100	6,800 0 600 4,200 3,000 600 1,900 12,700 46,500 8,700	400 0 0. 400 400 0 0 400 5,500 0	95 0 95 92 89 0 0 0 97 89 100
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications Sales	0 300 2,300 1,700 0 0 1,700 8,000 21,000 5,400	300 0 300 300 0 0 0 0 4,800 0	89 100 100 89 86 100 100 97 81 100	4,500 0 200 1,900 1,300 600 300 200 4,700 25,400 3,300 3,800 300	100 0 100 100 0 0 0 100 700 0	98 100 90 96 93 100 100 97 98 97 100 97	6,800 0 600 4,200 3,000 600 1,900 12,700 46,500 8,700 4,000 900	400 0 0. 400 400 0 0 400 5,500 0 100 300	95 0 95 92 89 0 0 0 97 89 100 97 74
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications	0 300 2,300 1,700 0 0 1,700 8,000 21,000 5,400	300 0 0 300 300 0 0 0 4,800 0 0 300 0	89 100 100 89 86 100 100 97 81 100	4,500 0 200 1,900 1,300 600 300 4,700 25,400 3,300 3,800 300 800	100 0 0 100 100 0 0 0 100 700 0	98 100 90 96 93 100 100 97 98 97 100 97 93 100	6,800 0 600 4,200 3,000 600 1,900 12,700 46,500 8,700 4,000 900 800	400 0 0. 400 400 0 0 400 5,500 0 100 300 0	95 0 95 92 89 0 0 0 0 97 89 100 97 74 100
Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications Sales	0 300 2,300 1,700 0 1,700 8,000 21,000 5,400 300 600	300 0 300 300 0 0 0 0 4,800 0	89 100 100 89 86 100 100 97 81 100 100 67	4,500 0 200 1,900 1,300 600 300 200 4,700 25,400 3,300 3,800 300	100 0 100 100 0 0 0 0 100 700 0	98 100 90 96 93 100 100 97 98 97 100 97	6,800 0 600 4,200 3,000 600 1,900 12,700 46,500 8,700 4,000 900	400 0 0. 400 400 0 0 400 5,500 0 100 300 0 1,100	95 0 95 92 89 0 0 0 97 89 100 97 74

Appendix Table A4.4 (Cont'd)

				Distri	butive Servi	ces			
		0-9			10+			Total	
Occupational Grade	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req	Current	Vacancies	% Lab Req.
Managers/Proprietors	28,600	300	99	12,300	200	98	40,900	500	99
Engineering Professionals	200	0	100	600	0	97	800	0	97
Science Professionals	0	0	100	200	0	90	200	0	90
Computer Professionals	200	0	100	600	0	99	700	0	99
Other Professionals	1,000	0	100	1,600	100	96	2,500		
Engineering Technicians	600	0	100	1,000	100	95	1,600		97
Science Technicians	0	0	100	100	0	87	100		
Computer Technical Staff- Associate Professional									
Level	0	0	100	500	0	98	500	0	98
Other Associate Professional	300	0	100	500	0	97	800	0	98
Clerical and Secretarial	14,500	200	99	17,000	300	98	31,400		99
Skilled Maintenance & Skilled Production	5,100	800	86	7,200	100	99	12,300	900	93
Production Operatives	2,200	500	82	6,600	100	99	8,900		94
Transport &	2,200	000	02	0,000	100		0,000	000	0.
Communications Sales	6,000 30,800	500 1,400	93 96	3,500 66,700	100 1,500	98 98	9,600 97,600		94 97
Personal Service	1,000	0	100	4,100	100	98	5,000	100	99
Labours & Security	8,600	1,300	87	11,400	200	98	20,000	1,500	93
Total	99,000	4,900	95	134,000	2,800	98	233,000	7,700	97
			Trar	nsport/Pe	rsonal/Othe	Services	3		
		0-9	Trar	nsport/Pe	rsonal/Othe	r Services 10+	.	Total	
		0-9	Trar % Lab	nsport/Pe	rsonal/Othei		3	Total	% Lab
Occupational Grade	Current	0-9 Vacancies			rsonal/Othei	10+		Total Vacancies	% Lab Req
Occupational Grade Managers/Proprietors	Current 17,000		% Lab			10+ % Lab		Vacancies	Req
·		Vacancies	% Lab Req	Current	Vacancies	10+ % Lab Req	Current	Vacancies 700	Req 98
Managers/Proprietors	17,000	Vacancies 0	% Lab Req 100	Current 16,900	Vacancies 700	10+ % Lab Req	Current 34,000	Vacancies 700 0	Req 98
Managers/Proprietors Engineering Professionals	17,000 100	Vacancies 0 0	% Lab Req 100 100	Current 16,900 1,200	Vacancies 700 0	10+ % Lab Req 96 100	Current 34,000 1,300	Vacancies 700 0 0	98 100 100
Managers/Proprietors Engineering Professionals Science Professionals	17,000 100 0	Vacancies 0 0 0	% Lab Req 100 100	Current 16,900 1,200 800	Vacancies 700 0 0	10+ % Lab Req 96 100 100	Current 34,000 1,300 800	700 0 0	98 100 100 100
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals	17,000 100 0 0	Vacancies 0 0 0 0 0	% Lab Req 100 100 100	Current 16,900 1,200 800 3,200	700 0 0 0	10+ % Lab Req 96 100 100	Current 34,000 1,300 800 3,200	700 0 0 0 100	98 100 100 100 99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals	17,000 100 0 0 3,300	Vacancies 0 0 0 0 0 0 0	% Lab Req 100 100 100 100	Current 16,900 1,200 800 3,200 8,200	700 0 0 0 0	10+ % Lab Req 96 100 100 100 98	Current 34,000 1,300 800 3,200 11,600	700 0 0 0 100	98 100 100 100 99 .99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional	17,000 100 0 0 3,300 0	Vacancies 0 0 0 0 0 0 0 0 0	% Lab Req 100 100 100 100 100 100	Current 16,900 1,200 800 3,200 8,200 2,200 3,000	700 0 0 0 0 100 0	10+ % Lab Req 96 100 100 100 98 99 99	Current 34,000 1,300 800 3,200 11,600 2,200 3,000	700 0 0 0 100 0	98 100 100 100 99 .99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff-	17,000 100 0 0 3,300	Vacancies 0 0 0 0 0 0 0 0	% Lab Req 100 100 100 100 100	Current 16,900 1,200 800 3,200 8,200 2,200	700 0 0 0 0 100	10+ % Lab Req 96 100 100 100 98	Current 34,000 1,300 800 3,200 11,600 2,200	700 0 0 0 100 0	98 100 100 100 99 .99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level	17,000 100 0 0 3,300 0	Vacancies 0 0 0 0 0 0 0 0 0	% Lab Req 100 100 100 100 100 100	Current 16,900 1,200 800 3,200 8,200 2,200 3,000	700 0 0 0 0 100 0	10+ % Lab Req 96 100 100 100 98 99 99	Current 34,000 1,300 800 3,200 11,600 2,200 3,000	700 0 0 0 100 0 0	98 100 100 100 99 .99 99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional	17,000 100 0 0 3,300 0 0	Vacancies 0 0 0 0 0 0 0 0 0 0 100	% Lab Req 100 100 100 100 100 100 100	Current 16,900 1,200 800 3,200 8,200 2,200 3,000 1,600 7,300	700 0 0 0 100 0	10+ % Lab Req 96 100 100 100 98 99 99	Current 34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900	Vacancies 700 0 0 0 100 0 0 300 1,000	98 100 100 100 99 99 99
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance &	17,000 100 0 0 3,300 0 0 900 3,600 12,400	Vacancies 0 0 0 0 0 0 0 0 0 0 100 500	% Lab Req 100 100 100 100 100 100 100 100	Current 16,900 1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400	700 0 0 0 100 0 0	10+ % Lab Req 96 100 100 100 98 99 99 98	Current 34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900	Vacancies 700 0 0 100 0 100 0 300 1,000	Req 98 100 100 100 99 99 99 99 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production	17,000 100 0 0 3,300 0 0 900 3,600 12,400	Vacancies 0 0 0 0 0 0 0 0 0 0 100 500	% Lab Req 100 100 100 100 100 100 100 100 100	Current 16,900 1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100	700 0 0 0 100 0 0 200 500	10+ % Lab Req 96 100 100 100 98 99 99 98 98 98	Current 34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900	Vacancies 700 0 0 0 100 0 300 1,000	Req 98 100 100 100 99 99 99 99 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport &	17,000 100 0 3,300 0 900 3,600 12,400 800 4,000	Vacancies 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 800	% Lab Req 100 100 100 100 100 100 100 100 100 1	Current 16,900 1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100	Vacancies 700 0 0 0 100 0 0 200 500 100 200	10+ % Lab Req 96 100 100 100 98 99 99 98 98 98 98 98	Current 34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 40,900 24,200	Vacancies 700 0 0 0 100 0 300 1,000 1,000	98 100 100 100 99 .99 99 97 98 98 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technical Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications	17,000 100 0 0 3,300 0 0 900 3,600 12,400 800 4,000	Vacancies 0 0 0 0 0 0 0 0 0 100 500 0 800	% Lab Req 100 100 100 100 100 100 100 100 100 1	Current 16,900 1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100 45,500	Vacancies 700 0 0 0 100 0 100 0 100 200 500 100 200 200	10+ % Lab Req 96 100 100 100 98 99 99 98 98 98 98 98 99	Current 34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 10,900 4,900 24,200 52,500	Vacancies 700 0 0 0 100 0 300 1,000 1,000 1,200 500	98 100 100 100 99 .99 99 97 98 98 98
Managers/Proprietors Engineering Professionals Science Professionals Computer Professionals Other Professionals Engineering Technicians Science Technicians Computer Technicial Staff- Associate Professional Level Other Associate Professional Clerical and Secretarial Skilled Maintenance & Skilled Production Production Operatives Transport & Communications Sales	17,000 100 0 0 3,300 0 0 900 3,600 12,400 800 4,000 7,100 4,000	Vacancies 0 0 0 0 0 0 0 0 0 100 500 0 800 1,000 100	% Lab Req 100 100 100 100 100 100 100 100 100 84 88 97	Current 16,900 1,200 800 3,200 8,200 2,200 3,000 1,600 7,300 28,400 4,100 20,100 45,500 13,600	Vacancies 700 0 0 0 100 0 0 200 500 100 200 400	10+ % Lab Req 96 100 100 100 98 99 99 98 98 98 98 98 99	Current 34,000 1,300 800 3,200 11,600 2,200 3,000 2,400 40,900 4,900 24,200 52,500 17,600	Vacancies 700 0 0 0 100 0 300 1,000 1,000 1,200 500 4,000	98 100 100 100 99 .99 99 97 98 98 98 96

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. Somewhat less than one-fifth of all firms recorded that they had experienced difficult-to-fill vacancies in the reference period. The highest incidence of such vacancies was in Manufacturing where one-third of firms in both the Traditional and Hi-Tech. sectors said that they had experienced difficulties in filling vacancies. This was followed by the Transport/Personal/Other Services sector (21 per cent) and Finance/Insurance/Business Services sector (16 per cent). The rates were lowest in Construction and Distributive Services (both 15 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-Tec	Hi-Tech. Manufacturing			Construction			
Last 16ai	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes No	32.5 67.5	49.2 50.8	34.0 66.0	30.6 69.4	49.4 50.6	33.1 66.9	13.0 87.0	27.9 72.1	15.2 84.8	
Total (Wgt'd n)	100.0 (2,400)	100.0 (200)	100.0 (2,600)	100.0 (2,000)	100.0 (300)	100.0 (2,300)	100.0 (11,700)	100.0 (2,000)	100.0 (13,700)	
								,		
Vacancies Difficult-to-Fill in Last Year	Distri	ibutive Se	ervices		ince/Insura iness Serv		Transpo	ort/Person Services	al/Other	All Firms
Difficult-to-Fill in	Distri 0-9	ibutive Se	ervices Total				Transpo		al/Other Total	All Firms
Difficult-to-Fill in				Bus	iness Serv	vices	·	Services		All Firms
Difficult-to-Fill in Last Year	0-9	10+	Total	Bus 0-9	iness Serv	vices Total	0-9	Services 10+	Total	

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 being difficult to fill are higher than in smaller companies.

Table 5.2 provides details on the extent to which firms currently experiencing a difficult-to-fill vacancy have also experienced such a vacancy in the year preceding the survey. Just over 8 per cent of all private sector firms in the population currently experiencing a difficult-to-fill vacancy also experienced one in the year preceding the survey while a further 10 per cent experienced at least one difficult-to-fill vacancy in the year preceding the survey but were not experiencing one currently. Almost 80 per cent of firms did not experience a difficult-to-fill vacancy either currently or in the year preceding the survey while 3 per cent of firms were experiencing difficult-to-fill vacancies currently but they had not had this experience with vacancies 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						
y	Yes	No (Total Per Cent)	Total				
Yes	8.4	3.4	11.8				
No	9.7	78.6	88.2				
Total	18.0	82.0	100.0				

It is relevant to our understanding of the prevalence and persistence of vacancies to consider what type of firms experience difficult-to-fill 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 8 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 8 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/sector 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	4.9	2.4	Distributive Services	1-9	13.4	29.9
, and the second	100+	0.7	0.3		10+	6.7	4.3
Hi-Tech. Manufacturing	1-99	3.8	2.1	Finance/Insurance/	1-9	16.6	18.7
	100+	1.3	0.3	Business Services	10+	6.8	2.4
Construction	1-9	12.5	12.2	Transport/Personal/	1-9	16.4	21.2
	10+	4.0	2.0	Other Services	10+	12.7	4.3
				Total		100.0	100.0

From the figures in Table 5.3, for example, one can see that 5 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 2.4 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 100 per cent (4.9 per cent compared with 2.4 per cent). Similarly, firms which are experiencing persistent problems in terms of difficult-to-fill vacancies are over-represented to the extent of 133 per cent among the larger Traditional Manufacturing sector (0.7 per cent compared with 0.3 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 small firms in Distributive Services (retail and wholesale distribution), Finance/Insurance/Business Services, and Transport/Personal/Other Services – although even in these three sectors there would appear to be an over-concentration of the persistence problem among larger firms. Overall, therefore, the figures suggest that persistence of difficult-to-fill vacancies occurs in all size/sector categories with the exception of smaller enterprises in Distributive Services, Finance/Insurance/Business Services, and in Transport/Personal/Other Services.

It is obviously of interest to consider how the incidence of difficult-tofill vacancies in the year preceding the survey has changed from 1998/99 to 1999/00 and from 1999/00 to 2001/02 (i.e. between the first, second and third rounds of the survey). Table 5.4 provides a comparison for the three 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. By the third survey, around the beginning of 2002, the percentage of firms reporting a difficult-to-fill vacancy had fallen to 18 per cent. The last two columns of the table show that the largest percentage point decrease in difficult-to-fill vacancies in the year preceding the current survey occurred in the Hi-Tech. Manufacturing sector (down 21 percentage points from 54 per cent of firms to 33 per cent) and in the Finance/Insurance/Business, and Transport/Personal/Other sectors (both down 18 percentage points). The incidence of such vacancies decreased in all other sectors with decreases of 11 to 13 percentage points being recorded for Traditional Manufacturing, Construction and Distributive Services. In relative terms the largest decrease occurred in the Finance/Insurance/Business Services sector where the percentage of firms experiencing difficult-to fillvacancies more than halved from 35 per cent to 16 per cent. The relative decrease in the Transport/Personal/Other Services, and Distributive Services sectors are is only a little below this with a 45 per cent fall in both cases in the percentage of firms experiencing difficult-to-fill vacancies.

Sector	1998/ 99	Small ¹ 1999/ 00	2001/ 02	1998/ 99	Large ² 1999/ 00	2001/ 02	1998/ 99	Total 1999/ 00	2001/ 02
		Р	er Cent Re	cording D	ifficult-to-l	Fill Vacanci	ies in Last	Year	
Traditional Manufacturing	51.2	44.5	32.5	66.7	57.7	49.2s	52.9	46.2	34.0
Hi-Tech. Manufacturing	51.2	51.2	30.6	67.7	69.3	49.4	53.4	53.7	33.1
Construction	20.0	23.5	13.0	62.2	70.8	27.9	23.1	26.3	15.2
Distributive Services	17.3	23.2	11.9	59.3	65.8	39.9	22.2	28.4	15.5
Finance/Insurance/									
Business Services	13.8	29.4	13.2	65.8	72.3	41.5	19.2	34.8	16.4
Transport/Personal/Other	25.7	21.4	15.2	79.5	70.5	50.3	35.1	39.3	21.2
All Firms	_	_	_	_	_	_	26.1	32.7	18.0

Table 5.4: Percentage of Firms Reporting Having Experienced a Difficult-to-Fill Vacancy in the 1998/99, 1999/00 and 2001/02 Rounds of the Survey Classified by Size/Sector Category

5.2 Nature of Most Difficult-to-fill Vacancies

T able 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 22 per cent of firms). This was followed by the miscellaneous category, Other Staff (17 per cent of firms), and Technical Sales (11 per cent of firms). In the previous survey in 1999/00 almost 20 per cent of firms said that they had difficulty in recruiting Clerical Staff but in the current survey only 5 per cent of firms reported such difficulty.

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-Tecl	h. Manufa	cturing	Construction			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Financial Specialists	3.2	3.3	3.2	0.0	2.5	0.5	0.0	0.0	0.0	
Computer Specialists	0.0	3.3	0.4	0.0	4.4	0.9	0.0	0.0	0.0	
Engineers	3.2	15.6	4.9	7.0	23.4	10.3	0.0	13.8	3.6	
Chemists	0.0	0.0	0.0	0.0	4.4	0.9	0.0	0.0	0.0	
Technicians	0.0	3.3	0.4	9.3	18.4	11.2	0.0	10.3	2.7	
Skilled Trades Persons	29.0	12.3	26.7	20.9	11.4	19.0	100.0	20.7	79.0	
Semi-Skilled	6.4	3.3	6.0	2.3	0.0	1.8	0.0	0.0	0.0	
Unskilled	25.7	24.6	25.6	18.7	7.0	16.3	0.0	6.9	1.8	
Technical Sales	6.4	3.3	6.0	2.3	2.5	2.3	0.0	0.0	0.0	
Managers	8.1	21.3	9.9	11.6	16.5	12.6	0.0	6.9	1.8	
Clerical	1.7	0.0	1.4	7.0	0.0	5.6	0.0	17.2	4.6	
Other Professionals	1.7	3.3	1.8	4.6	7.0	5.1	0.0	20.7	5.5	
Retail Sales	6.4	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	
Other	8.1	6.6	7.8	16.2	2.5	13.4	0.0	3.4	0.9	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	800	100	900	600	200	800	1,500	600	2,100	

	Distri	butive Se	ervices		nce/Insura ness Serv			rt/Persona Services	I/Other	All Firms
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
Financial Specialists	0.0	5.3	1.7	9.3	23.8	13.5	0.0	2.5	1.0	3.6
Computer Specialists	0.0	0.0	0.0	0.0	11.6	3.3	0.0	1.2	0.5	0.9
Engineers	0.0	4.2	1.4	0.0	14.7	4.2	0.0	3.7	1.5	2.8
Chemists	0.0	0.0	0.0	0.0	0.8	0.2	0.0	0.0	0.0	0.1
Technicians	0.0	2.1	0.7	22.3	1.7	16.4	0.0	0.0	0.0	4.2
Skilled Trades Persons	25.0	8.4	19.6	32.2	3.5	23.9	0.0	1.2	0.5	22.1
Semi-Skilled	0.0	3.1	1.0	0.0	2.6	0.7	0.0	1.2	0.5	1.0
Unskilled	12.5	8.4	11.2	0.0	4.3	1.2	14.3	7.3	11.5	9.2
Technical Sales	12.5	11.6	12.2	2.7	3.9	3.1	28.6	7.3	20.0	10.6
Managers	0.0	14.7	4.8	4.6	12.1	6.8	14.3	6.1	11.0	7.3
Clerical	6.2	6.3	6.3	9.3	7.3	8.7	0.0	8.5	3.5	5.4
Other Professionals	0.0	8.4	2.7	19.6	4.3	15.2	0.0	12.2	4.9	6.2
Retail Sales	37.5	18.9	31.5	0.0	0.0	0.0	0.0	1.2	0.5	9.7
Other	6.2	8.4	7.0	0.0	9.4	2.7	42.9	47.6	44.7	17.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Wgt'd n)	3,500	1.700	5,200	2,400	1,000	3,400	3,100	2,100	5,200	17,500

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.

Notwithstanding some variations by size/sector categories the Skilled Trades Persons and Unskilled workers 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 (79 per cent) and by 19 per cent of firms in Hi-Tech. Manufacturing. Unskilled workers were mentioned by 26 per cent of firms in Traditional Manufacturing and by 16 per cent in Hi-Tech. Manufacturing.

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 1998/99, 1999/00 and 2001/02. From this one can see that the frequency with which some occupational grades have been mentioned has changed between the `current and previous rounds of the survey. There has been a decrease in the percentage of firms which mention Skilled Trades Persons (29 per cent in 1999/00 to 22 per cent in 2001/02) and Clerical grades (down from 20 per cent to 5 per cent). Occupations which have experienced an absolute increase in the percentage of firms referring to them as being the single most difficult-to-fill vacancy of the last year include Unskilled (up from 4 per cent to 9 per cent), Other Professionals (an increase from 2 per cent to 6 per cent), and Managers (up from 5 per cent to 7 per cent). The percentages of firms mentioning Computer Specialists and Semi-skilled workers have fallen from around 4 to 5 per cent to 1 per cent. The table underlines the extent to which the softening in the labour market is being experienced across a range of occupations for which demand was very strong in the first and second rounds of the survev.

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 Me	ntioning
	1998/99	1999/00	2001/02		1998/99	1999/00	2001/02
Financial Specialists	2.4	3.7	3.6	Unskilled	8.0	4.2	9.2
Computer Specialists	3.5	4.2	0.9	Technical Sales	12.6	8.5	10.6
Engineers	2.4	1.1	2.8	Managers	8.0	4.5	7.3
Chemists	0.2	0.1	0.1	Clerical	14.4	19.7	5.4
Technicians	2.8	2.6	4.2	Other Professionals	4.5	1.9	6.2
Skilled Trades Persons	21.8	29.4	22.1	Retails Sales	8.5	10.3	9.7
Semi-Skilled	9.5	4.8	1.0	Other	1.3	5.2	17.0
				Total	100.0	100.0	100.0

5.3 Consequences of Difficult-to-Fill Vacancies In the course of the survey respondents were presented with six precoded outcomes or impacts of difficult-to-fill vacancies in the year preceding the survey. They were asked to indicate whether or not the difficulty which they encountered in filling positions in the year in question resulted in any of the six outcomes. The results are presented in Table 5.7.

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 56 per cent while loss of quality of service was recorded by 53 per cent. Just under 37 per cent of all relevant firms each mentioned "increased running costs" while 29 per cent cited "loss of business to competitors" and 28 per cent reported "increased recruitment costs".

Some variations in perceived consequences of difficult-to-fill vacancies according to the 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 Construction, Hi-Tech. Manufacturing, and Finance/Insurance/Business Services sectors; the constraints imposed on business development are cited on an above average basis by the Construction sector; increased strain on management and staff is referred to most frequently in the Hi-Tech. Manufacturing and Distributive Services sectors; increased running costs are mentioned most frequently by firms in Construction and Transport/Personal/Other services.

The question on perceived consequences of 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 283 per cent. This implies that each relevant firm ticked somewhat less than 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 Hi-Tech. Manufacturing sector was 332 per cent, representing an average of over three answers per relevant respondent. This implies that respondents in the Hi-Tech. Manufacturing sector perceive that there were more consequences of perceived difficulties in filling difficult-to-fill vacancies than did respondents in other sectors. This suggests that difficult-to-fill vacancies in the year preceding the survey posed greater problems for the Hi-Tech. Manufacturing sector than for other sectors.

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

	Trad.	Manufact	uring	Hi-Tec	h. Manufa	cturing	С	onstruction	on	
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Loss of business to competitors	30.6	15.6	28.6	29.5	7.1	25.1	33.3	7.1	26.6	
Loss of quality of service	50.0	28.1	47.1	61.4	35.7	56.3	66.7	25.0	55.9	
Restricted business development	51.6	53.1	51.8	59.1	42.9	55.9	100.0	39.3	84.3	
Increased strain on management & staff in covering	01.0	00.1	01.0	00.1	42.0	00.0	100.0	00.0	04.0	
shortages 5. Increased running	72.6	78.1	73.3	93.2	73.8	89.4	50.0	85.7	59.2	
costs 6. Increased	51.6	46.9	51.0	50.0	45.2	49.1	66.7	35.7	58.7	
recruitment costs	43.5	53.1	44.8 296.6	56.8	54.8	56.4 332.2	16.7	46.4	24.4	
Total									309.1	
	Distrib	outive Se	rvices		nce/Insur iness Ser			sport/Pers her Servi		All Firms
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
 Loss of business 										
to competitors 2. Loss of quality of	26.7	31.6	28.3	17.7	19.9	18.3	42.9	26.2	36.2	28.5
service 3. Restricted business	53.3	57.9	54.9	57.4	44.8	53.8	42.9	57.5	48.7	52.6
development 4. Increased strain on	53.3	50.5	52.4	47.4	55.5	49.7	57.1	43.7	51.8	55.7
management & staff in covering										
shortages 5. Increased running	93.3	76.8	87.7	87.1	87.0	87.1	71.4	92.5	79.8	81.1
costs 6. Increased	6.7	38.9	17.6	4.8	37.5	14.2	57.1	55.0	56.3	36.8
recruitment costs	0.0	56.8	19.3	22.4	59.4	33.1	14.3	50.0	28.5	28.4
Total			260.2			256.2			301.3	283.1

Table 5.8 compares the perceived impacts of difficult-to-fill vacancies in the first two rounds of the survey, when the labour market was tight, and in the current round of the survey, when labour market pressure was falling. From it one can see that increased strain on management and staff

in covering shortages continues to be an important consequence of difficult-to-fill vacancies for around 80 per cent of firms which had such vacancies. All of the remaining effects lessened in importance over the period in question. Decreasing proportions of firms said that their business development is restricted or their recruitment costs are increased by difficult-to-fill vacancies. This is particularly apparent in the Finance/Insurance/Business Services sector where the percentage mentioning changes in restrictions on business development fell from 74 per cent in the 1999/00 survey to 50 per cent in the 2001/02 survey and in the Distributive Services sector where the percentage reporting increased recruitment costs halved from 40 to 19 per cent between 1999/00 and 2001/02.

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 the 1998/99, 1999/00 and 2001/02 Rounds

	Trad. Manufacturing			Hi-Tech. Manufacturing			Coi	nstructio	on			
	1998/	1999/	2001/	1998/	1999/	2001/	1989/	1999/	2001/			
Loss of business	99	00	02	99	00	02	99	00	02			
to competitors	26.5	34.9	28.6	26.3	25.7	25.1	35.8	23.7	26.6			
Loss of quality of service	43.0	36.7	47.1	51.7	47.6	56.3	56.7	79.7	55.9			
3. Restricted business	43.0	30.7	47.1	51.7	47.0	30.3	30.7	79.7	55.9			
development	58.2	58.3	51.8	65.5	62.1	55.9	74.0	82.2	84.3			
Increased strain on management &												
staff in covering shortages	75.7	82.9	73.3	84.6	89.3	89.4	79.5	74.8	59.2			
Increased running	70.7						70.0	74.0	00.2			
costs	54.8	43.4	51.0	52.1	52.9	49.1	59.8	61.5	58.7			
Increased recruitment costs	42.0	51.5	44.8	40.4	44.1	56.4	20.1	36.6	24.4			
	Distrik	outive Se	rvices	Financ	e/Insur	ance/	Transp	ort/Pers	onal/		All Firm	s
					ess Ser			er Servic				
	1998/ 99	1999/ 00	2001/ 02	1998/ 99	1999/ 00	2001/ 02	1989/ 99	1999/ 00	2001/ 02	1998/ 99	1999/ 00	2001/ 02
1. Loss of business												
to competitors 2. Loss of quality of	23.2	26.4	28.3	22.6	29.6	18.3	43.4	41.7	36.2	30.2	30.7	28.5
service	48.2	51.2	54.9	34.9	- 4 0							
		31.2	54.9	34.9	54.0	53.8	61.9	68.0	48.7	50.8	57.4	52.6
Restricted business												
development	53.9	51.9	52.4	45.5	73.7	53.8 49.7	61.9 57.8	68.0	48.7 51.8	56.3	62.3	52.6 55.7
development 4. Increased strain on management & staff in covering	53.9	51.9	52.4	45.5	73.7	49.7	57.8	62.3	51.8	56.3	62.3	55.7
development 4. Increased strain on management & staff in covering shortages												
development 4. Increased strain on management & staff in covering	53.9	51.9	52.4	45.5	73.7	49.7	57.8	62.3	51.8	56.3	62.3	55.7
development 4. Increased strain on management & staff in covering shortages 5. Increased running	53.9 86.3	51.9 84.2	52.4 87.7	45.5 94.6	73.7	49.7	57.8 88.4	62.3 83.0	51.8 79.8	56.3 86.6	62.3	55.7 81.1

5.4 Steps Taken to Address Difficult-to-Fill Vacancies Firms were presented with the nine pre-coded response outcomes listed in Table 5.9 and asked to indicate which steps they had taken to try and increase their labour supply. Table 5.9 outlines the response by firms which had experienced difficult-to-fill vacancies in the 12 months preceding the survey

The most frequently recorded response is an increase in wages or salaries. This was mentioned by over 50 per cent of relevant firms. The next most frequently cited responses are the consideration of a wider range of people for employment (mentioned by 43 per cent of firms), the hiring of part-time or contract staff (done by 30 per cent of firms), and the training of less qualified recruits (26 per cent). The retraining of existing staff, the establishment of greater links with schools and colleges,

and the changing of job specifications are each mentioned by approximately 11 per cent of firms in each case.

With the exception of the Finance/Insurance/Business Services sector, there is a decrease in all sectors in the percentage of firms who responded to their recruitment problems by offering higher pay. The biggest fall occurs in the Transport/Personal/Other Services sector where offers of higher pay are used by 45 per cent of firms compared with 63 per cent in the previous survey. Significantly less use of this response is recorded in the Traditional Manufacturing sector (down from 56 per cent to 44 per cent) and in the Hi-Tech. Manufacturing sector (down from 59 to 44 per cent). The only sector in which greater use is made of the option of offering higher pay is the Finance/Insurance/Business Services sector where two-thirds of firms say they offer higher pay compared with 35 per cent in the previous survey. This sector is also responding to its recruitment difficulties by retraining existing staff with 17 per cent of firms following this route compared with 8 per cent in the 1999/00 survey.

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

		Trad. 0-99	Manufac	cturing Total	Hi-Tech	n. Manufa 100+	acturing Total	0-9	nstructio	n Total	
Offering h Wider ren	higher pay	45.9 59.0	34.4 53.1	44.3 58.2	47.7 56.8	28.6 64.3	44.0 58.3	66.7 33.3	51.7 37.9	62.7 34.6	
3. Retrain e	xisting staff	21.3	21.9	21.4	22.7	21.4	22.5	0.0	24.1	6.4	
recruit 5. Hired par	ts	34.4	37.5	34.8	31.8	40.5	33.5	33.3	20.7	30.0	
contract 6. Links with	staff	14.8	18.7	15.3	27.3	38.1	29.4	33.3	17.2	29.1	
7. Change j	•	3.3	25.0	6.2	18.2	23.8	19.3	16.7	20.7	17.7	
other	staff	18.0	12.5	17.3	18.2	16.7	17.9	33.3	24.1	30.9	
autom	ob specs. by nating tasks	8.2	3.1	7.5	9.1	7.1 11.9	8.7	0.0	6.9	1.8	
9. Other		18.0	9.4	16.9	15.9		15.1	0.0	13.8	3.7	
		DISTri	butive S	ervices		nce/Insur ness Ser			port/Pers er Servic		All Firms
		0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	
1. Offering h	higher pay	40.0	55.9	45.3	70.3	55.3	66.1	42.9	47.5	44.7	51.2
	nge of people	33.3	52.7	39.8	53.4	54.2	53.7	28.6	51.2	37.6	43.0
 Retrain e Train less 	0	0.0	23.7	7.9	12.5	27.4	16.7	0.0	26.2	10.5	11.6
recruit 5. Hired par	ts t time/contract	13.3	32.3	19.7	19.6	28.8	22.2	28.6	31.2	29.6	25.8
staff 6. Links with	h School &	26.7	25.8	26.4	22.3	33.4	25.5	42.9	36.2	40.2	30.3
Colleg 7. Change jo specif		0.0	9.7	3.2	7.4	16.8	10.1	14.3	16.2	15.1	10.8
other		6.7	12.9	8.8	0.0	17.8	5.0	0.0	13.7	5.5	10.6
0,	nating tasks	6.7	1.1	4.8	0.0	3.5	1.0	0.0	2.5	1.0	2.9
9. Other	_	20.0	16.1	18.7	4.6	10.0	6.1	0.0	12.5	5.0	10.0

Table 5.10 summarises the changes between 1998/99, 1999/00, and 2001/02 in firms' responses to the difficult-to-fill vacancies which they experienced over the year preceding the survey. There has been a 4 point decrease in the percentage of firms citing an increase in pay – 55 per cent in 1999/00 and 51 per cent in 2001/02. However, the percentage of firms currently responding by offering higher pay is still above the percentage recorded in the first survey in 1998/00. This suggests that wage pressure remains strong in the economy. It is also obvious that there are sectoral differences in the extent to which this option is being

used by firms. In the Construction sector, for example, there has been only a slight change from 62 per cent in 1999/00 to 63 per cent in 2002/02 in the percentage of firms offering higher pay whereas there has been a big increase in the Finance/Insurance/Business Services sector from 35 per cent to 66 per cent. The use of part-time or contract staff in response to the difficult-to-fill vacancies has fallen over the period 1999/00 to 2001/02 in the Construction sector (from 49 per cent to 29 per cent) and in all of the remaining sectors.

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 1998/99, 1999/00 and 2001/02

		Trad.	Manufac	turing	Hi-Tech.	. Manufa	cturing	Co	nstructi	on			
		1998/	1999/	2001/	1998/	1999/	2001/	1989/	1999/	2001/			
		99	00	02	99	00	02	99	00	02			
1	. Offering higher pay	46.5	56.2	44.3	37.0	59.5	44.0	26.3	61.7	62.7			
	. Wider range of people	44.4	44.8	58.2	47.8	0.3	58.3	24.0	48.2	34.6			
	. Retrain existing staff	15.4	24.2	21.4	23.9	24.1	22.5	39.4	2.5	6.4			
	. Train less qualified												
	recruits	31.1	41.3	34.8	33.5	38.4	33.5	5.0	15.2	30.0			
5	. Hired part time/												
	contract staff	34.7	19.7	15.3	32.3	32.8	29.4	23.6	48.8	29.1			
6	. Links with School &												
	Colleges	18.5	13.6	6.2	18.4	20.1	19.3	18.9	1.9	17.7			
7	. Change job												
′	specifications of												
	other staff	9.9	6.6	19.3	24.3	13.2	17.9	1.9	1.7	30.9			
		0.0	0.0	10.0			11.0			00.0			
C	. Change job specs. by automating tasks	13.1	8.2	7.5	9.9	9.7	8.7	0.8	0.2	1.8			
c	. Other	8.5	10.3	16.9	10.4	7.4	15.1	1.2	1.7	3.7			
٥	. Other											A II = !	
		DISTrib	utive Se	rvices		ce/Insur			port/Per er Servi		,	All Firms	
						1622 Sel	vices	Otti	er Servi				
		1998/	1000/	2001/	1998/	1999/	2001/	1020/	1000/	2004/	1998/	1999/	2004/
		1998/ 99	1999/ 00	2001/	1998/ 99	1999/ 00	2001/	1989/ 99	1999/ 00	2001/	1998/ 99	1999/ 00	2001/
		1998/ 99	1999/ 00	2001/ 02	1998/ 99	1999/ 00	2001/ 02	1989/ 99	1999/ 00	2001/ 02	1998/ 99	1999/ 00	2001/ 02
1	. Offering higher pay												
1	. Offering higher pay	99	00	02	99	00	02	99 61.0	00	02	99 44.5	00	02 51.2
	. Offering higher pay . Wider range of people	9935.137.4	00 59.1 45.9	02 45.3 39.8	99 50.1 55.7	0035.251.0	02 66.1 53.7	9961.060.3	63.5 47.0	02 44.7 37.6	9944.546.2	0055.247.5	02
2	. Wider range of people . Retrain existing staff	99 35.1	00 59.1	02 45.3	99 50.1	00 35.2	02 66.1	99 61.0	00 63.5	02 44.7	99 44.5	00 55.2	02 51.2
2	. Wider range of people . Retrain existing staff . Train less qualified	99 35.1 37.4 11.0	59.1 45.9 10.5	02 45.3 39.8 7.9	99 50.1 55.7 13.4	35.2 51.0 8.3	02 66.1 53.7 16.7	99 61.0 60.3 17.7	63.5 47.0 16.1	02 44.7 37.6 10.5	99 44.5 46.2 17.0	55.2 47.5 11.7	02 51.2 43.0 11.6
3 4	Wider range of people Retrain existing staff Train less qualified recruits	9935.137.4	00 59.1 45.9	02 45.3 39.8	99 50.1 55.7	0035.251.0	02 66.1 53.7	9961.060.3	63.5 47.0	02 44.7 37.6	9944.546.2	0055.247.5	02 51.2 43.0
3 4	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/	99 35.1 37.4 11.0 42.1	59.1 45.9 10.5 28.0	02 45.3 39.8 7.9 19.7	99 50.1 55.7 13.4 15.7	00 35.2 51.0 8.3 32.4	66.1 53.7 16.7 22.2	99 61.0 60.3 17.7 33.9	63.5 47.0 16.1 18.9	44.7 37.6 10.5 29.6	99 44.5 46.2 17.0 31.2	55.2 47.5 11.7 26.9	51.2 43.0 11.6 25.8
3 4	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff	99 35.1 37.4 11.0	59.1 45.9 10.5	02 45.3 39.8 7.9	99 50.1 55.7 13.4	35.2 51.0 8.3	02 66.1 53.7 16.7	99 61.0 60.3 17.7	63.5 47.0 16.1	02 44.7 37.6 10.5	99 44.5 46.2 17.0	55.2 47.5 11.7	02 51.2 43.0 11.6
3 4	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff Links with School &	99 35.1 37.4 11.0 42.1 32.6	59.1 45.9 10.5 28.0 28.5	45.3 39.8 7.9 19.7 26.4	99 50.1 55.7 13.4 15.7 26.5	35.2 51.0 8.3 32.4 30.4	66.1 53.7 16.7 22.2 25.5	99 61.0 60.3 17.7 33.9 35.4	63.5 47.0 16.1 18.9 48.1	44.7 37.6 10.5 29.6 40.2	99 44.5 46.2 17.0 31.2 21.7	55.2 47.5 11.7 26.9 34.9	51.2 43.0 11.6 25.8 30.3
3 4	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff	99 35.1 37.4 11.0 42.1	59.1 45.9 10.5 28.0	02 45.3 39.8 7.9 19.7	99 50.1 55.7 13.4 15.7	00 35.2 51.0 8.3 32.4	66.1 53.7 16.7 22.2	99 61.0 60.3 17.7 33.9	63.5 47.0 16.1 18.9	44.7 37.6 10.5 29.6	99 44.5 46.2 17.0 31.2	55.2 47.5 11.7 26.9	51.2 43.0 11.6 25.8
3 4	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff Links with School &	99 35.1 37.4 11.0 42.1 32.6	59.1 45.9 10.5 28.0 28.5	45.3 39.8 7.9 19.7 26.4	99 50.1 55.7 13.4 15.7 26.5	35.2 51.0 8.3 32.4 30.4	66.1 53.7 16.7 22.2 25.5	99 61.0 60.3 17.7 33.9 35.4	63.5 47.0 16.1 18.9 48.1	44.7 37.6 10.5 29.6 40.2	99 44.5 46.2 17.0 31.2 21.7	55.2 47.5 11.7 26.9 34.9	51.2 43.0 11.6 25.8 30.3
3 4	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff Links with School & Colleges	99 35.1 37.4 11.0 42.1 32.6 22.7	59.1 45.9 10.5 28.0 28.5 11.3	45.3 39.8 7.9 19.7 26.4	99 50.1 55.7 13.4 15.7 26.5	35.2 51.0 8.3 32.4 30.4	66.1 53.7 16.7 22.2 25.5	99 61.0 60.3 17.7 33.9 35.4 18.4	63.5 47.0 16.1 18.9 48.1	44.7 37.6 10.5 29.6 40.2	99 44.5 46.2 17.0 31.2 21.7 18.9	55.2 47.5 11.7 26.9 34.9 16.3	51.2 43.0 11.6 25.8 30.3
3 4	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff Links with School & Colleges Change job	99 35.1 37.4 11.0 42.1 32.6	59.1 45.9 10.5 28.0 28.5	45.3 39.8 7.9 19.7 26.4	99 50.1 55.7 13.4 15.7 26.5	35.2 51.0 8.3 32.4 30.4	66.1 53.7 16.7 22.2 25.5	99 61.0 60.3 17.7 33.9 35.4	63.5 47.0 16.1 18.9 48.1	44.7 37.6 10.5 29.6 40.2	99 44.5 46.2 17.0 31.2 21.7	55.2 47.5 11.7 26.9 34.9	51.2 43.0 11.6 25.8 30.3
2 3 4 6	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff Links with School & Colleges Change job specifications of other staff	99 35.1 37.4 11.0 42.1 32.6 22.7	59.1 45.9 10.5 28.0 28.5 11.3	45.3 39.8 7.9 19.7 26.4 3.2	99 50.1 55.7 13.4 15.7 26.5	35.2 51.0 8.3 32.4 30.4 30.3	02 66.1 53.7 16.7 22.2 25.5 10.1	99 61.0 60.3 17.7 33.9 35.4 18.4	63.5 47.0 16.1 18.9 48.1 17.7	44.7 37.6 10.5 29.6 40.2 15.1	99 44.5 46.2 17.0 31.2 21.7 18.9	55.2 47.5 11.7 26.9 34.9 16.3	51.2 43.0 11.6 25.8 30.3 10.8
2 3 4 6	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff Links with School & Colleges Change job specifications of other staff Change job specs. by	99 35.1 37.4 11.0 42.1 32.6 22.7	59.1 45.9 10.5 28.0 28.5 11.3	45.3 39.8 7.9 19.7 26.4 3.2	99 50.1 55.7 13.4 15.7 26.5	35.2 51.0 8.3 32.4 30.4 30.3	02 66.1 53.7 16.7 22.2 25.5 10.1	99 61.0 60.3 17.7 33.9 35.4 18.4	63.5 47.0 16.1 18.9 48.1 17.7	44.7 37.6 10.5 29.6 40.2 15.1	99 44.5 46.2 17.0 31.2 21.7 18.9	55.2 47.5 11.7 26.9 34.9 16.3	51.2 43.0 11.6 25.8 30.3 10.8
2 3 4 6 6 7	Wider range of people Retrain existing staff Train less qualified recruits Hired part time/ contract staff Links with School & Colleges Change job specifications of other staff	99 35.1 37.4 11.0 42.1 32.6 22.7	59.1 45.9 10.5 28.0 28.5 11.3	45.3 39.8 7.9 19.7 26.4 3.2	99 50.1 55.7 13.4 15.7 26.5 11.1	35.2 51.0 8.3 32.4 30.4 30.3	02 66.1 53.7 16.7 22.2 25.5 10.1	99 61.0 60.3 17.7 33.9 35.4 18.4	63.5 47.0 16.1 18.9 48.1 17.7	44.737.610.529.640.215.15.5	99 44.5 46.2 17.0 31.2 21.7 18.9	55.2 47.5 11.7 26.9 34.9 16.3	51.2 43.0 11.6 25.8 30.3 10.8

Almost the same percentage of firms as in 1999/00 are retraining existing staff and the same is true for the option of training of less qualified recruits. However, across sectors the use of this option varies with the percentage of firms in Construction saying they are training less qualified recruits doubling from 15 per cent to 30 per cent since the previous survey and the percentage of firms using the option in Transport/Personal/Other Services increasing from 19 to 30 per cent. In all of the remaining sectors the percentage of firms saying they are training less qualified staff has fallen since the previous survey. The Construction sector is noteworthy for the major increases which have occurred in the percentage of firms saying that they have developed links with schools and colleges (up from 2 per cent to 18 per cent) and by

changing job specifications by giving some tasks to other staff (up from 2 per cent to 31 per cent).

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 how firms' have responded to difficult-to-fill vacancies.

Overall, we found that just under one-fifth of firms had experienced difficult-to-fill vacancies in the year preceding the survey. The highest incidence of these were in the Manufacturing sector where one-third of firms in both the Traditional and Hi-Tech. sectors said that they had experienced difficulties in filling vacancies. However, the overall level of difficult-to-fill vacancies has decreased from 33 per cent in the 1999/00 round of the survey to 18 per cent in the 2001/02 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 the miscellaneous category Other staff. The frequency with which difficulty in recruiting Clerical staff is being mentioned is decreasing. In 1999/00 almost 20 per cent of firms said they had difficulty in finding Clerical staff but in the 2001/02 survey only 5 per cent of firms cited such difficulties. The main consequence of the difficult-to-fill vacancies of the last year is the perceived strain which this places 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 service are also mentioned on a frequent basis. The former by 56 per cent and the latter by 53 per cent of relevant firms.

Perhaps one of the most notable aspects of difficult-to-fill vacancies of the last year is the extent to which they continue to exert 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 almost half of the firms which experienced such vacancies responded by offering higher pay to staff. When compared with figures from the previous year's survey we found that there was a small decrease in the percentage of relevant firms citing this response from 55 to 51 per cent. The extent to which firms are indicating that they would retrain existing staff has remained unchanged while there has been a small decrease in the percentage of firms saying they would train less qualified recruits. The percentage of firms changing the job specification of existing staff has remained unchanged while the percentage recruiting from a wider range of potential recruits has fallen from 48 per cent to 43 per cent. The hiring of part-time or contract staff in response to the tightening labour market situation is showing a decrease from 35 per cent to 30 per cent over the two surveys.

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

In this chapter we consider two main aspects 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.

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. About one in nine (12 per cent) record that they are experiencing such difficulties. The incidence of these difficulties appear to be greater in Hi-Tech. Manufacturing, Traditional Manufacturing, and Transport/Personal/Other Services than in other sectors. Over 20 per cent of companies in the Hi-Tech. sector and 16 per cent 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 Finance/Insurance/Business Services, and Construction. In the Manufacturing and Construction sectors there is little difference between the percentage of small and large firms saying they are experiencing difficulties in retaining staff but in all of the services sectors a significantly larger percentage of large firms than of small appear to be experiencing difficulties in holding onto their staff.

Table 6.1: Current Difficulties in Retaining Existing Staff

Difficulties in Retaining Staff	Trad	. Manufac	turing	Hi-Tec	h. Manufa	cturing	C			
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Yes	15.9	12.6	15.6	21.4	17.5	20.9	8.5	9.7	8.7	
No	84.1	87.4	84.4	78.6	82.5	79.1	91.5	90.3	91.3	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	(2,400)	(200)	(2,600)	(2,100)	(300)	(2,400)	(12,000)	(2,000)	(14,000)	
Difficulties in	Distr	ibutive Se	rvices	Fina	nce/Insur	ance/	Transp	ort/Person	al/Other	All
Difficulties in Retaining Staff	Distr	ibutive Se	rvices		nce/Insura		Transp	ort/Person Services		All Firms
	Distr	ibutive Se 10+	rvices Total				Transp			
				Bus	iness Serv	/ices		Services		
Retaining Staff	0-9	10+	Total	Bus 0-9	iness Serv 10+	vices Total	0-9	Services 10+	Total	Firms
Retaining Staff Yes	0-9 9.7	10+ 24.5	Total 11.6	Bus 0-9 5.0	iness Serv 10+ 24.6	vices Total 7.2	0-9 13.0	Services 10+ 29.6	Total 15.9	Firms 11.6
Retaining Staff Yes	0-9 9.7	10+ 24.5	Total 11.6	Bus 0-9 5.0	iness Serv 10+ 24.6	vices Total 7.2	0-9 13.0	Services 10+ 29.6	Total 15.9	Firms 11.6

Table 6.2 summarises the overall level of difficulties experienced in retaining staff at a sectoral level in 1998/99, 1999/00, and 2001/02. At an aggregate level across all firms there has been a noticeable drop from 19 to 12 in the percentage of firms reporting difficulties in retaining staff.

Table 6.2: Percentage of Firms Reporting Difficulties in Retaining Staff in the 1998/99, 1999/00 and 2001/02 Rounds of the Survey Classified by Size/Sector Category

Sector		Small			Large			Total	
	1998/99	1999/00	2001/02	1998/99	1999/00	2001/02	1998/99	1999/00	2001/02
		F	er Cent Re	cording Di	fficult-To-Fi	II Vacancies	in Last Ye	ar	
Traditional Manufacturing	34.4	26.9	15.9	48.7	45.3	12.6	35.9	29.2	15.6
Hi-Tech. Manufacturing	31.7	33.2	21.4	48.4	55.7	17.5	33.9	36.2	20.9
Construction	16.0	14.7	8.5	35.4	43.4	9.7	17.4	16.4	8.7
Distributive Services	8.3	12.2	9.7	35.9	41.9	24.5	11.5	15.8	11.6
Finance/Insurance/Business									
Services	14.5	14.5	5.0	48.2	50.0	24.6	18.0	19.0	7.2
Transport/Personal/Other	14.3	20.0	13.0	56.2	50.5	29.6	21.6	26.2	15.9
All Firms	_	_	_	-	_	_	16.7	19.4	11.6

This decline has occurred across all sectors. The table shows that there has been a fall of 14 percentage points in the proportion of firms in the Traditional Manufacturing sector which report difficulties in retaining staff (29 per cent to 15 per cent) and a drop of 15 percentage points for firms in Hi-Tech. Manufacturing (36 to 21 per cent). There has also been a large decrease between 1999/00 and 2001/02 in the percentages in the Finance/Insurance/Business, and Transport/Personal/Other Services sectors reporting difficulties in staff retention (down 12 and 10 percentage points respectively). To a substantial degree the incidence of difficulties in retaining staff has fallen in all sectors in both small and large firms. The weakening of excess demand in most sectors shown by the vacancies data in previous chapters has clearly reduced the job opportunities open to employees and lessened the pressure on employers to poach staff from other firms.

Firms which indicated that they were experiencing difficulties in retaining staff were asked to specify the type of staff which 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		Cent of F Mentionin 1999/00		Nature of Job	Per Cent of Firms Mentioning 1998/99 1999/00 2001/02			
Financial Specialists	2.5	1.4	5.9	Technical Sales	7.8	7.5	7.5	
Computer Specialists	7.3	3.3	1.0	Managers	2.2	1.1	1.0	
Engineers	2.3	1.7	3.3	Clerical	21.4	8.6	10.2	
Chemists	0.3	0.2	0.1	Other Professionals	10.0	5.7	1.5	
Technicians	5.4	4.4	1.2	Retail Sales	2.7	10.0	6.9	
Skilled Trades Persons	13.5	29.6	17.3	Apprenticeship	0.2	2.1	0.3	
Semi-Skilled	14.6	4.2	1.1	Catering	2.1	3.7	3.1	
Unskilled	16.6	10.9	15.0	All Areas	0.2	5.6	0.3	
				Total	100.0	100.0	100.0	

Because only a relatively small proportion of firms (12 per cent in the 2001/02 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 2001/02 survey 17 per cent of firms which are experiencing difficulties in retaining staff mentioned Skilled Trades Persons while 15 per cent mentioned Unskilled workers and 10 per cent mentioned Clerical staff. It is notable from the table that considerably less than 1 per cent of all relevant firms in the more recent survey spontaneously mentioned workers in "All Areas".

Comparison with the situation in the 1999/00 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 Skilled Trades Persons and Retail Sales staff have fallen substantially while the percentages mentioning Unskilled workers and Clerical workers have increased.

6.2 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 6.4 outlines firms' views regarding changes in current skill levels. From this one can see that the great majority of firms (68 per cent) feel required skill levels have been static over the period in question while a significant minority (29 per cent) believe skill requirements are increasing.

Table 6.4: Firms' Perceptions of Trends in the Overall Skills Needed to Keep Their Company Running Effectively

	Tra	d. Manufac	turing	Hi-Tec	h. Manufa	cturing		Construction		
	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
Skill Level is?										
Decreasing	5.8	2.9	5.5	2.8	1.3	2.6	4.4	2.9	4.1	
Static	62.1	48.6	60.8	59.7	59.2	59.7	76.1	59.2	73.7	
Increasing	32.1	48.6	33.6	37.5	39.5	37.8	19.6	37.9	22.2	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	Dist	ributive Se	rvices		ince/Insur		Transport/Personal/Other Services		/Other	
	0-9	10+	Total	0-9	10+	Total	0-9	10+	Total	All
Skill Level is?										
Decreasing	2.3	1.7	2.2	0.7	4.3	1.2	4.4	3.7	4.3	2.9
Static	72.3	49.4	69.3	55.8	48.1	54.9	80.0	58.4	76.3	68.2
Increasing	25.4	48.9	28.4	43.4	47.6	43.9	15.6	37.9	19.4	28.9
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 Transport/Personal/Other Services feel that skill levels are static (74 per cent and 76 per cent respectively). This view is also held by from 60 to 70 per cent of firms in Manufacturing and Distributive Services.

The figures in Table 6.5 provide a comparison of perceptions in changing skill levels in the 2001/02 survey as compared with those in 1998/99 and 1999/00. From this one can see that, in aggregate across all sectors except Finance/Insurance/Business Services, there appears to have been a significant reduction in the percentage of respondents which feel that skill levels are increasing and a strengthening of the view that they have remained static as compared with the preceding twelve months. The percentage recording that skill levels have remained static has increased by 10 percentage points over the period in question. This increased view of static skill levels is apparent in all sectors with the exception of Finance/Insurance/Business Services where, as we have seen, an increasing percentage of firms feel skill requirements are rising.

1000/00 and 200 no2 out voyo											
		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							
2001/02	5.5	60.8	33.6	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							
2001/02	2.6	59.7	37.8	100.0							
Construction											
1998/99	8.8	66.1	25.2	100.0							
1999/00	0.2	42.8	57.0	100.0							
2001/02	4.1	73.7	22.2	100.0							
Distributive Services											
1998/99	6.1	53.8	40.2	100.0							
1999/00	4.4	58.3	37.3	100.0							
2001/02	2.2	69.3	28.4	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							
2001/02	1.2	54.9	43.9	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							
2001/02	4.3	76.3	19.4	100.0							
Total											
1998/99	4.6	48.3	47.1	100.0							
1999/00	3.4	57.5	39.1	100.0							
2001/02	2.9	68.2	28.9	100.0							

Table 6.5: Comparison in Perceptions of Required Skill Levels in 1998/99, 1999/00 and 2001/02 Surveys

6.3 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 12 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 Finance/Insurance/Business Services sectors. In general, difficulties in retaining staff were encountered in a higher percentage of larger than smaller enterprises in services whereas in Manufacturing and Construction there was little difference by firm size.

Overall, there would appear to have been a significant decline in the incidence of these difficulties between the second and third rounds of the survey. In the 1999/00 round of the survey a total of 19 per cent of firms recorded that they experienced difficulties in retaining staff. By the 2001/02 round of the survey this had fallen to 12 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.

We also examined perceived changes in the skill requirement of staff to allow for an efficient running of businesses. We saw that 29 per cent of firms felt that skill requirements were increasing while 68 per cent felt that necessary skill levels were static. This increased view of static skill levels is apparent in all sectors with the exception of Finance/Insurance/Business Services where an increasing percentage of firms feel skill requirements are rising.

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. In the current survey the sample size was increased to permit analysis of the vacancies data for three regions: Dublin (city and county), the Border, Midlands and Western region (BMW) and the Southern and Eastern region (S&E). The results for the current survey will, therefore, be considered in terms of these three regions. In previous surveys the sample size permitted analysis of variations only between Dublin and the Rest of the Country. Comparisons of data for 2001/02 with data for 1998/99 and 1999/00 can, therefore, only be made for Dublin and the Rest of the Country.

Respondents were assigned to one of the three regions 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.

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 the regions. 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, the Border, Midlands and Western region and the Southern and Eastern region classified by broad sector. In aggregate terms, a total of 25 per cent of firms in the Dublin region experience a vacancy or vacancies. The comparable figure for the Border, Midlands and Western region is 22 per cent and the figure for the Southern and Eastern region is 18 per cent. It is also clear from the table that there are substantial sectoral differences in regional variations in the incidence of vacancies. For example, there is significant regional differentiation in terms of the incidence of vacancies in the Traditional Manufacturing, Hi-Tech. Manufacturing and Distributive Services sectors.8 In most sectors vacancy incidence levels are higher in Dublin than in the Border, Midlands and Western region and in the Southern and Eastern region. Vacancy incidence levels are also higher in most sectors in the Border, Midlands and Western region than in the Southern and Eastern region. In the Traditional Manufacturing sector, for example, the differential is about 5 percentage points between Dublin and the other two regions. In Transport/Personal/Other Services the differential is 5 percentage points less in Dublin than in the Border, Midlands and Western region and over 8 percentage points more than in the Southern and Eastern region while the differential is nearly 14

⁸ As discussed in Chapter 4 and as is very clear from Table 7.1 the level in Traditional Manufacturing and in Hi-Tech. Manufacturing is substantially above the aggregate level for all firms as a whole whereas the vacancy incidence rate for Distributive Services is below the national average.

percentage points more in the Border, Midlands and Western region than in the Southern and Eastern region.

The Construction and Distributive Services sectors stand out as experiencing a higher incidence of vacancies in Dublin as compared with the other two regions. In Construction, 25 per cent of firms in Dublin record that they experience vacancies compared with only 16 per cent in the Border, Midlands and Western Region and 21 per cent in the Southern and Eastern region. Only in the Finance/Insurance/Business Services and Transport/Personal/Other Services sectors does it appear that the regional differences in the experience of vacancies are to any appreciable extent redressed, with firms in one of the regions outside Dublin experiencing a higher percentage of vacancies than firms in the Dublin region. In the Finance/Insurance/Business Services sector 32 per cent of firms in the Border, Midlands and Western region experience vacancies compared with 29 per cent in Dublin while in the Transport/Personal/Other Services sector 31 per cent of firms in the Border, Midlands and Western region have vacancies compared with 26 per cent in the Dublin region.

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

		Гrad. Man	ufacturing		Hi-	Tech. Mai	nufacturin	g				
Vacancies at Present?	Dublin	BMW	S & E	Total	Dublin	BMW	S&E	Total				
Yes No	36.2 63.8	30.7 69.3	30.2 69.8	32.4 67.6	36.7 63.3	30.3 69.7	39.5 60.5	35.9 64.1				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
		Constr					Services					
Vacancies at Present?	Dublin	BMW	S&E	Total	Dublin	BMW	S&E	Total				
Yes No	25.3 74.7	16.2 83.8	21.4 78.6	20.9 79.1	18.7 81.3	15.0 85.0	11.0 89.0	14.6 85.4				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
	Fina	nce/Insura Serv	ince/Busir ices	iess	Transpo	rt/Persona	al/Other S	ervices		All Fi	rms	
Vacancies	Dublin	BMW	S & E	Total	Dublin	BMW	S & E	Total	Dublin	BMW	S & E	Total
at Present? Yes No	28.7 71.3	31.8 68.2	25.2 74.8	28.2 71.8	26.1 73.9	31.3 68.7	17.6 82.4	23.4 76.6	24.9 75.1	22.3 77.7	17.9 82.1	21.6 78.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	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, 1999/00, and 2001/02 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 vacancies have narrowed somewhat while an increase in the ratio indicates that the differential between Dublin and other parts of the country has increased.

In aggregate terms one can see that the figures indicate that regional variation in the incidence of vacancies narrowed somewhat over the period 1998/99 to 1999/00 and then widened a little over the period 1999/00 to 2001/02. The ratio of Dublin to the Rest of the Country was almost 1.4 in 1998/99, 1.2 in 1999/00 and 1.3 in 2001/02. These figures suggest that the strongest upswing in demand for labour occurred initially in the Dublin

region and that the upswing then spread to other regions while the strongest downswing in demand was initially felt in other regions.

One can see that there has been an increase in the ratio figure in almost all sectors between 1999/00 and 2001/02 indicating that most sectors of economic activity have experienced this relative regional increase in the incidence of vacancies over the period in question. The only exceptions to this general trend are the Construction and Transport/Personal/Other Services sectors. In the 1999/00 survey the incidence rate in Construction in Dublin was 121 per cent higher (2.21 times) than the rate in the remainder of the country. By the later survey in 2001/02 this differential had fallen substantially so that the Dublin figure stood at 32 per cent (1.32 times) the level in the Rest of the Country. The figures in Table 7.2 show, therefore, that the labour shortage problem has reduced in Dublin and the Rest of the Country and that it is not as great in the Rest of the Country as in the Dublin region.

Table 7.2: Comparison of the Incidence of Vacancies by Sector and Region 1998/99, 1999/00 and 2001/02 Surveys

Percentage of Firms Experiencing Vacancies	Trac Dublin	I. Manufactu Rest of Country	ring Ratio	Hi-Teo Dublin	ch. Manufact Rest of Country	uring Ratio			
1998/99 1999/00 2001/02	58.6 50.3 36.2	49.5 51.0 30.4	1.18 0.99 1.19	68.3 47.3 36.7	55.6 52.4 35.6	1.23 0.90 1.03			
		Construction	1	Dist	ibutive Serv	ices			
	Dublin	Rest of	Ratio	Dublin	Rest of	Ratio			
		Country			Country				
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			
2001/02	25.3	19.2	1.32	18.7	12.5	1.50			
		ance/Insurar siness Servi			sport/Perso ther Service			All Firms	
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99	22.3	20.6	1.08	44.5	29.1	1.53	32.6	23.6	1.38
1999/00	26.3	26.0	1.01	44.1	32.6	1.35	35.1	29.0	1.21
2001/02	28.7	27.7	1.04	26.1	21.4	1.22	24.9	19.5	1.28

7.2 Regional Trends in Vacancy Rates T able 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 and 1999/00 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.

In overall terms (across all grades) there were relatively small differences in the current survey in the vacancy rate between Dublin and the Rest of the Country. 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 were also some regional variations across the occupational categories. For example, vacancy rates in Dublin were higher for Engineering Professionals, Engineering Technicians Computer Technical and Staff/Associate Professionals. In addition to these Professional and Associate Professional grades, vacancy levels were higher in the Dublin region for Production Operatives and Sales and Personal Service workers. Vacancy rates were higher in the Rest of the Country for Science Technicians, Clerical and Secretarial workers, Skilled Maintenance and Skilled Production workers, and Transport and Communications workers.

Table 7.3: Summary of Labour Requirements Satisfied by Occupational Grade in Dublin and the Rest of the Country in 1998/99, 1999/00 and 2001/02

	ountry	Vacancy Rate		_	7	2	က	က	က	2	2	4	4	တ	7	9	က	4	4	4
702	Rest of Country	Per Cent of Labour	Requirement Being Met	66	86	92	26	26	26	92	86	96	96	91	86	94	26	96	96	96
2001/02		Vacancy Rate		~	2	S	က	4	80	2	ro	ო	2	ß	4	~	4	2	4	ო
	Dublin	Per Cent of Labour	Requirement Being Met	66	95	95	97	96	92	86	95	97	86	95	96	66	96	92	96	26
	ountry	Vacancy Rate		2	10	7	12	7	4	5	15	7	Ŋ	တ	9	9	7	9	က	9
2000	Rest of Country	Per Cent of Labour	Requirement Being Met	86	06	93	88	86	98	92	85	86	95	91	94	94	93	94	26	94
1999/2000	<u>=</u>	Vacancy Rate		က	12	6	15	4	2	2	13	2	9	7	5	4	7	0	9	9
	Dublin	Per Cent of Labour	Requirement Being Met	26	88	91	85	96	92	92	87	86	94	93	92	96	93	91	94	94
	ountry	Vacancy Rate		τ-	19	S	တ	9	12	4	10	က	2	Ø	5	œ	2	13	∞	7
1998/1999	Rest of Country	Per Cent of Labour	Requirement Being Met	66	06	95	91	06	80	96	06	97	92	91	92	92	92	87	92	93
199		Vacancy Rate		က	2	0	2	တ	23	7	9	~	7	13	က	က	2	7	2	9
	Dublin	Per Cent of Labour	Requirement Being Met	26	92	100	95	91	77	93	94	66	93	87	26	26	92	93	92	94
				Managers/Proprietors	Engineering Professionals	Science Professionals	Computer Professionals	Other Professionals	Engineering Technicians	Science Technicians	Computer Technical Staff- Associate Professional Level	Other Associate Professional	Clerical and Secretarial	Skilled Maintenance & Skilled Production	Production Operatives	Transport & Communications	Sales	Personal Service	Labourers & Security	Total

Comparable figures from the 1998/99 and 1999/00 surveys are also presented in the table. Focusing on changes in vacancy rates between 1999/00 and 2001/02, the overall vacancy rate has halved in aggregate from 6 per cent to 3 per cent. The vacancy rate has fallen in the Dublin region across all occupational groups except Engineering Technicians and Other Associate Professionals while in the Rest of the Country the vacancy rate has fallen for all occupational groups except Other Professionals, Other Associate Professionals, Science Technicians and Labourers and Security workers.

In general, vacancy levels in areas outside Dublin, displayed a similar degree of fluctuation by occupational group as did those in Dublin. The principal exception to this general trend is Engineering Technicians whose vacancy level in Dublin increased from 5 per cent in 1999/00 to 8 per cent in 2001/02 while in the Rest of the Country its vacancy level fell from 14 per cent to 3 per cent.

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 2001/02 survey which the firm considered to be difficult-to-fill. From the table one can see that a total of 12 per cent of firms in Dublin recorded that they had difficult-to-fill vacancies. This compares with 15 per cent of firms in the Border, Midlands and Western region and 11 per cent in the Southern and Eastern region. With the exception of the Hi-Tech. Manufacturing and Construction sectors, the percentage of firms experiencing difficult-to-fill vacancies is lower in Dublin than in the Border, Midlands and Western region in all other areas of economic activity. The differential is also lower in Dublin than in the Southern and Eastern region in all sectors except Construction and Distributive Services. For example, the percentage of firms in the Traditional Manufacturing sector in Dublin which say they are experiencing difficult-to-fill vacancies is 6 points lower than in the Southern and Eastern region. In the Hi-Tech. Manufacturing sector the differential between these two regions is just over 4 percentage points, being higher in the Southern and Eastern region than in Dublin. In most sectors a larger percentage of firms in the Border, Midlands and Western region experienced difficult-to-fill vacancies than firms in the Southern and Eastern region. Thus, in Transport/Personal/Other Services 18 per cent of firms in the Border, Midlands and Western region experienced difficult-to-fill vacancies compared with 12 per cent in the Southern and Eastern region.

Table 7.5 presents comparative figures on the regional incidence of difficult-to-fill vacancies in each sector at each round of the survey. 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 fallen substantially between Dublin and the Rest of the Country over the period 1999/00 and 2001/02. In the earlier year a total of 30.9 per cent of firms in Dublin said that they were experiencing difficult-to-fill vacancies. This compared to a total of 21.6 per cent of firms in the Rest of the Country, giving a ratio of 1.43. By the later survey 12 per cent of Dublin firms recorded that they were experiencing a difficult-to-fill vacancy compared with 13 per cent of firms in the Rest of the Country. This results in a significant decrease in the ratio from 1.43 to 0.92. This decrease indicates that the experience of difficult-to-fill vacancies in the Rest of the Country is now similar to the experience in the Dublin region whereas in the earlier surveys a greater percentage of firms in Dublin experienced difficulty in filling vacancies than firms in the Rest of the Country.

7.3 Regional Trends in Difficult-to-Fill Vacancies

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	T Dublin	rad. Man BMW	ufacturin S & E	g Total	Hi-Tech. Dublin	Manufac BMW	sturing S & E	Total				
Yes No	18.7 81.3	25.3 74.7	24.9 75.1	22.9 77.1	21.6 78.4	20.4 79.6	25.9 74.1	23.0 77.0				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
Current Vacancies Difficult-to-Fill	Dublin	Constr BMW	ruction S & E	Total	Dis Dublin	stributive BMW	Service S & E	s Total				
Yes No	16.8 83.2	15.7 84.3	10.4 89.6	13.8 86.2	7.0 93.0	7.8 92.2	5.8 94.2	6.7 93.3				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
			nsurance Services		Transport	/Persona	al/Other \$	Services		All Fi	rms	
Current Vacancies Difficult-to-Fill	Dublin	BMW	S & E	Total	Dublin	BMW	S&E	Total	Dublin	BMW	S & E	Total
Yes No	14.6 85.4	22.7 77.3	18.4 81.6	17.3 82.7	10.0 90.0	18.3 81.7	11.7 88.3	12.0 88.0	11.5 88.5	15.0 85.0	11.2 88.8	12.1 87.9
Total	100.0	100.0	100.0	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 Difficult-to-Fill Vacancies by Sector and Region 1998/99, 1999/00, and 2001/02 Surveys

	Tra	d. Manufacturi	ng	Hi-Tee	ch. Manufact	uring			
Percentage of Firms Experiencing Difficult-to-Fill Vacancies	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio			
1998/99 1999/00 2001/02	51.1 46.7 18.7	41.6 44.6 25.1	1.23 1.05 0.75	28.8 44.9 21.6	45.8 48.7 23.6	1.28 0.92 0.91			
	Dublin	Construction Rest of Country	Ratio	Disti Dublin	ributive Serv Rest of Country	ices Ratio			
1998/99 1999/00 2001/02	27.4 56.5 16.8	14.0 25.5 12.6	1.96 2.21 1.33	29.8 23.0 7.0	19.9 14.8 6.5	1.50 1.55 1.08			
		ance/Insuranc			sport/Perso			All Firms	
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99 1999/00 2001/02	12.5 26.2 14.6	14.2 20.9 20.1	0.88 1.25 0.73	42.8 42.2 10.0	23.6 28.2 13.6	1.81 1.50 0.74	28.4 30.9 11.5	21.0 21.6 12.5	1.35 1.43 0.92

From the detail of the table one can see that the regional differential between Dublin and the Rest of the Country has decreased over the period 1999/00 to 2001/02 in all sectors and that the reduction has been particularly large in the Construction, Finance/Insurance/Business Services and Transport/Personal/Other Services sectors.

It is clear, therefore, that the reduction in the vacancy rate in Dublin and the Rest of the Country has been accompanied by some widening of the differential in vacancy rates between the two regions (from Section 7.1 above) and a significant narrowing of the gap between the two regions in the percentage of firms experiencing difficult-to-fill vacancies. In broad aggregate terms the gap in the incidence of difficult-to-fill vacancies between Dublin and the Rest of the Country has almost closed. This indicates that the easing of the vacancy problem is being accompanied, as one would expect, by a significant reduction in the percentage of firms experiencing difficult-to-fill vacancies in both the Dublin region and the Rest of the Country.

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

Table 7.6 considers regional trends in the year preceding the survey in the incidence of vacancies which the firm considered to be difficult-to-fill. At a broad aggregate level 19 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 Border, Midlands and Western Region was 17 per cent while for the Southern and Eastern region it was 18 per cent. The incidence of difficult-to fill vacancies in the year preceding the survey was higher among firms in Dublin than in the Border, Midlands and Western region in most sectors. However, there was no clear pattern in the relationship across sectors between Dublin and the Southern and Eastern region or between the Border, Midlands and Western region and the Southern and Eastern region. In the Construction sector there was a noticeable difference in the percentage of firms in Dublin which had particularly difficult-to-fill vacancies in the year preceding the survey compared with firms in the Border, Midlands and Western region (21 per cent of firms in Dublin versus 4 per cent in the BMW region).

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

	1	rad. Man	ufacturing		Hi-	Tech. Ma	nufacturii	ng				
Vacancies difficult-to-fill in last year?	Dublin	BMW	S&E	Total	Dublin	BMW	S&E	Total				
Yes No	30.7 69.3	29.7 70.3	40.3 59.7	34.0 66.0	27.6 72.4	36.2 63.8	34.4 65.6	33.1 66.9				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
		Constr			D		e Service:	5				
Vacancies difficult-to-fill in last year?	Dublin	BMW	S & E	Total	Dublin	BMW	S & E	Total				
Yes No	20.7 79.3	3.8 96.2	19.2 80.8	15.2 84.8	19.1 80.9	14.8 85.2	12.9 87.1	15.5 84.5				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
			nsurance/		Transpo	rt/Person	al/Other S	Services		All Fi	rms	
Vacancies difficult-to-fill in last year?	Dublin	BMW BMW	Services S & E	Total	Dublin	BMW	S & E	Total	Dublin	BMW	S&E	Total
Yes No	17.3 82.7	13.1 86.9	16.9 83.1	16.4 83.6	17.4 82.6	32.6 67.4	20.6 79.4	21.2 78.8	18.7 81.3	17.0 83.0	17.8 82.2	18.0 82.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7.7 presents a comparison of the incidence of difficult-to-fill vacancies in the year preceding both rounds of the survey in 1998/99 and in 1999/00. The figures in the table relate to the incidence of difficult-to-fill vacancies in Dublin and the Rest of the Country for the three years in which

the vacancies survey was undertaken. 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 two years indicates that the gap between Dublin and the Rest of the Country has narrowed over the period 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, 1999/00 and 2001/02 Surveys

	Trad	. Manufactu	ıring	Hi-Ted	h. Manufac	turing			
Percentage of Firms Experiencing Difficult-to- Fill Vacancies	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio			
1998/99 1999/00 2001/02	62.9 44.5 30.7	47.8 47.4 35.7	1.32 0.94 0.86	61.2 48.8 27.6	51.7 55.1 35.2	1.18 0.88 0.78			
	Dublin	Construction Rest of Country	n Ratio	Distr Dublin	ibutive Serv Rest of Country	vices Ratio			
1998/99 1999/00 2001/02	28.8 47.6 20.7	20.4 25.5 13.0	1.41 1.87 1.59	29.0 32.6 19.1	19.4 26.1 13.6	1.49 1.25 1.40			
		ince/Insurai			sport/Perso			All Firms	
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99 1999/00 2001/02	25.4 39.1 17.3	8.5 30.6 15.4	2.99 1.28 1.12	52.9 45.4 17.4	22.1 36.7 24.0	2.39 1.24 0.74	34.7 38.3 18.7	20.9 29.6 17.6	1.66 1.29 1.06

From the overall aggregate figure it is evident 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. At the time of the 2001/02 survey the ratio had fallen to 1.06 indicating that about the same percentage of firms in Dublin and the Rest of the Country experienced difficult-to-fill vacancies in the year preceding the survey. This reduction in the difference between Dublin and elsewhere is evident in all sectors except Distributive Services. In the 1998/99 survey the incidence of difficult-to-fill vacancies in Distributive Services in the year preceding the survey in Dublin was 49 per cent higher than that in the Rest of the Country. By the 1999/00 survey this had fallen to 25 per cent but in the 2001/02 survey the ratio increased to 40 per cent. The experience across sectors in the two regions of difficult-to-fill vacancies in the year preceding the survey is mixed. In the two manufacturing sectors and in Transport/Personal/Other Services a smaller percentage of firms in Dublin than in the Rest of the Country experienced difficult-to-fill vacancies in the year preceding the survey whereas a smaller percentage of firms in the Rest of the Country experienced such difficulties in Construction, Distributive Services, and Finance/Insurance/Business Services.

7.4 Regional Trends in Difficulties in Retaining Existing Staff T able 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 12 per cent of firms in Dublin recorded that they were experiencing difficulties in retaining existing staff. This compares with a figure of 11 per cent for firms in both the Border, Midlands and Western and Southern and Eastern regions.

Firms in the Southern and Eastern region in most sectors appeared to have less difficulty in retaining existing staff than firms in the Dublin region or in the Border, Midlands and Western region. The pattern was more mixed for Dublin and the Border, Midlands and Western regions with a greater percentage of firms in Construction, Distributive Services, and Transport/Personal/Other Services in the Dublin region having difficulty in retaining staff in the year preceding the survey than in the Border, Midlands and Western region and a smaller percentage of firms in the two manufacturing sectors and Finance/Insurance/Business Services having such difficulties than firms in the Border, Midlands and Western region.

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

		Trad. Man	ufacturing		Hi-	Tech. Mai	nufacturi	ng				
Difficulty in Retaining Staff?	Dublin	BMW	S&E	Total	Dublin	BMW	S&E	Total				
Yes No	13.3 86.7	24.0 76.0	11.2 88.8	15.6 84.4	17.8 82.2	26.8 73.2	18.7 81.3	20.9 79.1				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
			ruction			stributive		~				
Difficulty in Retaining Staff?	Dublin	BMW	S&E	Total	Dublin	BMW	S&E	Total				
Yes No	8.9 91.1	8.4 91.6	8.8 91.2	8.7 91.3	16.1 83.9	13.1 86.9	6.9 93.1	11.6 88.4				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
			nsurance/ Services		Tran	sport/Pei Servi		her		All Fi	rms	
Difficulty in Retaining Staff?	Dublin	BMW	S & E	Total	Dublin	BMW	S & E	Total	Dublin	BMW	S & E	Total
Yes No	8.1 91.9	13.6 86.4	1.7 98.3	7.2 92.8	13.7 86.3	3.2 96.8	23.0 77.0	15.9 84.1	12.4 87.6	11.3 88.7	11.1 88.9	11.6 88.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7.9 summarises changes in regional trends in difficulties experienced in retaining staff over the years in which the survey was undertaken. 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. Overall, 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. The ratio continued to fall in the 2001/02 survey with the incidence rate in Dublin being only 12 per cent more than in the Rest of the Country (1.12 times more than in the Rest of the Country). The same trend was observed between 1999/00 and 2001/02 across all sectors except Traditional Manufacturing and Distributive Services. For example, in Hi-Tech. Manufacturing the ration fell from 1.11 in 1999/00 to 0.81 in 2001/02 and in Construction it fell from 1.80 to 1.03.

Table 7.9: Comparison of the Incidence of Difficulties in Retaining Staff by Sector and Region in the 1998/99, 1999/00 and 2001/02 Surveys

Percentage of firms Experiencing difficult-to- fill vacancies	Tra Dublin	d. Manufacturii Rest of Country	ng Ratio	Hi-Tecl Dublin	h. Manufacto Rest of Country	uring Ratio			
1998/99 1999/00 2001/02	35.8 17.9 13.3	36.0 37.3 16.7	0.99 0.48 0.80	44.7 39.3 17.8	31.5 35.3 22.0	1.42 1.11 0.81			
	Dublin	Construction Rest of Country	Ratio	Distril Dublin	butive Servi Rest of Country	ces Ratio			
1998/99 1999/00 2001/02	38.1 24.3 8.9	7.6 13.5 8.6	5.01 1.80 1.03	23.6 16.3 16.1	6.5 15.5 9.2	3.63 1.05 1.75			
		ance/Insuranc			sport/Persor			All Firms	
	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio	Dublin	Rest of Country	Ratio
1998/99 1999/00 2001/02	9.7 28.4 8.1	32.2 10.0 6.3	0.30 2.84 12.9	31.0 26.6 13.7	14.7 26.0 17.4	2.11 1.02 0.79	23.0 22.3 12.4	12.7 17.9 11.1	1.81 1.25 1.12

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 the Rest of the Country mention professional jobs than do their counterparts in Dublin. For example, the percentages of firms in Dublin which mention Finance Specialists and Engineers is higher than the percentages of firms mentioning these jobs in the Rest of the Country.

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, 1999/00 and 2001/02 Surveys

	1998/199	98 Survey	1999/200	0 Survey	2001/200	2 Survey
Nature of Job	Dublin	Rest of Country	Dublin	Rest of Country	Dublin	Rest of Country
		•	(Per	Cent)		_
Finance Specialists	0.8	4.3	2.7	0.5	4.9	6.7
Computer Specialists	10.7	3.5	5.1	2.1	1.7	0.6
Engineers	1.7	2.9	1.9	1.5	1.5	4.5
Chemists	0.0	0.6	0.0	0.3	0.2	0.0
Technicians	5.6	5.2	5.3	3.7	1.2	1.3
Skilled/Trades Persons	18.2	8.3	19.8	36.1	11.2	21.6
Semi-Skilled	17.7	11.1	3.7	4.5	1.5	0.9
Unskilled	15.3	18.1	5.8	14.3	13.6	16.1
Technical Sales	3.9	12.0	12.3	4.4	9.6	6.0
Managers	1.1	3.5	1.1	1.1	0.4	1.5
Clerical	20.1	22.8	11.1	7.0	13.1	8.2
Other Professionals	1.8	0.1	13.5	0.6	1.8	1.3
"All Areas"			12.9	0.2	0.0	0.5
Retail Sales			2.9	14.6	2.3	10.1
Apprenticeship			0.3	3.3	0.4	0.3
Catering			1.5	5.2	3.9	2.5
Other	3.1	7.4	0.0	0.7	33.0	18.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

In addition a higher proportion of firms in the Rest of the Country than in Dublin record Skilled Trades Persons and Unskilled Workers (22 per cent and 16 per cent respectively) as being the ones in which they were experiencing difficulties in retaining their staff. It is noteworthy that as many as 33 per cent

of firms in Dublin cited difficulties in retaining staff in "Other Jobs" compared with 18 per cent in the Rest of the Country.

7.5 Summary

In this chapter we considered some regional variations in several aspects of the incidence, rate and nature of vacancies. As the sample size for the 2001/02 survey is larger than for previous surveys we were able to provide details on regional variations between Dublin, the Border, Midlands and Western and the Southern and Eastern regions. 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 some outlets or branches are located in Dublin and some located in the other two regions) 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 (25 per cent) was higher than the situation for their counterparts in the Border, Midlands and Western and Southern and Eastern regions (22 and 18 per cent respectively). In most sectors the Dublin region had a higher incidence of vacancies than the other two regions and the Border, Midlands and Western region had a higher incidence of vacancies in most sectors than the Southern and Eastern region. The Construction and Distributive Services sectors stand out as having a higher incidence of vacancies in Dublin than in the other two regions. For example, as many as 25 per cent of firms in the Construction sector in Dublin recorded that they experienced vacancies compared with only 16 per cent of their counterparts located in the Border, Midlands and Western region and 21 per cent in the Southern and Eastern region.

In terms of changes in regional trends in the incidence of vacancies over the three surveys (1998/99, 1999/00, and 2001/02), 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 and then widened a little between 1999/00 and 2001/02. The data suggest that the strongest upswing in demand for labour occurred initially in the Dublin region and that the upswing then spread to other regions while the strongest downswing in demand was initially felt in other regions than Dublin. 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 whereas by the third survey the figure for Dublin was 28 per cent higher than for the Rest of the Country. In general the problem of labour shortages has become much less acute in the Rest of the Country than in the Dublin region.

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 period we found that, in general terms such problems were experienced by a somewhat larger percentage of firms in Dublin (19 per cent) than in the Border, Midlands and Western Region (17 per cent) and in the Southern and Eastern Region (18 per cent). Regional imbalances in difficult-to-fill vacancies in the year preceding the survey appear to have been somewhat greater in the Construction sector than in other sectors of the economy.

Finally, we considered regional trends in difficulties in retaining existing staff. These showed that, there was very little variation across regions in the percentage of firms experiencing such difficulties. About 12 per cent of firms

 $^{^9}$ The reader is reminded that the figures in Table 7.10 are based only on the 16.7 per cent of firms in 1998/99, 19.4 per cent in the 1999/00 survey, and 11.6 per cent in the 2001/02 survey which said that they were having difficulties in retaining staff.

in the Dublin Region reported such difficulties while 11 per cent of firms in each of the other two regions had such difficulties. 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. In the 2001/02 survey the rate in Dublin had fallen to only 12 per cent more than in the Rest of the Country. There was also some evidence to suggest that a higher proportion of firms in the Rest of the Country than in Dublin record Skilled Trades Persons and Unskilled workers (22 per cent and 16 per cent respectively) as being the ones in which they were experiencing difficulties in retaining their staff.

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.

In Section 8.1 we consider the extent to which firms undertake formal, structured training and the intensity of such training and we provide a brief summary of our main findings in Section 8.2.

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 34 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 – 60 per cent of firms in the Hi-tech sector and 53 per cent in the Traditional sector. Approximately 40 per cent of firms participated in this type of activity in Construction and Finance/Insurance/Business Services. Rates were lowest in the Transport/Personal/Other Services where only about a quarter 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 nearly 85 per cent of larger firms engaged in formal structured training for staff. The comparable figure among smaller companies in that sector was 57 per cent.

Table 8.2 presents summary details on changes in the incidence of firms engaging in formal structured training between the 1998/99, 1999/00, and 2001/02 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 second survey in 1999/00 the figure had fallen to 27 per cent. In the most recent survey in 2001/02 it rose back up to 34 per cent. It can be seen from the detail of the table that the figures suggest that there has been relatively little change in the incidence of formal training activity among the larger firms in most sectors between 1999/00 and 2001/02. In general, the incidence of formal training activity among larger firms has fallen by a few percentage points between the last two surveys in large firms in all sectors.

There has, however, been an increase in the incidence of such training among smaller firms in all sectors. The increase has been particularly marked in Construction where the percentage of small firms providing formal training has grown from 12 per cent in 1999/00 to 34 per cent in 2001/02 and in Transport/Personal/Other Services where 17 per cent of small firms provided such training in 2001/02 compared with 11 per cent in 1999/00. Given the preponderance of smaller firms in all sectors the increase in training provision in such firms is reflected in an overall increase in incidence levels at an aggregate level.

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? Yes No Total (Wgt'dn)	Trad. 0-99 49.2 50.8 100.0 (2,400)	85.0 100- 85.0 15.0 100.0 (200)	52.5 47.5 100.0 (2,600)	Hi-Tec 0-99 56.5 43.5 100.0 (2,100)	83.8 100-1 83.8 16.2 100.0 (300)	60.1 39.9 100.0 (2,400)	34.0 66.0 100.0 12,000	62.5 37.5 100.0 2,000	38.1 61.9 100.0 14,000	
Formal Structured Training?		butive Se		Fina	nce/Insura	ance/	·	rt/Person Services 10+	·	All Firms
Yes No Total (Wgt'dn)	24.1 75.9 100.0 (29,000)	67.9 32.1 100.0 (4,200)	29.6 70.4 100.0 33,200	38.0 62.0 100.0 (18,400	75.7 24.3 100.0 (2,400)	42.2 57.8 100.0 (20,800)	17.4 82.6 100.0 (20,500)	69.1 30.9 100.0 (4,200)	26.2 73.8 100.0 (24,700)	34.0 66.0 100.0 97,700

Table 8.2: Summary of the Incidence of Formal Training Among Companies 1998/99, 1999/00 and 2001/02.

Percentage of Firms Participating in Formal, Structured Training

	1998/99 (Per ce	1999/00 nt Participa	2001/02 iting)		1998/99 (Per c	1999/00 ent Participa	2001/02 iting)
Traditional Ma	nufacturing			Distributive Services			
Small	54.4	44.5	49.2	Small	20.4	19.4	24.1
Large	90.0	87.4	85.0	Large	62.7	70.3	67.9
Total	58.3	49.9	52.5	Total	25.3	25.5	29.6
Hi-Tech. Manu	ıfacturing			Finance/Insurance/Business Services			
Small	56.1	54.2	56.5	Small	41.2	25.5	38.0
Large	93.6	97.3	83.8	Large	74.3	79.0	75.7
Total	61.1	60.0	60.1	Total	44.8	32.2	42.2
Construction				Transport/Personal/Other Services			
Small	20.8	11.8	34.0	Śmall	33.3	11.4	17.4
Large	60.9	63.2	62.5	Large	74.0	70.5	69.1
Total	23.9	14.8	38.1	Total	40.3	23.4	26.2
				All Firms	33.5	26.9	34.0

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 24 per cent of persons engaged in private sector companies received some form of formal, structured training. This represents almost 290,000 workers in the relevant sectors. The incidence is highest in the Hi-Tech. Manufacturing sector and in Finance/Insurance/Business Services whilst being lowest in Transport/Personal/Other Services. In the latter sector 18 per cent of those engaged were involved in some form of training.

It is clear from the table that, in general, 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 only 10 per cent of workers in smaller enterprises received such training. This compares with 34 per cent in larger enterprises in this sector.

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 0-99 100+ Total			Hi-Tech. Manufacturing 0-99 100+ Total			0-9			
A. Total Workforce	58,000	77,000	135,000	56,000	119,000	175,000	68,800	66,300	135,100	
B. No. of persons on training courses	7,300	20,600	27,900	17,100	35,400	52,500	15,400	17,000	32,300	
C. % persons on training courses D. Days on training	13	27	21	30	30	30	22	26	24	
courses E. Average no. of	21,300	31,700	53,000	47,000	58,200	105,200	35,800	46,000	81,900	
days on training courses for those trained F. Average no. of days on training	2.9	1.5	1.9	2.7	1.6	2.0	2.3	2.7	2.5	
course for all persons engaged	0.4	0.4	0.4	0.8	0.5	0.6	0.5	0.7	0.6	
	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 B. No. of persons on	99,000	134,000	233,000	52,200	138,700	190,900	58,700	253,800	312,500	1,181,500
training courses C. % persons on	9,700	46,000	55,600	13,900	48,300	62,200	10,200	47,100	57,300	287,800
training courses D. Days on training	10	34	24	27	35	33	17	19	18	24
courses	51,800	40,400	92,200	56,000	90,600	146,600	21,600	49,500	71,100	550,000
E. Average no. of days on training courses for those trained F. Average no. of	5.3	0.9	1.7	4.0	1.9	2.4	2.1	1.0	1.2	1.9
days on training course for all persons engaged	0.5	0.3	0.4	1.1	0.7	0.8	0.4	0.2	0.2	0.5

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. Those who received any such training received an average of 1.9 days. The lowest *incidence* of training occurred in the Transport/Personal/Other Services sector and this sector also had the lowest average number of days, 1.2, spent on such training among those who participated in the relevant courses or programmes. It is clear from the table, however, that

the differences between the sectors are really quite small in absolute terms

Another measure 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 Finance/Insurance/Business Services sector (0.8 days) while being lowest in Traditional Manufacturing and Distributive Services (0.4 days in both cases).

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 34 per cent of firms in which some persons attended formal training programmes or courses.

The last column of Table 8.4 shows, for example, that in just over 8 per cent of firms which provided some such training, less than 10 per cent of the workforce was involved. A further 21 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, 62 per cent of smaller firms in the Transport/Personal/Other Services recorded that 50-75 per cent of their workforce was engaged in structured training. The comparable figure for their larger counterparts was 9 per cent. Similarly, almost 35 per cent of smaller firms compared with less than 20 per cent of larger firms in Finance/Insurance/Business Services had 50-75 per cent of their workforce involved in training.

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. Ma	nufacturii		Hi-Tech. nt of firm	. Manufa s which (_		nstruction I, structu		ing)
Percentage of Workforce which Attended Formal Training	0-99	100+	Total	0-99	100+	Total	0-9	10+	Total	
<10 per cent	37.0	43.4	38.1	26.8	42.2	29.5	0.0	21.5	5.3	
10 to <25%	30.3	20.0	28.8	30.5	23.1	29.2	13.3	27.7	16.8	
25 to <50% 50 to <75%	16.9 7.9	16.6 7.3	16.8 7.7	17.1 9.8	7.2 11.6	15.3 10.1	33.3 26.7	20.0 20.0	30.1 25.0	
75% or more	7.9	7.3 12.7	7.7 8.6	15.9	15.9	15.9	26.7	10.7	22.8	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
(Wgt'd n)	1,100	200	1,300	1,200	300	1,400	3,800	1,200	5,000	
	Distributive Services			Finance/Insurance/						
	Distrib	utive Ser	vices					port/Pers		
	Distrib	utive Ser		Busin	ess Serv	rices	Oth	ier Servic	es	ina)
Percentage of	Distrib	utive Ser 10+			ess Serv	rices	Oth	ier Servic	es	ing) All Firms
Percentage of Workforce which Attended Formal			(Per ce	Busin nt of firm	ess Serv s which o	rices engaged	Oth in forma	ier Servic I, structu	es red train	
Workforce which Attended Formal Training	0-9	10+	(Per ce Total	Busin nt of firm 0-9	ess Serv s which (10+	rices engaged Total	Oth in forma 0-9	ier Servic I, structu 10+	es red train Total	All Firms
Workforce which Attended Formal Training <10 per cent	0-9	10+ 19.0	(Per cer Total	Busin nt of firm 0-9	ess Serv s which o 10+	rices engaged Total 2.9	Oth in forma 0-9	ier Servic I, structu 10+ 24.1	ces red train Total	All Firms
Workforce which Attended Formal Training <10 per cent 10 to <25%	0.9 0.0 30.0	10+ 19.0 37.3	(Per cer Total	Busin nt of firm 0-9 0.0 9.7	10+ 14.4 30.0	rices engaged Total 2.9 13.8	Oth in forma 0-9 0.0 0.0	24.1 32.4	red train Total 10.6 14.2	8.2 21.0
Workforce which Attended Formal Training <10 per cent	0-9	10+ 19.0	(Per cer Total	Busin nt of firm 0-9	ess Serv s which o 10+	rices engaged Total 2.9	Oth in forma 0-9	ier Servic I, structu 10+ 24.1	red train Total 10.6 14.2 30.4	All Firms
Workforce which Attended Formal Training <10 per cent 10 to <25% 25 to <50%	0.0 30.0 36.7	10+ 19.0 37.3 24.7	(Per cer Total 5.7 32.2 33.1	Busin nt of firm 0-9 0.0 9.7 22.3	10+ 14.4 30.0 23.8	rices engaged Total 2.9 13.8 22.6	Oth in forma 0-9 0.0 0.0 37.5	24.1 32.4 21.3	red train Total 10.6 14.2	8.2 21.0 27.8
Workforce which Attended Formal Training <10 per cent 10 to <25% 25 to <50% 50 to <75%	0.9 0.0 30.0 36.7 23.3	19.0 37.3 24.7 10.1	5.7 32.2 33.1 19.4	Busin nt of firm 0-9 0.0 9.7 22.3 34.7	14.4 30.0 23.8 18.3	2.9 13.8 22.6 31.4	Oth in forma 0-9 0.0 0.0 37.5 62.5	24.1 32.4 21.3 9.3	red train Total 10.6 14.2 30.4 39.1	8.2 21.0 27.8 26.5

8.2 Summary

In this chapter we considered several aspects of the incidence and nature of training. W saw that a total of 34 per cent of firms engage in formal, structured training. There is a much higher incidence among larger than smaller companies. Over 80 per cent of larger firms in Hi-Tech. Manufacturing and Traditional Manufacturing, for example, had some staff who attended formal structured training courses compared with around 50 per cent of smaller firms. Over the period in which the three surveys were carried out there have been some fluctuations in the percentage of firms participating in formal, structured training. In the 1998/99 survey just over a third of firms participated in such training. In the second survey in 1999/00 the figure fell to around a quarter while in the third survey in 2001/02 it recovered to just over a third. These fluctuations are mainly attributable to the behaviour of smaller firms which show much greater volatility in participation in training than larger firms. On average, those who received formal structured training received 1.9 days in the year preceding the survey.

9. MAIN FINDINGS

9.1 Background

Since the last vacancies survey was carried out at the end of 1999 and the beginning of 2000 the Irish economy has experienced a slow-down in the rate of employment growth. This was expected as the employment growth rates experienced during the last half of the 1990s were unsustainable in the long term. Nevertheless, new jobs continue to be created and the demand for labour has been accommodated by increases in the female labour-force participation rate and immigration. The slow-down in employment growth is reflected in the results of the vacancies survey carried out at the end of 2001 and the beginning of 2002 in a significant drop in the percentage of firms experiencing vacancies, in a halving of the vacancy rate since the last survey, in a noticeable decrease in the percentage of firms reporting difficult-to-fill vacancies, and in a reduction in firms' difficulties in retaining staff.

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 40,500 persons from the end of 2000 to the end of 2001 when it stood at 1,181,495 persons. This represented a growth of 3.5 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. We found that based on their own figures, the relevant non-agricultural private sector labour market looks likely to grow by another 12,000 persons between the first quarter of 2002 and the same period in 2003.

9.3 Incidence and Level of Vacancies

In Chapter 4 we saw that a total of 21 per cent of firms in the 2001/02 survey indicated that they were experiencing vacancies. This represented a 10 percentage point decrease from the position in the previous survey when the rate stood at 31 per cent. The most substantial sectoral decreases in the incidence of vacancies were found in Distributive Services and Construction. The vacancies data indicate that there has been considerable easing of demand pressure in the labour market in nearly all sectors.

The 2001/02 survey indicated that there were approximately 40,000 vacancies in the economy at the time of interviewing. This represents a vacancy rate of 3 per cent. In other words, 3 per cent of the total labour requirement of the relevant private sector labour market could not be met. This level of vacancies represents a 48 per cent decrease (37,600 persons) as compared to the previous survey when the level stood at 77,600.

The Transport/Personal/Other Services sector stands out as having experienced the most substantial decrease in vacancies over the period in

question. Its number of vacancies fell from 25,200 in 1999/2000 to 9,400 in 2001/02.

Of particular significance, we found that decreases in vacancies occurred across nearly all occupational groups. The most substantial absolute declines are in the Personal Services, Skilled Maintenance and Skilled Production, Clerical and Secretarial, and Production Operatives groups. The number of vacancies for jobs for Computer Professionals and Computer Technicians fell by about 40 per cent in each case. The substantial decline in the vacancy rate means that vacancies are now approaching a position where job openings for some occupations are a result of normal staff turnover rather than excess demand for labour. For other occupations the continuation of relatively high vacancy rates results in employers trying to recruit staff from abroad. Just over a quarter of the firms in our sample which have current vacancies were trying to find staff overseas compared with about one-sixth in the previous survey. In the twelve months preceding the survey over 20,000 workers were recruited from outside Ireland. Of these 37 per cent were recruited in other EU countries and 63 per cent from the Rest of the World. Differences in the recruitment pattern by sector suggest that relatively high-skill sectors are likely to find the workers they require in other EU countries whereas relatively low-skill sectors are more likely to fill their vacancies by recruiting from countries outside the EU.

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 18 per cent of respondents said that they had experienced such vacancies. This represented a fall of 3 percentage points in terms of incidence levels as compared with the previous survey.

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. Somewhat over half of these employers also mentioned that the problematic vacancies resulted in restrictions to business development (56 per cent) while 53 per cent noted that they resulted in a loss of quality of service. In relation to the consequences of difficult-to-fill vacancies about half of the relevant firms said their response is to offer higher wage and salary levels. This represents a decrease of 4 percentage points as compared with firms saying they responded in this way in the enquiry conducted in 1999/00. This trend towards a lower percentage of respondents who mention increasing wages occurs in the context of falling percentages of employers who say that they would train less qualified recruits or hire part-time or contract staff.

9.5 Difficulties in Retaining Staff

A total of 12 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. There was a decrease across all sectors in the percentage of firms which experienced such difficulties, particularly in the Traditional and Hi-Tech. Manufacturing and Finance/Insurance/Business sectors The weakening of excess demand in most sectors shown by these data and the vacancies data appears to have resulted in a reduction of job opportunities for employees and of the pressure on employers to poach staff from other firms. The type of jobs which were most frequently mentioned by firms as posing difficulties in retaining staff were Skilled Trades Persons and Unskilled workers.

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, the remainder of the Southern and Eastern Region, and the Border, Midlands and Western Region.

We found that the percentage of firms in Dublin which were experiencing a vacancy (25 per cent) was 3 percentage points higher than in the Border, Midlands and Western region and 7 percentage points higher than in the Southern and Eastern region. The Hi-Tech. Manufacturing sector stood out as being substantially differentiated in terms of regional variations. As many as 40 per cent of firms in that sector in the Southern and Eastern region recorded that they had experienced vacancies compared with 37 per cent of firms in the Dublin region and 30 per cent in the Border, Midlands and Western region.

In terms of changes in regional trends in the incidence of vacancies over the two surveys (1999/00 and 2001/02), we found that, in aggregate terms, the incidence of vacancies between Dublin and the Rest of the Country had widened somewhat over the period. The figures suggest that the upswing in demand for labour between 1998/99 and 1999/00 occurred initially in the Dublin region while the slow down in demand between 1999/00 and 2001/02 was initially felt in regions outside Dublin. In the second survey the incidence of vacancies among firms in Dublin was 21 per cent higher than among firms in the Rest of the Country. By the third round of the survey the figure for Dublin was 28 per cent higher than that for the Rest of the Country. In general, this widening of the gap between Dublin and the Rest of the Country, in terms of the incidence of vacancies, affected all sectors except for Construction and Transport/ Personal/Other services.

Finally, we considered regional trends in difficulties in retaining existing staff. These showed that, with the exception of the Hi-Tech. Manufacturing and Construction sectors, difficulties in retaining existing staff are currently being experienced by more firms in the Border, Midlands and Western, and Southern and Eastern regions than in the Dublin region. This is reflected at an aggregate level across most sectors in terms of a comparison between Dublin and the Rest of the Country. In the 1999/00 round of the survey the incidence rate in Dublin was 43 per cent higher than that experienced in the Rest of the Country. By the 2001/02 survey the rate in Dublin was 8 per cent less than that experienced in the Rest of the Country. There was also some evidence to suggest that a higher percentage of firms which were located in the Rest of the Country were mentioning professional occupations as posing difficulties in terms of staff retention than firms in the Dublin region. In contrast, a higher percentage of firms located elsewhere in the Dublin region mentioned Computer Specialists and Clerical workers.

EXPERT GROUP ON FUTURE SKILLS NEEDS LIST OF MEMBERS

Members	Organisation
Dr. Danny O'Hare (Chairperson)	President Emeritus, Dublin City University
David Barry	Department of Enterprise, Trade & Employment
Enda Connolly	IDA Ireland
Roger Fox	FAS
Jack Golden	Cement Roadstone Holdings/Institution of Engineers of Ireland (CRH/IEI)
Una Halligan	Hewlett Packard
John Hayden	Higher Education Authority (HEA)
David Lowe	Goodbody Stockbrokers
Joe McCarthy	Arkaon
Kevin McCarthy	Department of Education & Science
Dr. Sean McDonagh	Skills Initiative Unit
Eugene O'Sullivan	Department of Finance
Colm Regan	Forfás
Peter Rigney	Irish Congress of Trade Union
Lorcan O'Raghallaigh (Secretary)	Forfás



REPORTS PUBLISHED BY THE EXPERT GROUP ON FUTURE SKILLS NEEDS

Report	Date of Publication
The First Report of the Expert Group on Future Skills Needs	
Responding to Ireland's Growing Skills Needs	December 1998
Business Education & Training Partnership	
Report on the Inaugural Forum, Royal Hospital Kilmainham	March 1999
The Second Report of the Expert Group on Future Skills Needs	
Responding to Ireland's Growing Skills Needs	March 2000
Business Education & Training Partnership 2nd Forum, Dublin	March 2000
Report on e-Business Skills	August 2000
Report on In-Company Training	August 2000
Benchmaking Mechanisms and Strategies to Attract Researchers to Ireland	June 2001
The Third Report of the Expert Group on Future Skills Needs	
Responding to Ireland's Growing Skills Needs	August 2001
Labour Participation Rates of the over 55s in Ireland	December 2001