Research report

Job Search Study: Literature review and analysis of the Labour Force Survey

by Anne E. Green, Maria de Hoyos, Yuxin Li and David Owen

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Summary

Introduction

The main focus of this Job Search Study is on the job-search practices of benefit claimants, with particular reference to those who are unemployed and claiming Jobseeker's Allowance (JSA). However, job search is not exclusive to the unemployed and so the study is concerned with job search in a wider context.

The time is ripe for a renewed focus on job search, given recent changes in the policy, economic and technological context. In policy terms there has been increased emphasis on labour market activation and conditionality, coinciding latterly with recession and economic crisis more generally. In relation to technology, a key development has been the rise of the Internet and its impact on job-search methods and recruitment practices. These contextual changes mean that there is a need to update the knowledge base on job search.

The objective of the Job Search Study is to investigate the differences in job-search practices of different sub-groups of job seekers. It comprises:

• a literature review of key aspects of job search – notably the use of the Internet, the role of social networks and job-search self-efficacy; and

• analyses of Labour Force Survey (LFS) data on job search.

Job search

Job search is the process that aims to match job seekers to suitable job opportunities. From an economic perspective, job-search theory is concerned with individuals' decisions to accept or reject job offers given the cost of searching and the reservation wage. A sociological perspective on job search takes into account more aspects of the job-search process – motivating factors leading individuals to search and activities that lead to job offers being made.

Job-search methods have traditionally been divided into 'formal' and 'informal' methods. Formal methods include using the services of employment agencies or answering advertisements published in newspapers, journals and, more recently, the Internet. Using one's personal contacts is among the most studied informal job-search strategies. Likewise, job-search behaviour has been classified as 'active' or 'passive' depending on the level of activity that the individual engages in to seek employment, with the former being associated with greater activity than the latter. Another concept used in previous studies of job search is that of job-search 'intensity' – variously measured by time spent looking for jobs, the number of applications made or the number of different job-search methods used.

In Great Britain the LFS revealed that during the period from 2006 to 2009 approximately one in ten non-retired individuals were searching for work, of whom around half were in employment. The most frequently used method of job search was 'studying situations vacant in newspapers, journals and on the Internet', followed by 'answering adverts in newspapers and journals', 'asking friends, relatives, colleagues', 'applying directly to employers' and 'visiting a jobcentre, job market or Training and Employment Office'. There were some differences as well as similarities in the job-search methods used by different sub-groups – for example, only one in eight of job seekers from managerial and professional occupations reported that they visited a jobcentre to seek work,

compared with over half of those from routine occupations. Unemployed people tended to use more job-search methods than either the economically inactive or the employed, suggesting that job-search intensity is greater amongst the unemployed. They were also more likely to use jobcentres. For the unemployed the modal number of job-search methods was three. Men seeking work were slightly more likely than women to use multiple job-search methods, as were younger people in comparison with older people.

In terms of the main method used for job search, the two most common were 'studying situations vacant in newspapers, journals and on the Internet' (accounting for two in five of those searching for an employee job) and 'visiting a jobcentre, job market or training and employment agency' (accounting for nearly one in five of those searching for an employee job).

The LFS contains a specific question regarding people's use of the Internet to look for work in each quarter from 2006 onwards. In April to June 2009 just over four in five job seekers made use of the Internet to look for work. This indicates that the majority of people searching for work use the Internet. Indeed, the Internet and related information and communications technologies (ICT) have had a marked impact on the job-search process in recent years. The significance of the Internet for job search is not merely a function of the number of job seekers that make use of it, but also that other job-search channels may be enhanced by the possibilities offered by the Internet and ICT.

The Internet and job search

The role of the Internet in job search is multi-faceted and Internet use has permeated much of the job-search process over recent years. Use of the Internet can facilitate the exchange of information between employers and job seekers, while at the same time reducing the cost of finding out information about job opportunities and applying for jobs. There is increasing policy emphasis on increasing the use of digital media in the job-search process and related activities. The Internet and ICT can be used in combination with other job-search methods. As the Internet has become a more pervasive tool in job search and in recruitment, so disentangling use of the Internet from the use of other methods has become more difficult; arguably the boundaries between different job-search methods have become more fuzzy and overlapping.

With increased use of the Internet and ICT, so concerns have arisen about the 'digital divide' – i.e. the gap between those with access to the Internet and ICT to look for job opportunities and to pursue them, and those with little or no access. The digital divide is itself dynamic and complex. It encompasses digital divides shaped by 'exclusion' (i.e. on the basis of socio-economic and educational inequalities) and those shaped by 'choice' (i.e. those individuals that have access to the Internet but choose not to use it), with policy concerns resting primarily on the former.

Multivariate analysis of LFS data on use of the Internet in job search over the period from 2006 to 2009 revealed no significant difference between men and women in the use of the Internet for job search, but pointed to a significant and consistent decreasing trend in the use of the Internet to look for work as people age, with the youngest age groups (i.e. those aged 16-24 years) being most likely to use the Internet in their search for work and the oldest age groups being least likely to do so. No particularly significant variations in the use of the Internet for job search by ethnic group were identified once other factors were controlled for. There was a very significant positive relationship between education and use of the Internet in job search, with those individuals with degrees being most likely to use the Internet in their job search. People living in London were more likely to use the Internet than people living in other parts of Great Britain, while job seekers in the East Midlands and Wales had the lowest probability of using the Internet for job search. JSA claimants had a higher propensity to use the Internet for job search than non-JSA claimants within the sample. Holding all

other factors constant, there was a significant and consistent increasing trend among job seekers in the use of the Internet over time from 2006 to 2009. This emphasises the increasing importance of use of the Internet in job search.

Social networks and job search

The literature on job search and related topics suggests that the use of social networks plays an important role in the job-search process and in career advancement. Particular emphasis in the literature has been placed on 'the strength of weak ties' – i.e. the theory that weak ties of acquaintances with their own separate friends and social circles are particularly advantageous in job search, by comparison with a smaller circle of often more homogeneous stronger ties. Studies on job-search methods used by job seekers indicate that asking friends, relatives and acquaintances for information regarding job opportunities is a common and useful practice. The key overall conclusion from the literature review on social networks was that the quality of an individual's network is more important than the number of contacts and the types of social networks available, and the intensity with which contacts are used.

Concerns have been raised that close social networks focused on deprived neighbourhoods are not always positive in terms of fostering job-search behaviour and facilitating access to employment. However, there are some circumstances when strong ties (e.g. when jobs are particularly scarce) can be helpful. The literature suggests that use of social networks is more important for some groups (e.g. migrants/ethnic minorities) and in some areas (e.g. rural areas) than in others.

Analyses of LFS data for the period from 2006 to 2009 revealed that social networks were a relatively common method for job search, albeit by no means the most widely used method. About one in four individuals who had been in their current job for less than three months at the time of the survey obtained their job by 'hearing from someone who worked there', and this proportion was even higher among those with no qualifications – so suggesting that 'who you know' is particularly important for them. Job seekers currently or previously employed in skilled trades occupations were those most likely to use social networks as a job-search method and also to cite social networks as their main method of job search. Those currently or previously employed as process, plant and machine operatives or in elementary occupations were also more likely than average to use social networks as a job-search method, while those from professional and from administrative and secretarial occupations displayed the lowest proportions of job seekers citing social networks as a job-search method. Unemployed job seekers displayed greater use of social networks for job search than those job seekers in employment.

Self-efficacy and job search

In the context of job search, self-efficacy refers to individuals' judgements about their skills to successfully perform job-search activities such as looking for job opportunities, contacting employers, completing applications, performing at interviews, etc. While possessing these skills is important for a successful job-search process, research suggests that job-search self-efficacy is a key psychological variable affecting job-search behaviour and subsequent employment. People who believe that they have the skills to conduct effective job searches are more likely to be active job seekers and to conduct more job-search activities than individuals with low job-search self-efficacy. However, personal, behavioural and environmental factors can play a moderating role.

Developing policy and training interventions to increase individuals' job-search self-efficacy is based on the assumption that there is a causal relationship between job-search self-efficacy and

job-search behaviour – i.e. that increasing a person's job-search self-efficacy will lead to improving that person's job-search behaviour. Indeed, developing job seekers' self-efficacy is an aim of the interviewing process developed by Jobcentre Plus. In general, the process consists of the Personal Adviser helping unemployed job seekers remove barriers to finding a job while helping them to recognise their capabilities and the opportunities available to them.

Conclusions: identification of key themes and messages

Ten key themes/messages emerge from the study:

- **The important role of the Internet in the job-search process**. The majority of theoretical and empirical studies of job-search date from a time either before the rise of the Internet or when its use for job search was less developed and widespread. In 2009 around four in five job seekers – including the unemployed – were making use of the Internet in job search, with its use being especially prevalent among younger job seekers and the most highly qualified.

- **There are important complementarities in job-search methods**. Most job seekers use several job-search methods and, as the Internet has become a more pervasive tool in job search, so the ways in which different job-search methods are used has changed.

- **These complementarities have implications for traditional ways of measuring job search**. New empirical research is needed to update traditional measures in the light of contemporary experiences.

- **The unemployed use a wider range of job-search methods than employed job seekers**. This highlights the intensity of job-search activity by the unemployed. It is also, in part, a function of their greater use of the jobcentre than the employed.

- **Context is important in examining job search**. It is clear that a range of economic, cultural, geographical and other factors impinge on job search and job-search methods.

- **While focusing on job seekers, don't forget demand-side considerations**. Job seekers search methods are likely to be a function, at least to some extent, of employers' recruitment practices. This highlights the need to take account of demand-side considerations in job-search studies.

- **The nature and quality of social networks matter**. Social networks can play an important role in access to information about jobs and the amount and quality of such information is shaped by the nature and quality of social networks. Those with poor skills and those seeking manual jobs are likely to be more reliant on social networks than other job seekers.

- **People get jobs in a variety of ways**. There is no one single optimal method of job search. 'What works' varies from individual to individual.

- **Perceptions and job-search self-efficacy are important**. While possessing the skills necessary to fulfil a particular job may be a prerequisite for a successful job 'match', so an individual's judgements and expectations about their capability to perform effectively at each stage of the job-search process are important in getting a job.

- **Personal Advisers (PAs) play an important role in enhancing job seekers' self-efficacy**. PAs can help in overcoming self-efficacy barriers to successful job search.

1   Introduction

This chapter introduces and sets out the background to and scope of this study of job search. The focus of the study is on the job-search practices of benefit claimants, with particular reference to those who are unemployed and claiming Jobseeker's Allowance (JSA). JSA claimants are required to actively search for work as a condition of receipt of their benefit. Other non-employed benefit claimants are not necessarily required to do so.

In a broader context it is worth keeping in mind that job search is not exclusive to those who are outside employment. Individuals who are in employment may also participate in job search. Job search among those who are in employment is primarily for career advancement and for purposes of changing the type of work done, and in many instances is likely to involve 'browsing' rather than systematic searching. Therefore, it might be expected that the job-search practices of non-working and working job seekers would differ, in part because of the different profiles of these two groups (in terms of age, gender, skill level, previous experience, occupation sought, imperative of finding a job, etc).

Since benefit claimants are by definition not in employment, we do not know how effective (i.e. successful) their job-search practices and activity are unless we are able to follow them up at a later stage. This study does not attempt to address all issues of relevance to job search. The primary focus is on analysis of job search among those who are not working, in the context of a number of important changes in the environment for job search.

The changing policy, economic and technological context for job search is reviewed in Section 1.1. This is followed by a description of the key aims of the study (in Section 1.2) and a discussion of the methodology and data sources used (Section 1.3). Section 1.4 outlines the structure of the report.

1.1   Background

The **policy context** for this study is an increasing emphasis on labour market activation and conditionality. Changes in benefit regimes for lone parents (in accordance with the age of their youngest child) and in other inactive benefits (with the replacement of Incapacity Benefit with Employment and Support Allowance) are indicative of this trend, while, as noted above, JSA claimants are required to actively seek work as a condition for receipt of benefit.

The **economic context** for this study is one of economic crisis and rising unemployment. The stock of JSA claimants at such a time includes those with prolonged employment histories being made unemployed for the first time, as well as those with more discontinuous work histories and/ or prolonged durations of unemployment. Hence it would be expected that JSA claimants are increasingly heterogeneous.

The **technological/methodological context** for this study is one of change in recent years in job-search methods and recruitment practices. Of particular note here is the rise of the Internet for job search and recruitment, and the demise of some of the more traditional recruitment channels. It is salient to note here that one of the priorities for Jobcentre Plus is to deliver more services online; hence there is increasing interest in use of the Internet and other digital media (Whitfield *et al.*, 2010). There may be growing complementarities in job-search methods, as newspaper adverts direct applicants to online further information packs and on-line application forms, for instance. Moreover, whereas 'traditional' job-search channels may be regarded as 'passive', the Internet enables individuals to post CVs and advertise themselves to potential employers with an ease, and on such a scale, that was not formerly possible.

These contextual changes mean that the time is ripe for a detailed study of job-search methods and practices of job seekers, and especially JSA claimants, in order to update previous studies.

1.2   Research aims

The objectives of this job-search study are:

- To clarify the differences in job-search practices of different sub-groups of job seekers and compare their relative effectiveness in leading to the take-up of jobs.

- To indicate the factors which contribute to or hinder effective job search, including an assessment of the impact of Jobcentre Plus advice and guidance services.

1.3   Approach

1.3.1   Introduction to the methodology for the job-search study

The job-search study is based on desk research. It comprises two elements: first, a literature review, and secondly, analyses of Labour Force Survey (LFS) data on job search.

Further details of the approach used for the literature review element of the desk research are set out in Section 1.3.2. From the outset it was considered appropriate for the literature review to encompass job search both by benefit claimants and those in employment.

The LFS is a key source of information on job search collecting information on job-search methods, albeit it has limitations also. An advantage of this source is that the sample size is sufficiently large (especially when surveys are pooled over time).

1.3.2   Scope and approach of the literature review

The literature review focuses on three main aspects of individuals' job-search practices: the use of the Internet, the role of social networks and job-search self-efficacy. Although, unemployed job seekers are of foremost interest, the studies considered are not limited to the job-search practices of this group. In fact, among the most interesting and relevant studies on job-search literature are studies concerned with, for example, graduate students or women's practices as they seek employment. The review is international in nature but its scope is limited to studies conducted in Europe, Australia, USA and Canada.

Studies that deal with economic theory of job search are also outside the scope of the review. According to White and Bryson (1994), economic job-search theory's strength and limitation is that it addresses a selective aspect of the job-search process. It is concerned with the probability of job seekers entering the workforce, which is in turn calculated as the product of the probability of jobs being offered and the probability of jobs being accepted. The studies considered for this review consist of those that make use of econometric, sociological and case study approaches to understand the factors that affect job-search practices and its effectiveness. These studies adopt a broader focus than those belonging to economic search theory. This means that the way job-search effectiveness and other major variables are defined varies from one study to another. This feature illustrates the complex nature of the studies considered and of the job-search process itself.

Details of the methodology adopted for the literature search process are outlined in Appendix A.

1.4   Structure of report

Chapter 2 of the report introduces the concept of job search, including notions from the literature of 'active' and 'passive' job search, and reviews how job search has been measured, with particular reference to different job-search methods. It presents recent evidence on job search from the LFS, highlighting the characteristics of people looking for work and (main) methods of looking for work. Subsequent chapters examine selected key aspects of job search in more detail.

Chapter 3 looks at the role of the Internet in job search, given that the Internet has enormous potential to transform the job-search process. The increase in use of the Internet for job search raises concerns about the so-called 'digital divide' in relation to Internet access. Multivariate analyses of LFS data reveal the key dimensions of variation in use of the Internet, highlighting in particular the importance of age, qualification and occupational dimensions, and emphasising the increasing use of the Internet over time.

The role and use of social networks in job search is the focus of attention in Chapter 4. There is important literature on this topic, mostly originating in the USA, examining different strengths/types of ties and associated implications for access to employment. Analyses of LFS data on the use and impact of social networks in job search are presented also, and the relevance of social networks to job search is assessed.

Chapter 5 focuses on the concept of self-efficacy (in simple terms, individuals' expectations regarding their job-search abilities), with particular emphasis on its relevance for job search. The literature (again dominated by studies from the USA) on the relationship between self-efficacy and job search is reviewed. Reference is made to the way in which Jobcentre Plus Work Focused Interviews have been used to develop job seekers' self-efficacy.

Finally, Chapter 6 draws together key themes and messages from the preceding chapters. It also presents an assessment of the available evidence.

2   Job search

This chapter introduces the concept of job search (Section 2.1), explores ways in which job search has been measured, and sets out important considerations for the measurement of job search (Section 2.2). It presents empirical evidence on job search using data from the Labour Force Survey (LFS) (Section 2.3). The topics covered include the number and characteristics of individuals seeking work and methods of searching for work (as a precursor for more detailed consideration in Chapter 3 of the use of the Internet in job search). The chapter concludes with an overview of key findings (Section 2.4).

2.1   The concept of job search

Job search is the process that aims to match job seekers to suitable job opportunities. An efficient matching process would mean that individuals acquire the job that maximises their wage and their productive contribution, thus making society more productive overall. However, job seekers' information about the labour market is incomplete, and employers do not hold unlimited information either. As Autor (2001) noted, *'the labour market is replete with imperfect and asymmetric information'* (p. 25). The cost of inefficient job search for job seekers includes prolonged unemployment spells and emotional distress, and there are also wider societal costs.

Job search is in general costly for the job seeker but it is also necessary in order to find employment. From an economic perspective, **job-search theory** is concerned with individuals' decisions to accept or reject job offers given the cost of searching and the reservation wage – i.e. the minimum wage that has to be offered for a person to accept a job. In this case, job offers are treated as exogenous and the decision to accept the offer (i.e. the strategy used) is based on the reservation wage (Atkinson and Micklewright, 1991). The sociological perspective on job search takes into account more aspects of the job-search process. In fact, a sociological approach to job search is frequently concerned with the activities that led to job offers being made, to jobs being found, and even to the motivating factors leading to job seekers starting the job search at all.

Job-search methods have traditionally been divided into **formal** and **informal** methods. Formal methods include using the services of employment agencies or answering advertisements published in newspapers, journals and, more recently, the Internet. Using one's personal contacts is among the most studied informal job-search strategies (e.g. Drentea, 1988), but other methods such as contacting employers directly are also considered informal job-search methods. As job-search categories, formal and informal methods are too broad and too aggregated, and thus research into job search tends to be more specific about the methods being studied.

There are other ways of categorising job seeking behaviour, such as considering job search by individuals in employment versus the job search conducted by unemployed individuals. From the perspective of a government aiming to prioritise the use of its resources, the latter seems more imperative. However, given that being in employment is a better position from which to search for work (Weber and Mahringer, 2008), there may be lessons that those unemployed can learn from employed job seekers. Moreover, job-search behaviour has been classified as 'active' or 'passive' depending on the level of activity that the individual engages to seek employment. If active and passive job seeking are seen as two extremes of a continuum, an active job seeker utilises a number of methods to find information regarding employment opportunities and performs a variety of activities to access these. A passive job seeker, on the other hand, is more imprecisely described as either someone who does not conduct any job seeking activity or as someone who browses

employment opportunities but then takes little or no action to pursue them. For instance, employed individuals who are constantly updating their knowledge of what jobs are available 'out there' but have no intention to pursue them can be seen as passive job seekers. However, given the range of job-search behaviour in which individuals engage, in practice notions of 'active' and 'passive' are rather difficult to apply.

The notion of 'active job seeker' suggests that some individuals may search more intensively than others. The next section provides a review of how job search has been measured and discusses the notions of different job-search methods, intensity and effectiveness.

2.2   Measuring job search

Research into the process of job search from a sociological perspective accepts the premise that individuals can affect their chances of getting a job by conducting job-search activities that are suitable to the type of job being sought, and conducting them frequently enough. In the latter case, researchers talk about job-search **intensity**. According to White and Bryson's (1994) literature review on effective job search, there are different ways of measuring intensity, such as: time spent looking for jobs (e.g. per week); the number of applications made; the amount of money spent; the rate of employer contacts and visits made; and the number of different search methods used. Furthermore, based on the studies considered, the authors suggest that in the UK, increasing the number of methods used has a positive relationship with the probability of finding a job. In the USA, however, this relationship does not hold and there actually seems to be a negative relationship between these variables. Conversely, the authors point out a negative association between other intensity-related variables and the probability of finding a job in the UK, but the opposite association in the USA due to labour market mobility. A limitation to using job-search intensity for measuring and studying the job-search process is the lack of a formal empirical definition. For instance, using time spent in looking for jobs as a measure of intensity may reflect different situations *depending on the elasticity of substitution between job search and other activities*' (Stevenson, 2008, p. 7). Furthermore, it sheds little light on what individuals can do to improve their chances of employment other than moderating their job-search activity to an 'optimum' moderate level.

A focus on the job-search methods employed can provide useful information as to which methods are more effective and more readily conducive to finding a job. Several studies indicate that contacting friends and relatives (word of mouth, personal contacts) is among the most effective search methods. This method was highlighted as the main method for finding employment in the UK in the 1980s and early 1990s (Daniel, 1990; Dawes, 1993[1]) – albeit not the most frequently used since using the local press and jobcentres were more popular methods. Moreover, Blau and Robins (1990) found that word of mouth was also the most effective method for USA job seekers and that is was twice as effective as contacting employers directly, the next most successful method. The fact that there is a mismatch between the most popular and the most effective methods of job searching raises questions about the type of support that should be offered to unemployed individuals. It is also important to note that, due to the time at which they were conducted, these studies do not take into account the role of the Internet in job searching. Studies conducted more recently acknowledge the impact of this technological tool on the way employers and employees are matched in the labour market (e.g. McDonald and Crew, 2006; Beauvallet *et al.*, 2006).

Another issue to consider with respect to measuring job search is the recruitment methods typically used by employers in the industry in which the job search is taking place or in relation to the type of job being sought. In a study conducted in the Greater Manchester labour market, Hogarth and

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[1]   Cited in White and Bryson (1994).

Hasluck (2008) found that whereas manufacturing, transport and public sector organisations tended to use the local or regional press as the main method for advertising their vacancies, employers in the finance and business services sectors were more likely to use the services of recruitment agencies to find new employees. Similarly, companies in general were more likely to use the Internet as a way of advertising vacancies for sales positions, but used other formal methods such as advertising in the national press or recruitment agencies to find candidates for professional and managerial positions. Studies that investigate the relationship between the job-search method being used and the employment outcome may unwittingly assume that the job seeker knows the best source of information for the type of job he or she is looking for.

Job-search success does not depend solely on the job seeker's ability to find a job but is also determined by external factors and other circumstances. For instance, a tight labour market may increase the chances of finding a job for a less-skilled or experienced individual, while location in a peripheral area without good access to an employment centre may limit job seekers' search. McQuaid (2006; see also McQuaid and Lindsay, 2005) used the term **employability** to refer to the set of factors that together affect a person's chances of finding a job. The author classified this set of factors as **individual factors** (the person's skills, qualifications, length of unemployment, demographic characteristics, etc); **personal circumstances** (access to resources, family support, caring responsibilities, etc); and **external factors** (labour market demand, mobility) and in this way provided an integrated perspective of job search. An approach that takes as many of these factors into account is bound to provide a better picture of the effect of job seekers' efforts to find employment and better equip employment services and policy makers to support them.

2.3   Empirical evidence on job search

2.3.1   Number and characteristics of individuals seeking work

According to the LFS, approximately 10 per cent of people in Great Britain aged between 16 and 69 years (excluding retired people) are searching for work at any one time (see Figure 2.1), with this percentage being slightly higher among men and slightly lower among women. Over the period from January to March 2006 to April to June 2009 the proportion searching for work ranged from 9% in the final quarter of 2007 to nearly 12 per cent in April to June 2009. Around 55 per cent of job seekers were men and 45 per cent were women.

There are important variations in job-search activity by age group. Young people (aged 16-29 years) are most likely to be searching for work and those aged between 50 and 69 years are least likely to be seeking work (see Figure 2.2). Generally, those aged 30-39 years are more likely to be seeking work than those aged 40-49 years, but the most marked differentials in job seeking are at either end of the age range.

In general, those from ethnic minority groups are more likely to be seeking work than white people. Those of Mixed ethnic heritage are most likely to be searching for work. It is likely that this is, in large part, a reflection of the younger age profile of this ethnic group. Those in the black or black British group (who have relatively high labour market participation rates) are also markedly more likely than average to be searching for work, especially in the latter part of the period.

Figure 2.1   Percentage of non-retired individuals in Great Britain aged 16-69 years searching for work, January-March 2006 to April-June 2009

Source: LFS, first wave by quarter.
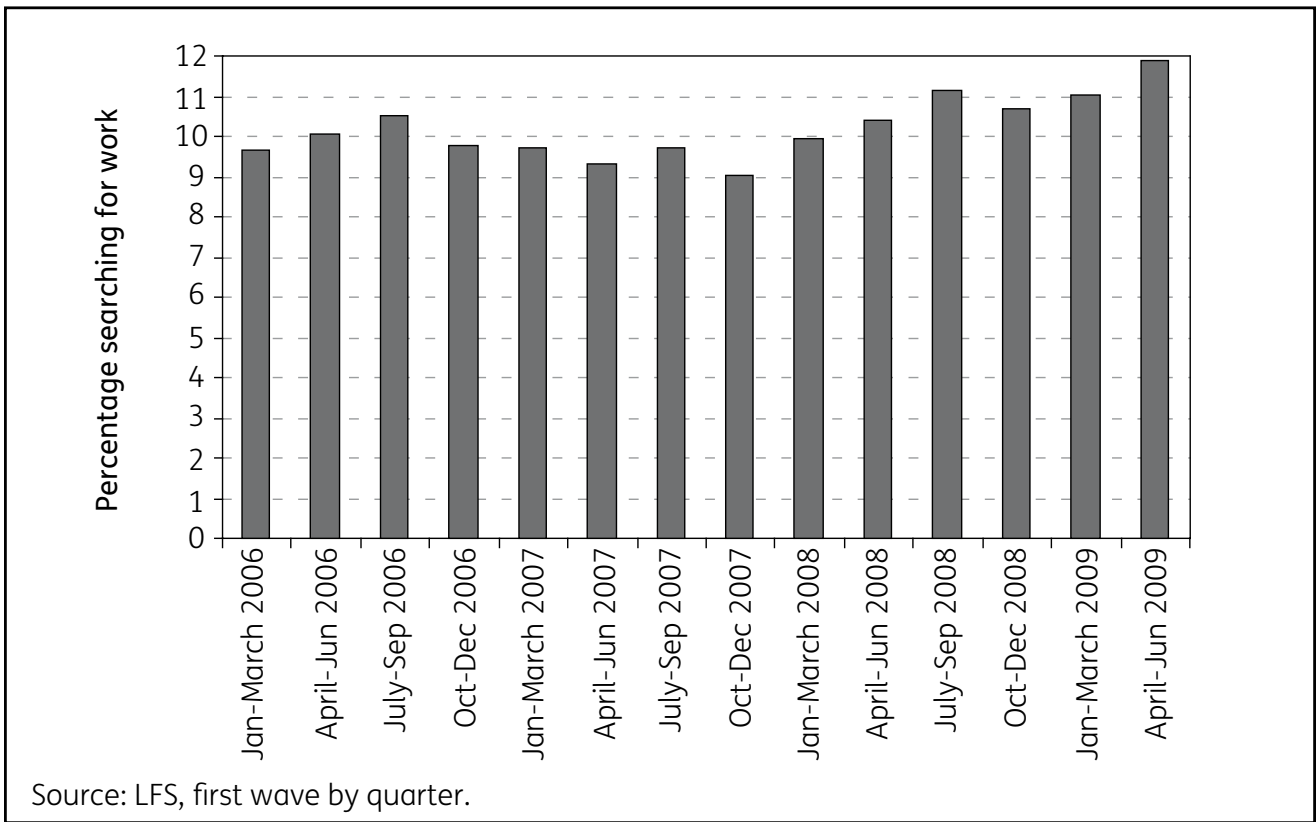
Figure 2.2   Percentage of non-retired individuals in Great Britain by age group searching for work, January-March 2006 to April-June 2009

Source: LFS, first wave by quarter.
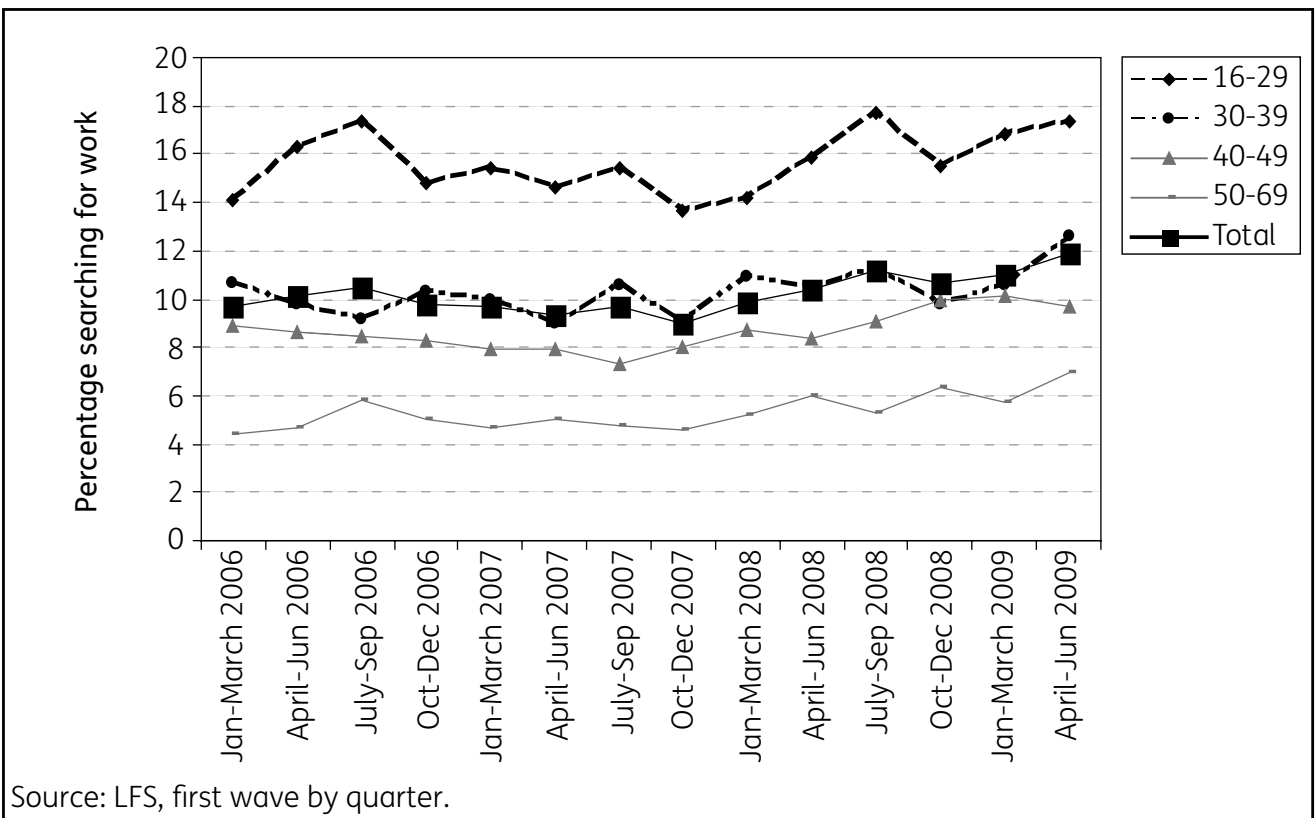
Of those searching for work during the period, just over half were in employment and more than two-fifths were unemployed, with the economically inactive making up the remainder. However, as economic conditions worsened over this time period, the proportion of job seekers who were unemployed increased to account for a greater share of total job seekers than the employed (see Figure 2.3). By April-June 2009 the unemployed accounted for just over half of job seekers and the employed for over two-fifths of total job seekers. Only around seven per cent of those in employment were searching for work, compared with nearly all of the unemployed and only around three per cent of the economically inactive. Among those in employment, the self-employed were least likely to be seeking work, while those on government training programmes were most likely to be seeking work.

Figure 2.3   Non-retired individuals in Great Britain aged 16-69 years seeking work by broad economic position, January-March 2006 to April-June 2009

Source: LFS, first wave by quarter.
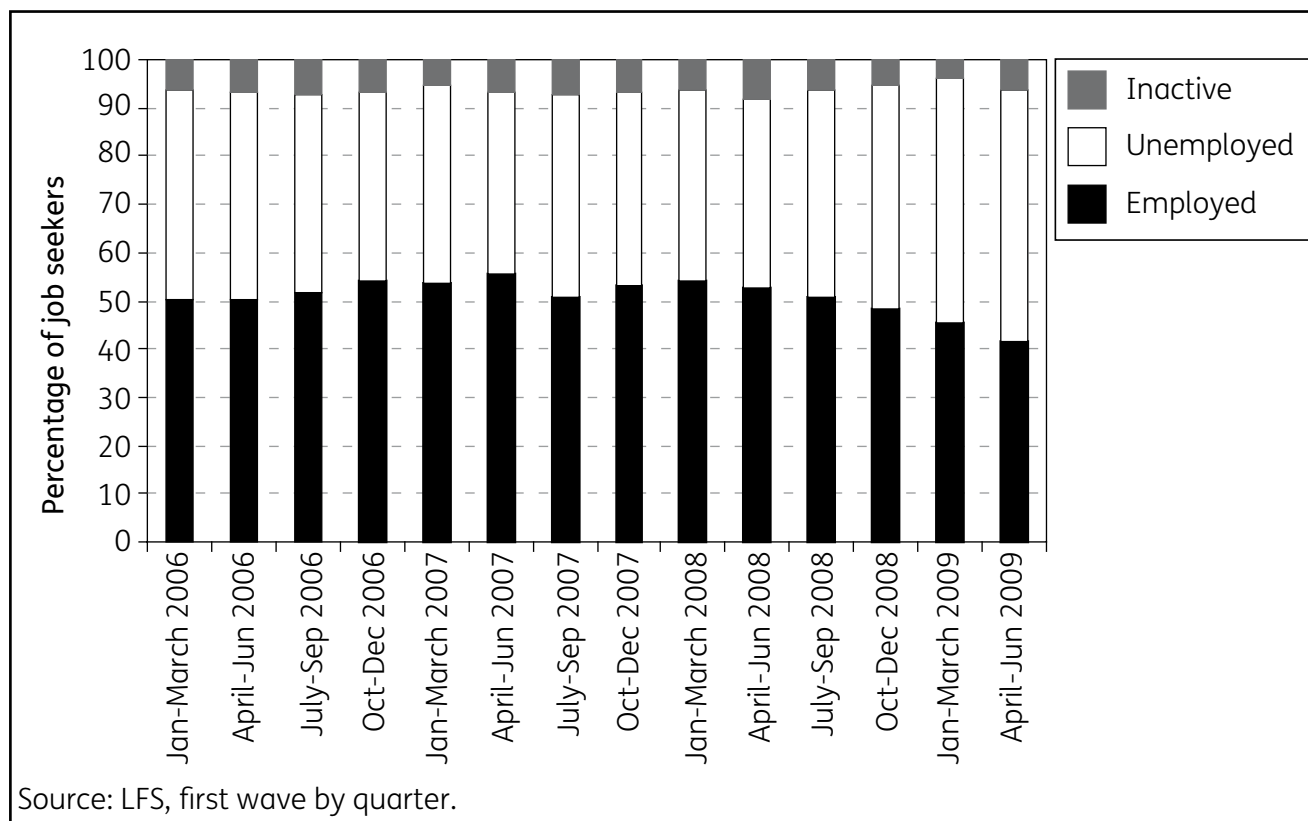
Over the period as a whole, the majority of job seekers had been searching for only a limited time period (see Figure 2.4). On average, just over three-fifths of job seekers had been searching for less than six months and just over three-quarters for less than 18 months. However, since the onset of recession a trend is evident for longer periods of job search.

Figure 2.4   Non-retired individuals in Great Britain aged 16-69 years seeking work by duration of job search, January-March 2006 to April-June 2009

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
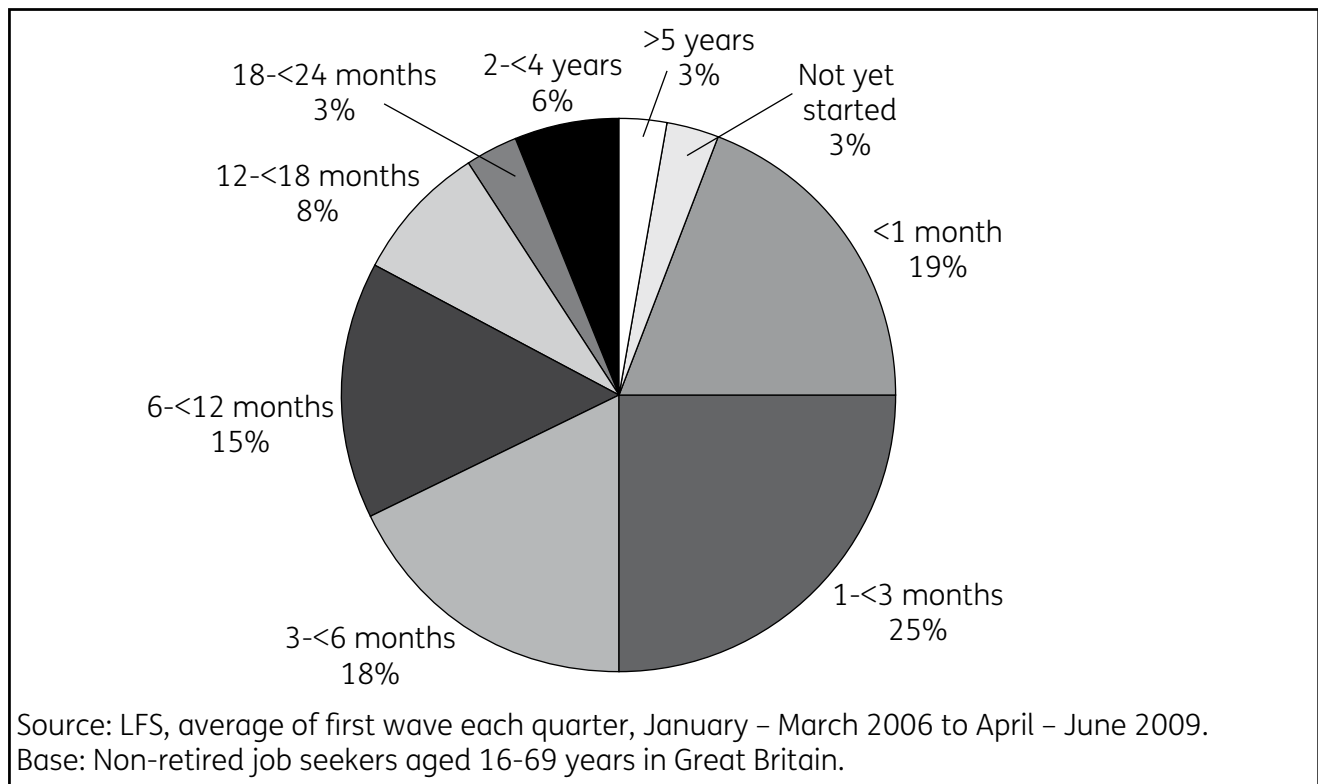
2.3.2   Methods of searching for work

When an individual is first interviewed by the LFS[2] they is asked a question about their methods of looking for work in the last four weeks. In Figure 2.5, the percentage of job seekers using each of the 11 methods identified in the period April-June 2009 is compared with the average over the period from January-March 2006 to April-June 2009.

The most frequently used method of job search was 'studying situations vacant in newspapers, journals and on the Internet'. In April-June 2009 84 per cent of job seekers used this method. In descending order, the next most frequently used methods of job search were:

• answering adverts in newspapers (55 per cent)

• asking friends and relatives (52 per cent)

• applying directly to employers (51 per cent)

• jobcentre, job market or training and employment office (43 per cent)

All methods were mentioned more frequently in April-June 2009 than on average across the longer period, suggesting that at times of economic crisis more methods were being used.

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2   In what is termed the 'Wave 1' interview.

Figure 2.5   Methods of looking for work in the last four weeks, January-March 2006 to April–June 2009 average and April–June 2009

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
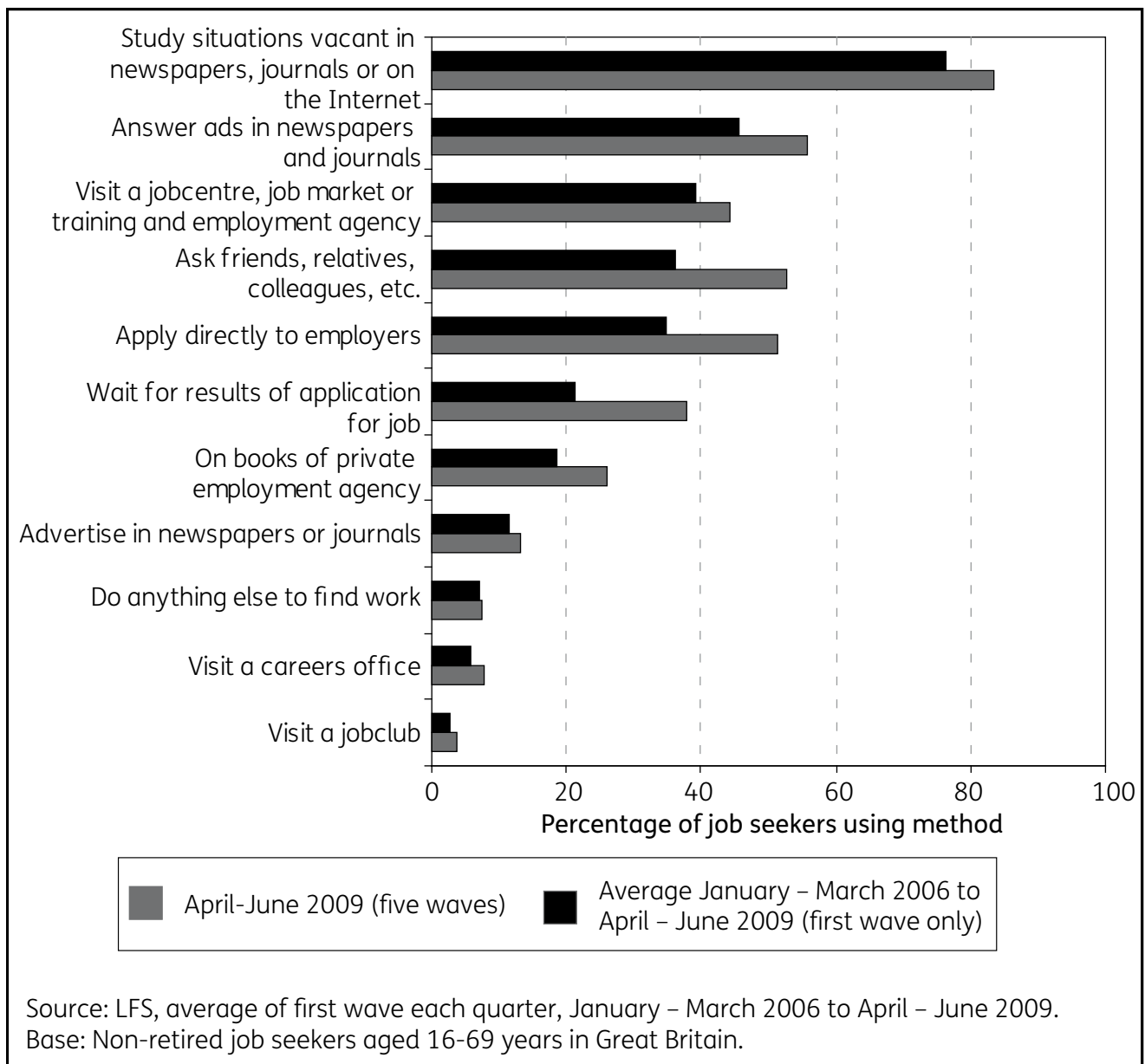
There were some differences in the frequency with which different methods were used by different sub-groups of job seekers, as well as important similarities. Over the period from January-March 2006 to April-June 2009 (selected here to provide a larger pool of job seekers for further disaggregation) the most marked variations by sub-group were evident for 'visiting a jobcentre, job market or training and employment agency' (hereafter abbreviated to 'jobcentre') and being 'on the books of a private employment agency'. Key features of the frequency with which different sub-groups use the jobcentre (and other job-search methods) were as follows:

• men seeking work were more likely than women to use the jobcentre and to be on the books of a private employment agency; (younger job seekers were also more likely than other job seekers to apply directly to employers (see Figure 2.6));

- in aggregate, job seekers from ethnic minorities were more likely to visit a jobcentre than white job seekers, but differences were evident between ethnic minority groups: those from black or black British and other groups were more likely than average to visit a jobcentre and Chinese job seekers markedly less so;

- job seekers with degree or equivalent level qualifications were markedly less likely than average to visit a jobcentre (see Figure 2.7) (but were more likely than average to be on the books of a private employment agency);

- those job seekers with no qualifications were much more likely than average to visit a jobcentre (see Figure 2.7);

- one in eight job seekers from higher managerial and professional occupations reported that they visited a jobcentre to seek work, compared with over half of those from routine occupations; (however, one in three job seekers from higher managerial and professional occupations reported that they were on the books of a private employment agency, compared with fewer than one in six from routine and semi-routine occupations);

- two in three International Labour Organization (ILO) unemployed job seekers reported visiting a jobcentre, compared with one in three of economically inactive job seekers and one in five employed job seekers (see Figure 2.8) – indeed, each of the methods of job search identified were used more by the ILO unemployed than by the employed or economically inactive; and

- significantly, more than nine in ten Jobseeker's Allowance (JSA) claimants reported visiting the jobcentre as one of the job-search methods that they used (this is unsurprising given the fact that they are obliged to visit the jobcentre), more than eight in ten studied situations vacant in newspapers, journals or on the Internet, and nearly half asked friends, relatives and others.

Figure 2.9 shows the number of job-search methods used by job seekers in each broad economic category. It is evident that unemployed people tended to use more job-search methods than either the economically inactive or the employed. For the employed and economically inactive the modal number (i.e. the most frequently used number) of job-search methods used was one: a third of employed job seekers and two-fifths of inactive job seekers use one job-search method only. For the ILO unemployed the modal number of job-search methods was three. Just over one-fifth of unemployed job seekers used three methods, while just under one-fifth used four methods, two methods or one method only. Over one-fifth of ILO unemployed job seekers used more than four job-search methods. This suggests that the intensity of job search is greater among the unemployed than among the employed or inactive.

Disaggregating on other individual characteristics reveals that:

- men seeking work were slightly more likely than women to use multiple job-search methods;

- younger job seekers (aged 16-29 years) were more likely than average to use multiple job-search methods; whereas those aged 40 years and over were less likely to do so;

- job seekers from Asian or Asian British groups were slightly less likely than average to use multiple job-search methods;

- job seekers with a highest qualification at neither the highest nor the lowest end of the qualification range were more likely than average to use multiple job-search methods;

- job seekers from routine or semi-routine occupations were slightly more likely to use multiple job-search methods than those from managerial and professional backgrounds – this might reflect the more 'targeted' job search of those in the latter group seeking specialised jobs.

Figure 2.6   Methods of looking for work in the last four weeks by broad age group, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
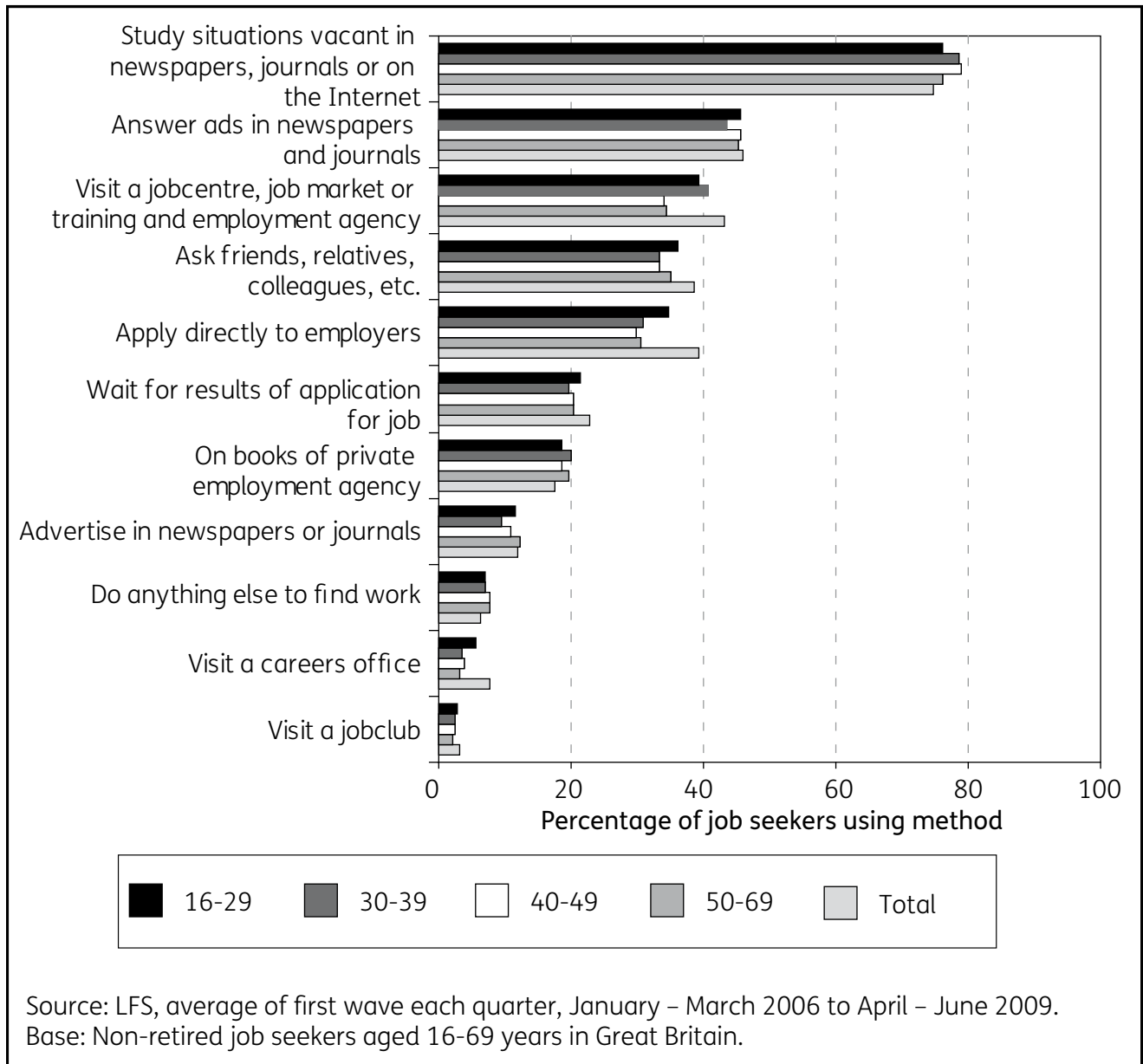
Figure 2.7 **Methods of looking for work in the last four weeks for those with degree-level qualifications and those with no qualifications, January-March 2006 to April-June 2009 average**

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
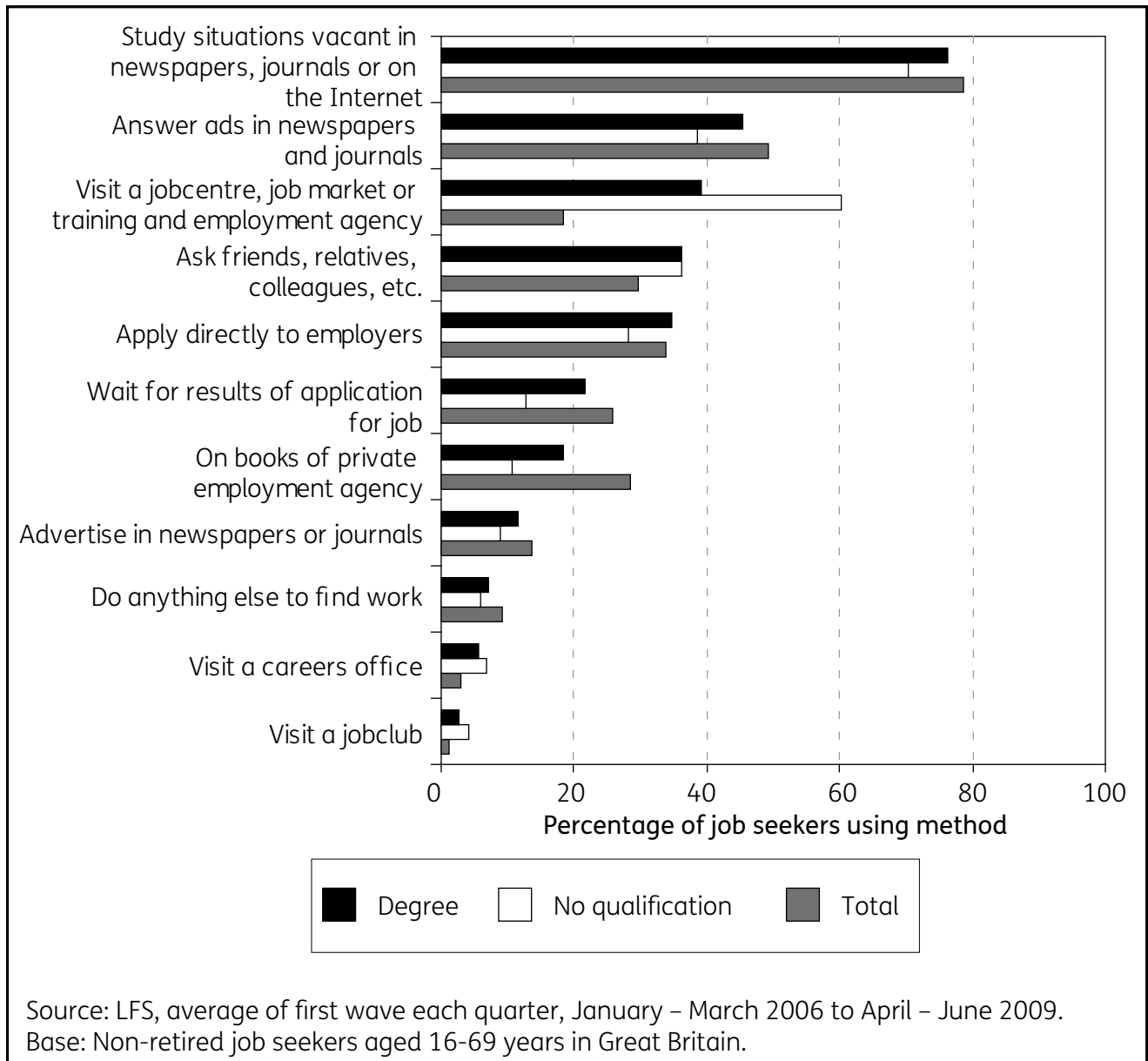
Figure 2.8   Methods of looking for work in the last four weeks for job seekers by broad economic position category, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
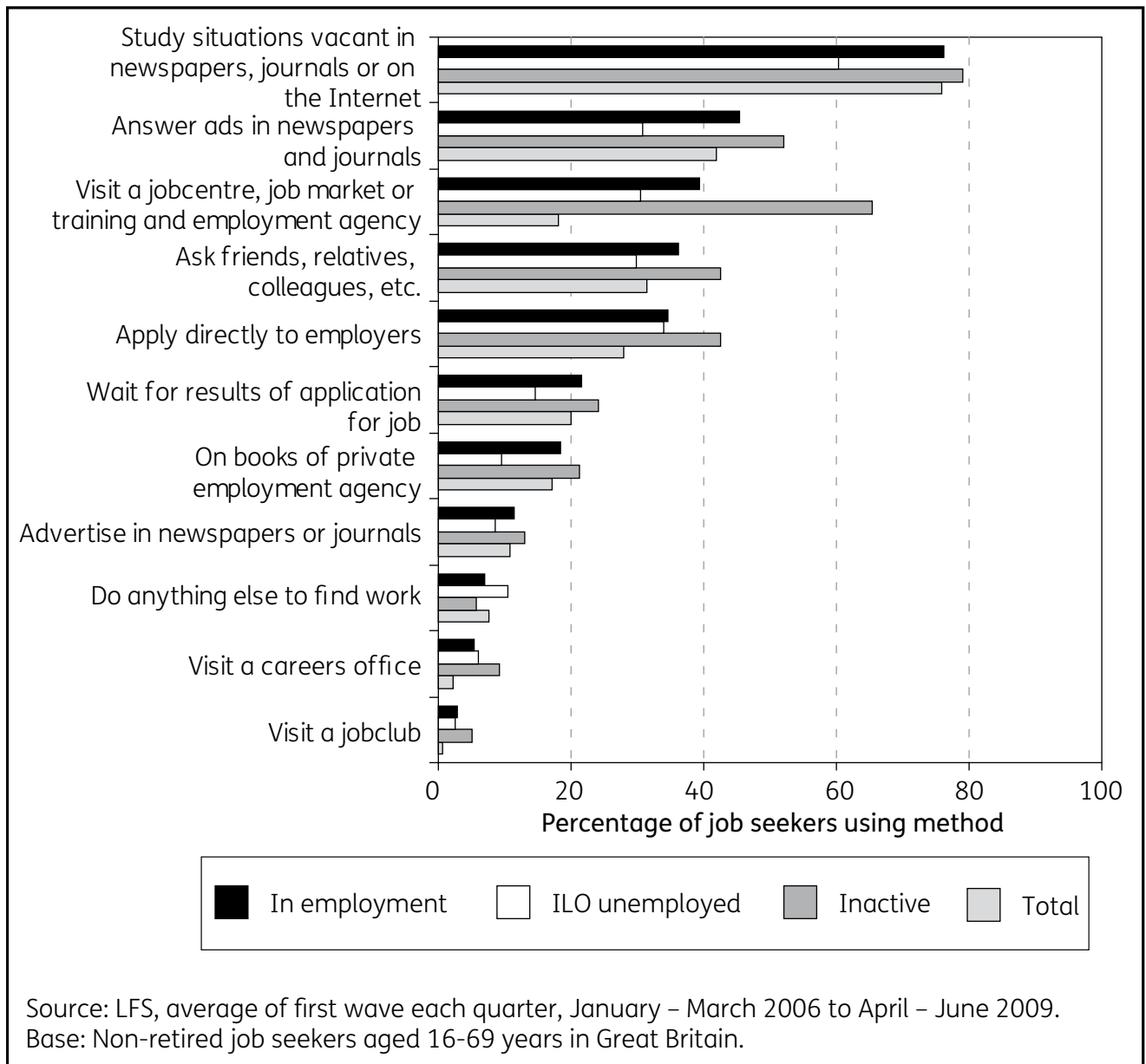
Figure 2.9   Number of job search methods used in the last four weeks by job seekers in each broad economic position category, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
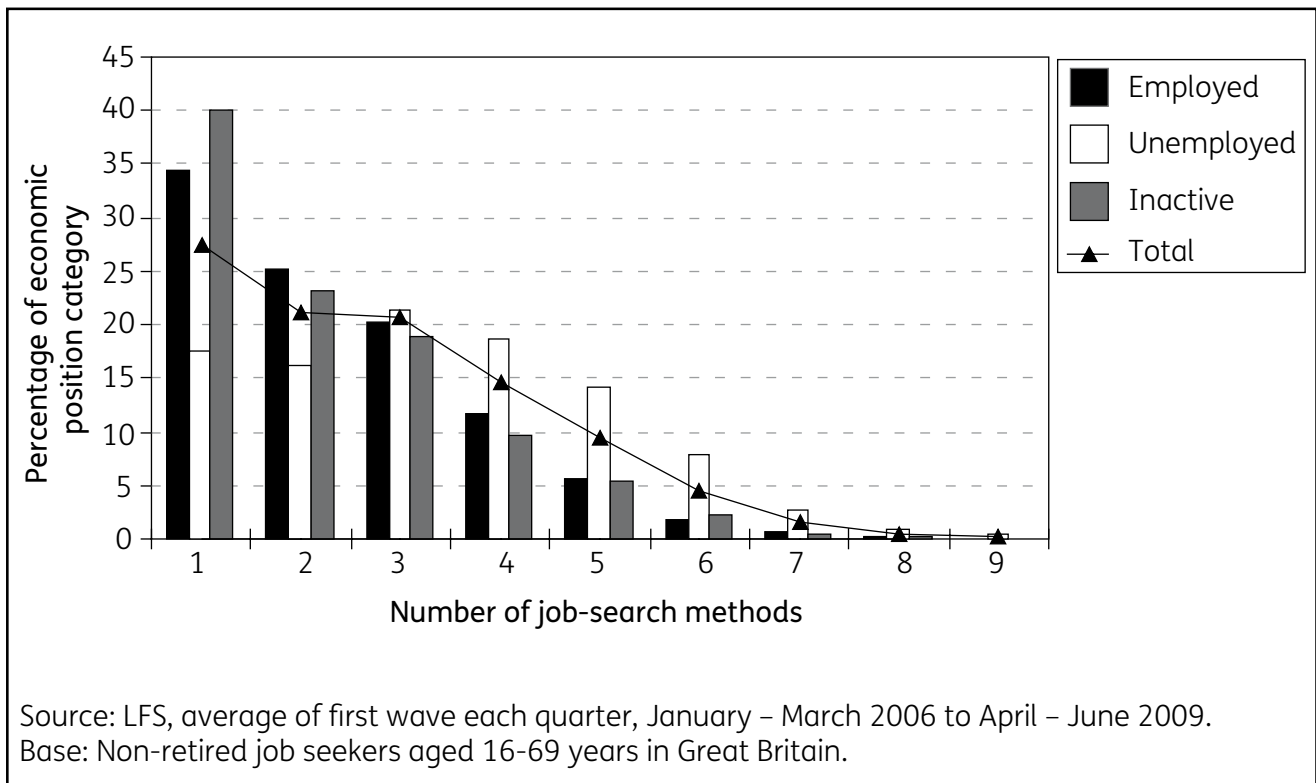
2.3.3   Main methods of searching for work

In addition to collecting information on all methods of looking for work, the LFS includes a question on the main method of looking for work in the last four weeks. Given that many job seekers use several methods, it is arguable whether the concept of 'main method' means a great deal in practice for some job seekers – this should be borne in mind when interpreting the findings presented in this section. However, there are likely to be some job seekers for whom a 'main method' is a meaningful concept.

Figure 2.10 shows the main method used by job seekers wanting a job as an employee over the period from January-March 2006 to April-June 2009. The two main job-search methods used were 'studying situations vacant in newspapers, journals and on the Internet' (accounting for two in five of those searching for an employee job) and 'visiting a jobcentre, job market or training and employment agency' (accounting for nearly one in five of those searching for an employee job).

Figure 2.10 Main method of job search for those wanting a job as an employee looking for work in the last four weeks, January-March 2006 to April-June 2009 average

Main search method of job seekers wanting an employee job

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
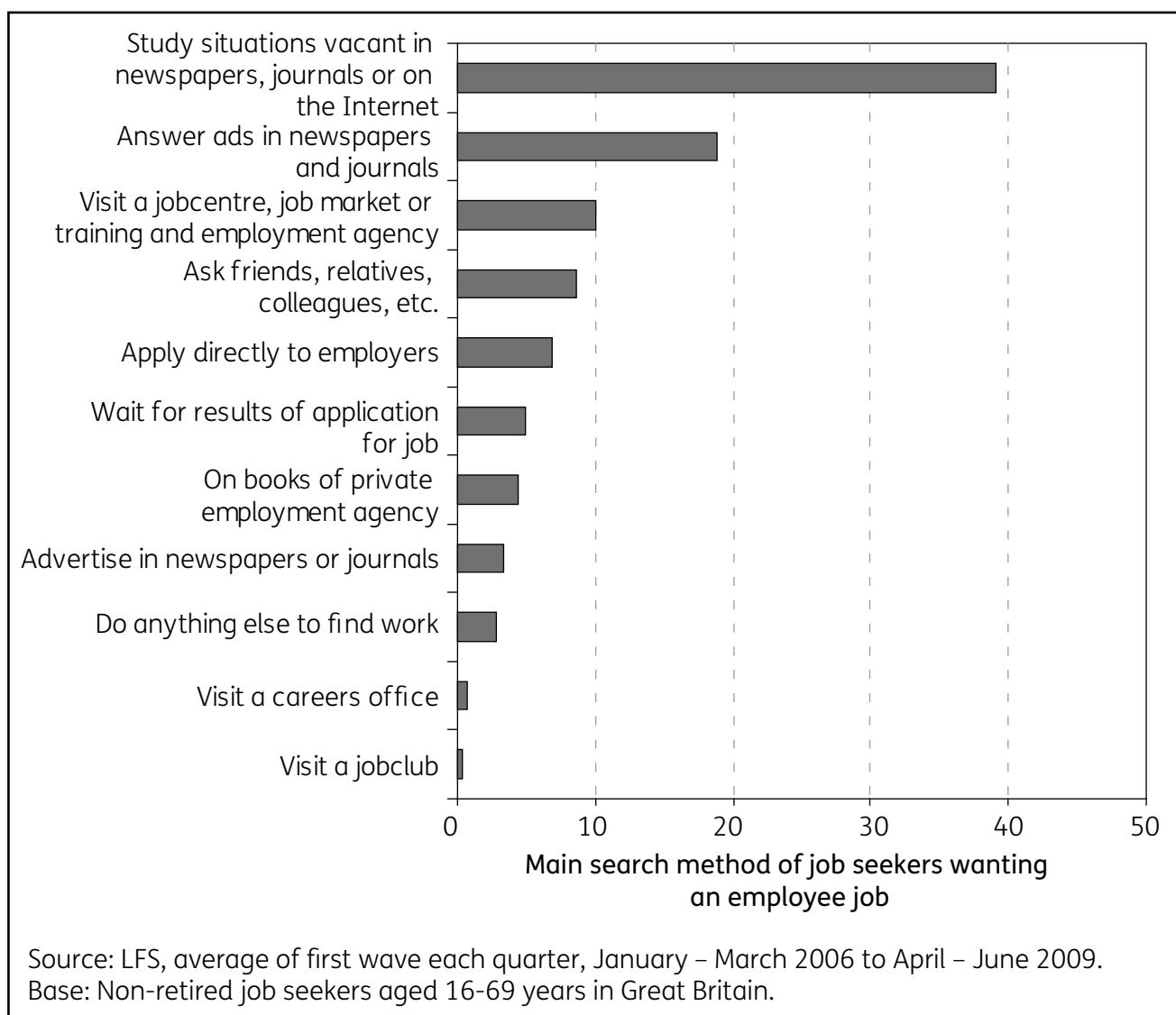
Again, there are some differences by sub-groups of job seekers wanting employee jobs in the profiles of the main job-search methods used, as well as similarities. Over the period from January-March 2006 to April-June 2009 key features of the profile of main job-search methods were as follows:

• men seeking work as employees were more likely than women to visit a jobcentre, job market or training and employment agency as their main method of job search, whereas women were more likely than men to identify studying situations vacant in newspapers, journals or on the Internet as their main job-search method;

• younger job seekers (aged 16-29 years) and older job seekers (aged 50-69 years) were more likely than those in their thirties and forties to nominate visiting a jobcentre, job market or training and employment agency as their main method of job search;

• those job seekers wanting employee positions who were in their forties were more likely than those in other age groups (and particularly those aged 16-29 years) to identify studying situations vacant columns in newspapers, journals and on the Internet as their main method of job search;

- younger job seekers (aged 16-29 years) wanting employee positions were twice as likely to say that applying directly to an employer was their main method of job search compared with older job seekers (aged 50-69 years);

- job seekers from ethnic minorities were less likely than white job seekers wanting an employee position to identify studying situations vacant columns as their main method of job search (see Figure 2.11);

- those from black or black British, Asian or Asian British and other ethnic groups were more likely than average to identify the jobcentre, a job market or employment agency as their main method of looking for an employee job (see Figure 2.11);

- Chinese job seekers wanting an employee job had the most distinctive patterns of job search of the broad ethnic groups identified (see Figure 2.11);

- there were pronounced differences by each individual's highest qualification level in the proportion of job seekers wanting an employee job citing visiting a jobcentre, job market or training and employment agency as their main method of job search, with proportions ranging from around one in twenty of those with a degree or equivalent qualifications to two out of five of those with no qualifications (see Figure 2.12);

- at least three in ten job seekers in each qualification category said that they study situations vacant columns in newspapers, journals or on the Internet as their main method of search (see Figure 2.12);

- a greater proportion of those with higher-level qualifications than with lower-level qualifications highlighted answering adverts in newspapers and journals as their main job-search method (Figure 2.12);

- a greater share of those job seekers with other qualifications indicated that they asked friends, relatives and colleagues as their main method of job search (see Figure 2.12). This may indicate that those with qualifications gained outside the UK that are difficult to classify are more likely than average to rely on social networks in job search (see Chapter 4 for further discussion);

- those from routine and semi-routine occupations were around four to five times more likely than those from managerial and professional occupations to visit the jobcentre as their main method of job search;

- those job seekers from managerial, professional and intermediate occupations were more likely than those from other social classes to identify being on the books of a private employment agency as their main method of job search;

- one in three ILO unemployed job seekers seeking an employee position reported visiting a jobcentre as their main job-search method, compared with less than one in twelve of those in employment and fewer than one in five of economically inactive job seekers (see Figure 2.13);

- nearly half of job seekers in employment said that studying situations vacant columns in newspapers, journals and on the Internet was their main method of job search, compared with one in three of the ILO unemployed and a similar proportion of the economically inactive (see Figure 2.13).

Figure 2.11 Main method of job search by broad ethnic group for those wanting a job as an employee looking for work in the last four weeks, January-March 2006 to April-June 2009 average

Legend:

- □ Jobclub
- ■ Careers office
- ▨ Wait for results of application for job
- ▢ Advertise in newspapers or journals
- ■ Do anything else to find work
- ■ Private employment agency
- ■ Ask friends, relatives, colleagues, etc.
- ■ Apply directly to employers
- ■ Answer ads in newspapers and journals
- ■ Jobcentre
- ■ Study situations vacant in newspapers or journals

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.

Figure 2.12 Main method of job search by highest qualification for those wanting a job as an employee looking for work in the last four weeks, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
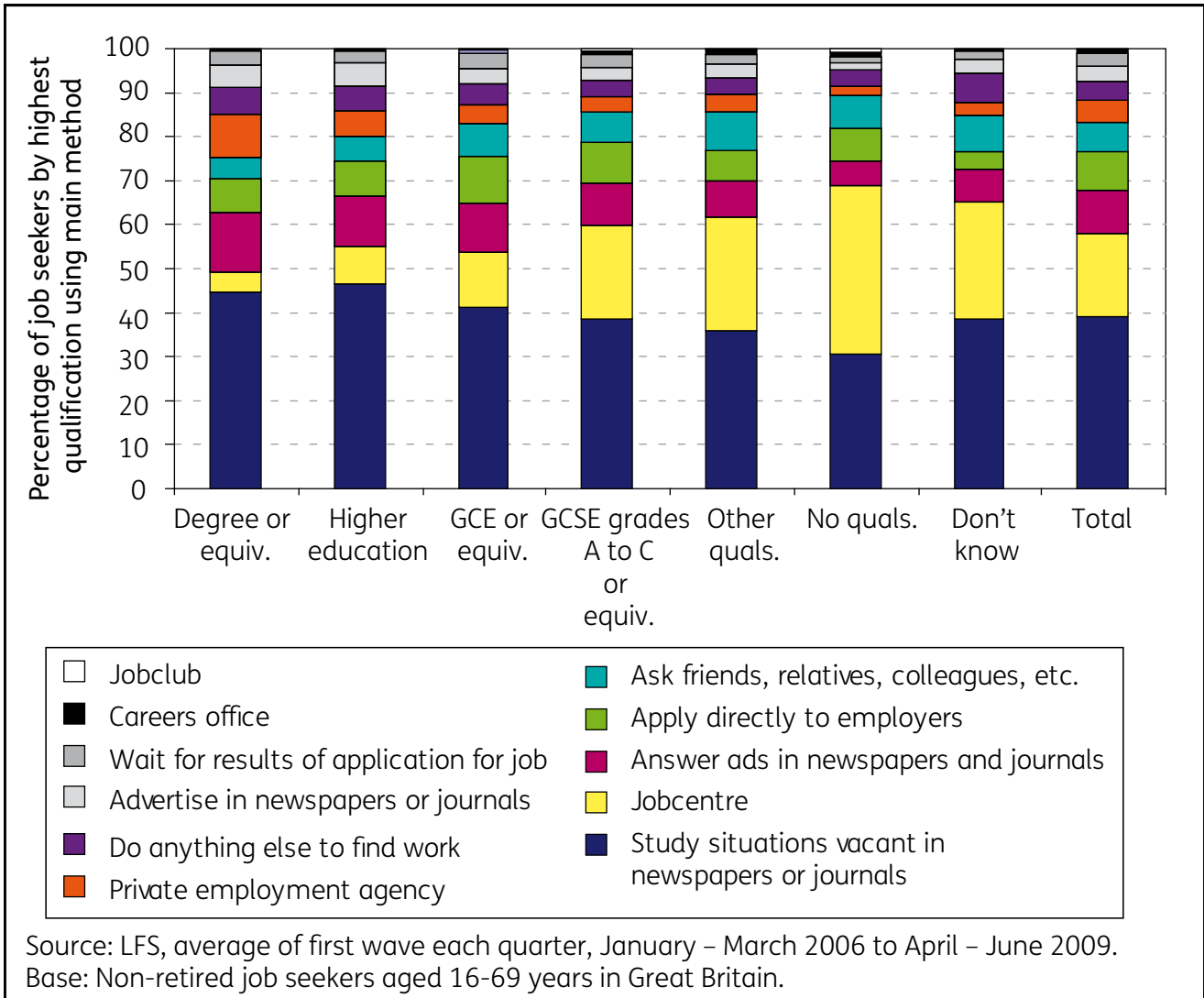
Figure 2.13 Main method of job search by broad economic position for those wanting a job as an employee looking for work in the last four weeks, January-March 2006 to April-June 2009 average

(a) In employment

- Do anything else to find work 6%
- Visit a jobcentre 7%
- Visit a careers office 0%
- Visit a jobclub 0%
- Wait for results of application for job 4%
- On books of a private employment agency 6%
- Ask friends, relatives, colleagues, etc. 8%
- Advertise in newspapers or journals 4%
- Apply directly to employers 7%
- Answer ads in newspapers and journals 11%
- Study situations vacant in newspapers or journals 47%

(b) ILO unemployed

- Ask friends, relatives, colleagues, etc. 5%
- Wait for results of application for job 2%
- Do anything else to find work 2%
- Visit a jobcentre 33%
- Apply directly to employers 9%
- Visit a careers office 1%
- Visit a jobclub 1%
- On books of a private employment agency 4%
- Study situations vacant in newspapers or journals 31%
- Advertise in newspapers or journals 3%
- Answer ads in newspapers and journals 9%

(c) Economically inactive

Wait for results of application for job 3%

Do anything else to find work 8%

Visit a jobcentre 18%

Visit a careers office 1%

Visit a jobclub 0%

Ask friends, relatives, colleagues, etc. 10%

On books of a private employment agency 4%

Advertise in newspapers or journals 3%

Apply directly to employers 15%

Answer ads in newspapers and journals 8%

Study situations vacant in newspapers or journals 30%

(d) Total

Wait for results of application for job 3%

Do anything else to find work 4%

Visit a jobcentre 19%

Ask friends, relatives, colleagues, etc. 7%

Visit a careers office 1%

Visit a jobclub 0%

Apply directly to employers 9%

On books of a private employment agency 5%

Advertise in newspapers or journals 3%

Study situations vacant in newspapers or journals 39%

Answer ads in newspapers and journals 10%

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.

2.4 Overview

The literature on job-search practices and their impact has a primary focus on methods of job search. Analyses of LFS data on methods of job search indicate that the majority of job seekers use multiple job-search methods. Studying situations vacant columns in newspapers, journals or on the Internet is the single most commonly used job-search method, followed by answering adverts in newspapers and journals, visiting a jobcentre/job market/employment agency, asking friends/relatives/colleagues and applying directly to employers.

There are some variations in use of different methods by sub-group, with those job seekers with no qualifications placing greater emphasis than average on visiting jobcentres and asking friends/relatives/colleagues. Those job seekers who are unemployed are also more likely than average to visit a jobcentre (though this may be more an indicator that they have to regularly visit a jobcentre than that they use it actively for job search).

3   The Internet and job search

This chapter explores the use of the Internet in job search. This is an important topic given the increase in Internet use and the way it has permeated much of the job-search process. The literature on the role of the Internet in job search is reviewed (Section 3.1), although it should be kept in mind that the academic literature tends to lag behind the use of the Internet in practice; so it is likely that the studies referenced here will understate the current use of the Internet in job search. The notion of the 'digital divide' in inequalities in Internet access is examined also (Section 3.2). Descriptive analyses outlining empirical evidence from the Labour Force Survey (LFS) on the use of the Internet in job search and more sophisticated multivariate analyses are presented next (Section 3.3). The chapter concludes with a short synthesis of the main points highlighted in the chapter (Section 3.4).

3.1   The role of the Internet in job search

3.1.1   Introduction

The role of the Internet and information and communications technologies (ICT) on job search is multifaceted. Individuals may search for jobs on the Internet through dedicated sites, post their CVs on job boards, browse potential employers' websites for job posting, and exchange information with employers or employment intermediaries via email. Dedicated sites – sometimes referred to as career services and development sites – attract millions of visitors each year. According to comScore (2008): *'Approximately 53.9 million Europeans visited a career services and development site during an average month during the fourth quarter of 2007, averaging 3.5 visits per visitor.'* Monster (http://www.monster.co.uk/) and Jobcentre Plus (http://jobseekers.direct.gov.uk/) are two examples of such sites. There are many other job-search sites[3] such as fish4jobs (http://www.fish4.co.uk/jobs/) and workcircle (http://www.workcircle.co.uk/), as well as websites of national and local newspapers, providing both general and specialist job-search Internet services in the UK. In order to support free movement and job mobility across the European Union (EU), the European Job Mobility Portal EURES (http://ec.europa.eu/eures/) has been established to provide information on job vacancies across Member States and also provides facilities for posting CVs, etc.

Browsing through the pages of Monster.co.uk (and other Internet job-search sites) for example, job seekers can search for jobs by job type, using keywords, specifying a UK or international location, or a combination of these. Signing in to the service allows job seekers to save their searches and jobs found and helps them manage their job-search activity. Users are encouraged to upload a personalised CV and a cover letter telling employers why they are suitable for a job. In addition to this, many websites offer tools and advice aimed at providing career support and information. Thus, job seekers using these websites can be assisted in aspects of the job-search process that range from finding out about career options and planning a career, to preparing for job interviews and starting a new job.

The Internet and other ICT can be used in combination with other job-search methods (as noted in Chapter 2). For instance, a newspaper advertisement might offer a website address where those interested can find further details of the job openings. Additionally, interested job seekers

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[3]   It is not the intention here to provide a comprehensive list or review of all such job-search Internet sites, but rather to provide a general introduction to their existence and the services that they offer.

may be able to apply online or using other traditional means such as posting a paper application. Thus, disentangling the use of the Internet from the use of other methods is a difficult task for researchers. In spite of this, US research conducted on Internet job search confirms that its use has increased in the late 1990s (Kuhn and Skuterud, 2004). Moreover, the Chartered Institute of Personnel and Development's *CIPD Annual Survey Report 2009 on Recruitment, retention and turnover* identifies attracting candidates through the employing organisation's own website as the most commonly used method for attracting recruits in the UK. However, just as job seekers tend to use a variety of job search methods, so employers often use a range of recruitment methods (Coleman *et al.*, 2007).

As discussed below, access to the Internet plays an important role in whether individuals use this tool in their job-search process. Using US data, McDonald and Crew (2006) found that the likelihood of conducting an Internet search was six times larger for those who have access to computers and the Internet at home. Familiarity with using a computer was also identified by the authors as a good predictor of conducting online job searches since those with access to a computer at home (but not to the Internet) were twice as likely to search for jobs on the Internet compared to those with access to neither of these resources. The authors also found that those using the Internet tend to do '*relatively little job searching offline*' (p. 245).

The Internet, however, is not a panacea for unemployed job seekers. McQuaid *et al.* (2004), for instance, found that in remote rural areas of Scotland, using the Internet was marginal to participants' job-search activities and that social networking played an important role in the labour market (see Chapter 4 for further details of social networks and job search). Also, in a study conducted in Glasgow, Lindsay (2005) found that, although just under one in three of the unemployed individuals contacted reported using the Internet regularly to look for work, this seemed to be one among many other tools (although the numbers doing so are likely to have increased since this study was conducted), most of which were used more frequently.

While the use of the Internet and ICT in job search can facilitate the exchange of information between employers and job seekers, the decision of whether or not to hire an individual will be based on the quality of the information exchanged and, ultimately, on the match between the job seeker and the employer.

3.1.2   Impact of the use of the Internet and ICT for job search

The use of the Internet can impact on individuals' job search by reducing the cost of finding information about job opportunities and applying for jobs. This may in turn allow more intensive job-search activity and increase the probability of finding a job. Research conducted in this area, however, suggests that assessing the impact of the use of the Internet and ICT on job search is a complex issue which requires controlling for many factors.

Most of the research to date on the use of the Internet for job-search purposes has been conducted in the USA and many of these studies use the information obtained from the Current Population Survey (CPS). The CPS is a monthly survey conducted in the USA by the Bureau of the Census for the Bureau of Labor Statistics and '*provides a comprehensive body of data on the: labor force, employment, unemployment and persons not in the labor force*' (CPS, 2009). Every month, the CPS asks unemployed respondents a number of questions regarding their job-search activities. In addition to this, special supplements are included in each issue covering different topics. In December 1998, August 2000 and September 2001 the CPS included the Internet and Computer Use Supplements, and in October 2003 it included the School Enrolment and Computer Use Supplement. A number of studies were found that made use of the CPS and its relevant supplements to investigate the use of the Internet to look for jobs.

In one such study, Kuhn and Skuterud (2000) investigated the impact of the Internet on job-search practices of unemployed individuals in the USA. To do this, the authors first compared the use of traditional search methods of those who declared using the Internet and those who stated they did not use the Internet. The results of this analysis indicated that those who used the Internet to look for jobs were *'more likely to use seven of the nine traditional search methods than are job searchers who do not search online'* (p. 9). The only two methods that were under-represented among this group were 'contacted employer directly' and 'contacted friends or relatives'. An interpretation of the results was proposed: that the Internet is used alongside traditional methods, i.e., that it is a vehicle for traditional search methods (e.g., sending out resumes by email, or answering ads that were accessed on the Internet). However, this may also indicate that those who use the Internet to look for jobs are a subgroup of job seekers who choose to search more intensively overall. By further testing these hypotheses, the authors concluded that the Internet is a tool that can be used to complement other search methods and allows job seekers to search more intensively in terms of the number of job-search methods used. As for sending out CVs and filling in applications, the evidence provided in this study also indicates that the Internet is a factor related to their increased usage.

As noted above, besides looking at the impact that the use of the Internet has on other job-search methods, researchers have also investigated other ways in which the use of this ICT has impacted on job search. Using data from former welfare recipients in Florida, McDonald and Crew (2006) investigated *'the extent to which Internet job search results in the receipt of better jobs than traditional search methods'* (p. 240). The authors found that those who searched on the Internet were significantly more likely to have found jobs that offered pension benefits, health care for their children and training opportunities. Furthermore, their analysis indicated that women who searched on the Internet found jobs with significantly higher wages than those who did not search on the Internet. However, these results need to be interpreted with caution since the authors also found that those who searched on the Internet have more skills, and that the jobs posted on the Internet tended to be more highly skilled jobs. After measuring the vocational preparation (in terms of training, education and experience) necessary to perform the jobs concerned, they concluded that: *'(1) the Internet searchers have greater job-related skills than people who do not search on the Internet and that (2) highly skilled jobs are more likely to be advertised on the Internet.'* (p. 246). Thus it is difficult to discern whether a better job is the result of using the Internet or if the population who use the Internet to look for jobs is representative of more skilled individuals with potential access to higher quality jobs.

McDonald and Crew (2006) also reported a positive association between the number of Internet job-search strategies (i.e., reading online job ads or searching online job listings; submitting a resume or an application to an employer online; researching information about potential employers; and posting a resume on a job listing site or a service online) and five out of six of the job quality indicators defined in the study. The indicators that were positively related to job-search intensity were log of hourly wages, pension, health care, health care for children and training (no significant association was found with full-time employment). In relation to offline search, the analysis suggested no association between its intensity in terms of number of strategies employed and job quality.

Finally, Stevenson (2008) investigated the relationship between the increase in the variety of job-search methods used by the unemployed individuals in the USA and their use of the Internet. The rationale for this investigation was that, from around 1992, many of the job-search activities captured by the CPS could have been conducted (partially or completely) using the Internet. To this end, the author cross-examined the steady increase in job search by the unemployed between 1994 and 2001 and the introduction and growth of the Internet across states. The results of the study showed that:

'…as online penetration grew across states so did the use of each type of job search method. All methods show large, statistically significant increases that coincide with the growth in Internet penetration across states and years: for example a state-year with a 10 percentage point higher Internet penetration rate is associated with: a 2% increase in the probability of sending out a resume, a 7% increase in the probability of looking at job ads, a 10% increase in the probability of contacting a private employment agency, and a 1% increase in contacting an employer.'

(p. 10)

This study confirms Kuhn and Skuterud's (2000) conclusion that Internet use can be associated with the increased use of certain job-search methods. While Kuhn and Skuterud were able to confirm this relationship only in relation to sending out CVs, filling in job applications and 'other search methods', Stevenson's study also indicated an increase in other methods (such as looking for ads and contacting private employment agencies) due to increased Internet penetration.

3.1.3   The emotional impact of Internet job search

Among the few studies that consider the emotional impact of using the Internet for job search is a qualitative study conducted by Beauvallet *et al.* (2006). This study describes the evolution of a group of unemployed job seekers' search processes as they accessed career services and development sites and made use of other Internet tools. The sample consisted of 15 unemployed individuals with little or no job-search experience and individuals with a long period of unemployment. All the participants in the study were familiar with the use of the Internet. The study was conducted in two geographical locations in France: Antibes and Paris, with six and nine participants, respectively (three more participants were included in each group as part of a control group).

As described by the authors, at the beginning of their online job-search process participants considered the Internet to be a transparent media in which all jobs available were listed for them to choose suitable options. This view soon changed for various reasons. As job seekers realised that some sectors were better represented than others, with information on some of them being comprehensive and some sectors not advertising on the Internet at all, they became aware that the information available through the Internet was limited. Another aspect that contributed to highlighting the Internet as a non-transparent job-search tool was, paradoxically, the sheer amount of information that it offered. In the words of one of the participants, the Internet *'has all the information* […] *and at the same time it doesn't, because it doesn't have what I'm looking for'* (p. 47.)

Developing a concept of trust in relation to the Internet was another important issue highlighted by this study. Some participants felt the need to find information as to 'who was behind' the sites that they were using before they could trust them with their personal information. Contrary to this, other participants based their judgments of whether a site could be trusted on how efficient it was in terms of the job offers published and the accuracy of the information (including how often information was updated). Internet job search ultimately requires job seekers to upload and share personal information through a media that might not be fully understood and distrusting it is a likely reaction (at least for some sub-groups of job seekers) that has received little attention in the job-search literature.

The study describes how unemployed individuals' view of the labour market and their position in it changed as their job search progressed. If initially they saw online job searching as a service where they could 'pick and choose' a job from among the vast amount of offers, this view changed as they realised that the offers are rare and less evident than they seem. Moreover, participants soon realised that they were not a select group but that there are numerous other job seekers. After these initial disappointments using the Internet (and not having found a job), participants' seemed to

move from seeing the Internet as a transparent media to using it as a tool for accessing the 'hidden labour market'. In other words, participants soon learned to use job-search sites to look for potential employers and to find contact details of persons or departments to make spontaneous or semi-spontaneous approaches to. All these had an emotional effect on participants who were at times motivated and at times disappointed and discouraged by the results. To some, the process also led to a re-evaluation of their goals and to consolidating or reassessing their chosen sector for job search.

This study is limited in its generalisability since it focuses on a small sample and in a particular (non-UK) context at a particular point in time. However, it raises questions such as how the emotional weight of Internet job search affects job seekers, or whether job seekers are being provided with adequate support for making sense of the information they obtain through this tool, or whether information load contributes to confusion. A chief conclusion from this study is that the use of the Internet for job search – and other purposes – is not merely a 'yes or no' activity. Instead, it is a learning and emotional process that affects individuals' perception of themselves within the labour market.

3.1.4   Adverse selection of applicants

The Internet's potential to reduce the cost of applying for a job can lead to an excessive number of applications being made and make it difficult for employers to sift out relevant information. As Autor (2001) suggested, the information obtained by employers about job seekers can be grouped into low and high 'bandwidth' data:

> *'Low bandwidth data are objectively verifiable information such as education, credentials, experience, and salaries. High bandwidth data are attributes such as quality, motivation, and 'fit' that are typically hard to verify except through direct interactions such as interviews and repeated contact. The Internet makes low bandwidth data cheap, dramatically reducing the cost of learning about and applying for jobs. For example, browsing job boards is almost always free and the opportunity to transmit job applications to multiple employers is commonplace.'*

> (Autor, 2001, p. 30)

Furthermore the author explained that reducing the cost of applying for jobs leads to excess application which in turn may lead to adverse selection of job applicants. This means that, among the qualified individuals applying for a job, there will also be a high number of applications from individuals who are under- or over-qualified. This creates problems for employers (especially in a slack labour market where labour supply far exceeds labour demand) who must collect so called high bandwidth data to sift out those who, besides having the necessary qualifications for the job, also possess other attributes such as motivation and 'fit'. Since this is costly for employers, they may decide to use other information short-cuts (Nunn *et al.*, 2010) – including other recruitment methods such as recruiting through personal referrals, potentially leaving Internet job applicants at a disadvantage.

The results of some empirical studies suggest that adverse selection of job applicants may have an effect on recruitment of individuals using the Internet to apply for jobs. Kuhn and Skuterud (2004) estimated the effect of using the Internet as a job-search strategy on unemployment duration. Using data from the December 1998 and August 2000 Computer and Internet Use Supplements of the CPS, they followed respondents' employment situation through ten subsequent monthly surveys. Their first round of analysis suggested that a higher proportion of unemployed Internet searchers were employed after a year (nearly two in three versus one in two). But those who used the Internet to look for jobs were individuals whose characteristics are typically related with being re-employed faster, such as being in an occupation with a low unemployment rate, being at work

before unemployment, being young and well educated, etc. Further analyses, however, revealed that, holding the mentioned characteristics constant, unemployment durations were not shorter (and in fact sometimes longer) for those looking for jobs online. Among the possible explanations was that the use of the Internet might send negative indirect messages about the individual. For instance, the anonymity of the Internet could suggest to employers that those who apply online do so because of their poor informal contacts and social networks[4], or because there is some private information that the applicant prefers to withhold from the employer.

In another study, Fountain (2005) arrived at a similar conclusion, although her comparison of the 1998 and 2000 CPS data suggested that, in 1998, Internet users enjoyed some advantages that may have disappeared as the use of this technological tool became more widespread. According to Fountain, in 1997 using the Internet more than doubled the probability of finding a job in comparison with not using the Internet. In 2000 the probability of finding a job using the Internet was around one quarter lower than if the Internet had not been used. The author explained this finding by arguing that the dramatic increase in the number of people using the Internet between 1997 and mid-2000 (an increase of over half) meant that those using this technological tool were no longer *a small and select segment of all unemployed job searchers …* [but a group] *much more diverse and representative of the unemployed population*' (p. 1252-1253). This implies a number of lost early advantages for Internet users such as information being available to a wider group of job seekers, and the fact that employers can no longer make inferences about the applicant's skills or productivity by the fact that they have applied online (as can be the case when a select number of individuals apply in this way). It also highlights that the advantages and disadvantages of using the Internet for job search may vary over time. In Fountain's view, the Internet 'revolution' did not change the need for quality information transfer that serves to link those looking for jobs to potential employers.

3.2   The 'digital divide'

The term 'digital divide' in relation to job search refers to the gap between those with access to the Internet and ICT to look for job opportunities and to pursue them and those with little or no access. Just as ICT and the uses thereof have developed, so the digital divide is dynamic and complex. There is an important distinction between digital divides shaped by 'exclusion' (i.e. on the basis of socio-economic and educational inequalities) and those shaped by 'choice' (i.e. those individuals that have access to the Internet but choose not to use it) (Dutton *et al.*, 2009), with policy concerns focused primarily on the former. A number of studies conducted in the USA and in the UK have provided evidence of the digital divide in terms of access to the Internet. In relation to actual use of the Internet for job-search purposes, however, the evidence provided is more contradictory and deserves a closer look.

In a study analysing the 1998 Internet and Computer Supplement of the CPS in the USA, Kuhn and Skuterud (2000) found that: *'Hispanic and black workers are taking advantage of the job-search resources of the Internet to a much smaller degree than unemployed white'* (p. 6). However, when the authors controlled for Internet access, blacks and Hispanics were actually more likely to use the Internet to search for jobs than whites. Two in three of black unemployed respondents with Internet access from home searched for work online, compared with half of whites (with Internet access from home). Also, when Internet access from any location (i.e. not just home) was considered, slightly more than one in two blacks and Hispanics used the Internet to look for jobs, compared with nearly one in two of whites. As the authors concluded, the digital divide can be *'completely explained by differential access to technology'* (p. 10).

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[4]   Note that this study was undertaken at a time when use of the Internet for job search was less developed than it is at the current time.

Stevenson's (2008) and Brown's (2008) studies also provide support to the idea of a 'digital divide'. Stevenson examined the evidence of an increase in job-search activities by the unemployed as the 'Internet penetration rate' expanded across USA states between 1994 and 2001. The results of the analysis indicated differences in online search among the unemployed by income, age, race and gender. However, similarly to the conclusion reached by Kuhn and Skuterud (2000), the author indicated that: *'these differences are more muted when conditioning on those with Internet access'* (Stevenson, 2008, p. 6). As for Brown's study (conducted in the USA), the results showed that, among the unemployed, race, age, income and education predict differences in the use of the Internet to look for jobs. However, these demographic characteristics per se do not necessarily determine Internet job-search activity. Education, income, occupation, industry, and sector in which the job is held appeared as primary determinants after controlling for relevant factors. Thus, it may be concluded that race and age are predictors of access but not of Internet job-search activity.

In the UK there have been particular concerns about the access to and use of ICT by people living in deprived neighbourhoods. One of the Policy Action Team reports commissioned by the Social Exclusion Unit in the late 1990s (PAT15) was concerned with this particular topic. The report highlighted concerns that in a society already divided socially and economically, an additional 'digital divide' would exacerbate these divisions (Department of Trade and Industry, 2000). In order to help fill the information gap identified in the Policy Action Team report, a number of further studies were commissioned, including a study of access and use of ICT by ethnic minority groups in deprived areas (Owen *et al.*, 2003). The study pointed to the importance of economic position as a predictor of access to a PC, with unemployed and economically inactive people least likely to use a PC. After controlling for a range of demographic and socio-economic factors, black and especially South Asian people were less likely than white people in deprived areas to have home Internet access.

In a UK-based empirical study of unemployed job seekers in the city of Glasgow, Lindsay (2005) took an in depth approach to the study of the digital divide in relation to job search. He defined economic capital as access to ICT-related resources, and social capital as individuals' ICT skills, together with the willingness and ability to develop them further. The results of the study suggested that those in higher income groups (used as a measure of economic capital) were more likely to have Internet home access and to use it to look for jobs. Having formal qualifications was used as a measure of cultural capital and it was found that those *'holding higher levels of qualifications were significantly more likely to have access to the Internet at home and to use the Web to look for work'* (p. 335). He concluded that:

> *'For most unemployed people, across a range of skill sets and income-groups, Internet services and communications play little or no role in their job-search activities.'*
>
> (p. 336).

Most studies on the digital divide in the academic literature are dated (at least to some extent). This needs to be borne in mind, since Internet access of households and individuals has continued to increase (Office for National Statistics, 2009). It is estimated that in 2009[5] in the UK 14 in 20 households had Internet access (rising to 16 in 20 in London), up from 13 in 21 a year previously, and eleven in twenty in 2006. Of those households with Internet access, nine in 10 had a broadband connection in 2009, compared with four in ten in 2006. However, it is estimated that while 19 in 20 adults with a degree or higher educational qualification lived in a household with access to the

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[5]   The estimates presented here are derived from the 2009 National Statistics Opinions (Omnibus) survey. The National Opinions Survey is carried out each month on a random sample of about 1,800 adults aged 16 years and over, living in private households throughout Great Britain.

Internet in 2009, and nearly 17 in 20 of those with highest qualifications equivalent to GCE/GCSE grades A-C, only 10 in 20 adults with no qualification lived in a household with Internet access. Of particular relevance for this study is that in 2009 three in ten of adults (and one in two of those aged 16-24 years) who had accessed the Internet in the last three months reported that they had looked for a job or sent a job application using the Internet; this was up from one in four in 2008. This increase is likely to reflect both an increase in the use of the Internet for job-search purposes and an increase in the numbers of people searching for jobs as unemployment rose during recession.

These findings, together with the above evidence suggesting that access is a predictor of Internet job-search activity, make the case for addressing the digital divide to support individuals' job-search activities.

3.3   Use of the Internet in job search: analyses using LFS data

3.3.1   Descriptive analyses

The Internet is mentioned in the descriptive analyses presented in Section 2.3 as one of the possible channels used for searching situations vacant columns and advertising for jobs – along with newspapers and journals. In addition to the inclusion of the Internet alongside newspapers and journals in these specific responses, the LFS contains a specific question regarding people's use of the Internet to look for work in each quarter from 2006 onwards. In the case of each of the main methods of seeking work identified in Figures 2.10-2.13 with the exception of:

- asking friends, relatives, colleagues, etc; and

- do anything else to find work.

the majority of job seekers in the period from January-March 2006 to April-June 2009 indicated that they used the Internet to search for work. However, the first point above is of interest because it implies that the more job seekers use social networks in their job search, the less they use the Internet (see Chapter 4 for a more detailed discussion of the use of social networks in job search).

According to the LFS in April to June 2009, just over four in five job seekers made use of the Internet to look for work. Both similarities and contrasts in use of the Internet to look for work are evident in a descriptive analysis of LFS data for April-June 2009:

- very similar proportions of men and women used the Internet to search for work;

- use of the Internet for job search declined with age after the age of 25 years (see Figure 3.1);

- use of the Internet for job search was slightly higher than average among the Chinese, other and Mixed ethnic groups, while among the Asian or Asian British groups use of the Internet was slightly lower;

- but these broad ethnic group categories disguise some important differentials which are evident at a finer level of ethnic disaggregation – such as the higher than average use of the Internet by Indian job seekers and lower than average use by Pakistani and Bangladeshi job seekers (see Figure 3.2);

- there is a positive association between use of the Internet and highest qualification, with around nine in ten job seekers with a degree or other higher education qualification using the Internet for job search compared with only three in five of those with no qualifications (see Figure 3.3);

- greater than average proportions of job seekers currently or previously employed in professional, associate professional and technical, managerial and senior official, and administrative and secretarial occupations used the Internet for job search, while the proportions were lowest for

process, plant and machine operatives and those currently or previously employed in elementary occupations (see Figure 3.4);

- the greater use of the Internet in job search by those currently or previously employed in sales and customer service occupations and personal service occupations than in skilled trades occupations (see Figure 3.4);

- in April-June 2009 just over four in five of employed and International Labour Organization (ILO) unemployed job seekers used the Internet to search for work, compared with around seven in ten of the economically inactive;

- use of the Internet for job search with these economic position categories was higher among those aged 16-39 years than among those aged 40-69 years;

- use of the Internet was higher than average in London.

Figure 3.1   Percentage of job seekers using the Internet to search for work, by age group, April–June 2009

Source: LFS, April – June 2009 quarter.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
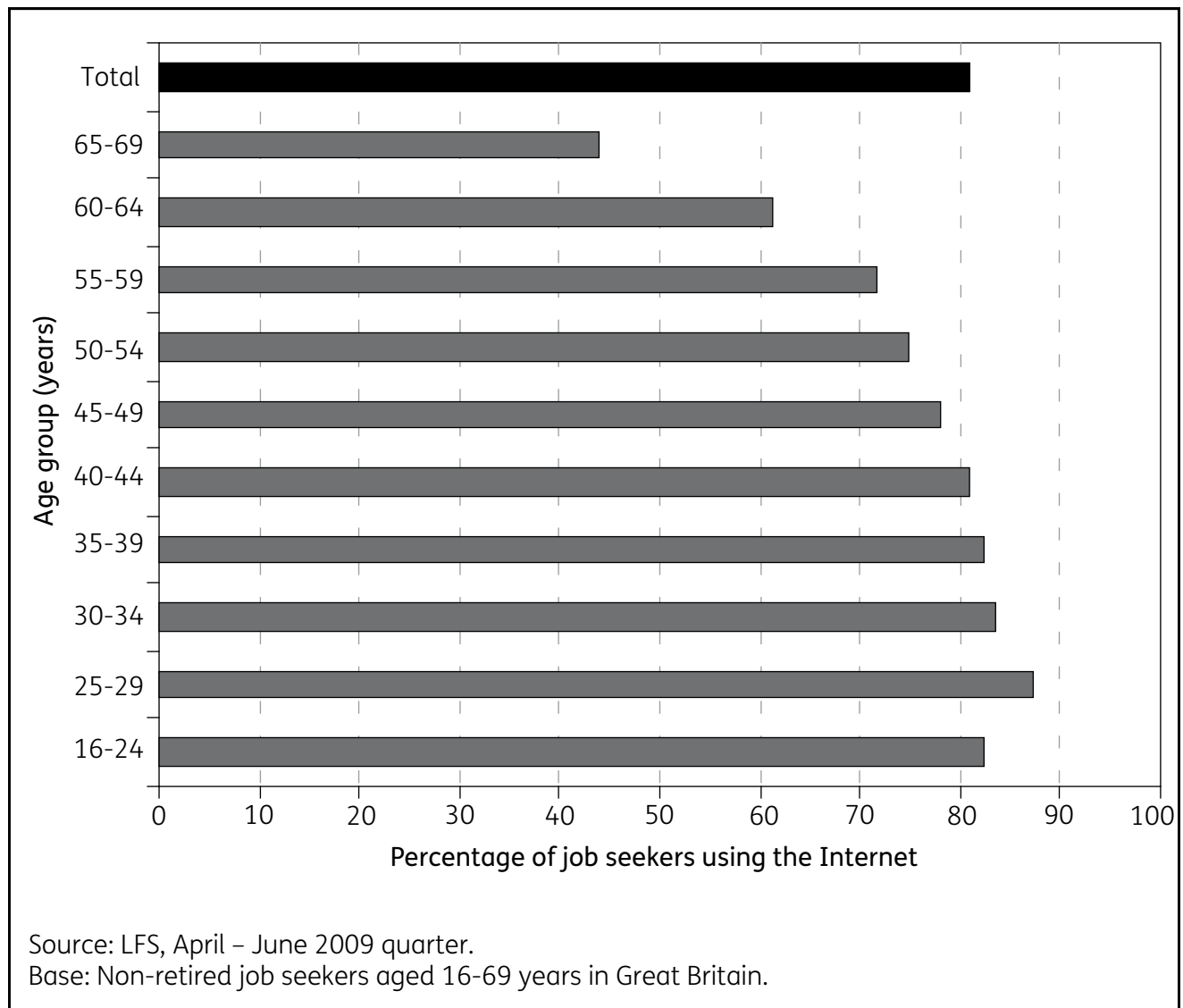
Figure 3.2   Percentage of job seekers using the Internet to search for work, by detailed ethnic group, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
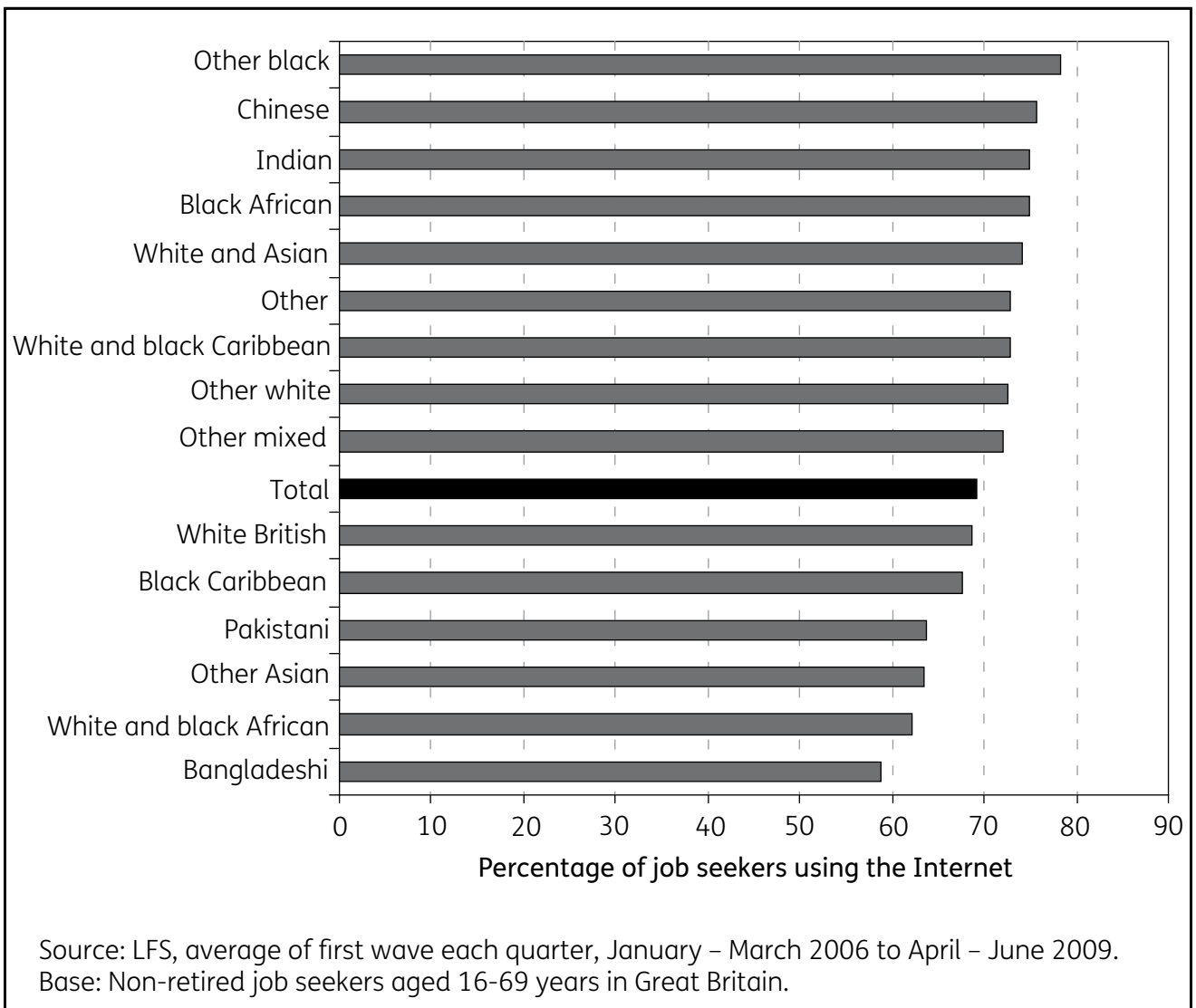
Figure 3.3   Percentage of job seekers using the Internet to search for work, by highest qualification, April–June 2009 average

Source: LFS, April – June 2009 quarter.
Base: Non-retired job seekers aged 16-69 years in Great Britain.

Figure 3.4   Percentage of job seekers using the Internet to search for work, by current or previous occupation, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
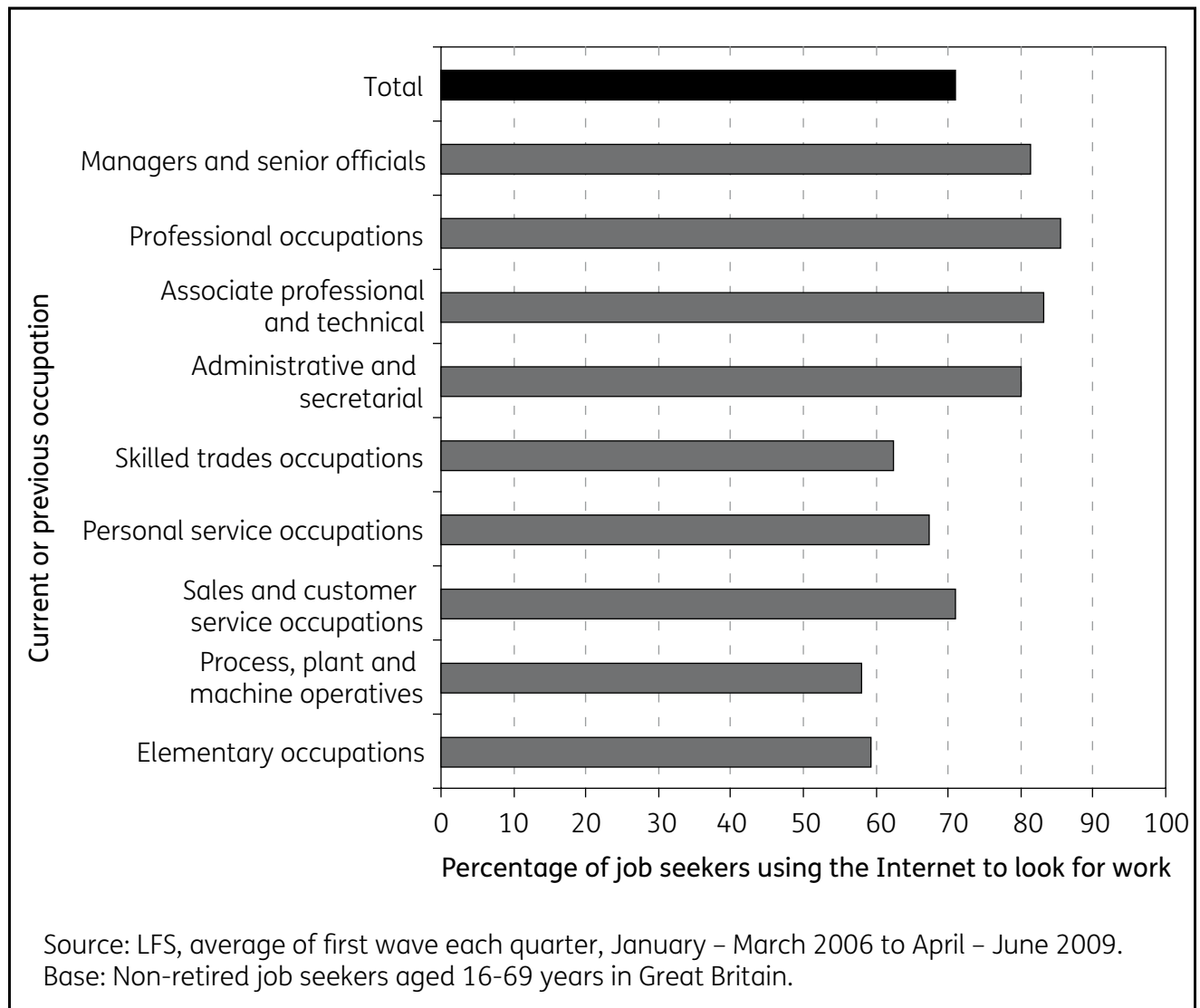
3.3.2   Multivariate analyses

In Section 3.3.1 the focus was on an analysis of single dimensions in turn (e.g. gender, age, ethnic group, etc). Here a more thorough treatment of this important topic is given through a multivariate analysis in which different variables are considered simultaneously.

The pooled sample of LFS data selected for analysis included all job seekers (both employed and non-employed)[6] in Great Britain aged between 16 and 69 years and who are not retired, drawn

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6   For those people who are looking for work, two questions in LFS are used. For currently employed people, the question is: *'Were you looking for a different or additional paid job or business in the week ending Sunday the* [date]*? (YES/NO)'*. For those who are not in employment, the question is: *'Thinking of the 4 weeks ending Sunday the* [Reference Day]*, were you looking for any kind of paid work at any time in those 4 weeks? (YES/NO)'*. People who answered *'NO'* to the appropriate question are excluded from the analysis.

from the first waves of the LFS from January-March 2006 to April-June 2009.[7] The approach used separated the investigation of Internet job-search activity from the investigation of the decision to look for work. The multivariate analysis aims to provide a comprehensive insight into use of the Internet in job search, distinguishing job seekers who use the Internet to look for work[8] from job seekers who do not use the Internet to look for work. Consideration is given to several key factors that may affect the Internet job-search activity. These factors are gender, age, ethnic group, education (measured by highest qualification); region (two different disaggregations), economic position and whether claiming Jobseeker's Allowance (JSA) (see Table 3.1). In addition, the development of Internet job-search activity over time (by year and by quarter) is explored. A binary choice model and probit regression (see Appendix B for details) is applied to investigate the probability of job seekers to use the Internet for job search.

Statistical descriptions of the selected variables first for the pooled sample of all job seekers and then for the samples of Internet job seekers and non Internet job seekers are shown in Appendix C in Table C1, Table C2 and Table C3, respectively.

A series of probit regression models were run, first, 'economic position' and 'JSA claimant' as two separate explanatory variables. Secondly, to exclude the possible bias that arises because of the collinearity between 'economic position' and 'JSA claimant', a new variable representing the interaction between these two variables was constructed and six possible interaction terms[9] were included in the probit regression as dummy variables. Finally, the 'JSA claimant' variable was excluded to explore the impact of 'economic position' on use of the Internet in job search. Separate models were run with a 'Year' and 'Quarter' as the time variables and with the different geographical disaggregations on the 'Region of residence' variable. Detailed estimation results are presented in Appendix C, Tables C4-C11.

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[7]   A pooled sample analysis avoids the small sample problem. The UK LFS data is released on a quarterly basis and each quarter contains individuals participating in five waves. Use of the first wave data enhances the quality of information used for analysis because in a high percentage of cases job-search information is not asked in detail in interviews in subsequent waves but is copied from the answer provided in the first wave interview.

[8]   The question used for the creation of the dependent variable in the analysis is included in the batch of LFS questions on 'looking for work' and is: *May I just check, did any of the methods you used to look for work involve using the Internet? (YES/NO)'*. If an individual answered *'YES'* to this question, the dependent variable is coded as one; if an individual answered *'NO'* to this question, the dependent variable is coded as zero; (missing values are excluded).

[9]   Technically, JSA claimants should not be 'employed' or 'inactive'. However, a small number of individuals in the pooled sample were recorded as both being in employment or inactive and claiming JSA; (these individuals were included in the estimation under the assumption that they will not significantly distort the estimation results). In any case, information on JSA claimants in the LFS should be interpreted with some caution, since all types of benefits, when measured by the LFS, are lower than levels recorded in administrative data. An ONS investigation concluded that this was likely to be due to measurement problems, rather than any design issues. The measurement problems include people being unsure what benefits they claim, people who are unwilling to admit to which benefits they claim and particularly, proxy responses, with people unsure of what benefits people they are completing the survey on behalf of may claim.

Table 3.1   Description of independent variables used in multivariate analysis

Variable	Disaggregation	Base category in probit model
Gender	Men, women	Men
Age	16-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, and 65-69	16-24
Ethnic group	White, Mixed, Asian or Asian British, black or black British, Chinese, other	White
Education – measured by highest qualification	Degree or equivalent, (other) higher education, GCSE grades A-C or equivalent, other qualifications, no qualification	Degree or equivalent
Region of residence (1) – Government Office Regions and Nations of Great Britain	London, North East, North West, Yorkshire and the Humber, East Midlands, West Midlands, East of England, South East, South West, Wales, and Scotland	London
Region of residence (2) – former metropolitan counties and regional remainders	Inner London, Outer London, Tyne and Wear, Rest of North East, Greater Manchester, Merseyside, Rest of North West, South Yorkshire, West Yorkshire, Rest of Yorkshire and the Humber, East Midlands, West Midlands Metropolitan County, Rest of West Midlands, East of England, South East, South West, Wales, Strathclyde, Rest of Scotland	Inner London
Economic position	Employed, ILO unemployed and economically inactive	Employed
JSA claimant	JSA claimant, non-JSA claimant	JSA claimant
Time (1) – year	2006, 2007, 2008, 2009	2006
Time (2) – quarter	Jan-March 2006, April-June 2006, July-Sep 2006, Oct-Dec 2006, Jan-March 2007, April-June 2007, July-Sep 2007, Oct-Dec 2007, Jan-March 2008, April-June 2008, July-Sep 2008, Oct-Dec 2008, Jan-March 2009, April-June 2009	Jan-March 2006

The key results from the multivariate analysis were as follows:

• Gender – there was no significant difference between men and women in the use of the Internet for job search.

• Age – job seekers aged 16-24 years were most likely to use the Internet to look for a job compared to all the other age groups considered. Additionally, there was a significant and consistent decreasing trend in the use of the Internet to look for work as people age, with the oldest age groups being least likely to use the Internet in their job search.

• Ethnic group – at the broad level of ethnic group disaggregation used here, no particularly significant variations in the use of the Internet for job search by ethnic group were identified once other factors are controlled for. However, those in the Asian or Asian British ethnic group were consistently the least likely to use the Internet in job search[10], while those in the 'other' ethnic group were most likely to use the Internet in job search.

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[10]   Although on the basis of the descriptive statistics, it is likely that the estimates disguise a distinction between greater Internet use for job search among the Indian group, and lower levels of use of the Internet for job search among Pakistanis and Bangladeshis.

- Education – there was a very significant positive relationship between education and use of the Internet in job search, with those individuals with degrees being most likely to use the Internet in their job search (as was evident in Section 3..3.1). Across all of the estimates presented in Appendix C there is always an increasing trend in use of the Internet for job search as the level of highest qualification increases.

- Region of residence – people living in London (both Inner London and Outer London) were more likely to use the Internet than people living in other parts of Great Britain. This is likely to be a function of both home (and other) access to the Internet and also regional variations in the profile of job vacancies and the extent to which different types of vacancies are advertised on the Internet. Compared with London, job seekers in the East Midlands and Wales had the lowest probability of using the Internet for job search (see Table C4 in Appendix C).

- Economic position and JSA claimant – when 'economic position' and 'JSA claimant' were included either as separate variables or as interacted terms (Tables C7 and C8 in Appendix C), the estimation results showed that ILO unemployed and economically inactive job seekers were less likely to use the Internet to look for work than employed job seekers. However, when the 'JSA claimant' variable was excluded from the regression, the ILO unemployed were not significantly different from employed job seekers in their use of the Internet for job search and economically inactive job seekers continue to be significantly less likely to use the Internet to look for work. Importantly, the estimation results imply that JSA claimants always had a higher propensity to use the Internet for job search than non-JSA claimants within the sample. This may be either because of a causal 'JSA effect' on use of the Internet and/or because of the impact of some unobservable individual characteristics that are correlated with the 'JSA claimant' variable.

- Time – holding all the explanatory variables constant, there was a significant and consistent increasing trend among job seekers in the use of the Internet across the four years for which the models were estimated, and an even stronger trend for quarter-on-quarter increase from 2006 to 2009. This emphasises the increasing importance of use of the Internet in job search. Indeed, increasing use of the Internet has emerged as one of the most significant changes in job search in recent years, as exemplified by evidence from two surveys of job seekers in Greater Manchester in 2001 and 2007, which showed that whereas around one in four job seekers used the Internet in 2001, the proportion had risen to more than one in two by 2007 (Hogarth and Hasluck, 2008).

3.4   Overview

The literature reviewed in this section suggests that while there are important variations in the use of the Internet in job search by age and qualification; location, gender and ethnicity appear to be less important predictors of job-search activity. This has implications for helping individuals extend their range of job-search resources, particularly in the light of findings suggesting that access is an important determinant of the use of the Internet for job-search purposes.

Analyses of Labour Force Survey data tend to endorse these points, with age and highest qualification having statistically significant relationships with use of the Internet for job search. People living in London (where access to the Internet is relatively easier) are more likely to use the Internet for job search than those elsewhere. Importantly, the analyses reveal that JSA claimants are more likely to use the Internet for job search than non-JSA claimants. Finally, it is clear that the use of the Internet in job search is increasing over time.

4   Social networks and job search

This chapter is concerned with social networks and the role that they play in job search. First, the impact of the use of social networks on the job-search process (Section 4.1) and the literature on predictors and outcomes of the use of social networks in job search are explored (Section 4.2). Studies on the role of gender and ethnicity in the use of social networks and the impacts they have on job-search outcomes are considered in Section 4.3. The discussion then moves to a review of the literature considering how external factors – including geographical area and neighbourhood – affect the use of network contacts (Section 4.4). Evidence of the use of social networks from the Labour Force Survey (LFS) is then presented (Section 4.5). The final section presents some concluding remarks (Section 4.6).

4.1   The role of social networks in job search

The literature on job search and related topics suggests that the use of social networks plays an important role in the job-search process and in career advancement (Putnam, 2000; Aldridge *et al.,* 2002; Halpern, 2005). Studies on job-search methods used by job seekers indicate that asking friends, relatives and acquaintances for information regarding job opportunities is a common and useful practice. In their *Survey Report of Incapacity Benefit Claimants in Northern Ireland*, for instance, Shuttleworth *et al.* (2008) indicated that using 'information from friends and family' ranked second in terms of its usefulness as a job-search method (after using 'adverts in the press'). Similarly, Hogarth and Hasluck (2008) found that 'use of word of mouth and personal contacts' was among the top five job-search methods in terms of perceived usefulness and frequency of use among non-working individuals that participated in a survey examining job search in Greater Manchester. Likewise, in a study in Teesside focusing on individuals trapped in a 'low-pay, no-pay cycle', Shildrick *et al.* (2010) found that their interviewees repeatedly found employment via informal social networks.

From these studies it can be inferred that the use of social networks varies according to the resources of the job seeker, the type of job being sought and the socio-economic context. Thus, this section explores how these factors affect the use of personal contacts for job-search purposes by considering the work of other researchers. Although the majority of the studies considered in other sections of this report were conducted in the USA, the studies considered in this section were conducted in a wider range of countries including Australia, Belgium, Canada, Sweden and the UK, thus giving a wide perspective on this topic.

Granovetter's (1973) theory on the strength of weak ties is seminal to the work on social networks and their relationship to job search and access to employment. In brief, Granovetter's theory asserts that a person's acquaintances (weak ties) are less likely to be linked socially to one another, whereas their family and close friends (strong ties) are more likely to know each other and form a close knit group. But since acquaintances are likely to have their own separate friends and social circles, they can act as bridges to other groups and provide a greater volume and range of information that would not be available through close friends. The disadvantages that having few or no weak ties has on the job-search process were succinctly outlined by Granovetter (1983):

'It follows, then, that individuals with few weak ties will be deprived of information from distant parts of the social system and will be confined to the provincial news and views of their close friends. This deprivation will not only insulate them from the latest ideas and fashions but may put them in a disadvantaged position in the labour market, where advancement can depend... on knowing about appropriate job openings at just the right time.'

(Granovetter, 1983, p. 202)

The studies reviewed in the following sections build on Granovetter's work and provide further evidence of the 'strength of weak ties' hypothesis, but also suggest possible exceptions or variations to it. Since Granovetter's (1974) initial work concentrated on professional, technical and managerial male workers in the USA, extensions to the theory were and continue to be expected and desirable as work on this topic expands.

Another important construct that can be used as a framework to make sense of the studies that are considered in this section is the concept of 'employability'. Using its broader definition, employability refers to factors *'which affect whether a person can actually find a job or change employment'* (McQuaid *et al.*, 2005, p. 191). This includes both supply and demand factors ranging from individuals' skills and experience, to job search and labour market conditions. The social networks that individuals can draw upon when looking for jobs can be seen as an important employability factor. As stated above, and as the studies discussed in this chapter indicate, social networks are used by many individuals seeking employment. However, the effectiveness of this approach varies depending on the characteristics of these social networks and how they are used.

4.2   Predictors and outcomes of the use of social networks in job search

The social networks that job seekers utilise to find jobs can vary according to a number of variables. As mentioned above, networks can be 'strong' or 'weak' depending on the strength and nature of the relationship that links the individual with each member of his or her network. But networks can also vary in size and 'quality'. The definition of 'quality' varies from one study to another and depends on the hypotheses being tested. For instance, quality may be defined in terms of education, age, employment status or type of job or position of the contact. The studies discussed in this section take these and other variables into account to explore the impact of the use of different types of social networks on the job-search process.

Wanberg *et al.* (2000) explored personality as a predictor of the outcomes of using social networks for job-search purposes using data from the USA. The study investigated the personality types that are more likely to use social networks to look for jobs. More specifically, the study investigated how personality type and networking comfort affected job-search outcomes such as exhaustion of unemployment insurance, re-employment, re-employment speed and re-employment satisfaction. The five dimensions of personality considered were neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Network comfort was conceptualised as an array of *'beliefs that portray an individual's attitudes toward using networking as a job-search method'* (p. 494).

The data for the study were collected from unemployed individuals targeted to attend a half-hour orientation session from the Minnesota employment services in the USA. Due to the targeting procedure, individuals from the professional, technical and manufacturing occupations were over-represented. Data were collected at two points in time: shortly after the orientation session and nine months later. The results of the regression analyses on the data indicated that extraversion (defining outgoing, high-spirited individuals) and network comfort were associated with higher network

intensity. Moreover, it was found that *'greater networking intensity is related to lower likelihood of exhausting unemployment benefits and to a greater likelihood of employment'* (p. 497). Of the individuals who found a job during the second wave of the study, more than one in three stated that they had found it by contacting friends, family, previous colleagues or networking. However, the results suggested that these individuals *'did not report higher levels of job satisfaction'* nor did they *'report lower intentions to turnover'* (p. 499).

How the size and structure of social networks affect the chances of finding a job among the Swedish unemployed was the focus of the study conducted by Korpi (2001). The author used the Swedish Longitudinal Study among the Unemployed, a two-wave panel survey of registered unemployed Nordic citizens aged 24 to 54 in 1992 which included items regarding the *'number and type of contacts available during the search period'* (p. 162). This source of data allowed the authors to measure the size of the respondent's network in terms of the number of ties. Strong ties were then determined as those contacts seen as least twice a week, and weak ties as those seen less often. Even after selection bias had been taken into account, the results showed a positive association between the probability of finding a job and the size of a person's network of contacts. Other less conclusive results suggested that *'the impact of having one additional contact is equal or greater than that of utilising other search channels'* (p. 166). In relation to the effect of network structure, the authors were unable to draw conclusions about the effect of weak versus strong ties, even though the size of the network emerged as important.

In another study on social networks and job search, Cingano and Rosolia (2008) focused on the importance of networks of former fellow workers as a relevant source of information for individuals unemployed as a result of firm closures. To investigate this, the authors created an empirical model and tested it using data from social security records from individuals *'in a small area in northern Italy'* (p. 9). The records covered all work episodes between 1975 and 1997 and provided monthly data on employment status and employer identity. Contact networks and employment history were derived from these data for analysis purposes. The results of the study indicated that unemployment spells were negatively associated with the job seekers' number of contacts who were currently in employment. Furthermore, this association was magnified for contacts who were geographically close or whose work was similar to that of the job seeker's previous experience in terms of skills required. However, the contact's employment did not seem to have a significant effect on the job seekers' subsequent earnings. Overall, the study provides local evidence related to the fact that *'a relevant portion of job-related information acquisition takes place through informal networks'* (p. 6), and that job seekers' weak ties with former fellow workers are an asset in job searching. Having contacts in a similar job to the one the job seeker is considering, and in relatively close proximity, appeared as indicative of higher 'quality' social networks.

Van Hoye *et al.*, (2009) investigated how the characteristics of unemployed job seekers' social networks determined their use of these networks for job-search purposes. Their sample consisted of unemployed job seekers from different Workforce Centres across Flanders (the Flemish-speaking area of Belgium). Participants were recruited as they registered with the Flemish Public Employment Service and data were collected at two points in time: first through a web-based survey at the time when they registered, and three months later through a follow-up telephone survey.

The authors concluded that the time respondents spent networking depended on the size of their network and the strength of their ties. Thus, *'job seekers with a larger social network and with stronger ties in their networks reported spending more time on networking during job search'* (p. 675). The results also showed a positive association between the time spent networking for job-search purposes and the number of job-search offers received. However, this association did not hold for employment status and it was found that spending more time networking was negatively

associated with having a job after three months of registering with the employment services. Echoing Cingano and Rosolia's (2008) conclusions, the results of this study suggested that the quality of an individual's network activities is more important than the intensity of use. In relation to this, time spent networking was negatively associated with employment status if the job seeker's social networks were lower-status ties (in terms of the educational, occupational and general life composition). The authors concluded with a word of warning, suggesting that while social networking matters, the nature of the social networks is crucial. Social networks characterised by lower-status individuals may decrease job seekers' chances of finding sustainable employment.

The overall conclusion to be drawn from these studies is that the **quality of an individual's network** is more important than the number of contacts and the intensity with which contacts are used.

4.3   Demographic variables and the use of social networks: insights from the literature

This section reviews studies exploring variations by gender and ethnicity on the use of social networks in job search.

4.3.1   Gender

Huffman and Torres (2002) examined how the usefulness of the information provided by social contacts varied by gender (of the provider and the recipient). The authors used 1997 data from professional, technical and managerial workers who participated in job clubs affiliated to the Employment Development Department of California. The sample is comparable to the broader labour market in California for these occupations, but, according to the authors, caution should be observed since self-selected membership of the job clubs may have introduced sample bias. The results showed that occupational experience and hours of work were positively related to receiving higher quality leads. This fact seems to explain why *'female respondents receive lower-quality job leads than their male counterparts'* (p. 808). The results also indicated that whereas men receive the same quantity of job leads from other men and women, women receive more leads from other women and these tend to be lower-quality leads. The authors concluded by hypothesising that this could be due to women's tendency to recommend other women to jobs that allow them to combine family commitments and *'may reflect the trade-offs that women face in the labour market'* (p. 809).

Membership of voluntary organisations may give individuals access to social resources which can potentially affect job search and its outcomes (as highlighted by Putnam, 2000), and this access can vary by gender. To test this claim empirically, Beggs and Hulbert (1997) gathered data on the contacts of a sample of workers in the metropolitan Chicago area and focused on those contacts that were made through shared membership of a voluntary organisation. The authors first looked at whether shared membership affected individuals' social resources in terms of the strength, gender and age-difference of the tie. Then they explored whether the use of a contact made through membership in a voluntary organisation had an indirect effect on job-search outcomes. The types of organisations studied were business; fraternal/service; church; recreation; and school. The data from the random telephone survey was analysed using regression techniques. The results suggested that, for men, the use of weak ties had a positive effect on the 'prestige' of the job found and on the probability that this job was closer to what the (male) individual was looking for; (no significant association was found for women in this sense). For women, using same-sex contacts had *'a significant negative effect on the socio-economic status of the destination job but a positive effect on the probability that women who looked for specific types of jobs found them'* (p. 614-615). In general, women's *'participation in fraternal/service; church; and recreational organisations may*

foster the formation of ties with other women, which constrains the attainment of certain outcomes but enhances the formation of others' (p. 617). It was also found that, for both men and women, using an older contact was positively associated with the size of the establishment (in terms of number of workers) of the destination job. This study suggests a difference in the contacts that men and women make through their participation in voluntary organisations and also on the impact that these contacts have on their job-search outcomes. However, there is also evidence of a difference in relation to what men and women look for in work and the way they define the type of job they want.

In another study from the USA, Chapple (2002) investigated job-search methods and use of networks by low income women in San Francisco. To this end, the authors used a sample that included 92 *'adult mothers currently or recently on welfare who were working part-time or none at all'* (p. 298). First, using cluster analysis to differentiate between women experiencing chronic unemployment and those who showed some attachment to the labour market, the authors defined three distinct groups from the data: the chronically unemployed, the job-mobile, and the career-oriented. Then they investigated variation in the job-search methods of women in these three groups and found significant differences in relation to the use of social networks. The results showed that the chronically unemployed women had more family ties and that the members of their network were less often work-related. In addition to this, job-mobile women *'have a substantially higher number of friends and male contacts than the chronically unemployed or career oriented'* (p. 300). Although there was a high reliance on the use of social contacts (strong or weak) by all groups, the career-oriented women relied more on weak ties than the other two groups, and this reliance increases with age *'possibly because they are exposed to more people in the course of work and school activities'* (p. 300). In relation to the use of employment agencies, it is the career oriented that used this service more frequently, a fact that might be explained by the types of jobs sought, i.e., more clerical.

Chapple's study suggests how network connections contribute to keeping the chronically unemployed attached to the secondary labour market and to unemployment; so echoing concerns raised elsewhere by Woolcock (2001) and Buck (2001) that the nature of social networks of many people in deprived areas can limit their access to employment opportunities. However, as the case of career-oriented women in Chapple's analysis suggests, networking is not a negative strategy per se, but one that needs to be combined with education and work to allow individuals to improve their employment opportunities.

In a previous study, Campbell (1988) found evidence of differences in men and women's job-related networks in four white-collar occupations (computer programmers, real estate agents, personnel professionals, and retail sales clerks not on commission) in the US. The results suggested that *'men are likely to know persons in more occupations than women'* (p. 189), providing supporting evidence for the hypothesis that women's job-related networks are more restricted than men's. Also, a significant negative correlation was found, for women only, between having children under the age of six and the occupational status of the contact, network range and network composition. These results provide a basis to suggest that women, and particularly those with small children, might be disadvantaged by their networks when looking for jobs using their contacts. The study used interview data collected from 186 individuals (97 women and 89 men) who had recently changed jobs in the Research Triangle of North Carolina.

Men's and women's differences in forming and maintaining social contacts, and the way these are used for job-search purposes, are core issues in the studies discussed in this section. In fact, the overall conclusion reached by the two first two studies considered seems to be that, besides the differences in the use of networks, there are also differences in the types of jobs men and women look for. Another important issue emerging is the variation in how women with different life and work trajectories use, and benefit from, using social networks in job search.

4.3.2   Ethnicity

The studies reviewed above suggest that contacting friends and family as part of a job-search strategy is common among job seekers. But this practice may be more common in some ethnic groups than in others. Holzer (1987) found that young, black, unemployed job seekers in the USA faced more barriers to finding jobs by approaching friends and family and contacting employers directly than their white counterparts. Using data from the National Longitudinal Survey of Youth (NLS) for 1981 and 1982, the author compared the use of informal and formal job-search methods of unemployed American males aged between 16 and 23. 'Checking with friends and family' and 'making direct applications' to firms without referrals were among the informal methods analysed; (formal methods of search included using government or private employment agencies, responding to newspaper advertisements and 'other'). The results of the study indicated that informal methods were the most frequently used by both black and white youths, and that these generated the largest number of job acceptances. However, breaking down racial differences suggested that the use of informal methods reduced the probability of black applicants receiving job offers *'possibly because of the greater role played by personal contacts and subjective employers' impressions'* (p. 452).

Elliott and Sims (2001) also found evidence of black people obtaining positive outcomes less often than other ethnic groups using informal job-search methods. They investigated differences in the use of contacts for job-search purposes between Latino and black people in the USA. Using data from the Multi-City Survey of Urban Inequality (MCSUI) conducted from 1992 (which included face-to-face interviews with selected individuals), the authors were able to analyse information from 7,360 individuals, including 2,360 black and 1,752 Latino people residing in Atlanta, Boston and Los Angeles. Analyses of the data revealed that four in five Latino and nearly nine in ten black persons used personal contacts to look for jobs. As for the likelihood of finding a job, three in four Latino jobholders reported obtaining their last or current job using their social networks, compared to around one in two black jobholders. The authors explain the disparity in the outcomes of using contacts to find jobs – despite the similarity in using this strategy – by suggesting that black peoples' connections may generate less offers, or that these offers are less attractive than the ones received through formal channels (see also Holzer, 1987). Logistic regression analyses on the data confirmed that, in general, Latino people are significantly more likely than black people to use informal job-search methods, and to use neighbours for this purpose. However, in terms of earnings, using nearby fellow residents as sources of information for possible jobs has a significant negative effect on the weekly earnings of black people, but the effect on the earnings of Latino people is not significant (albeit negative as well). In fact, the results suggested that *'ghetto residents who acquire jobs through neighbours tend to earn significantly less than those who acquire jobs through other channels'* (p. 358).

Social networks are a key feature in literature on the employment and labour market experience of migrants. A key hypothesis is that recent migrants are more likely than other individuals to use their social networks to gain access to employment. Given that the unemployment or sub-employment of refugees presents a waste of 'human capital' at both a personal and country-level, Torenzani (2008) explored the job-search process of Australian refugees with particular focus on the use of social networks. Data was collected through a survey of 150 refugees arriving in Australia in the 1990s and 2000s from Yugoslavia, Africa and the Middle East. Semi-structured interviews were also conducted with other key informants such as representatives from employment service providers. Among the results of the study, the authors highlighted the fact that although former Yugoslav refugees had the highest unemployment level among the respondents, they also had *the highest rate of working below their qualifications'* (p. 139). The authors explain that this 'occupational downgrading' was due to the group's *'reliance on extended family and ethnic networks in securing jobs... resulting in being channelled into low-skilled jobs'* (p. 139). Analysing the job-search methods used by the refugees

that participated in the study, formal methods were used at some stage by 82.7 per cent of the respondents, although use the use of community networks was also prevalent among Yugoslavs (72%) and those from the Middle East (68%). The study found that the Job Network (JN) services provided by the Australian government were used by respondents as opportunities to develop their social networks, something that would potentially impact their job finding prospects, although not in the manner intended. In the authors' view, social capital is crucial for migrants to find jobs outside their 'ethnic niches'. In this sense, the public employment service's role in helping refugees construct networks with their community was the most valued by respondents *as opposed to the skills provision which the JN providers themselves see as important'* (p. 148).

There are fewer studies from the UK that focus specifically on the experience and outcomes of migrants/ethnic minority groups in using social networks for job search, although there is research highlighting how new arrivals may be disadvantaged by lack of knowledge about how the UK labour market works (Green, 2006), as well as recent evidence of racial discrimination in recruitment practices in British cities (Wood *et al.*, 2009). In one study using LFS data, Battu *et al.* (2004) show that although social networks are a popular method of finding a job among ethnic minorities, they postulate that they are not necessarily the most effective either in terms of gaining employment or in terms of the level of job achieved. They suggest that those Pakistanis and Bangladeshis (who suffer particular labour market disadvantage – see Cabinet Office, 2003; Tackey *et al.*, 2006; Berthoud and Blekesaune, 2007) and those born outside the UK (who they consider to be 'less assimilated') lose out disproportionately from using social networks of friends and family.

4.4   External factors affecting the use of social networks

In an early study exploring the use of social networks, McGregor (1983) considered the role of residence as a possible source of disadvantage in job search and job finding due to a low flow of relevant information. The author hypothesised that *'neighbourhood unemployment rates would exercise a systematic influence on the use of personal acquaintances as a method of job search'* (p. 94). Data about recently unemployed men were gathered from a number of Unemployment Benefit Offices in Glasgow and a sample was created and contacted nine months later for an interview about their job search, unemployment and relevant experience. This information was combined with geographical data from the Scottish Development Department and the Census of Population. A crude analysis of the use of networks of acquaintances revealed only slight differences across neighbourhoods with varying unemployment rates. In sum, the author detected little systematic variation in the use of social networks across neighbourhoods and concluded that *'labour market search behaviour or problems contribute little to the explanation of intra-urban variation in unemployment rates'* (p. 98).

In another study from the same period, Stafford and Jackson (1983) undertook a qualitative study on the work aspirations and job-seeking strategies of young people in an area of high unemployment. The study was conducted in the late 1970s and early 1980s and, although it does not provide data that can be statistically generalised, it raises some important issues with regard to the importance of social networks for finding jobs in an area (and era) of high unemployment. The study took place *'in a comprehensive school with a predominantly working class intake in an area of high unemployment in Liverpool'* (p. 210) and focused on the experiences of 19 pupils who left school in 1979. In relation to social networks, the results of this study suggested that, for these pupils, their close circle of family and friends played a crucial role in the job-search process, albeit not always in a positive manner; (this finding is echoed in more recent studies of young people in deprived areas – see Green and White, 2007; MacDonald *et al.*, 2005). Supportive families were able provide help in locating jobs and filling in applications; 'putting in a word' for the job seeker; and

finding alternative accommodation in the case of jobs offered away from home. But not all families were in a position to provide job-search support, particularly in cases where members of the family were in unemployment and had limited or no employment networks to draw upon. As a result, this study highlights the importance of strong ties for these young people's job-search process. However, an important issue not considered by the study is whether using family and friends limited the range of job opportunities to those accessible through their social network (unskilled and semi-skilled) or whether, given the economic context, it was the best option that they could aspire to (see Green *et al.*, 2005).

Brown (2000) argued that use of social contacts by job seekers is affected by the status of the industry from which the job seeker was displaced and the industry in which job search takes place. By investigating this proposition using data gathered in the USA, the author explored the relationship between micro-level elements of the job-search process with macro-level factors. The data collection method for this study consisted of approaching 301 unemployed workers and, of these, interviewing 227 of them. Six months after the initial interview (in which demographic and employment data was provided), participants were asked to complete a survey about their job-search process and outcomes; 116 responses were gathered at this stage. Analysis of the data revealed the following patterns:

- There was a significant difference between the statuses of the contacts used for job-search purposes between job seekers in high- and low-growth industries. Respondents from high-growth industries tended to use contacts of higher status than themselves, whereas those in low-growth industries used contacts of similar status to themselves.

- In relation to the industry of the contact being used, respondents from growing industries tended to use contacts from within their industry, whereas those from declining industries tended to use contacts from outside. The result in relation to this conclusion was also statistically significant.

- There was a significant positive relationship between the status of the person contacted and the status of the job seeker (based on established socio-economic indices) after re-employment.

- Finally, the authors found that *'the use of personal contacts by job seekers was significantly and positively related to respondent's salary following re-employment'* (pp. 236-237).

These results highlight the importance of networking in the job-search process. By adding industry status as an extra dimension to the analysis, this study suggested a link between the type of contacts job seekers reach for and the outcomes of their search.

The results of the previous study were extended by two further studies that made use of the same data as described above. In the first of these studies, Brown and Konrad (2001a) suggested that job seekers in declining industries are more likely to contact their strong ties for job-search purposes than those in growing industries. The results of their study showed that, although job seekers in general tended to use strong ties during the early stages of the job search process, after six months those from growing industries displayed more frequent use of their weak contacts than their counterparts in declining industries. Contrary to the authors' expectations, the results suggested that *'in declining industries more than in growing ones, linking with a contact with whom one was able to communicate more openly and intimately was associated with higher earnings and status on reemployment'* (p. 456). The authors explained this in terms of the importance of communicating the difficulties and setbacks associated with a career change. The study suggests that, when jobs are scarce, using strong ties during the early stages of the job-search process can be a useful way of establishing weak ties to be used later on.

In Brown and Konrad's (2001b) second study the authors investigated further the use of cross-industry contacts for job-search purposes. They hypothesised that, for displaced individuals in shrinking industry sectors, their networks would be characterised by stronger ties; of lower occupational status; and being more frequently used compared to workers in growing industries. The analysis of the data supported these claims. More importantly, it indicated that job seekers *'using more cross-industry contacts would be more likely to find re-employment in a new industry than those using fewer cross-industry contacts'* (p. 1035). For instance, a three in five probability of making an industry change was reported for respondents who had two cross-industry contacts, compared to a probability of around one in four for respondents with no cross-industry contacts. This study extended Granovetter's strength-of-weak-ties theory by considering the possibility of individuals being re-employed in a different industry to the one they were displaced.

Lindsay *et al.*'s (2005) study in Scotland explored the use of social networks for job-search purposes in different geographical areas. In this study, the authors compared the impact of social networks in three different rural areas and established some of the effects that location can have on unemployed individuals' choice of job-search method (following McGregor, 1983). The rural areas considered included two contiguous travel-to-work areas in the Highlands of Scotland and a peri-urban area situated between Glasgow and Edinburgh. The data consisted of 424 responses to a survey and 12 focus group discussions. The results suggested that 'weak ties', usually established through work- rather than family-based contacts, tended to be the focus for informal job-search activity. Thus, young people, those who had been unemployed for a long period or intermittently, and those with low skills were less able to benefit from social networks. Comparing the different geographical areas, people living in the *'more remote communities were significantly more likely to use social networks to look for work'* (p. 67). For unemployed individuals in the two contiguous areas, using personal contacts was a key component of their job-search activity and was regarded as a valuable strategy. Conversely, those in the peri-urban area relied more on the services provided by the jobcentre, used social networking marginally, and expressed some reluctance in using their personal contacts to find jobs. Thus, the individual's own situation as a job seeker and their location affect their position in the labour market and have some effect on whether using personal contacts as a viable or worthy job-search strategy.

Matthews *et al.*'s (2009) work built upon Lindsay *et al.*'s (2005) study and compared ways of finding employment in urban and rural areas in Canada. Using data obtained through two major national surveys and semi-structured face-to-face interviews, the authors looked at levels of social capital (defined as involvement in voluntary organisations) and examined patterns in the outcomes of the job-search process in urban and rural populations. The results showed that formal job-search methods are more important in urban than in the rural communities and that in rural regions social networks are more frequently used. For instance, four in five employed respondents in Montreal, Toronto and Vancouver found out about their current job through an impersonal formal channel, compared to around one in two of those in rural areas. Also, whereas one in four rural workers indicated finding their job using strong ties, fewer than one in five of those in Montreal, Toronto and Vancouver reported this.

In a study conducted in the city of Glasgow, Lindsay (2009) investigated *'the relationship between access to social networks for job seeking, sociability and the experience of long-term unemployment'* (p. 25). Among the main questions addressed by the study was whether the long-term unemployed (defined as unemployed for 12 months or more) in disadvantaged areas find it difficult to access 'quality' social networks (i.e. networks of people employed in relevant occupations and sectors and with access to useful job-search information). To this end, the authors used data from 220 semi-structured interviews with unemployed individuals living in two areas of high-level unemployment. The results of the study indicated a significant difference in the extent to which

long-tem unemployed individuals used social contacts for job search compared to those who had been unemployed for less than a year. Work-related social networks were used by three in ten of long-term unemployed individuals compared with nearly one in two of those unemployed for less than a year; (there was no significant difference between long-term and short-term unemployed individuals in the extent to which they used social networks based on friends and family for job search). A significant difference was also found in the types of main social network contacts used, with one in four long-term unemployed individuals reporting using contacts in their target sector of job, compared with nearly one in two of those unemployed for less than a year. Compared with the short-term unemployed, the long-term unemployed were less likely to see networking as an important aspect of the job-search process and that *more than one-fifth of the long-term unemployed said that their main network contacts were themselves unemployed* (p. 31). In further discussion of the results, the link between long-term unemployment and social isolation was highlighted. Although this was identified as a contentious issue which other studies have refuted, the author concluded that there is a need for further research to investigate how long-term unemployment affects social life.

It is also pertinent to note that variations in the use of social networks by job seekers may, in part, be a function of employers' recruitment methods. Low-skilled jobs are more likely than others to be filled using relatively cheap, quick and informal recruitment methods, whereas those requiring higher level skills are more likely to involve a greater range of recruitment channels and more formal assessment processes. As noted above, when vacancies are communicated informally, there is a strong possibility that the vacancy will reach similar people to those already in employment, as employees are likely to communicate the vacancy through their networks of friends, family and contacts, so disadvantaging job seekers outside these networks. A 2006 survey of nearly 3,700 employers who had recruited (or tried to recruit) for low-skilled vacancies in the past 12 months revealed that word-of-mouth was one of the three most frequently used recruitment methods used for such jobs, along with advertising in local newspapers and using the jobcentre (Coleman *et al.*, 2007). Use of word-of-mouth recruitment was particularly prevalent in the construction, hotel/restaurant and transport/storage/communication sectors. Smaller employers were more likely than larger employers to use this method. Long-term unemployed people can be disadvantaged when employers recruit in this way as they may have fewer contacts in employment. Moreover, to save on recruitment costs at a time of a slack labour market, greater use may be made of such informal recruitment methods. As a result, those who do not have quality social networks and/or social networks including individuals in employment may be particularly disadvantaged at a time of high unemployment.

4.5   Use of social networks in job search: insights from the Labour Force Survey

As highlighted in Section 2.3.2, use of social networks (i.e. asking friends, relatives, colleagues, etc) is one of the most common methods of job search – used by just over one in three job seekers on average, over the period from January-March 2006 to April-June 2009 and by around one in two in the April-June 2009 quarter), but it is ranked slightly lower as a main method of job search (Section 2.3.3). This suggests that use of social networks is important in job search, but that it is often used alongside other job-search methods.

Given the focus of this section on social networks, it is appropriate to consider here some of the sub-group variations in use of social networks as a job-search method. Analysis of LFS data for the period January-March 2006 to April-June 2009 indicated that:

- men were slightly more likely than women to indicate that they use social networks in job search;

- social networks as a job-search method were used slightly more by younger job seekers (notably those aged 16-29 years) than by older job seekers;

- job seekers from Bangladeshi, Pakistani and other ethnic groups were more likely than job seekers from other ethnic groups to cite social networks as one of the job-search methods used, and along with the Chinese and other Asian ethnic groups were among the most likely to cite social networks as their main method of job search;

- those with highest qualifications at GCE A level or equivalent, or at GCSE grades A-C or equivalent, were the most likely to use social networks as one of their methods of job search, while those with degrees were least likely to do so; however, those with other qualifications (a category which include overseas qualifications which are difficult to code) and no qualifications were the most likely to cite social networks as their main method of job search;

- disaggregation by occupation revealed that job seekers currently or previously employed in skilled trades occupations were most likely to use social networks as a job-search method (Figure 4.1) and also to cite social networks as their main method of job search;

- those currently or previously employed as process, plant and machine operatives or in elementary occupations were also more likely than average to use social networks as a job-search method (see Figure 4.1), while those from professional and from administrative and secretarial occupations displayed the lowest proportions of job seekers citing social networks as a job-search method;

- unemployed job seekers displayed greater use of social networks for job search than those job seekers in employment;

- job seekers in West Yorkshire, the North East, Wales, Scotland and the South East were the most likely to use social networks in job search, while those in Merseyside, the West Midlands, the East Midlands and the East of England were least likely to do so (Figure 4.2);

- the geographical pattern in the use of social networks for job search is more complex than that for visiting a jobcentre, for which northern regions of Britain (with traditionally higher than average levels of unemployment) display the highest percentages and the southern regions (except for Inner London) the lowest (Figure 4.2).

It is clear from these analyses that use of social networks is a relatively common method of job search, especially for those from manual occupations and for those in Pakistani and Bangladeshi (who are among the most disadvantaged ethnic groups in the labour market) and other ethnic groups, albeit it is by no means the most widely used method of job search.

Analyses of LFS data on how those individuals who had been in their current job for three months or less obtained that job suggest that social networks play a prominent role. Figure 4.3 shows that, on average across the period from January-March 2006 to April-June 2009, around one in four obtained their job by 'hearing from someone who worked there'. This is a slightly higher share than those who obtained their current job by 'replying to an advertisement'. The next most frequent method of getting a job was via 'direct application', cited by nearly one in five respondents. Fewer than one in ten of respondents cited a private employment agency or a jobcentre.

Figure 4.1   Job seekers using social networks as a method of job search by current or previous occupation, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
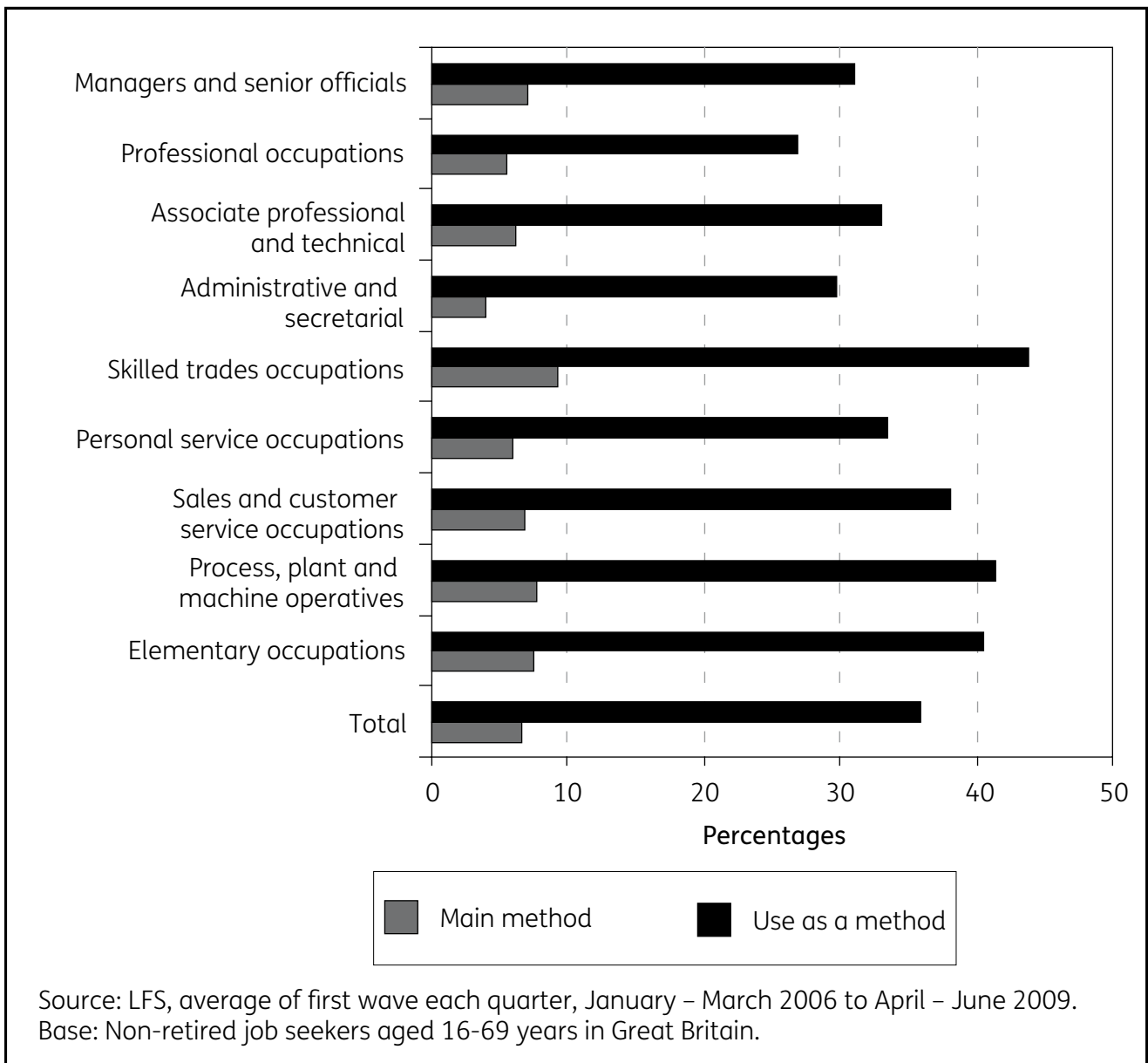
Figure 4.2   Job seekers using social networks and visiting a jobcentre as job search methods by metropolitan counties and regional remainders, January-March 2006 to April-June 2009 average

Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.
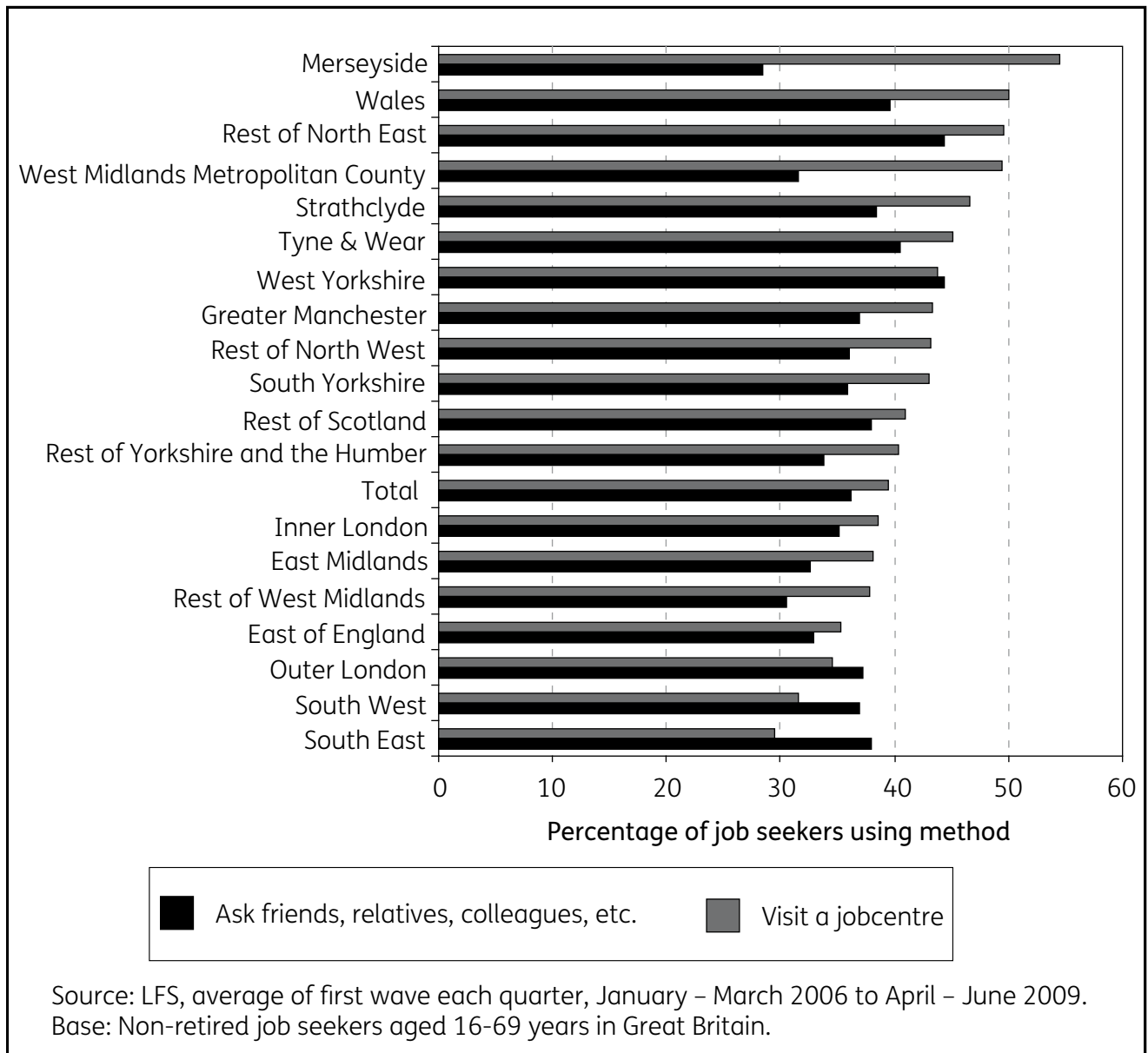
Figure 4.3   How current job was obtained for individuals who had obtained their current job in the last three months, January-March 2006 to April-June 2009 average
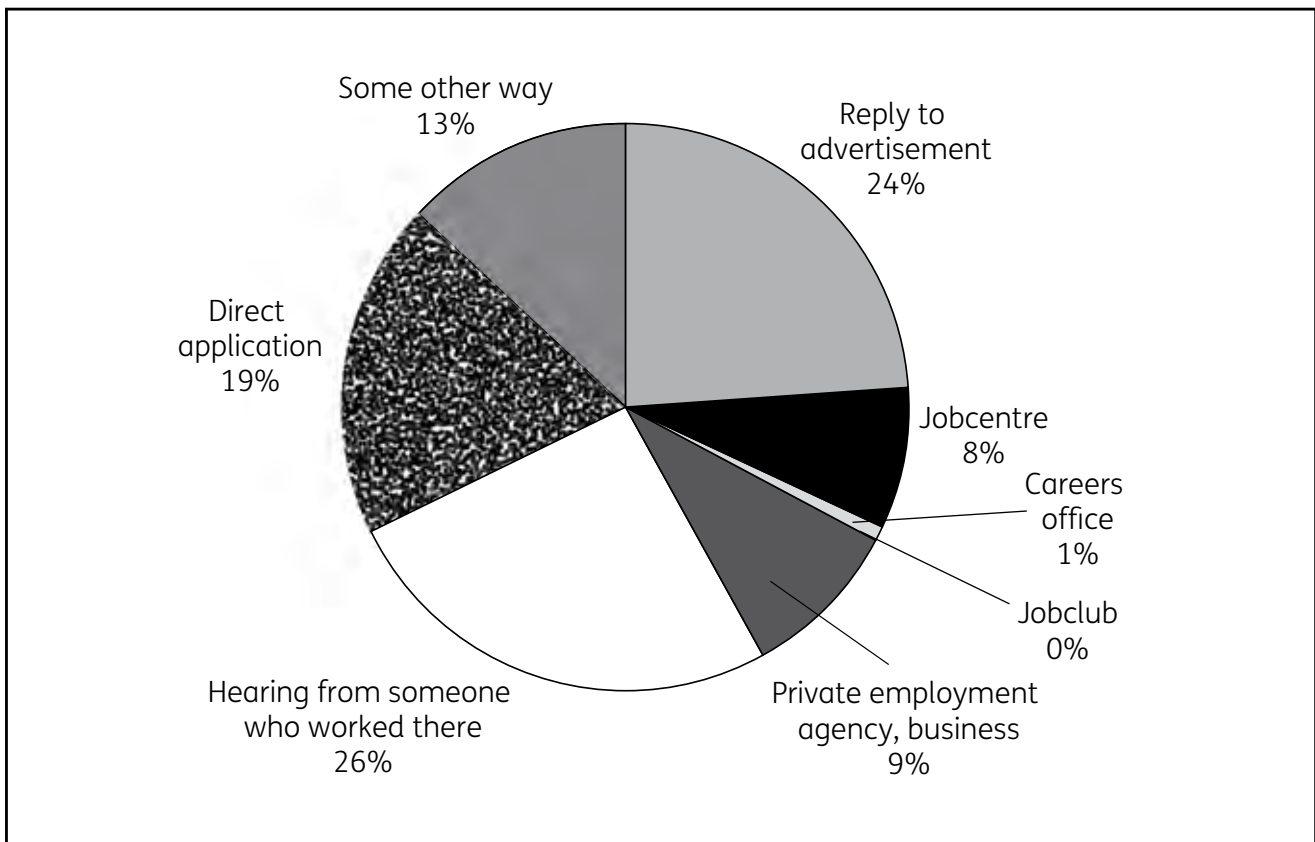
Examination of pooled first wave LFS data over the period from January-March 2006 to April-June 2009 revealed some similarities and contrasts between different sub-groups in whether workers who had obtained their current job in the last three months had got their post by hearing from someone who worked there:

• Men were slightly more likely than women to have got their job by hearing from someone who worked there.

• There were no marked differences by age group in the proportions who had obtained their current job in the last three months who have done so by hearing from someone who worked there.

• Individuals from black ethnic groups were least likely to have obtained their post by hearing from someone who worked there.

• In aggregate, individuals from Asian or Asian British groups were no more likely than white British people to have obtained their current post in the last three months by hearing from someone who worked there (although this could disguise some differences between Indian people, on the one hand, and Pakistani and Bangladeshi people on the other).

• More than one in three individuals with no qualifications who had obtained a job in the last three months did so by hearing from someone who worked there, while fewer than one in five individuals with a degree or other higher education qualifications did so (Figure 4.4); this suggests that 'who you know' is particularly important for those with no qualifications, while those with degrees and other higher education qualifications were more likely to have got their job by responding to an advertisement or by direct application (see Figure 4.4).

- More than one in three individuals who had obtained a job in an elementary occupation, a skilled trades occupation or as a process, plant or machine operative in the last three months did so by hearing from someone who worked there, while fewer than one in five individuals with a degree or other higher education qualifications did so (Figure 4.5).

- Fewer than one in four who had obtained jobs in professional occupations and associate professional and technical occupations, with those in administrative and secretarial occupations, managers and senior officials, personal service occupations and sales and customer service occupations were less likely than average to have obtained their post by hearing from someone who worked there (Figure 4.5).

An insight into how people who were previously unemployed or inactive obtained their current position within the last three months in comparison with those who were previously in employment is provided in Figure 4.6. Hearing from someone who worked there is the method cited by at least one in four of each of the previously employed, unemployed and inactive, with this method being of particular importance for both of the previously non-employed groups since this was the most important single method of getting a job. Replying to a job advertisement is important for each group identified, and is the single most important method for those previously in employment.

The methods displaying the most marked differences by previous economic position were:

- the jobcentre – which was considerably more important for the unemployed than for the employed or economically inactive;

- private employment agencies – which were more important for the employed and unemployed than for the economically inactive; and

- direct applications – which were more important for the economically inactive than for the unemployed or employed.

Figure 4.4 How current job was obtained for individuals who had obtained their current job in the last three months by highest qualification, January–March 2006 to April–June 2009 average
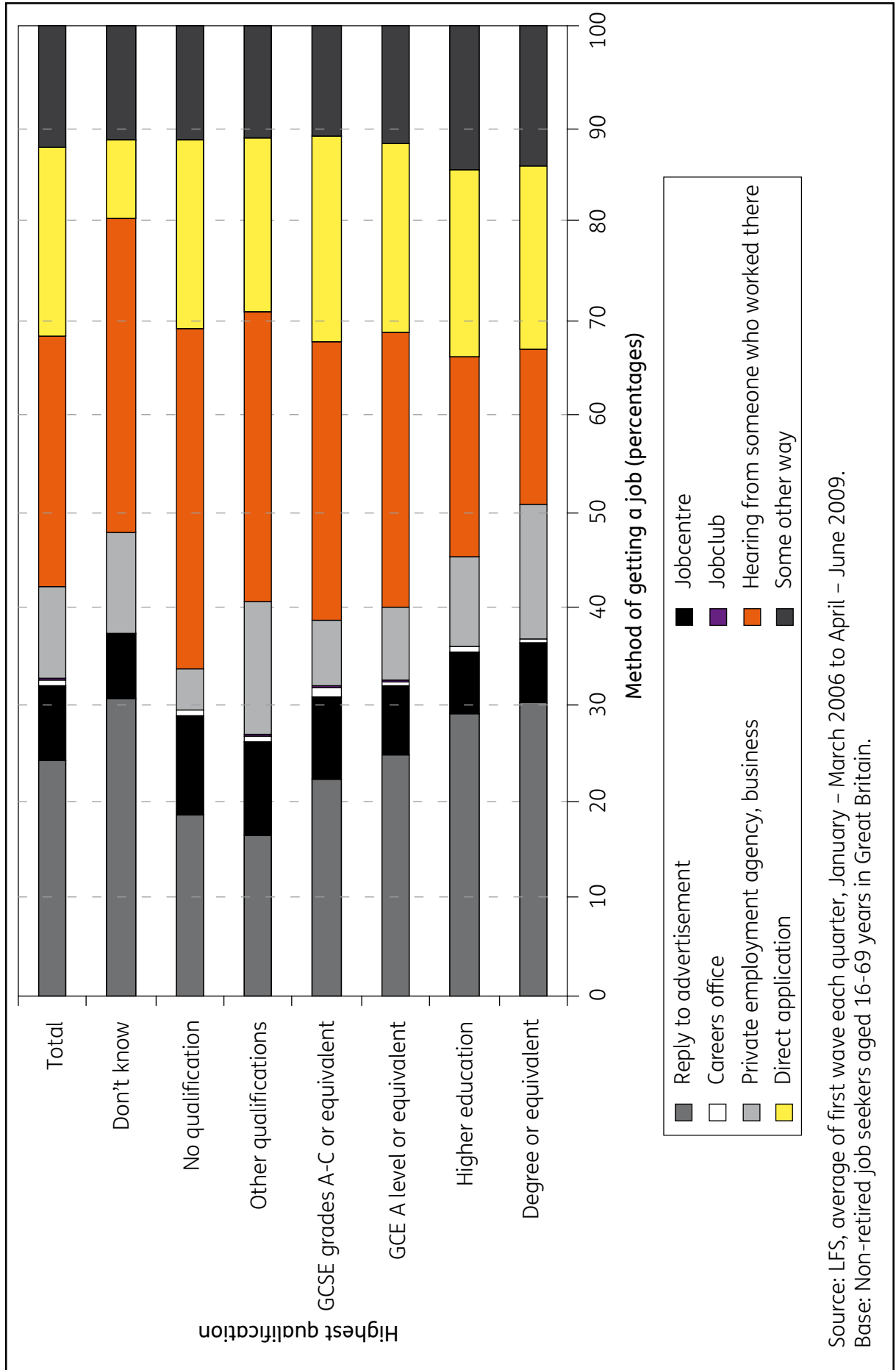
Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.

Figure 4.5 How current job was obtained for individuals who had obtained their current job in the last three months by SOC Major Group, January–March 2006 to April–June 2009 average
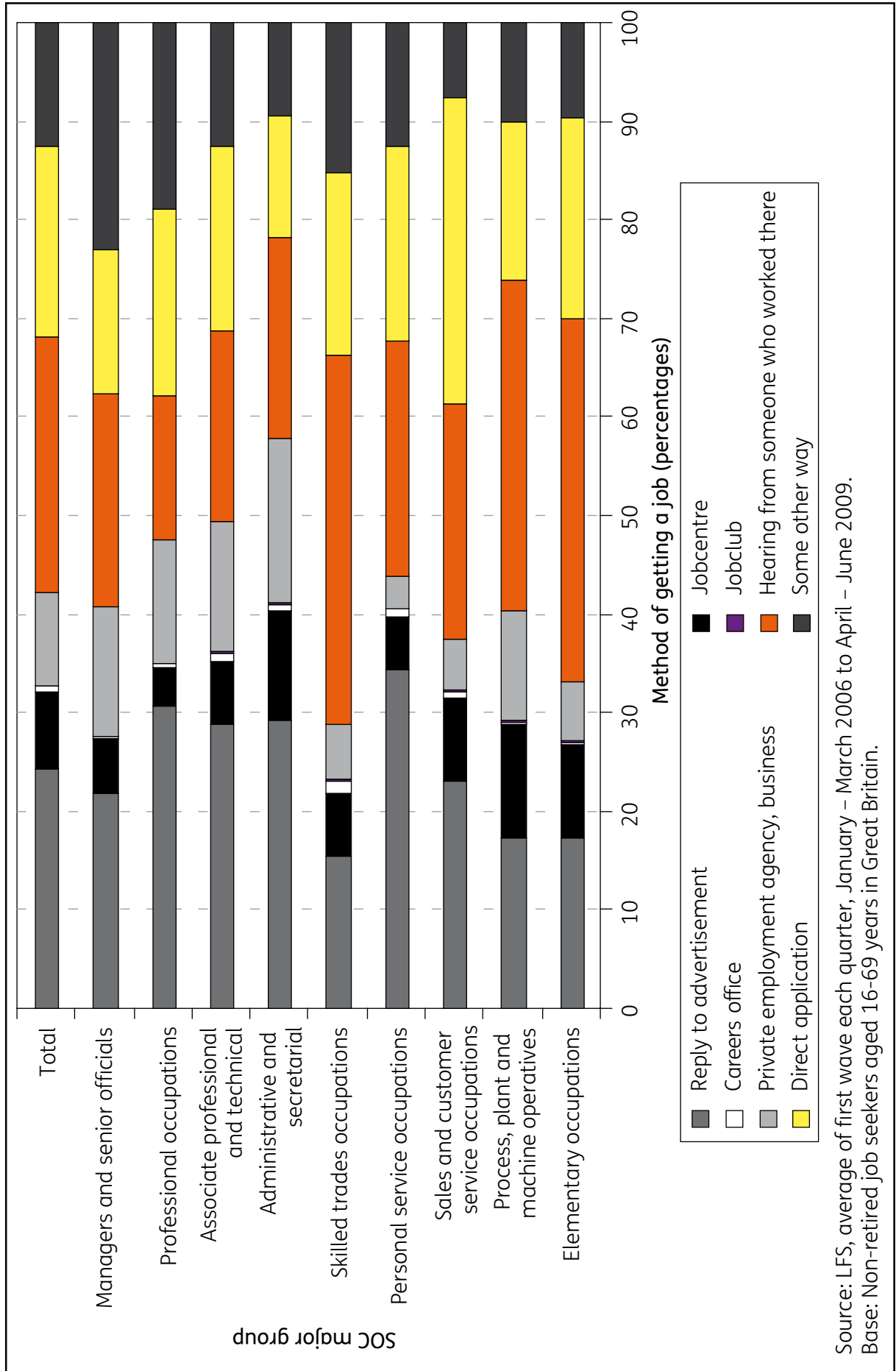
Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.

Figure 4.6   How current job was obtained for individuals who had obtained their current job in the last three months by economic position one year ago, January–March 2006 to April–June 2009 average
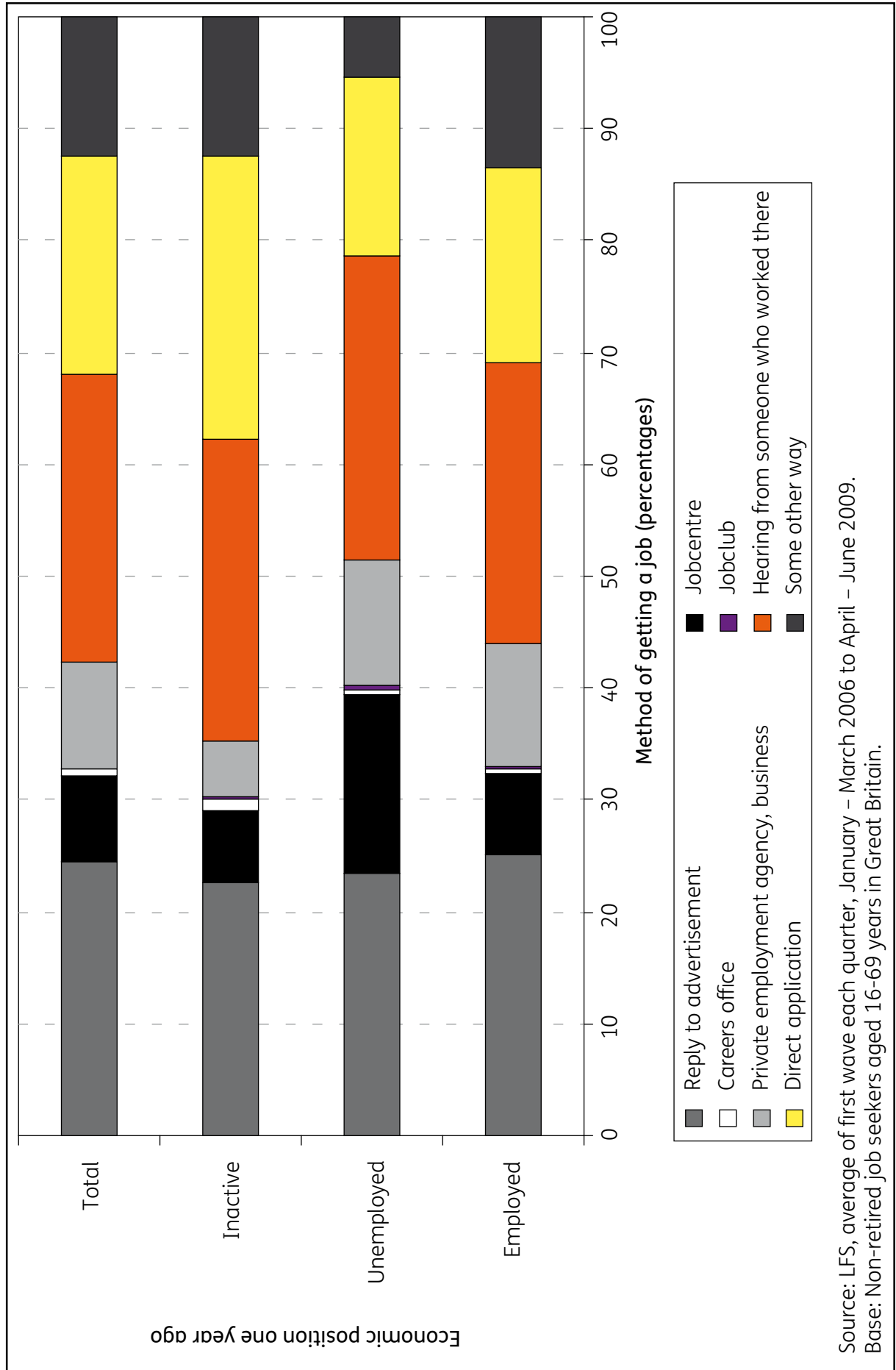
Source: LFS, average of first wave each quarter, January – March 2006 to April – June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.

4.6   Overview

Use of social networks is an important job-search strategy that can itself lead to successful outcomes or contribute to job offers and placements. As the studies reviewed in this section indicate, however, some types of networks are more efficient than others, and their effectiveness varies according to circumstances. Moreover, social network quality seems to be more important than intensity of use and different groups seem to benefit more from social networks than others. Empirical analyses of Labour Force Survey data suggests that those with lower skills (as measured by qualifications) are more reliant on social networks for job search than those with higher level qualifications. Concerns have also been raised in the literature about the quality and sustainability of jobs obtained via social networks. Thus, social networks should not be seen as a panacea to job search, but as another method with the potential to enhance the chances of job seekers finding employment.

5   Self-efficacy and job search

This chapter is concerned with job-search self-efficacy. Its purpose is to introduce the concept of perceived self-efficacy as proposed by psychologist Albert Bandura and to discuss its role in career-related behaviour and specifically on job search. After an introduction to this concept (Section 5.1), the relationship between perceived self-efficacy and job search is discussed with reference to a review of studies that have addressed this issue (Section 5.2). The final section presents a short summary of the main findings (Section 5.3).

5.1   Introduction to the concept of self-efficacy

5.1.1   The concept of self-efficacy

Self–efficacy was defined by Bandura (1997) as a person's judgement of their own capabilities. In the careers counselling field, career self-efficacy *'refers to people's expectations regarding their ability to perform various career search activities, including personal exploration, career explorations, and job search activities'* (Solberg *et al.* 1994, p. 64). Thus, studies that focus on job-search self-efficacy can be seen as studying specific aspects of career self-efficacy. Career self-efficacy has been studied in relation to topics such as gender (Hacket and Betz, 1981) career choice, academic achievement, and career adjustment (Lent and Hackett, 1987). As a field of study, with relatively few exceptions (e.g., Lin, 2008), it has paid little attention to job search as a career- or labour market relevant behaviour. According to Betz and Hackett (2006), very little research on career self-efficacy has been done outside the maths/science or engineering domains.

Going back to its origins, the concept of self-efficacy is central to the theory of social cognitive learning developed by Bandura since the late 1970s. Social cognitive theory is concerned with the determinants of human thought, motivation and action and suggests, among other things, that a person's forethoughts about **their situation** *'tend to promote the type of behaviour likely to bring about their realisation'* (Bandura, 1997, p. 34). In a previous study, Bandura points out that the **social** label of the theory *'acknowledges the social origins of much human thought and action'* whereas the **cognitive** label recognises *'the influential causal contribution of thought processes to human motivation, affect and action'* (Bandura, 1986, p. xii). However, other factors, such as the environment, also play an important role and this is taken into account in the 'triadic model' developed to explain the factors affecting human functioning. In this model, behaviour, internal personal factors (i.e., cognitive, affective and biological events) and the external environment influence one another to determine human action.

Social cognitive theory defines human nature in terms of a number of capabilities, such as the capacity to use symbols; to anticipate the consequences of prospective actions; to learn by observing the experiences of others (not only by direct experience); to self-regulate behaviour; and to reflect on one's own experiences and thought process (Bandura, 1986). The latter self-reflective capability is seen as a 'distinctively human' characteristic that allows people to reflect on their thought process and to judge their ability to deal with different tasks. Such assessment helps individuals develop a self-perception of their efficacy to perform in particular situations.

Perceived self-efficacy is a judgement of one's own capabilities that influences performance, and is also influenced by previous performance (Bandura, 1997; Lent and Hackett, 1981). Moreover, self-efficacy beliefs are context-specific and are not reducible to objective skills; instead, they determine how available skills are utilised. In other words, to perform successfully, it is necessary to have the right skills but also the self-efficacy beliefs about one's ability to use them.

In the context of job search, self-efficacy refers to individuals' judgements about their skills to successfully perform job-search activities such as looking for job opportunities, contacting employers, completing applications, performing at interviews, etc. While possessing these skills is important for a successful job-search process, research suggests that job-search self-efficacy is a key psychological variable affecting job-search behaviour and re-employment.

5.1.2   Dimensions, sources and consequences of self-efficacy beliefs

As Bandura (1997) explained, self-efficacy beliefs vary according to three scales: (1) level, (2) strength and (3) generality. Low 'level' efficacy beliefs may suggest that a person judges themself capable of performing only simple tasks associated with a particular domain; but beliefs associated with being able to satisfy 'more taxing performance demands' indicate higher self-efficacy levels. Bandura (1997) suggested that weak efficacy beliefs can be easily altered by confirming or disconfirming experiences, whereas stronger efficacy beliefs are more difficult to change (thus *'people who have a tenacious belief in their capabilities will persevere in their efforts despite innumerable difficulties and obstacles'* (p. 43)). Lastly, whether a person's beliefs of their own self-efficacy extend to a limited or a wide range of activities defines the 'generality' of that person's perceived self-efficacy. Research into the generality dimension of career-related self-efficacy can shed light into how self-efficacy beliefs in one area extend to other domains; however, research on career-related self-efficacy has focused predominantly on the level and strength dimensions (Lent and Hackett, 1987).

Bandura identified four sources of information upon which perceived beliefs about a person's self-efficacy are based: (1) performance or enactive attainments; (2) vicarious experiences of seeing or visualising others perform successfully in a given domain; (3) verbal persuasion and other social indication of one's skills; and (4) self-interpretation of one's emotional states, or emotional arousal. Enactive attainments are considered the most influential source of self-efficacy given that successful performance raises people's expectations of future performance, whereas 'repeated failure lowers them' (Bandura, 1986, p. 399). The role of vicarious experiences is also important especially in situations where previous attempts are not possible or have not taken place. As Bandura (1986, p. 399) put it: *'Seeing or visualising other similar people perform successfully can raise self-percepts of efficacy in observers that they too possess the capabilities to master comparative activities'*. Hence, role models are seen as influential factors in shaping a person's perception about their career self-efficacy (Hackett and Betz, 1981). As for verbal persuasion, Bandura's theory indicates that encouraging or discouraging others towards a given task affects the view a person has of their own ability to perform in it, and how long efforts are sustained in the presence of adversity. Finally, emotional arousal refers to the physiological states experienced in relation to a task and through which a person judges their skills. Anxiety is an important aspect of emotional arousal and can be seen both as a cause and as a co-effect of having low levels of perceived self-efficacy (Bandura, 1986). In any case, high anxiety levels *'are usually debilitating both in terms of performance and efficacy expectations'* (Hackett and Betz, 1981, p. 332).

Besides describing the environmental, personal and cognitive factors that can act as sources of perceived self-efficacy, Bandura's theory also describes the ways in which perceived self-efficacy can affect behaviour. First, self-efficacy beliefs can lead to approach or avoidance behaviour depending on the level of these beliefs. As Betz (2004) explains, *'low self-efficacy expectations regarding a behaviour or behavioural domain are postulated to lead to avoidance of those behaviours'* (p. 1). A second way in which efficacy beliefs affect behaviour is by impacting on actual performance. High levels of self-efficacy have a positive effect on performance, by allowing a person to maximise the use of their skills; alternatively, low levels of self-efficacy will lead to self-doubts and weaken performance. Lastly, self-efficacy beliefs determine whether a person persists in the face of

obstacles. Just as low-level expectations may lead to avoidance behaviour, they can also lead to a person giving up soon after the first disconfirming experiences arise. Conversely, high levels of perceived self-efficacy can lead to a person persevering on their long-term goals despite occasional failure or lack of, or negative, verbal persuasion.

5.2   The relationship between self-efficacy and job search

5.2.1   The relevance of self-efficacy to job search

Studies on career search self-efficacy suggest that this set of beliefs is a good predictor of career behaviour (Solberg *et al.*, 1994). Moreover, the predictive strength of career self-efficacy seems to be stronger compared to other theoretical models (Lent and Hackett, 1987). Besides testing the predictive strength of career-related, self-efficacy studies in this area may look at the effect of a person's perceived self-efficacy on other career-related behaviours, or at the effect that personal, behavioural or contextual factors can have on self-efficacy. Focusing on job search, the aim of this section is to consider studies (many of them from the USA) that explore the relationship between self-efficacy and job search. As has been discussed above, self-efficacy has been associated with active job seeking and positive employment outcomes, and it has also been studied as a factor affecting the context in which job search takes place.

In relation to active job seeking, Battista (1997) investigated the role that self-efficacy and identity play on a person's motivation to find a job after becoming unemployed. In a study of 250 unemployed individuals in the USA recruited through outplacement centres, individuals completed a questionnaire that measured career self-efficacy, career identity, identity valence, identity salience, threat to identity, and job-seeking behaviour. The results of the study indicated that individuals with higher career self-efficacy and identity valence (i.e. the value a person places on identity) were more likely to be active job seekers and to have stronger career identities than those who rate low in these measures.

In another study, Decker (1996) also found a significant association between self-efficacy and the number of job-search activities conducted. In this study, the author investigated the explanatory style (i.e., how a person explains the events in their lives) and job-search self-efficacy of USA students in their final year of college, and the way in which these variables predicted job-seeking behaviour. Eighty students completed two sets of questionnaires and, for the following five weeks, kept a diary recording their job-search activities. The data was analysed using multiple regression techniques and analysis of variance to assess the effect of demographic variables. The results revealed that there was a relationship between job-search self-efficacy strength and the number of job-search activities conducted. The study also revealed that younger participants had lower self-efficacy strength and that those with a longer period of employment scored higher on this measure. The authors reported no statistically significant differences between gender and the constructs investigated in this study.

Brown (1996) also found evidence of a positive relationship between job-search self-efficacy and the intensity with which job search was conducted. The author explored job-search self-efficacy and occupational certainty among recent college graduate students and their relationship to the nature or intensity of job-search behaviour. Ethnicity and gender were also considered. The results of the study indicated a positive relationship between self-efficacy and job-search behaviour, but not with occupational certainty. Like Decker (1996), Brown also found no association between personal characteristics (gender and ethnicity) and job search. Most importantly, the study found a relationship between job-search intensity and high job-search self-efficacy.

Besides a positive association with active job search, other studies have demonstrated a relationship between job-search self-efficacy and employment outcomes. Moynihan *et al.* (2003) investigated the interaction between job-search self-efficacy and the number of interviews a job seeker participates in, and the influence of these two elements on employment outcomes. The participants in the study were recently graduated MBA students (undergraduate and postgraduate) from a major north-eastern university in the USA who were looking for full-time employment. Students were recruited via the placement directors of their respective institutions and were invited to participate in a longitudinal study. After completing an initial survey on job-search self-efficacy, they were then interviewed at various points in time. Regression analyses of the resulting data revealed a positive association between the number of interviews attended and the number of offers received, much stronger *'among job seekers with high job search self-efficacy compared to those with low job search self-efficacy'* (p. 224).

The studies reviewed above are concerned with the direct relationship between job-search self-efficacy and job-search outcomes. However, job-search self-efficacy can also have an indirect effect on employment outcomes. In other words, instead of influencing outcomes directly, a person's beliefs about their ability to perform job-seeking tasks can influence other job-search behaviours or traits, and through them employment outcomes. One such study is Cote *et al.* (2006). As part of a study to investigate job-search affectivity, the authors of this study found a positive relationship between job-search self-efficacy and job-search clarity (i.e. when a person is clear about what they really want and what they are trying to achieve). More specifically, they found that job seekers with a high job-search self-efficacy were clearer about: (i) their job-search objectives; (ii) the type of career, work or job they wanted; and (iii) how and when to look for their desired job than job seekers with low job-search self-efficacy.

Cote *et al.* (2006) revealed that *'job search clarity fully mediated the relationship between … job search self-efficacy and job search intensity'* (p. 245). They suggested that job seekers *'with high job search self-efficacy engage in more job search behaviour than their counterparts because they achieve higher clarity'* (p. 245). This study provides evidence of the importance of positive affectivity and job-search clarity in the job-search process, and suggests that increasing an individual's job-search self-efficacy can improve their job-search clarity. Improving job seekers' job-search clarity can, in turn, lead to a more intense job search with higher probability of positive outcomes. In all, this seems to suggest that 'targeted' job search focusing on particular opportunities might be more effective than a 'scattergun' approach to job search.

Just as its effects can be mediated by other variables, the effects of job-search self-efficacy can also be mediated by variables such as perceived job discrimination. This conclusion was among the results obtained in a study conducted by Lin (2008), examining the sources of job-search self-efficacy of East Asian international graduate students in the USA. The study also investigated the *'moderating effect of two contextual variables in the relationship between job search self-efficacy and job search behaviours'* (p. 23). Data from a questionnaire survey of 86 students who were to graduate within six months and who were looking for a job in the USA was analysed using multiple regression techniques. The main results were reported as follows:

> *'Specifically, job search-related performance accomplishments and verbal encouragement were found to be unique predictors of job search self-efficacy among the target population. Neither of the two contextual variables, perceived control over job search outcomes and perceived job discrimination, moderated the relationship between job search self-efficacy and job search behaviours. However, the results revealed that the subscale of perceived job discrimination, perceived job discrimination based on nationality, moderated the relationship between job search self-efficacy and active job search behaviours (e.g., submit resume, job interviews).'*

> (p. 23)

Thus, the authors concluded that respondents with job-search experience and who received verbal encouragement from their family, friends, faculty or colleagues to find a job in the USA were more likely to be confident in their ability to be successful in finding such a job. However, this probability was diminished by the individual's perception of discrimination based on their nationality. This indicates that job seekers' perceptions matter, since they influence both self-efficacy and job-search behaviour.

5.2.2   General versus specific job-search self-efficacy

According to Betz and Hackett (2006; see also Bandura, 1997), since self-efficacy is the set of beliefs a person has of their ability to perform **in a given domain** it makes no sense to talk about general self-efficacy. Thus, self-efficacy, as postulated by Bandura, must be related to a specific domain for which explicit activities can be outlined for expected performance to be measured. Moreover, self-efficacy is not to be seen as a trait but as a dynamic state that varies with time and the context. However, this is a contested view and some authors argue that exploring individuals' views of their ability to perform in a broad array of situations can contribute to a richer understanding of a person's motivational process (Chen *et al.*, 2000). For instance, a study by Eden and Aviram (1993), assessed the impact of a training intervention designed to enhance general self-efficacy (GSE) on unemployed individuals in Israel and concluded that *'job search behaviour is the major mediator that converts high GSE into reemployment'* (p. 358).

Nicotra (1998) investigated the influence of both general and specific self-efficacy on job-search behaviour through a theoretical model that focused on a number of belief mechanisms. Over 150 unemployed white-collar workers in the USA who had been looking for a job for an extended period took part in the study. The results provided evidence of the positive influence and predictive power of general self-efficacy on job-search behaviour. According to the results, **general** self-efficacy had a central predictive power in the model and exerted a positive influence on job-search behaviours.

Nesdale and Pinter (2000) studied the effect of general and job-search self-efficacy on the job-seeking activities of unemployed young persons in Australia. Data were collected through the Australian Government Employment Service who sent out questionnaires to unemployed young people from different ethnic backgrounds. A total of 103 responses were collected. Two multiple regression analyses were conducted using as criterion values self-efficacy and job search. The results indicated that self-esteem and dominant group acceptance (i.e. acceptance of the host culture) significantly predicted the variance of self-efficacy of the participants. Contrary to the authors' expectations, ethnic identity did not emerge as a significant predictor of self-efficacy, and neither did support from family and friends. In relation to job search, and also contrary to what was expected, self-efficacy did not emerge as a significant predictor of job seeking. Instead, acceptance by Australians and the degree to which the respondents' cultural background differed from the Anglo-Australian culture emerged as significant predictors. Thus, the more accepted unemployed youths felt by Australians and the more similar they saw themselves as part of the host culture, the more effort they placed in their job search. In their conclusions, the authors stated that:

> *'Our findings indicate that unemployed ethnic youth, compared with unemployed youth who are members of the dominant cultural group, believe that their ethnicity (although a source of pride) constitutes an added burden in the job market – a burden that increases as their cultural backgrounds (and, perhaps, their physical characteristics) increasingly diverge from the host culture.'*

> (p. 612-613)

In relation to Nesdale and Pinter's (2000) study, their results point to a limitation to the predictive power of self-efficacy. As mentioned above, social cognitive theory indicates that human behaviour is determined by the interaction of behavioural, internal, and environmental factors and self-efficacy can be seen as one factor among these. As Nesdale and Pinter's study indicates, perceived

discrimination can be a stronger predictor of job-search behaviour under certain circumstances. However, Nesdale and Pinter's study is limited since the authors do not differentiate clearly between the effects of general and specific job-search self-efficacy. Lin (2008, discussed above), however, found that 'perceived job discrimination based on nationality' moderated the effect of job-search self-efficacy on job search. Thus, this provides further support to the argument that the predictive power of job-search self-efficacy is limited in some contexts.

5.2.3   Developing job-search self-efficacy through training interventions

Developing policy and training interventions to increase individuals' job-search self-efficacy is based on the assumption that there is a causal relationship between job-search self-efficacy and job-search behaviour – i.e. that increasing a person's job-search self-efficacy will lead to improving that person's job-search behaviour (Lent and Hackett, 1987). This assumption is supported by the results of some of the studies reviewed below. Moreover, training interventions designed to enhance job-search self-efficacy may, paradoxically, provide further opportunities for testing this causal relationship (idem). Relevant to this is a series of studies that evaluate the effect of interventions aimed at promoting efficient job-search behaviour and maintaining positive emotional states.

Caplan *et al.* (1989) investigated the effect on re-employment of an intervention designed to promote successful job-search behaviour and to prevent mental health deterioration as a result of unemployment. The intervention was the Michigan Job-Search Skills programme (referred to as the JOBS Intervention Project), consisting of eight sessions lasting three hours each which were offered over a course of two weeks. During this period, the participants were offered a series of interventions aimed at enhancing job-search skills and strategies, including job-search skills training, inoculation against setbacks and social support from trainers and a wider group of individuals. These were also designed to increase participants' self-esteem, self-control and self-efficacy. The targeted sample consisted of individuals who considered themselves eligible to receive unemployment compensation and were recruited while queueing to apply for this benefit. Questionnaires were mailed to the respondents at three points in time: two weeks before the intervention, and four weeks and four months after the intervention. The evaluation showed that the JOBS Intervention Project led to higher motivation in participants in general, and to better employment in terms of wages and satisfaction for those who found a job within four months (see also Vinokur *et al.*, 1991a).

In a long term follow-up study of the JOBS Intervention Project, Vinokur *et al.*, (1991b) showed that job seekers who took part in the JOBS Intervention Project became employed more quickly and had better pay and more stable jobs compared with those in the control group over two years later. Their evaluation considered the long-term effect of the programme by collecting and analysing data 32 months after the intervention had taken place. The results of this analysis provided evidence of the *'beneficial lasting effects of the intervention for the majority of persons (i.e., 81 per cent) who were reemployed and had some earnings at the time of the follow-up'* (p. 217). Through a cost-benefit analysis, the authors showed that that intervention benefited job seekers and society in a quantifiable way. Thus, the results of these studies suggested that, by means of increasing job seekers' self-efficacy, the JOBS Intervention Project led to improved job-search behaviour and subsequently to faster re-employment and better jobs.

In another study, Van Ryn and Vinokur (1992) predicted that self-efficacy was the primary mediator of behavioural change for those who took part in the skills programme. Results from the data analysis revealed that, at the one- and four-month post tests, *'exposure to the experimental intervention was a significant determinant of job search behaviour'* (p. 587) and that *'exposure to the intervention was a determinant of job search self-efficacy'* (p. 588). Based on their results, the authors concluded that self-efficacy was the only cognitive mediator of the effects of the intervention. In the authors' words, the results of the study demonstrated: *'the primary role of self-efficacy as the sole*

cognitive mediator of intervention effects on job-seeking as an adaptive coping behaviour following the stressful life events of job loss and unemployment' (p. 595).

However, the observed effects of the JOBS I study (as the first evaluation is referred to) were tempered by the second evaluation of the JOBS Intervention Project: the JOBS II study.[11] In relation to this large-scale extension of the original evaluation, Vinokur *et al.* (1995) reported that findings from the earlier study were replicated, but also identified some new information and areas where further work was needed. For instance, the study revealed that the intervention provided practically no benefit to individuals classified as low-risk, although it did have a positive effect on those classified as high-risk. These findings were seen as useful for improving the selection of participants to the intervention and ensuring it is offered to those groups who could obtain more benefits from it. Furthermore, the authors concluded that the results of the JOBS II study do not provide information regarding the '*mechanisms by which the JOBS intervention has its effects*' (p. 71).
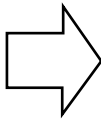
5.2.4   Developing job seekers' self-efficacy: the Jobcentre Plus Work Focused Interview

The notion of job-search self-efficacy has been used as a basis for work done in the DWP to support job seekers. According to Booth and James (2008), a person's awareness of capacity and capability is a key factor in their personal perception that has potential to drive performance and, subsequently, future perception. As the authors explain: '*life experience changes people's perceptions of themselves and what they are capable of, and this perception can affect whether or not they find and keep a job*' (p. 28). Consequently, job-search self-efficacy is seen as an important factor to consider in helping unemployed individuals conduct efficient and sustained job searches and this can be done in accordance with the sources of self-efficacy outlined by Bandura (1997).

In relation to this, James (2007) reports that developing job seekers' self-efficacy is the primary aim of the interviewing process developed by Jobcentre Plus. In general, the process consists of the Personal Adviser (PA) helping the unemployed job seeker remove the 'self-efficacy barriers' to finding a job. It starts with the PA helping the job seeker identify specific jobs and assessing whether he or she possess the skills, qualifications, availability, and personal characteristics to perform successfully at it. Next, the PA will aim to change each of the job seeker's self-efficacy 'barrier' beliefs into positive self-efficacy beliefs which are more conducive to getting a job (see Figure 5.1). As the author put it: '*The task for the adviser and local support solutions and provision [team] is to remove the five self-efficacy barriers by helping the individual change their belief so they can see themselves in a job*' (p. 6). This process implies a move from a paradigm that focuses mainly on barriers to finding and keeping work to one that leads to job seekers recognising their capabilities and the opportunities available to them.

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[11]   This was a large-scale extension of the original evaluation. Aside from data collection and analysis extensions, and some changes in the conceptual framework, the JOBS II study '*was intended to provide an operational replication (...) of the original study. Thus, the main basic features of the earlier study and the intervention, such as the sources and procedures for recruiting respondents, and for delivery of the intervention, including its content, remained essentially the same*'. (Vinokur *et al.*, 1995, p. 42).

Figure 5.1   From self-efficacy barriers to beliefs

1. Basic belief – 'I can't/I'll never work'		'I can work and I know what I want to/can do'
2. Local labour market knowledge – 'There are no jobs I can do around here'		'There are the right jobs for me around here and ...
3. Job-search skills – 'I'll never find someone who'll employ me'		I know how to find them'
4. Presenting my case effectively – 'They'll take one look at me/my CV/ my application and say "No"'		'I can present myself persuasively to an employer'
5. Keeping the job – 'Even if I got a job I'd never be able to keep it on with my problems'		'I can keep the job when I get it'

Source: James (2007).

For DWP this paradigm shift has implications for the relationship established between PAs and job seekers since their interaction can provide an opportunity for boosting job-search self-efficacy (see James and Brennan, 2009), via supporting the individual to prepare for job search, supporting effective job-search activity and once in employment, supporting successful job retention and career progression. The interaction between PAs and job seekers is an area of increasing research interest, given the central role of PAs in shaping the action plans of unemployed job seekers and the recognition that PA self-efficacy and attitudes has implications for job seekers' self-efficacy and behaviours, and, subsequently, job seekers' job-search outcomes (Sheppard, 2009).

A range of factors mediate the relationship between the PA and the job seeker, including:

- those influencing the environment within which the PA is operating (e.g. whether there is time to practise new skills) and how these impact on PAs' attitudes, skills and behaviours;

- time pressures, targets and other work constraints on PAs, as well as the receptiveness of the job seeker, which together influence whether and how PAs' attitudes, skills and behaviours impact on job seekers' attitudes, skills and behaviours;

- those such as the economic situation and the skills and ability of job seekers that influence whether job seekers' attitudes, skills and behaviours translate into job-search outcomes; and

- PAs' experience (e.g. in dealing with specific groups of clients) and training (including knowledge and skills training) (Ben-Galim and Sainsbury, p. 20).

In the end, job-search self-efficacy is about individuals recognising their skills and learning how to use them confidently for job-search purposes. This confidence can be strengthened through positive influences from the four self-efficacy sources outlined by Bandura (enactive attainments, vicarious learning, verbal persuasion and emotional arousal). This is a particularly functional perspective for the PA to adopt since, as opposed to focusing on the 'barriers' to work experienced by their clients, concrete actions to increase job-search self-efficacy can be structured within the interview session.

5.3   Overview

The findings from the studies reviewed in this section suggest that there is a connection between job-search self-efficacy and job seekers' behaviour. This information is valuable in framing the help offered to individuals looking for jobs. Bearing in mind that human behaviour is the result of not one but a number of interrelated factors, assisting job seekers in making full use of their skills through developing their job-search self-efficacy has the potential to increase their motivation and job-search results.

6   Conclusions

This chapter draws together the key findings from this study of job search. It presents the key findings from the preceding chapters and draws out their implications (Section 6.1). Ten key cross-cutting themes and messages are identified (Section 6.2) and outstanding gaps in the evidence base are noted (Section 6.3).

6.1   Job search: an overview of key findings and implications

Analyses of different methods of job search used and their efficacy should provide information that can be used for developing better ways of helping unemployed job seekers find employment (although it should be borne in mind that at any time around half of all job seekers are in employment). Moreover, knowledge about the factors surrounding typically unsuccessful job search could help individuals and labour market intermediaries to channel their resources more effectively.

As noted in Chapter 2, analyses of the Labour Force Survey (LFS) data on **methods of job search** indicate that the majority of job seekers use multiple job-search methods. Studying vacancy columns in newspapers, journals or on the Internet is the single most commonly used job-search method, followed by answering adverts in newspapers and journals, visiting a jobcentre/job market/ employment agency, asking friends/relatives/colleagues and applying directly to employers. There are some variations in use of different methods by sub-group, with those job seekers with no qualifications placing greater emphasis than average on visiting jobcentres and asking friends/ relatives/colleagues. Those job seekers who are unemployed are also more likely than average to visit a jobcentre – though this may be more an indicator that they have to regularly visit a jobcentre than that they use it actively for job search.

The **Internet** and related information and communications technologies (ICT) have had a marked impact on the job-search process in recent years, as outlined in Chapter 3. These technologies have affected the way employers and job seekers communicate. Employers may post information about job offerings online and job seekers may search on the Internet and respond to advertisements via email.

Around four in five job seekers made use of the Internet for job search in 2009. Yet the significance of the Internet for job search is not merely a function of the number of job seekers that make use of it, but also that other job-search channels may be enhanced by the possibilities offered by the Internet and ICT. As the Internet has become a more pervasive tool in job search and in recruitment its uses are becoming more diverse and so, arguably, the boundaries between different job-search methods have become more fuzzy and overlapping. It can be used in addition to, or to complement, traditional job-search methods.

This trend presents some challenges for researchers since it is not always easy to distinguish where Internet search begins and the use of traditional methods ends, and vice versa. From a job seeker's perspective, using the Internet alongside other methods can make it difficult to respond to questions asking which job-search methods they use most or which method led to their current or last job.

While the Internet has become seemingly ubiquitous in job search for the highly qualified and for those in professional and associate professional occupations, it has also made important inroads in other segments of the labour market. It is used by a majority of job seekers from all occupational groups.

The 'technological' support that the Internet and ICT provides to job seekers has the potential to lead to more efficient searches and ease the process of exchanging information with employers. However, there is evidence of a 'digital divide'. This means that some groups of individuals have more access to the Internet than others. Variations in the use of the Internet for job search by occupation point to a greater familiarity with (and access to) the Internet for people working in non-manual than in manual occupations, since it is a more intrinsic part of work in the former than in the latter. The extent to which job seekers are disadvantaged by lack of access to and use of the Internet for job search is likely to vary in accordance with recruitment channels used by employers.

In addition to the focus on the impact of the Internet on unemployed job seekers' search practices, as outlined in Chapter 1, the Job Search Study has also explored two other factors that have been considered as important in job search: the role of social networks (Chapter 4) and the role of job-search self-efficacy (Chapter 5). In relation to social networks, much of the work that has been conducted on this topic is based on Granovetter's (1973) theory of the strength of weak ties. This theory suggests that, because they give indirect access to a wider range of contacts, individuals' loose ties have the greatest potential to lead to information that can be useful for finding a job. As for job-search self-efficacy, this concept is derived from Bandura's (1997) theory suggesting that *perceived self-efficacy is a judgement of one's ability to organise and execute given types of performances* (p. 21). In the context of job search, self-efficacy refers to a person's judgement of how well they can conduct job-search activities.

The overall message from the review of the **use of social networks** in job search is that they are commonly used, but there are associated advantages and disadvantages to using them. For instance, while Wanberg *et al.* (2000) found a positive relationship between networking intensity and re-employment; they did not find evidence of reduced turnover intentions or higher levels of job satisfaction among those who had found their jobs using this strategy. There is also evidence suggesting that not all types of networks have the same effect. As van Hoye *et al.*'s (2009) work showed, time spent networking with contacts of lower educational and occupational status can have a negative effect on the probability of finding a job. Strong ties have the potential to lead to high-income jobs in restricted labour markets. One common strategy is to make use of strong ties initially to help establish a network of weak ties, and then to focus on weak ties. Thus, it can be said that 'who you know' is important for job search and can have both positive and negative impact on job seekers' access to particular types of jobs.

Gender and social networks is one topic that emerged as important in this review, although empirical evidence from the LFS did not reveal marked differences between men and women in the extent to which they use social networks for job search. However, no information is available in the LFS on the quality of such networks. At first sight, it seems, on the basis of the literature review, that women tend to be disadvantaged by their use of social networks. Campbell (1988) and Huffman and Torres (2002) suggested that women's job-related networks are more restricted than men's, and that they receive lower-quality job leads. Likewise, Beggs and Hulbert (1997) found that women-to-women leads resulted in lower socio-economic status jobs being obtained (albeit these might have been the types of jobs that fitted best with their family commitments). This does not mean, however, that all women use social networks in the same way or that they obtain the same outcomes. Chapple (2002) found that the social networks of chronically unemployed women contained less work-related members, and that career oriented women rely heavily on weak ties, but also use other strategies such as contacting employment services directly.

There is also a long-standing research interest in ethnicity and the use of social networks in job search in the USA. The studies reviewed in Chapter 4 indicate that black job seekers in the USA obtain better outcomes through the use of formal methods rather than informal ones that include the use

of social networks and approaching employers directly. The analysis of LFS data in the British context reveals that black job seekers make less use of social networks than other ethnic groups, and that Pakistani, Bangladeshi and other ethnic groups place most reliance on social networks for job search. However, marked differences by ethnic group in success in obtaining jobs via social networks are not evident.

Geographical location and the sector on which the job seeker is focusing job-search effort are external factors that can have an effect on whether social networks are used and their outcome. People in remote locations make particular use of social networks.

The analyses of LFS data revealed that social networks are of particular importance for those seeking jobs in manual occupations, routine occupations and for those with no qualifications. Since those with no qualifications are at greater risk of unemployment than those with qualifications, providing unemployed job seekers with resources to cultivate and enhance and extend their social networks could enhance their job opportunities, alongside other methods of job search.

The review of **self-efficacy and job search** in Chapter 5 suggested that people who believe that they have the skills to conduct effective job searches are more likely to be active job seekers and to conduct more job-search activities than individuals with low job-search self-efficacy. It is not simply a matter of a person believing that they have the skills necessary to look for a job and achieve a positive outcome. The skills need to be there in the first place (and it is relevant to note here that those with higher level qualifications appear to be more positive both about the likelihood of gaining a job and the speed at which they will secure employment); alternatively, measures need to be taken to address this. However, the importance of job-search self-efficacy rests on the fact that people who have the skills necessary to conduct successful job searches could be helped to make full use of their skills if provided with the opportunity to develop their self-efficacy in this domain.

It is apparent that people with high job-search self-efficacy are likely to attend more interviews and receive more job offers. Moreover, they tend to be clearer about their job-search objectives and how to achieve them. These findings help to make the case for improving job seekers self-efficacy in relation to job search. In relation to how job-search self-efficacy is accomplished and fostered, a review of the literature suggested that enactive attainments and verbal encouragement may be among the most powerful sources of job-search self-efficacy. In other words, people could be helped to develop their self-efficacy by providing them with opportunities to make use of their skills and offering constructive feedback that stresses accomplishments and competencies developed.

Although job-search self-efficacy is a central factor to consider in relation to job search, it is important to consider that, as socio-cognitive theory suggests, personal, behavioural and environmental factors affect each other to determine human behaviour. Thus, the level and effects of self-efficacy beliefs can be moderated by other factors as well. Perceived discrimination may, for instance, moderate the effect of self-efficacy beliefs or even have a stronger effect on their job-search efforts. Importantly, the concept of self-efficacy in relation to job search provides a tested framework to develop training and other interventions aimed at helping job seekers find and retain a job.

6.2   Key themes

A number of key themes and messages have emerged from the research reported in the preceding chapters. Ten such themes are identified here as being of particular relevance:

- the **role of the Internet** in the job-search process;
- **complementarities** in job-search methods;

- associated **implications** for measuring job search;
- the **wide range of job-search methods used by the unemployed**;
- the importance of **context** in examining job search;
- while focusing on job seekers, don't forget **demand-side** considerations;
- the nature and quality of **social networks** matter;
- **people get jobs in a variety of ways**;
- **perceptions and job-search self-efficacy** are important; and
- PAs can play an important **role in enhancing job seekers' self-efficacy**.

Each of these themes is discussed briefly below.

Changes in the policy, economic and technological context have important implications for job search. The majority of theoretical and empirical studies of job search date from a time either before the rise of the **Internet** or when its use for job search was less developed and widespread. In 2009 around four in five job seekers were making use of the Internet in job search, with its use being especially prevalent among younger job seekers and the most highly qualified. Older people, those with no qualifications and those seeking manual jobs were least likely to use the Internet for job search, but even among these sub-groups of job seekers substantial numbers made use of the Internet. Importantly, the Internet is changing, and has the potential to change further, the job-search process. It enables job seekers to access a greater quantity of information than would be possible by conventional means and also facilitates the possibility of them posting information about themselves on the web and contacting employers directly.

There are important **complementarities** in job-search methods. Most job seekers use several job-search methods and as the Internet has become a more pervasive tool in job search, so the ways in which different job-search methods are used has changed. A job seeker may search on the Internet for vacancies or they might go to the Internet to look up further information about a job advertised in a newspaper. Likewise, use of email and ICTs might enable social networks to be used in new ways. Hence, a single job application might be the function of the use of several different job-search methods.

These complementarities have **implications** for traditional ways of measuring job search. For example, the intensity of job search has been measured by the number of different job-search methods used. Such a concept measured in this way becomes less appropriate as the boundaries between different job-search methods become increasingly blurred. Moreover, it cannot be assumed that use of a greater number of job-search methods or a greater number of job applications necessarily result in more job offers. Indeed, it is probable that a more focused job search may be more successful/effective than a scattergun approach, since for some positions employers may expect the applicant to thoroughly research the job applied for and to customise their application accordingly. The 'quality' as well as the 'quantity' of job-search matters; yet the notion of an 'active job seeker' is associated more with the latter than the former.

It is notable that **unemployed** people use a **wider range of job-search methods** than either the employed or the economically inactive who are searching for work. Based on the conventional interpretations noted above, this suggests that the unemployed are searching for jobs with greater intensity. JSA claimants are obliged to be in contact with the jobcentre, so it is unsurprising that the jobcentre is a method of job search identified more by the unemployed than by those in other economic position categories. It is also the case that the unemployed are likely to have more time

to devote to job search than those in employment and the economically inactive; thus providing greater scope to use alternative job-search methods. Evidence from the LFS suggests that four out of every five unemployed people use the Internet to search for work and also that the unemployed are more reliant on social networks to find a job than those job seekers already in employment.

It is clear that a range of **contextual** factors impinge on job search and job-search methods. These include factors such as location – with the literature suggesting that formal job-search methods play a more prominent role in urban than in rural areas – individuals'/households' access to the Internet, cultural issues, job seekers' experience of job search, and their skills and wider employability attributes, etc. The state of the macro economy is also an important contextual factor.

Job seekers search methods are likely to be a function, at least to some extent, of employers' recruitment practices. This highlights the need to take account of **demand-side considerations** in job-search studies. Moreover, employers' recruitment practices may themselves vary according to the state of the economy – with employers possibly using fewer channels to advertise vacancies in a slack rather than in a tight labour market, as well as by the nature of the job in question and the relative ease with which it is likely to be filled.

Social networks can play an important role in access to information about jobs. Use of social networks remains a popular job-search method – especially among those seeking manual jobs and among job seekers with no qualifications, as indicated by the analyses of LFS data. However, the role of social networks in job search need not necessarily be positive. Rather, it is the nature and quality of social networks that matter. The literature on social networks and job search has emphasised the 'strength of weak ties', so emphasising a spread of diverse links to people with heterogeneous characteristics and knowledge, while concerns have been raised about paucity of links to employment among social networks made up of relatively large numbers of non-employed individuals: **who** you know matters!

People get jobs in a variety of ways and although some sub-groups of the population are more reliant on some job-search methods than others, there is no single optimal method of job search. The method most likely to be successful for a job seeker will depend on the nature of the employment position sought and employers' recruitment practices, as well as on the job seeker's ability to seek out and make credible applications for suitable vacancies. Given the range of job-search methods used by many job seekers, it is likely that many job seekers will use more than one job-search method in a single successful job application.

Job-search **self-efficacy** emerges from the analysis as a crucial factor, and is one that affects job-search behaviour. While possessing the skills necessary to fulfil a particular job may be a prerequisite for a successful job 'match', so an individual's judgements and expectations about their capability to perform effectively at each stage of the job-search process is important in getting a job. This focus on encouraging job seekers to recognise their capabilities and the objective opportunities available to them, rather than focusing on barriers to finding and keeping a job, lies at the heart of **the role of the Personal Adviser** as developed by Jobcentre Plus in helping individuals overcome self-efficacy barriers and facilitate a successful job search (as outlined in Section 5.2.4). It is important to note that self-efficacy is itself dynamic: it varies with time and context. Moreover, it is mediated by other factors, which may moderate the effect of self-efficacy beliefs on job search. Here, **perceptions** of opportunities, and of discrimination, are pertinent, since individuals act in accordance with subjective rather than objective opportunities.

6.3   Evidence gaps

The Internet has come to play a pervasive role in job search. Although a question has been introduced in the LFS on use of the Internet in job search, the information that it yields is relatively limited. In particular, relatively little is known about precisely **how** the Internet is used in job search and what particular Internet sites are used by whom and where, and for what sort of jobs. Use of the Internet and other ICTs – including access to word processing software for preparing application forms/letters and to email for dispatching job applications – is important. The changing contours of the 'digital divide' are of relevance here – especially those shaped by 'exclusion' (as opposed to 'choice'). A key question here is whether some job seekers have been 'left behind' as the Internet takes on a more prominent role in terms of access to information about many types of employment – and if so, who are they? And how can they be best helped? Moreover, it is likely that the ways in which job seekers make use of the Internet (and other job-search methods – including social networks) changes over time, and so it is important to monitor developments.

There is a further gap in evidence relating to different job-search strategies and their effectiveness – and the extent to which there are variations between different population sub-groups. For example, to what extent is job search success associated with a smaller number of more tightly focused and carefully crafted job applications, than with a 'high volume' strategy of generating as many applications as possible? Are different strategies appropriate for different sub-groups of job seekers/ for different types of jobs (by occupation, sector, etc) and in different contexts? How do job-search strategies evolve over time with increasing duration of non-employment? What does it mean to be an 'active job seeker'? (How) is job-search self-efficacy created and maintained?

A bespoke survey would be required to provide insights to address some of these questions.

Appendix A
Literature search methodology

Introduction

The literature review was organized around the following broad question:

- What are the job-search practices of different groups of individuals, particularly the unemployed?

A series of sub-questions were defined within three broad themes: (i) use of the Internet; (ii) the use of social networks; and (iii) the role of self-efficacy in the job-search process:

- How do the job-search practices of the different groups of individuals compare in terms of effectiveness in leading to the take-up of jobs?

- What factors contribute to or hinder effective job search?

- What is the impact of advice and guidance services on the job-search practices of different groups of benefit claimants?

- What impact does ethnicity have on job-search practices?

- What is the relationship between ethnicity and the use of informal networks for job search?

- What is the role of the web/Internet in job search?

- What is an 'active' job-seeker?

- How is 'active' job search different from a 'passive' job search?

- How can the intensity of job search be measured?

- How has the Internet/IT/web changed job search?

The approach to the literature review was informed by the guidance on conducting systematic reviews developed by the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) at the Institute of Education, University of London[12], and followed the practice of other projects (e.g. Bimrose, Barnes, Brown, Hasluck and Behle, 2007).

There were four broad elements to the review process: **searching**, **screening**, **extracting** and **reporting**.

Searching: Looking for data to answer the review question and sub-questions

This phase consisted of the identification of papers, research reports and other documents that were concerned with job-search practices of different groups of individuals, particularly the unemployed. To do this, four sources of information were considered:

- **personal contacts** – The literature provided by personal contacts was the starting point for the searching phase. The suggested literature not only provided access to relevant documents (including grey literature), but it also signalled themes to be included in the review questions.

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[12]   See: http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=1915.

- **electronic databases** – Of the four sources of information considered, electronic databases proved the most prolific, leading to over 200 relevant articles. A total of ten databases[13] covering different disciplinary perspectives were searched using a combination of key words defined by the research team. The key words were derived from the project proposal and other documents providing information regarding the focus of study (see Box A1 for a list of keywords). The first two databases were used to test and refine the first set of keywords and subsequently the remaining databases were searched using the following combination of keywords (note: Boolean logic was used wherever allowed by the database; separate searches were conducted otherwise). Each of the searches yielded a certain number of results which ranged from none to over 600. The results were assessed against the review question and its sub-questions. The title was in most cases sufficient to judge whether an article should be included or not, but where the relevance could not be ascertained, the abstract was used as well.

Box A1: List of key words used in searching

Keyword 1: job search OR job hunt OR job seek;

Keyword 2: unemploy*.

The second keyword (unemploy*) was introduced to reduce the number of hits since, in most cases, searching for 'job search **or** job hunt **or** job seek' on its own produced over 1,000 hits. Using 'unemploy*' as a limiting term produced a sufficiently high number of hits, but low enough for the researcher to screen the results for relevant articles

To ensure that articles related to more specific terms were not being left out, a second round of searches was conducting using the following terms as Keyword 2:

Keyword 2 (second round): Internet **or** web; social network; active.

Thus, Keyword 1 was combined once with each of the terms in Keyword 2. Using the terms 'Internet OR web' and 'social network' yielded some additional results but there were also numerous duplicates, suggesting some degree of saturation. Using the term 'active' did not yield relevant results and this search was abandoned after considering three databases.

- **general search engines** – Two general search engines were considered: Google Scholar and Google. Google scholar was searched using 'job search OR job hunt OR job seek' as search string, and this yielded 1,970 on-screen results. After an on-screen screening of the first 100 results, only one article was added to the database and the rest had already been identified searching electronic databases. The search was stopped at this stage. As for Google, a search using 'job search' and then 'job search strategies' did not provide any relevant finding. This route was thus abandoned and the researcher turned to specialist websites instead. Searching this source of information further is to be considered.

- **specialist websites** – It was expected that specialist websites would give access to grey literature (unpublished reports, etc.) concerning the job-search strategies of different groups of individuals. This strategy led to 24 reports containing information relevant to the aim of this study.

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[13]   ABI/Inform Global (Proquest), Business Source Premier, Cambridge Journals Online, EconoLit with Full Text, Emerald Insight, Informaworld, Oxford Journals Online, PsycNFO, Sage Online, Science Direct, Wiley Interscience,(including Blackwell).

Screening: Deciding which material should be included

Through the screening stage the researchers decided which literature material should be included in the study and which should be excluded. To do this, inclusion/exclusion criteria were specified. In this study, although such criteria had been previously defined, this was reassessed in the light of the amount of data that had been gathered from the previous stage. Following extensive discussion, it was decided that the articles or studies to be included were those which satisfied at least one of the following criteria: (i) focused on Internet job search; (ii) dealt with the use of the social networks for job-search purposes; (iii) were concerned with job-search self-efficacy. The exclusion criteria defined that articles that did not present an empirical study, that were considered methodologically unsound (e.g. the methodology was not spelled out in full) or that during the in-depth analysis were considered irrelevant were to be excluded. The articles that were to be included in the study were then considered for data-extraction purposes.

Data extraction

Articles that were included as a result of the screening process detailed above were analysed in-depth and a summary of each was written which included information on the aims of the study, the methodology used and the results. In practice, more relaxed inclusion criteria were adopted from this stage of the process onwards. This consisted of accepting articles for consideration that were not suggested by previous stages. This position allowed the researchers to look at articles that were suggested by personal contacts at later stages and to follow relevant references in the studies considered.

Reporting

The first phase of the reporting stage consisted of three sections that made reference to Internet job search, the use of social networks for job-search purposes, and job-search self-efficacy.

Appendix B
Multivariate analysis of Internet job search – model and estimation method

Model

A general form for the binary choice model is as follows (Greene, 2000):

$$\text{Prob}(y = 1 | X) = \text{Prob}(y = 1 | x_1, x_2, ..., x_K) = F(X, \beta) \qquad \text{and}$$

$$\text{Prob}(y = 0 | X) = \text{Prob}(y = 0 | x_1, x_2, ..., x_K) = 1 - F(X, \beta)$$

Suggesting that y is the dependent variable where in our case $y=1$ indicates that the individual uses the Internet when looking for work and $y=0$ indicates that the individual does not use the Internet to look for work. The term X contains a set of explanatory variables which may define the dependent variable y. The term β is the set of parameters that reflects the relationships between variables in X and the outcome.

By defining a standard normal distribution of the error term, a probit model can be derived in a form of:

$$\text{Prob}(y = 1 | X) = \int_{-\infty}^{\beta' X} \phi(z) dz = \Phi(\beta' X)$$

$\phi(z) = (2\pi)^{-1/2} \exp(-z^2 / 2)$ is the standard normal density and $\Phi(.)$ stands for the standard normal distribution.

To solve the small sample problem which arises with the Labour Force Survey (LFS) data used in the analysis, a pooled sample analysis is adopted. An independently pooled sample is obtained by sampling randomly from a larger population at different points in time (Wooldridge, 2003). The pooled cross sectional data consists of observations that are independently sampled and thus excludes correlation among the error terms of different observations. It assumes independence among samples collected in different time periods and makes no allowance for fixed effects. The value of pooling is to dramatically improve the precision of the estimates by increasing the available degrees of freedom (Koenker and Machado, 1999). By pooling cross sectional data sets collected from different times, we can get a pooled sample with a larger size. Furthermore, with the increased sample size, more accurate estimators and more powerful test results can be obtained.

A general form of the pooled binary choice function is:

$$\text{Prob}(y_{it} = 1 | X_t) = \text{Prob}(y_{it} = 1 | x_{1t}, x_{2t}, ..., x_{Kt}) = F(X_t, \beta) \quad \text{and}$$

$$\text{Prob}(y_{it} = 0 | X_t) = \text{Prob}(y_{it} = 0 | x_{1t}, x_{2t}, ..., x_{Kt}) = 1 - F(X_t, \beta)$$

A pooled probit model is thus of the form:

$$\text{Prob}(y_{it} = 1 | X_t) = \int_{-\infty}^{\beta' X_t} \phi(z) dz = \Phi(\beta' X_t)$$

Estimation method

The estimation of the probit model is based on the method of maximum likelihood. Each observation (y_i) is assumed to follow a Bernoulli distribution which takes value 1 with the success probability term $F(X, \beta)$ and value 0 with a failure probability $1 - F(X, \beta)$. It has an expected value of $E(y/X) = F(X, \beta)$ and a variance of $Var(y/X) = F(X, \beta)[1 - F(X, \beta)]$.

The log likelihood function of a probit model is in the form of (Greene, 2000; page 822):

$$l(\beta) = \log L = \sum_{i=1}^{N} \left\{ y_i \log \Phi(x_i, \beta) + (1 - y_i) \log[1 - \Phi(x_i, \beta)] \right\}$$

$$= \sum_{y_i=1} \log \Phi(X_i \beta) + \sum_{y_i=0} \log[1 - \Phi(X_i \beta)]$$

The estimator of β ($\hat{\beta}$) is obtained as the solution to:

$\text{Max}\, l(\beta)$

The standard error of $\hat{\beta}$, t statistics and confidence intervals for each parameter can be calculated and are reported by Stata10.

For the pooled probit model, the estimator of β can be obtained by maximising the log-likelihood function of the pooled probit function, which is in the form of:

$$l(\beta) = \sum_{i=1}^{N} \sum_{t=1}^{T} \left\{ y_{it} \log \Phi(x_{it} \beta) + (1 - y_{it}) \log[1 - \Phi(x_{it} \beta)] \right\}$$

$$= \sum_{t=1}^{T} \sum_{y_i=1} \frac{\phi_{it}}{\Phi_{it}} x_{it} + \sum_{t=1}^{T} \sum_{y_i=0} \frac{-\phi_{it}}{1 - \Phi_{it}} x_{it}$$

The estimates can be calculated based on this log-likelihood function.

Appendix C
Multivariate analysis of Internet job search – description of pooled sample and results

Table C.1   Statistical description of selected variables: all job seekers

Variable	Observations	Mean	S.D.	Min	Max
Internet	18,879	0.684	0.465	0	1
Male	18,879	0.529	0.499	0	1
Age Groups:					
16-24	18,879	0.298	0.458	0	1
25-29	18,879	0.123	0.328	0	1
30-34	18,879	0.107	0.309	0	1
35-39	18,879	0.115	0.319	0	1
40-44	18,879	0.114	0.318	0	1
45-49	18,879	0.095	0.293	0	1
50-54	18,879	0.071	0.258	0	1
55-59	18,879	0.053	0.225	0	1
60-64	18,879	0.019	0.138	0	1
65-69	18,879	0.003	0.059	0	1
Ethnic groups					
White	18,879	0.856	0.351	0	1
Mixed	18,879	0.013	0.114	0	1
Asian or Asian British	18,879	0.063	0.242	0	1
Black or black British	18,879	0.041	0.198	0	1
Chinese	18,879	0.005	0.070	0	1
Other ethnic group	18,879	0.022	0.148	0	1
Highest qualification					
Degree or equivalent	18,879	0.184	0.388	0	1
Higher education	18,879	0.067	0.250	0	1
GCE A level or equivalent	18,879	0.200	0.400	0	1
GCSE grades A-C or equivalent	18,879	0.253	0.435	0	1
Other qualifications	18,879	0.144	0.351	0	1
No qualification	18,879	0.151	0.358	0	1

Table C.1   Continued

Variable	Observations	Mean	S.D.	Min	Max
Region					
Inner London	18,879	0.048	0.215	0	1
Outer London	18,879	0.072	0.259	0	1
Tyne and Wear	18,879	0.026	0.160	0	1
Rest of North East	18,879	0.029	0.167	0	1
Greater Manchester	18,879	0.052	0.222	0	1
Merseyside	18,879	0.021	0.145	0	1
Rest of North West	18,879	0.048	0.213	0	1
South Yorkshire	18,879	0.029	0.169	0	1
West Yorkshire	18,879	0.043	0.204	0	1
Rest of Yorkshire and the Humber	18,879	0.025	0.157	0	1
East Midlands	18,879	0.086	0.281	0	1
West Midlands Metropolitan County	18,879	0.048	0.215	0	1
Rest of West Midlands	18,879	0.047	0.211	0	1
East of England	18,879	0.089	0.285	0	1
South East	18,879	0.134	0.341	0	1
South West	18,879	0.073	0.261	0	1
Wales	18,879	0.045	0.207	0	1
Strathclyde	18,879	0.042	0.200	0	1
Rest of Scotland	18,879	0.040	0.196	0	1
Economic position					
Employed	18,879	0.508	0.500	0	1
ILO unemployed	18,879	0.427	0.495	0	1
Inactive	18,879	0.065	0.247	0	1
JSA claimant	18,879	0.156	0.363	0	1
Years					
2006	18,879	0.265	0.441	0	1
2007	18,879	0.267	0.442	0	1
2008	18,879	0.308	0.462	0	1
2009	18,879	0.161	0.367	0	1

Continued

Table C.1   Continued

Variable	Observations	Mean	S.D.	Min	Max
Quarters					
Quarter: Jan-March 2006	18,879	0.066	0.248	0	1
Quarter April-June 2006	18,879	0.067	0.249	0	1
Quarter July-Sep 2006	18,879	0.069	0.253	0	1
Quarter Oct-Dec 2006	18,879	0.064	0.245	0	1
Quarter Jan-March 2007	18,879	0.064	0.245	0	1
Quarter April-June 2007	18,879	0.063	0.243	0	1
Quarter July-Sep 2007	18,879	0.074	0.261	0	1
Quarter Oct-Dec 2007	18,879	0.066	0.248	0	1
Quarter: Jan-March 2008	18,879	0.074	0.262	0	1
Quarter April-June 2008	18,879	0.075	0.264	0	1
Quarter July-Sep 2008	18,879	0.080	0.271	0	1
Quarter Oct-Dec 2008	18,879	0.079	0.270	0	1
Quarter Jan-March 2009	18,879	0.079	0.269	0	1
Quarter April-June 2009	18,879	0.082	0.275	0	1

Source: Labour Force Survey (LFS), average of first wave each quarter, January-March 2006 to April-June 2009.
Base: Non-retired job seekers aged 16-69 years in Great Britain.

Table C.2   Statistical description of selected variables: Internet job seekers

Variable	Observations	Mean	S.D.	Min	Max
Male	12,904	0.524	0.499	0	1
Age groups					
16-24	12,904	0.305	0.461	0	1
25-29	12,904	0.136	0.342	0	1
30-34	12,904	0.114	0.318	0	1
35-39	12,904	0.117	0.321	0	1
40-44	12,904	0.112	0.316	0	1
45-49	12,904	0.091	0.288	0	1
50-54	12,904	0.064	0.244	0	1
55-59	12,904	0.044	0.204	0	1
60-64	12,904	0.015	0.123	0	1
65-69	12,904	0.002	0.046	0	1
Ethnic groups					
White	12,904	0.854	0.353	0	1
Mixed	12,904	0.014	0.116	0	1
Asian or Asian British	12,904	0.061	0.240	0	1
Black or black British	12,904	0.042	0.201	0	1
Chinese	12,904	0.005	0.073	0	1
Other ethnic group	12,904	0.024	0.153	0	1

Continued

Table C.2   Continued

Variable	Observations	Mean	S.D.	Min	Max
Highest qualification					
Degree or equivalent	12,904	0.235	0.424	0	1
Higher education	12,904	0.077	0.267	0	1
GCE A level or equivalent	12,904	0.213	0.410	0	1
GCSE grades A-C or equivalent	12,904	0.252	0.434	0	1
Other qualifications	12,904	0.125	0.331	0	1
No qualification	12,904	0.096	0.295	0	1
Region					
Inner London	12,904	0.054	0.227	0	1
Outer London	12,904	0.080	0.271	0	1
Tyne and Wear	12,904	0.026	0.158	0	1
Rest of North East	12,904	0.028	0.165	0	1
Greater Manchester	12,904	0.052	0.223	0	1
Merseyside	12,904	0.022	0.145	0	1
Rest of North West	12,904	0.046	0.210	0	1
South Yorkshire	12,904	0.029	0.167	0	1
West Yorkshire	12,904	0.040	0.197	0	1
Rest of Yorkshire and the Humber	12,904	0.024	0.153	0	1
East Midlands	12,904	0.079	0.270	0	1
West Midlands Metropolitan County	12,904	0.048	0.213	0	1
Rest of West Midlands	12,904	0.045	0.207	0	1
East of England	12,904	0.088	0.283	0	1
South East	12,904	0.139	0.346	0	1
South West	12,904	0.073	0.260	0	1
Wales	12,904	0.042	0.201	0	1
Strathclyde	12,904	0.044	0.206	0	1
Rest of Scotland	12,904	0.041	0.197	0	1
Economic position					
Employed	12,904	0.535	0.499	0	1
ILO unemployed	12,904	0.412	0.492	0	1
Inactive	12,904	0.053	0.224	0	1
JSA claimant	12,904	0.155	0.362	0	1
Years					
2006	12,904	0.234	0.423	0	1
2007	12,904	0.252	0.434	0	1
2008	12,904	0.328	0.469	0	1
2009	12,904	0.187	0.390	0	1

Table C.2   Continued

Variable	Observations	Mean	S.D.	Min	Max
Quarters					
Quarter: Jan-March 2006	12,904	0.055	0.228	0	1
Quarter April-June 2006	12,904	0.059	0.235	0	1
Quarter July-Sep 2006	12,904	0.062	0.242	0	1
Quarter Oct-Dec 2006	12,904	0.058	0.233	0	1
Quarter Jan-March 2007	12,904	0.058	0.234	0	1
Quarter April-June 2007	12,904	0.058	0.234	0	1
Quarter July-Sep 2007	12,904	0.070	0.254	0	1
Quarter Oct-Dec 2007	12,904	0.066	0.248	0	1
Quarter: Jan-March 2008	12,904	0.076	0.264	0	1
Quarter April-June 2008	12,904	0.079	0.269	0	1
Quarter July-Sep 2008	12,904	0.087	0.282	0	1
Quarter Oct-Dec 2008	12,904	0.087	0.281	0	1
Quarter Jan-March 2009	12,904	0.092	0.289	0	1
Quarter April-June 2009	12,904	0.095	0.293	0	1

Source: LFS, average of first wave each quarter, January-March 2006 to April-June 2009.

Base: Non-retired job seekers aged 16-69 years in Great Britain.

Table C.3   Statistical description of selected variables: non Internet job seekers

Variable	Observations	Mean	S.D.	Min	Max
Male	5,975	0.541	0.498	0	1
Age groups					
16-24	5,975	0.284	0.451	0	1
25-29	5,975	0.095	0.294	0	1
30-34	5,975	0.091	0.287	0	1
35-39	5,975	0.111	0.314	0	1
40-44	5,975	0.118	0.323	0	1
45-49	5,975	0.103	0.304	0	1
50-54	5,975	0.088	0.284	0	1
55-59	5,975	0.074	0.261	0	1
60-64	5,975	0.029	0.167	0	1
65-69	5,975	0.007	0.081	0	1
Ethnic groups					
White	5,975	0.860	0.347	0	1
Mixed	5,975	0.012	0.111	0	1
Asian or Asian British	5,975	0.066	0.248	0	1
Black or black British	5,975	0.038	0.192	0	1
Chinese	5,975	0.004	0.062	0	1
Other ethnic group	5,975	0.019	0.137	0	1
					Continued

Table C.3   Continued

Variable	Observations	Mean	S.D.	Min	Max
Highest qualification					
Degree or equivalent	5,975	0.073	0.261	0	1
Higher education	5,975	0.045	0.208	0	1
GCE A level or equivalent	5,975	0.172	0.378	0	1
GCSE grades A-C or equivalent	5,975	0.254	0.435	0	1
Other qualifications	5,975	0.185	0.388	0	1
No qualification	5,975	0.270	0.444	0	1
Region					
Inner London	5,975	0.036	0.186	0	1
Outer London	5,975	0.055	0.228	0	1
Tyne and Wear	5,975	0.027	0.163	0	1
Rest of North East	5,975	0.030	0.170	0	1
Greater Manchester	5,975	0.051	0.221	0	1
Merseyside	5,975	0.021	0.144	0	1
Rest of North West	5,975	0.052	0.221	0	1
South Yorkshire	5,975	0.030	0.171	0	1
West Yorkshire	5,975	0.050	0.218	0	1
Rest of Yorkshire and the Humber	5,975	0.028	0.165	0	1
East Midlands	5,975	0.101	0.301	0	1
West Midlands Metropolitan County	5,975	0.050	0.219	0	1
Rest of West Midlands	5,975	0.052	0.222	0	1
East of England	5,975	0.091	0.288	0	1
South East	5,975	0.124	0.329	0	1
South West	5,975	0.074	0.263	0	1
Wales	5,975	0.051	0.220	0	1
Strathclyde	5,975	0.036	0.188	0	1
Rest of Scotland	5,975	0.039	0.193	0	1
Economic position					
Employed	5,975	0.448	0.497	0	1
ILO unemployed	5,975	0.460	0.498	0	1
Inactive	5,975	0.092	0.289	0	1
JSA claimant	5,975	0.159	0.366	0	1
Years					
2006	5,975	0.333	0.471	0	1
2007	5,975	0.298	0.458	0	1
2008	5,975	0.265	0.441	0	1
2009	5,975	0.104	0.305	0	1

Table C.3   Continued

Variable	Observations	Mean	S.D.	Min	Max
Quarters					
Quarter: Jan-March 2006	5,975	0.089	0.285	0	1
Quarter April-June 2006	5,975	0.084	0.277	0	1
Quarter July-Sep 2006	5,975	0.083	0.276	0	1
Quarter Oct-Dec 2006	5,975	0.077	0.267	0	1
Quarter Jan-March 2007	5,975	0.077	0.267	0	1
Quarter April-June 2007	5,975	0.073	0.260	0	1
Quarter July-Sep 2007	5,975	0.082	0.274	0	1
Quarter Oct-Dec 2007	5,975	0.066	0.248	0	1
Quarter: Jan-March 2008	5,975	0.070	0.255	0	1
Quarter April-June 2008	5,975	0.068	0.252	0	1
Quarter July-Sep 2008	5,975	0.064	0.245	0	1
Quarter Oct-Dec 2008	5,975	0.062	0.242	0	1
Quarter Jan-March 2009	5,975	0.050	0.217	0	1
Quarter April-June 2009	5,975	0.054	0.227	0	1

Source: LFS, average of first wave each quarter, January-March 2006 to April-June 2009.

Base: Non-retired job seekers aged 16-69 years in Great Britain.

Table C.4   Econometric results when including separate variables for 'economic position', 'JSA claimant' and dummies for 'year'

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.030	0.021	0.140	
Age group (base group 16-24)				
25-29	-0.001	0.036	0.974	
30-34	-0.064*	0.037	0.081	*
35-39	-0.138***	0.035	0.000	***
40-44	-0.222***	0.035	0.000	***
45-49	-0.256***	0.037	0.000	***
50-54	-0.372***	0.041	0.000	***
55-59	-0.470***	0.046	0.000	***
60-64	-0.549***	0.071	0.000	***
65-69	-1.082***	0.165	0.000	***
Ethnic group (base group white)				
Mixed	-0.020	0.089	0.826	
Asian or Asian British	-0.082*	0.043	0.057	*
Black or black British	-0.046	0.054	0.388	
Chinese	0.071	0.155	0.646	
Other ethnic group	0.145**	0.072	0.042	**

Continued

Table C.4   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Highest qualification: Degree or equivalent (base group)				
Higher education	-0.308***	0.049	0.000	***
GCE A level or equivalent	-0.536***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.697***	0.035	0.000	***
Other qualifications	-0.931***	0.038	0.000	***
No qualification	-1.314***	0.038	0.000	***
Region: London (base group)				
North East	-0.263***	0.054	0.000	***
North West	-0.257***	0.044	0.000	***
Yorkshire and the Humber	-0.290***	0.046	0.000	***
East Midlands	-0.351***	0.047	0.000	***
West Midlands	-0.245***	0.046	0.000	***
East of England	-0.224***	0.047	0.000	***
South East	-0.164***	0.043	0.000	***
South West	-0.285***	0.050	0.000	***
Wales	-0.335***	0.057	0.000	***
Scotland	-0.157***	0.049	0.001	***
Economic position (base group employed):				
ILO unemployed	-0.059**	0.024	0.013	**
Inactive	-0.397***	0.041	0.000	***
JSA claimant	0.209***	0.031	0.000	***
Year 2006 (base year)				
Year 2007	0.115***	0.027	0.000	***
Year 2008	0.384***	0.026	0.000	***
Year 2009	0.610***	0.033	0.000	***
_cons	1.322***	0.051	0.000	***

Note: ***statistically significant at 99%, **statistically significant at 95%, *statistically significant at 90%.

Source: LFS, average of first wave each quarter, January-March 2006 to April-June 2009.

Base: Non-retired job seekers aged 16-69 years in Great Britain.

Table C.5   Econometric results when including separate variables for 'economic position', 'JSA claimant' and dummies for 'quarter'

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.031	0.021	0.130	
Age group (base group 16-24)				
25-29	-0.002	0.036	0.965	
30-34	-0.060	0.037	0.103	
35-39	-0.138***	0.035	0.000	***
40-44	-0.223***	0.035	0.000	***
45-49	-0.257***	0.037	0.000	***
50-54	-0.373***	0.041	0.000	***
55-59	-0.475***	0.046	0.000	***
60-64	-0.551***	0.071	0.000	***
65-69	-1.087***	0.165	0.000	***
Ethnic group (base group white)				
Mixed	-0.017	0.089	0.845	
Asian or Asian British	-0.082*	0.043	0.057	*
Black or black British	-0.048	0.054	0.368	
Chinese	0.080	0.155	0.607	
Other ethnic group	0.147**	0.072	0.040	**
Highest qualification: Degree or equivalent (base group)				
Higher education	-0.312***	0.049	0.000	***
GCE A level or equivalent	-0.537***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.698***	0.035	0.000	***
Other qualifications	-0.932***	0.038	0.000	***
No qualification	-1.316***	0.038	0.000	***
Region: London (base group)				
North East	-0.262***	0.054	0.000	***
North West	-0.257***	0.044	0.000	***
Yorkshire and the Humber	-0.292***	0.046	0.000	***
East Midlands	-0.349***	0.047	0.000	***
West Midlands	-0.248***	0.046	0.000	***
East of England	-0.223***	0.047	0.000	***
South East	-0.164***	0.043	0.000	***
South West	-0.287***	0.050	0.000	***
Wales	-0.335***	0.057	0.000	***
Scotland	-0.153***	0.049	0.002	***
Economic position (base group employed)				
ILO unemployed	-0.061***	0.024	0.011	**
Inactive	-0.400***	0.041	0.000	***
JSA claimant	0.212***	0.031	0.000	***
				Continued

Table C.5   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Quarter: Jan-March 2006 (base year)				
Quarter April-June 2006	0.101*	0.053	0.057	*
Quarter July-Sep 2006	0.153***	0.053	0.004	***
Quarter Oct-Dec 2006	0.115**	0.054	0.032	**
Quarter: Jan-March 2007	0.108**	0.053	0.044	**
Quarter April-June 2007	0.176***	0.054	0.001	***
Quarter July-Sep 2007	0.233***	0.052	0.000	***
Quarter Oct-Dec 2007	0.311***	0.054	0.000	***
Quarter: Jan-March 2008	0.395***	0.053	0.000	***
Quarter April-June 2008	0.439***	0.053	0.000	***
Quarter July-Sep 2008	0.501***	0.052	0.000	***
Quarter Oct-Dec 2008	0.571***	0.053	0.000	***
Quarter: Jan-March 2009	0.710***	0.054	0.000	***
Quarter April-June 2009	0.696***	0.053	0.000	***
_cons	1.232***	0.060	0.000	***

Note, Source and base as for Table C.4.

Table C.6   Econometric results when including separate variables for 'economic position', 'JSA claimant' and dummies for 'year' – detailed disaggregation for region of residence

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.031	0.021	0.135	
Age group (base group 16-24)				
25-29	-0.002	0.036	0.966	
30-34	-0.063*	0.037	0.090	*
35-39	-0.138***	0.035	0.000	***
40-44	-0.222***	0.035	0.000	***
45-49	-0.256***	0.037	0.000	***
50-54	-0.371***	0.041	0.000	***
55-59	-0.471***	0.046	0.000	***
60-64	-0.550***	0.071	0.000	***
65-69	-1.080***	0.165	0.000	***
Ethnic group (base group white)				
Mixed	-0.030	0.089	0.734	
Asian or Asian British	-0.094**	0.044	0.031	**
Black or black British	-0.055	0.054	0.310	
Chinese	0.062	0.155	0.688	
Other ethnic group	0.142**	0.072	0.047	**

Table C.6   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Highest qualification: Degree or equivalent (base group)				
Higher education	-0.306***	0.049	0.000	***
GCE A level or equivalent	-0.537***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.700***	0.035	0.000	***
Other qualifications	-0.932***	0.038	0.000	***
No qualification	-1.320***	0.038	0.000	***
Region: Inner London (base group)				
Outer London	0.049	0.063	0.435	
Tyne and Wear	-0.222***	0.080	0.005	***
Rest of North East	-0.251***	0.078	0.001	***
Greater Manchester	-0.169**	0.067	0.012	**
Merseyside	-0.207**	0.085	0.015	**
Rest of North West	-0.304***	0.068	0.000	***
South Yorkshire	-0.191**	0.078	0.014	**
West Yorkshire	-0.295***	0.069	0.000	***
Rest of Yorkshire and the Humber	-0.287***	0.081	0.000	***
East Midlands	-0.324***	0.061	0.000	***
West Midlands Metropolitan County	-0.152**	0.068	0.024	**
Rest of West Midlands	-0.283***	0.069	0.000	***
East of England	-0.197***	0.061	0.001	***
South East	-0.137**	0.058	0.018	**
South West	-0.259***	0.063	0.000	***
Wales	-0.309***	0.069	0.000	***
Strathclyde	-0.060	0.072	0.411	
Rest of Scotland	-0.203***	0.072	0.005	***
Economic activity (base group employed)				
ILO unemployed	-0.059**	0.024	0.014	**
Inactive	-0.397***	0.041	0.000	***
JSA claimant	0.206***	0.031	0.000	***
Year 2006 (base year)				
Year 2007	0.114***	0.027	0.000	***
Year 2008	0.383***	0.026	0.000	***
Year 2009	0.610***	0.033	0.000	***
_cons	1.299***	0.064	0.000	***

Note: Source and base as for Table C.4.

Table C.7   Econometric results when including separate variables for 'economic position', 'JSA claiming' and dummies for 'quarter'– detailed disaggregation for region of residence

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.032	0.021	0.125	
Age group (base group 16-24):				
25-29	-0.002	0.036	0.957	
30-34	-0.058	0.037	0.115	
35-39	-0.139***	0.035	0.000	***
40-44	-0.222***	0.035	0.000	***
45-49	-0.257***	0.037	0.000	***
50-54	-0.372***	0.041	0.000	***
55-59	-0.476***	0.046	0.000	***
60-64	-0.552***	0.071	0.000	***
65-69	-1.085***	0.165	0.000	***
Ethnic group (base group white):				
Mixed	-0.028	0.089	0.751	
Asian or Asian British	-0.094**	0.044	0.032	**
Black or black British	-0.057	0.054	0.291	
Chinese	0.071	0.156	0.650	
Other ethnic group	0.144**	0.072	0.045	**
Highest qualification: Degree or equivalent (base group)				
Higher education	-0.310***	0.049	0.000	***
GCE A level or equivalent	-0.537***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.701***	0.035	0.000	***
Other qualifications	-0.933***	0.038	0.000	***
No qualification	-1.321***	0.038	0.000	***
Region: Inner London (base group)				
Outer London	0.046	0.063	0.466	
Tyne and Wear	-0.226***	0.080	0.005	***
Rest of North East	-0.247***	0.078	0.002	***
Greater Manchester	-0.169**	0.067	0.012	**
Merseyside	-0.213**	0.085	0.012	**
Rest of North West	-0.307***	0.068	0.000	***
South Yorkshire	-0.196**	0.078	0.012	**
West Yorkshire	-0.297***	0.069	0.000	***
Rest of Yorkshire and the Humber	-0.295***	0.081	0.000	***
East Midlands	-0.324***	0.061	0.000	***
West Midlands Metropolitan County	-0.160**	0.068	0.018	**
Rest of West Midlands	-0.287***	0.069	0.000	***
East of England	-0.198***	0.061	0.001	***
South East	-0.139**	0.058	0.017	**
South West	-0.264***	0.063	0.000	***
Wales	-0.311***	0.070	0.000	***
Strathclyde	-0.059	0.073	0.416	
Rest of Scotland	-0.199***	0.072	0.006	***

Table C.7   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Economic activity (base group employed):				
ILO unemployed	-0.060**	0.024	0.012	**
Inactive	-0.400***	0.041	0.000	***
JSA claimant	0.209***	0.031	0.000	***
Quarter: Jan-March 2006 (base year)				
Quarter April-June 2006	0.104**	0.053	0.050	*
Quarter July-Sep 2006	0.154***	0.053	0.004	***
Quarter Oct-Dec 2006	0.115**	0.054	0.031	**
Quarter Jan-March 2007	0.110**	0.053	0.039	**
Quarter April-June 2007	0.175***	0.054	0.001	***
Quarter July-Sep 2007	0.233***	0.052	0.000	***
Quarter Oct-Dec 2007	0.310***	0.054	0.000	***
Quarter: Jan-March 2008	0.396***	0.053	0.000	***
Quarter April-June 2008	0.437***	0.053	0.000	***
Quarter July-Sep 2008	0.501***	0.052	0.000	***
Quarter Oct-Dec 2008	0.570***	0.053	0.000	***
Quarter Jan-March 2009	0.710***	0.054	0.000	***
Quarter April-June 2009	0.698***	0.053	0.000	***
_cons	1.210***	0.072	0.000	***

Note: ***statistically significant at 99%, **statistically significant at 95%, *statistically significant at 90%.

Source: LFS, average of first wave each quarter, January-March 2006 to April-June 2009.

Base: Non-retired job seekers aged 16-69 years in Great Britain.

Table C.8   Econometric results when including interaction terms for 'economic position' and 'JSA claimant' and dummies for 'year' – detailed disaggregation for region of residence

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.030	0.021	0.144	
Age group (base group 16-24)				
25-29	0.001	0.036	0.974	
30-34	-0.059	0.037	0.110	
35-39	-0.140***	0.035	0.000	***
40-44	-0.221***	0.035	0.000	***
45-49	-0.252***	0.037	0.000	***
50-54	-0.368***	0.041	0.000	***
55-59	-0.471***	0.046	0.000	***
60-64	-0.542***	0.071	0.000	***
65-69	-1.060***	0.165	0.000	***
Ethnic group (base group white)				
Mixed	-0.034	0.089	0.706	
Asian or Asian British	-0.094**	0.044	0.030	**
Black or black British	-0.052	0.054	0.337	
Chinese	0.063	0.155	0.683	
Other ethnic group	0.143**	0.072	0.047	**
Highest qualification: Degree or equivalent (base group)				
Higher education	-0.304***	0.049	0.000	***
GCE A level or equivalent	-0.534***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.697***	0.035	0.000	***
Other qualifications	-0.929***	0.038	0.000	***
No qualification	-1.320***	0.038	0.000	***
Region: Inner London (base group)				
Outer London	0.059	0.063	0.347	
Tyne and Wear	-0.216***	0.080	0.007	***
Rest of North East	-0.244***	0.078	0.002	***
Greater Manchester	-0.163**	0.067	0.015	**
Merseyside	-0.193**	0.085	0.023	**
Rest of North West	-0.292***	0.068	0.000	***
South Yorkshire	-0.182**	0.078	0.019	**
West Yorkshire	-0.289***	0.069	0.000	***
Rest of Yorkshire and the Humber	-0.277***	0.081	0.001	***
East Midlands	-0.320***	0.061	0.000	***
West Midlands Metropolitan County	-0.144**	0.068	0.033	**
Rest of West Midlands	-0.275***	0.069	0.000	***
East of England	-0.193***	0.061	0.002	***
South East	-0.132**	0.058	0.023	**
South West	-0.253***	0.063	0.000	***
Wales	-0.302***	0.069	0.000	***
Strathclyde	-0.056	0.072	0.443	
Rest of Scotland	-0.200***	0.072	0.005	***

Continued

Table C.8   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Employed non-JSA claimant (base group)				
Employed JSA claimant	0.228*	0.125	0.068	*
ILO unemployed non-JSA claimant	-0.058**	0.024	0.018	**
ILO unemployed JSA claimant	0.150***	0.032	0.000	***
Inactive non-JSA claimant	-0.386***	0.043	0.000	***
Inactive JSA claimant	-0.266**	0.120	0.027	**
Year 2006 (base year)				
Year 2007	0.179***	0.025	0.000	***
Year 2008	0.374***	0.028	0.000	***
Year 2009	0.609***	0.033	0.000	***
_cons	1.288***	0.064	0.000	***

Note, Source and base as for Table C.7.

Table C.9   Econometric results when including interaction terms for 'economic position' and 'JSA claimant' and dummies for 'quarter' – detailed disaggregation for region of residence

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.032	0.021	0.122	
Age group (base group 16-24)				
25-29	0.000	0.036	0.991	
30-34	-0.057	0.037	0.123	
35-39	-0.139***	0.035	0.000	***
40-44	-0.220***	0.035	0.000	***
45-49	-0.256***	0.037	0.000	***
50-54	-0.372***	0.041	0.000	***
55-59	-0.475***	0.046	0.000	***
60-64	-0.550***	0.071	0.000	***
65-69	-1.084***	0.165	0.000	***
Ethnic group (base group white)				
Mixed	-0.019	0.090	0.833	
Asian or Asian British	-0.091**	0.044	0.038	**
Black or black British	-0.057	0.054	0.293	
Chinese	0.102	0.158	0.516	
Other ethnic group	0.144**	0.072	0.045	**
Highest qualification: Degree or equivalent (base group)				
Higher education	-0.310***	0.049	0.000	***
GCE A level or equivalent	-0.537***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.701***	0.035	0.000	***
Other qualifications	-0.931***	0.038	0.000	***
No qualification	-1.321***	0.038	0.000	***

Continued

Table C.9   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Region: Inner London (base group)				
Outer London	0.046	0.063	0.466	
Tyne and Wear	-0.226***	0.080	0.005	***
Rest of North East	-0.245***	0.078	0.002	***
Greater Manchester	-0.169**	0.067	0.012	**
Merseyside	-0.212**	0.085	0.013	**
Rest of North West	-0.306***	0.068	0.000	***
South Yorkshire	-0.195**	0.078	0.012	**
West Yorkshire	-0.297***	0.069	0.000	***
Rest of Yorkshire and the Humber	-0.293***	0.081	0.000	***
East Midlands	-0.324***	0.061	0.000	***
West Midlands Metropolitan County	-0.157**	0.068	0.021	**
Rest of West Midlands	-0.285***	0.069	0.000	***
East of England	-0.195***	0.061	0.001	***
South East	-0.140**	0.058	0.016	**
South West	-0.262***	0.063	0.000	***
Wales	-0.309***	0.070	0.000	***
Strathclyde	-0.054	0.073	0.453	
Rest of Scotland	-0.198***	0.072	0.006	***
Employed non-JSA claimant (base group)				
Employed JSA claimant	0.234*	0.125	0.061	*
ILO unemployed non-JSA claimant	-0.060**	0.024	0.014	**
ILO unemployed JSA claimant	0.151***	0.032	0.000	***
Inactive non-JSA claimant	-0.393***	0.043	0.000	***
Inactive JSA claimant	-0.260**	0.121	0.032	**
Quarter: Jan-March 2006 (base year)				
Quarter April-June 2006	0.104**	0.053	0.050	*
Quarter July-Sep 2006	0.153***	0.053	0.004	***
Quarter Oct-Dec 2006	0.114**	0.054	0.034	**
Quarter Jan-March 2007	0.111**	0.053	0.038	**
Quarter April-June 2007	0.175***	0.054	0.001	***
Quarter July-Sep 2007	0.233***	0.052	0.000	***
Quarter Oct-Dec 2007	0.311***	0.054	0.000	***
Quarter: Jan-March 2008	0.398***	0.053	0.000	***
Quarter April-June 2008	0.437***	0.053	0.000	***
Quarter July-Sep 2008	0.503***	0.052	0.000	***
Quarter Oct-Dec 2008	0.570***	0.053	0.000	***
Quarter Jan-March 2009	0.710***	0.054	0.000	***
Quarter April-June 2009	0.698***	0.053	0.000	***
_cons	1.207***	0.072	0.000	***

Note: ***statistically significant at 99%, **statistically significant at 95%, *statistically significant at 90%.

Source: LFS, average of first wave each quarter, January-March 2006 to April-June 2009.

Base: Non-retired job seekers aged 16-69 years in Great Britain.

**Table C.10 Econometric results when excluding 'JSA claimant' variable and
including dummies for 'year' – detailed disaggregation for region
of residence**

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.008	0.020	0.710	
Age group (base group 16-24)				
25-29	0.014	0.036	0.701	
30-34	-0.050	0.037	0.171	
35-39	-0.133***	0.035	0.000	***
40-44	-0.211***	0.035	0.000	***
45-49	-0.240***	0.037	0.000	***
50-54	-0.354***	0.041	0.000	***
55-59	-0.453***	0.046	0.000	***
60-64	-0.559***	0.071	0.000	***
65-69	-1.095***	0.165	0.000	***
Ethnic group (base group white)				
Mixed	-0.025	0.089	0.779	
Asian or Asian British	-0.094**	0.044	0.031	**
Black or black British	-0.051	0.054	0.342	
Chinese	0.083	0.158	0.599	
Other ethnic group	0.133*	0.072	0.063	*
Highest qualification: Degree or equivalent (base group)				
Higher education	-0.301***	0.049	0.000	***
GCE A level or equivalent	-0.529***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.688***	0.035	0.000	***
Other qualifications	-0.915***	0.038	0.000	***
No qualification	-1.297***	0.038	0.000	***

Continued

Table C.10   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Region: Inner London (base group)				
Outer London	0.047	0.063	0.456	
Tyne and Wear	-0.217***	0.080	0.007	***
Rest of North East	-0.245***	0.078	0.002	***
Greater Manchester	-0.169**	0.067	0.012	**
Merseyside	-0.194**	0.085	0.023	**
Rest of North West	-0.299***	0.068	0.000	***
South Yorkshire	-0.187**	0.078	0.016	**
West Yorkshire	-0.294***	0.069	0.000	***
Rest of Yorkshire and the Humber	-0.278***	0.081	0.001	***
East Midlands	-0.331***	0.061	0.000	***
West Midlands Metropolitan County	-0.145**	0.068	0.032	**
Rest of West Midlands	-0.291***	0.069	0.000	***
East of England	-0.202***	0.061	0.001	***
South East	-0.148**	0.058	0.011	**
South West	-0.268***	0.063	0.000	***
Wales	-0.310***	0.069	0.000	***
Strathclyde	-0.055	0.072	0.447	
Rest of Scotland	-0.214***	0.072	0.003	***
Economic activity (base group employed)				
ILO unemployed	0.004	0.022	0.841	
Inactive	-0.376***	0.041	0.000	***
Year 2006 (base year)				
Year 2007	0.180***	0.025	0.000	***
Year 2008	0.374***	0.028	0.000	***
Year 2009	0.618***	0.033	0.000	***
_cons	1.271***	0.064	0.000	***

Note, Source and base as for Table C.9.

Table C.11 Econometric results when excluding 'JSA claimant' variable and including dummies for 'quarter' – detailed disaggregation for region of residence

Internet	Coef.	Std. Err.	P>z	Sig
Male	-0.009	0.020	0.670	
Age group (base group 16-24)				
25-29	0.011	0.036	0.757	
30-34	-0.049	0.037	0.182	
35-39	-0.131***	0.035	0.000	***
40-44	-0.213***	0.035	0.000	***
45-49	-0.244***	0.037	0.000	***
50-54	-0.358***	0.041	0.000	***
55-59	-0.457***	0.046	0.000	***
60-64	-0.571***	0.071	0.000	***
65-69	-1.120***	0.165	0.000	***
Ethnic group (base group white)				
Mixed	-0.021	0.089	0.813	
Asian or Asian British	-0.093**	0.044	0.032	**
Black or black British	-0.057	0.054	0.293	
Chinese	0.093	0.158	0.557	
Other ethnic group	0.135*	0.072	0.061	*
Highest qualification: (base group Degree or equivalent)				
Higher education	-0.307***	0.049	0.000	***
GCE A level or equivalent	-0.532***	0.036	0.000	***
GCSE grades A-C or equivalent	-0.692***	0.035	0.000	***
Other qualifications	-0.918***	0.038	0.000	***
No qualification	-1.299***	0.038	0.000	***
Region: Inner London (base group)				
Outer London	0.032	0.063	0.608	
Tyne and Wear	-0.229***	0.080	0.004	***
Rest of North East	-0.249***	0.078	0.001	***
Greater Manchester	-0.176***	0.067	0.009	***
Merseyside	-0.214**	0.085	0.012	**
Rest of North West	-0.315***	0.068	0.000	***
South Yorkshire	-0.202***	0.078	0.009	***
West Yorkshire	-0.303***	0.069	0.000	***
Rest of Yorkshire and the Humber	-0.296***	0.081	0.000	***
East Midlands	-0.337***	0.061	0.000	***
West Midlands Metropolitan County	-0.161**	0.068	0.017	**
Rest of West Midlands	-0.304***	0.069	0.000	***
East of England	-0.209***	0.061	0.001	***
South East	-0.156***	0.058	0.007	***
South West	-0.279***	0.063	0.000	***
Wales	-0.320***	0.069	0.000	***
Strathclyde	-0.059	0.073	0.414	
Rest of Scotland	-0.214***	0.072	0.003	***

Table C.11   Continued

Internet	Coef.	Std. Err.	P>z	Sig
Economic activity (base group employed)				
ILO unemployed	0.002	0.022	0.929	
Inactive	-0.380***	0.041	0.000	***
Quarter: Jan-March 2006 (base year)				
Quarter April-June 2006	0.100*	0.053	0.058	*
Quarter July-Sep 2006	0.149***	0.053	0.005	**
Quarter Oct-Dec 2006	0.107**	0.054	0.046	**
Quarter Jan-March 2007	0.112**	0.053	0.035	**
Quarter April-June 2007	0.173***	0.054	0.001	***
Quarter July-Sep 2007	0.228***	0.052	0.000	***
Quarter Oct-Dec 2007	0.306***	0.054	0.000	***
Quarter: Jan-March 2008	0.391***	0.053	0.000	***
Quarter April-June 2008	0.432***	0.053	0.000	***
Quarter July-Sep 2008	0.498***	0.052	0.000	***
Quarter Oct-Dec 2008	0.568***	0.053	0.000	***
Quarter Jan-March 2009	0.713***	0.054	0.000	***
Quarter April-June 2009	0.706***	0.053	0.000	***
_cons	1.197***	0.072	0.000	***

Note: ***statistically significant at 99%, **statistically significant at 95%, *statistically significant at 90%.

Source: LFS, average of first wave each quarter, January-March 2006 to April-June 2009.

Base: Non-retired job seekers aged 16-69 years in Great Britain.

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The Job Search Study presents research findings from an investigation into job-search practices among different sub-groups of job seekers, with particular reference to Jobseeker's Allowance (JSA) claimants and on the use of the Internet for job search. The study involved a literature review of key aspects of job search and descriptive and multivariate analyses of Labour Force Survey (LFS) data on job search.

The role of the Internet in job search has increased significantly in recent years and in 2009, around four in five job seekers were making use of the Internet in job search. People find jobs in many different ways, including through social networks and there is no single optimal method of job search. Personal Advisers in jobcentres play an important role in enhancing job seekers' job-search skills.

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