

# **Job Search Methods and Job-Worker Matching: An Explorative Study in Australia**

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## **Abstract**

Job matching between individuals and positions is an essential aspect revealing the efficiency of allocating human resources in labour markets. However, very few Australian studies have been done in this field to date. Drawing data from the Australia Survey of Social Attitudes 2007, this paper aims to address this gap and explores the comparative efficiency of formal market methods and informal social networks in job-worker matching processes in Australian labour markets. Results show that job searchers who used market methods for securing a job were more likely to be well matched to positions fitting their own level of skills or experiences, but those who relied on social networks in job searches did not have any advantages in reaching good job-worker matches. In particular, information and favour transferred by social networks in job search processes did not make a significant contribution to good job-worker matches. This explorative study implies that information flows in Australian labour markets are highly marketised which leave little room or necessity for utilising social networks. For a more thorough investigation into relevant issues, longitudinal research is invited.

**Keywords:** Job search methods, job-worker matching, network resources, Australia

## **Introduction**

The match of individuals to job positions is an important aspect that reveals the efficiency of allocating human resources in labour markets. A good match indicates an optimal allocation which rules out the recruitment of either under-qualified or over-qualified applicants. This is an outcome beneficial to both sides of employment in the long run. However, due to information asymmetry and gaps in labour markets (Rees 1966; Spence 1973; Akerlof 1970), good job-worker matches become a goal not easy to achieve.

As implied in extant research, the likelihood of realising good job-worker matches depends on the choices of search methods from the side of job applicants, or on the choices of recruitment channels from the side of prospective employers (they are two blades of the same scissors in Alfred Marshall's metaphor (Granovetter 1995: 155)). Simon and Warner (1992) report that formal recruitment criteria such as schooling and working experience convey imperfect and incomplete information about the true attributes of job applicants, and hence there is uncertainty about job applicants' overall ability and the fit of individuals to the jobs. This is one of the reasons why recruiting companies utilise informal labour market channels, namely, social networks in hiring processes. A case in point is the wide use of old boy networks, which is found to significantly help employers screen out unqualified applicants by offering specific personal opinions about the productivity of potential employees (Saloner 1985). In a similar vein, the importance of social networks in job search processes has been documented in various countries, as reviewed by Granovetter (1995). It is now well known that a large proportion of job seekers (between one-third and two-thirds on average) heard about or got their job through friends and relatives (Granovetter 1995; Petersen et al 2000; Bian and Huang 2009). Yet on the other hand, some researchers note that recruitment through social networks may lead to less diversity than is desirable because this kind of hire can end up socially and professionally too similar (Petersen et al 2000). Moreover, Cahuc and Fontaine (2009) develop a theoretical model on relative efficiencies of formal and informal search methods, showing that social networks are an inexpensive but inefficient job search method, and alternative methods such as using private agencies and posting advertisements in newspapers are more efficient and more costly. The mixed findings reflect that in empirical studies of formal and informal job search methods, "it is unclear whether

these contrasting systems differ dramatically in efficiency” (Granovetter 1995: 164).

In my view, investigating the roles of informal and formal job search methods in the job-worker matching processes offers a good angle to tackle this issue.

This paper is an attempt to explore this “important subject about which we know very little” (Granovetter 1995: 162). Since “a full understanding of matching requires also an assessment of when formal procedures have an advantage, and when we may expect to find them” (Granovetter 1995: 162), I look into the comparative effect of formal market methods and informal social networks on job-worker matches and use data from the Australian Survey of Social Attitudes (AuSSA) 2007 (Phillips et al. 2008) for empirical analyses. In the following sections, I first review two theoretical accounts about search methods and the job-worker matching and then propose hypotheses. Next, I describe data and measures of variables. Finally, I summarise findings and discuss their implications for future research.

### **Theoretical Accounts and Hypotheses**

Through different search methods, job searchers obtain social resources to facilitate their processes of securing a job. These resources are vital factors affecting the efficiency of job search methods in the job-worker matching, which are differentiated into two types by previous international research, i.e., information and favour (Granovetter 1973, 1995; Bian 1997). However, very few empirical studies have been carried out in this field in Australia. In this explorative study, I initially review relevant theories and formulate competing hypotheses which are subject to empirical verification by using Australian data.

### ***Information and job-worker matching***

Information is an important resource and scarce commodity in labour markets. The acquisition of information requires expenditures of time, effort, and money (Stigler 1961). Meanwhile, information in labour markets is imperfect. MacDonald (1980) points out that heterogeneity on both sides of employment implies the importance of a correct matching of individuals to jobs. Since no individuals have absolute advantages in all jobs, individuals will view more accurate information as beneficial and invest in collecting it. From the demand side, employers also encounter the information gap and uncertainty, so signalling or screening mechanisms turn out to be effective in recruiting activities (Spence 1973), and “employer search” is found to be more important in affecting employment outcomes (Barron et al 1985). For a long time, a way of meshing these two sides of the information problem remained unresolved, although this is the crux of the matching process (Granovetter 1981).

Compared to the formal market channels, social networks are found to be relatively inexpensive ways to obtain rich and trustworthy information (Corcoran et al 1980; Marsden and Gorman 2001). Rees (1966) documents that employee referrals not only provide good screening for employers who are satisfied with their present workforce, but also have important benefits to the applicant: much more information, more trust, knowing more about the fairness of supervision, and other “fringe benefits”. Coverdill (1998: 251) argues that from either the job seeker’s or the employer’s perspective, information from personal contacts would increase the match quality. If this line of analyses can be applied to the Australian context, it is reasonable to propose two hypotheses:

Hypothesis 1a: If social networks have advantages in providing job information, they tend to play a more significant role than formal market methods in job-worker matching.

In a more specific way, the information transferred by social networks is assumed to be highly relevant and helpful for job-worker matching:

Hypothesis 1b: Network-transferred information in job search processes is likely to help realise good job-worker matches.

However, provided that a society has developed labour markets in which the marketised mechanism for transferring job information runs very effectively, that is to say, both sides of employment can obtain sufficient information about each other, there may be little room or necessity for using social networks for the information purpose. Accordingly, social networks would not play a significant role in the job-worker matching processes by providing information. If Australia's labour markets fit this assumption, a competing hypothesis to the above ones can be developed:

Hypothesis 2: In a highly developed labour market, formal market methods tend to have advantages over social networks in realising good job-worker matches.

### ***Favouritism and job-worker matching***

Favour is another type of networks resources widely recognised in extant research (Coverdill 1998; Bian 1997), which explains employers' reliance on social networks for recruiting as well as the favouring role of employee referrals. That is, employers may prefer some workers for reasons unrelated to productivity, or a current employee is possibly biased in favour of the referral when recommending an applicant. In addition, some research reveals that employees have influence over employers' recruitment decisions, especially in a dense group or when informal training by the fellow workers is required (Manwaring 1984; Gordon and Thal-Larsen 1969; Grieco 1987). Generally, in highly marketised labour markets the exercises of favouritism as a contradictory logic to the market rule are less likely to occur. But if favouritism is involved in the employment processes, it can be assumed that a good match between

the new hire and the job is harder to achieve. In this sense, I put forward two hypotheses predicting the effects of social networks and market methods in Australian labour markets.

Hypothesis 3a: If social networks transfer favour in employment processes, they may not play a more significant role than market methods in job-worker matching.

Hypothesis 3b: Network-transferred favour in job search processes is not likely to help realise good job-worker matches.

### **Data and Measures of Variables**

Data from AuSSA 2007 are used for testing the hypotheses. This national survey was carried out in Australia in 2007 with a sample randomly drawn from the Australian Electoral Roll. Structured self-completed questionnaires were completed by 2,781 respondents. AuSSA 2007 is among the very first surveys that offer measures of job search methods and job-worker matches. Because I aim to discover the effect of formal market methods and social networks on job-worker matches, I exclude cases by respondent's employment status of current job or last job. Respondents who did not answer or reported that their current job or last job was to work at a family business or farm or self-employed (with or without employees) are excluded from the analyses. Binary logistic regressions are employed for statistical modelling.

The dependent variable in my study is *job-worker matching*. In this survey, respondents were asked to answer whether they were "over-qualified", "a good match" or "under-qualified" in terms of the specified level of skills or experience for their current (last) job. If a respondent chose "a good match", his/her case is coded as "1"; and if he/she chose "over-qualified" or "under-qualified" or reported that "there was no specified level of skills or experience" or "don't know", this case is coded as "0". By this way I construct a dummy variable of job-worker matching. As shown by

the descriptive statistics in Table 1, about 72 percent of respondents reported a good job-worker match.

There are two independent variables. The first one is *job search methods*. It is constructed from the question “On the whole, which one method was most important for getting your current/last job?” If a respondent chose “Got help or information from family or relatives”, “Got help or information from friends” or “Got help or information from acquaintances”, he/she is regarded as using “*social networks*”. If a respondent chose one of the other items, “Looked at media advertisements”, “Used university career services”, “Used an employment agency”, “Used the Internet”, “Approached an employer” or “An employer approached me”, he/she is coded into the category of using a “*formal market methods*”. If a respondent chose “I was reallocated or transferred by the organisation I work for”, “Other” or “Don’t know”, he/she is treated as using a “*hierarchy method or other methods*” (as the reference category). About 19 percent used social networks, 66.3 percent used market methods, and 14.7 percent of respondents used hierarchy methods or other methods.

The other independent variable is *network resources*. It is constructed by using the question “How did the people you know (e.g., acquaintances, family members, relatives, and friends, etc), mainly help you to look for your current (last) job?” Respondents were required to choose one response only. If a respondent chose “They provided employment information” or “They helped to prepare a job application”, he/she is treated as obtaining *information* from social networks (28.0%). If a respondent chose “They approached people to exert influence on my behalf” or “They helped to solve practical problems”, he/she is regarded as obtaining *favour* from social networks (8.0%). If a respondent made any other choices, his/her case is coded as

using *other resources* or *no resource* (64.0%), which are the reference groups in analysis.

Control variables include demographic variables such as gender, age, age squared, years of schooling and university degree and other variables of respondents' socioeconomic background, including industry, public sector, professional or managerial position, income, union membership, migrant (born overseas) and big-city resident (living in metropolitan areas of a major city over 100,000 people). Table 1 displays their descriptive statistics.

### **Findings and Discussion**

Statistical analyses of the 2007 AuSSA data produce results testing the above hypotheses. In Table 2, Model 1 shows that respondents who used formal market methods in job searches would achieve a good job match between themselves and positions at a higher possibility (about 45 percent, odds ratio=1.450) than those who used a hierarchical method and other methods in searching jobs. Comparatively, users of social networks did not have any significant advantages on reaching good job-worker matches. In addition, Model 2 demonstrates that both information and favour transferred by respondents' social networks in job search processes did not significantly assist in matching applicants to jobs. Hence, these results lend support to Hypothesis 2 and Hypotheses 3a and 3b, but suggest rejection of Hypotheses 1a and 1b. In other words, as for the competing hypotheses in the theoretical account of "information and job-worker matching", the hypotheses predicting the comparative advantage of social networks over market methods in transferring job information are not supported; instead, market methods outperform social networks in obtaining job information and thus excel in realising a good match between applicants and job

positions. Again, in the theoretical account of “favouritism and job-worker matching”, the hypotheses predicting the ineffectiveness of network-transferred favour in job-worker matching stand the test, which indicate that this kind of network resource does not play a significant part in the Australian context. To sum up, the findings of informational disadvantage of social networks differ from some extant research in other Western societies (Corcoran et al 1980; Marsden and Gorman 2001; Coverdill 1998), and the findings of ineffectiveness of network-transferred favour differ from previous studies conducted in transitional societies like China and Russia (Bian 1997; Bian and Huang 2009; Yakubovich and Kozina 2000). How then could we interpret them? Consideration of the characteristics of Australian labour markets may shed light on providing explanations.

Australia has one of the most open employment service markets in the world (Dockery 1999), and information flows in Australian labour markets are highly marketised. Generally, information about job openings and employment opportunities is publicly released and allows equal access via diverse channels. Various employment services or agencies, private and public, are available to offer advice and training to help people in job searches. The fast development of Internet boosts online recruitment and applications, facilitating the hiring practices and the communication between prospective employers and job seekers. To a substantial extent, the information acquired through market channels can fulfil the needs of making a good match between applicants and job positions, leaving little room or necessity for utilising social networks. Moreover, employment procedures in Australian labour markets are transparent and subject to policy and legislation that prohibit discrimination and emphasise standardised and unbiased hiring practices. Explicit and strict selection criteria are implemented throughout. All these factors make any

endeavour to impose influences or favouritism on employment decisions very difficult, highly costly or risky. Such a context is completely different from the emerging labour markets that abound with institutional holes or insufficiencies (Bian 2002).

On the whole, the utilisation of social networks in Australian labour markets appears to be ineffective in achieving good job-worker matches compared to the use of formal market methods. This can serve as a brief response to Granovetter's (1995) inquiry on the relative advantages of job search methods in mtaching; that is, when information flow in labour markets is highly marketised, the formal market methods tend to have advantages over the informal social networks in matching individuals to positions. In addition, as the current study is explorative, several questions deserve further exploration in future studies: Given the limits of using social networks, who remain as the network users in Australia's highly marketised employment processes? What are the underlying causes for them? If social networks are associated with comparatively poorer job matches, would the network users be situated in insecure or vulnerable employment situations? Finally, a more thorough exploration into the issues of job search methods and job-worker matching in Australian context invites continuous research effort and longitudinal survey projects.

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**Table 1.** Descriptive Statistics of Variables in the Analyses, AuSSA, 2007

Variables	Percent or Mean (S.D.)	Number of cases
<i>Good job-worker matches</i>	72.0%	1730
<i>Job search methods</i>		
Social networks	19.0%	1730
Market methods	66.3%	1730
Hierarchy method and other methods (ref.)	14.7%	1730
<i>Network resources</i>		
Information	28.0%	1694
Favour	8.0%	1694
Other help or no help (ref.)	64.0%	1694
<i>Control variables</i>		
Gender (male=1)	45.8%	1730
Age	48.22 (15.97)	1730
Age <sup>2</sup>	2580.13 (1616.84)	1730
Years of schooling	13.91 (3.67)	1730
University degree	27.3%	1730
Industry		
Primary sector (ref.)	3.6%	1730
Secondary sector	17.3%	1730
Service sector	43.4%	1730
Intellectual sector	32.4%	1730
Unspecified	3.3%	1730
Public sector	31.1%	1730
Professional and managerial position	34.5%	1730
Income level		
Low income or no income (ref.)	30.4%	1730
Middle income	37.1%	1730
High income	32.5%	1730
Union membership	58.3%	1730
Migrant	21.2%	1730
Big-city resident	62.5%	1730

**Table 2.** Odds Ratios in Predicting Effects of Job Search Methods and Network Resources on Job-worker Matching, AuSSA, 2007

Predictor variables	<i>Good job-worker matches</i>	
	Model 1	Model 2
<i>Job search methods<sup>a</sup></i>		
Market methods	1.450*	-
Social networks	1.167	-
<i>Network resources<sup>b</sup></i>		
Information	-	1.094
Favour	-	1.012
<i>Control variables</i>		
Gender	.688**	.701**
Age	.966	.966
Age <sup>2</sup>	1.000*	1.000*
Years of schooling	1.006	1.004
University degree	.835	.837
Industry (ref.=primary sector) <sup>c</sup>		
Secondary sector	1.375	1.329
Service sector	1.089	1.071
Intellectual sector	1.338	1.291
Public sector	1.066	1.023
Professional and managerial position	1.787***	1.855***
Income level (ref.=low income or no income)		
Middle income	1.404*	1.419*
High income	2.494***	2.428***
Union membership	.923	.941
Migrant	.976	.971
Big-city resident	1.093	1.059
Constant	1.695	2.273
Nagelkerke R <sup>2</sup>	.08	.07
Number of cases	1730	1694

*Notes:*

1. <sup>a</sup> The reference category is hierarchy method and other methods.

<sup>b</sup> The reference category is other help or no help.

<sup>c</sup> A dummy variable of unspecified industrial sector (unspecified=1, otherwise=0) is included in analyses but not presented.

2. \*p<.05, \*\*p<.01, \*\*\*p<.001

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