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BRINGING STRONG TIES BACK IN: INDIRECT TIES, NETWORK BRIDGES, AND JOB SEARCHES IN CHINA*

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Granovetter's (1973, 1974) "strength-of-weak-ties" argument has led to fruitful research on how individuals are matched to jobs in market economies. In analyzing the institution for assigning jobs in China, I make distinctions (1) between information and influence that flow through networks during job searches and (2) between direct ties and indirect ties used by jobseekers, I find that in China personal networks are used to influence authorities who in turn assign jobs as favors to their contacts, which is a type of unauthorized activity facilitated by strong ties characterized by trust and obligation. In a 1988 survey in Tianjin, I find that (1) jobs are acquired through strong ties more frequently than through weak ties, (2) both direct and indirect ties are used to obtain help from job-assigning authorities, (3) job-seekers and their ultimate helpers are indirectly connected through intermediaries to whom both are strongly tied, and (4) job-seekers using indirect ties are more likely to obtain better jobs than those using direct ties.

ranovetter's (1973, 1974) "strength-of-weak-ties" hypothesis has stimulated fruitful research in the study of occupational attainment processes in market economies (Granovetter 1995). Granovetter and others found that while individuals use their personal networks to search for work, they are matched to jobs more frequently or more effectively through weak ties than through strong ties. I look beyond market

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economies to examine the relative efficacy of strong and weak ties among job-seekers in China. How do ties of differing strengths affect occupational attainment when jobs are assigned through the bureaucracy of a state socialist government?

The central thread of Granovetter's argument is that opportunities of social actors are constrained by their connections with other actors. His weak-tie hypothesis rests on the view that weak ties (relationships characterized by infrequent interaction or low intimacy) are wide ranging and are therefore more likely than strong ties to serve as bridges across social boundaries. Although not all weak ties are bridges, Granovetter argues that weak-tie bridges "provide people with access to information and resources beyond those available in their own social circles" (Granovetter 1982:114). Thus, weak ties can channel exceptional social mobility opportunities, such as job changes, to those in contact with others. In Getting a Job, Granovetter (1974) studied the advantages of weak ties over strong ties in providing nonredundant information about jobs. Later, Lin (1982, 1990) emphasized other resources that are embedded in weak ties: Power, wealth, and prestige possessed by others can be accessed through weak ties that link persons of different statuses. Both Granovetter's and Lin's formulations imply that strong ties are less effective in facilitating status attainment because they generally do not bridge social boundaries or hierarchical levels.

Empirical research has provided mixed findings on the relative efficacy of strong ties and weak ties in labor markets. Granovetter's (1974) study of a Boston suburb showed that American professional workers obtain job information through weak ties more frequently than through strong ties. However, Watanabe (1987) found that the opposite is true in Tokyo, Japan for Japanese professional and technical workers. A representative sample of workers in an upstate New York area, moreover, showed that help in locating high-prestige jobs is secured more often through weak ties than through strong ties (Lin, Ensel, and Vaughn 1981). Although this finding was replicated in a Dutch study (DeGraaf and Flap 1988), no relationship between tie strength and the social status of contacts was observed in a Detroit-area survey (Marsden and Hurlbert 1988), which implies that strong and weak ties might be equally important in mobilizing social resources. Wegener (1991) took this question one step further, arguing that social networks are heterogeneous: Persons of low status can choose among strong-tie contacts from a wide status range to access social resources; but persons near the upper end of the status hierarchy must rely on weak ties to contact someone of a higher status outside the range of their own network. In his study in Germany, Wegener (1991) found a significant and positive effect of the interaction between a worker's initial job status and tie strength on social resources.1

To make sense of these seemingly contradictory findings, one must understand what resources actually flow through job-seekers' networks. First, Granovetter (1973, 1974, 1995) distinguished between *information* and *influence*—two kinds of resources that flow through network ties during job searches. Al-

though weak ties are useful in spreading information, the strong ties of trust and obligation may be more advantageous in accessing influence, which is generally more costly and difficult to obtain. Second, previous researchers have focused on direct ties, overlooking the possibility that job-seekers and their ultimate helpers may be indirectly connected through intermediaries, a key insight in Granovetter's weak-tie argument. If the ties between job-seekers and their ultimate helpers indeed result from their mutual ties to intermediaries, then one should study such triadic connections before generalizing about tie strength and job searches. Third, Granovetter (1995) has recently drawn attention to variation in the institutional contexts in which persons are matched to jobs through networks, arguing that hypotheses about tie strength and labor market implications must be proposed within the *institutional contexts* that condition the use of networks in job searches.

In this paper I use all three insights from Granovetter to analyze the distinct institution that structures job assignments in China. I argue that the system of state job assignment has profound implications for the relative efficacy of strong ties and weak ties in the job search process. Within this institution, personal networks are used to gain influence from job-assigning authorities rather than to gather employment information, because even when they have information, job-seekers cannot apply for jobs; jobs are secretly assigned by officials as favors to those who are directly or indirectly connected to them. This unauthorized activity is facilitated by strong ties of trust and obligation. Because few job-seekers are in contact with high-level authorities, many must use indirect ties to gain influence. Hence, this institution of assigning jobs creates possibilities for influence networks to operate in which "bridges" between strong ties connect otherwise disconnected job-seekers and job-assigning au-

I argue that strong ties can create network bridges linking otherwise unconnected individuals. I analyze tie strength and job searches in China, paying special attention to how Chinese job-seekers are connected to job-assigning authorities through direct and indirect ties of exchange relations (or gua-

¹ A related literature on tie strength and wage attainment has been inspired by Granovetter's and Lin's works (Bridges and Villemez 1986; Montgomery 1992).

nxi). I then discuss the significance of the Chinese case for market economies.

STRONG TIES AS NETWORK BRIDGES

The network concept of a "bridge" refers to a network link that provides the only path between two nodes (Harary, Norman, and Cartwright 1965:198). According to Granovetter (1973), "... a bridge between A and B provides the only route along which information or influence can flow from any contact of A to any contact of B, and, consequently, from anyone connected *indirectly* to A to anyone connected indirectly to B" (p. 1364, italics in original). Thus, a bridge is significant in two ways: (1) as a direct tie between A and B, who are presumably members of different groups; and, more broadly, (2) as a network link that joins otherwise unconnected individuals by bridging between A and B.

A tie between two individuals can be strong or weak, differing in the time spent in interaction, emotional intensity, intimacy, or reciprocal services characterizing the tie (Granovetter 1973; Marsden and Campbell 1984). The distinction between friends and acquaintances provides a simple but clear example of differences in tie strength. Granovetter (1974) argues that acquaintance ties provide "better access to job information one does not already have" because "acquaintances, as compared to close friends, are more prone to move in different circles than one's self" (p. 52). Thus, the weak tie between an individual and an acquaintance becomes "not merely a trivial acquaintance tie, but rather a crucial bridge between the two densely knit clumps of close friends" (Granovetter 1982: 106).

Can strong ties also be bridges in interpersonal networks? The theory of cognitive balance seems to rule out such a possibility (Heider 1958). Based on this theory, Granovetter (1973:1363) examines the tendency for mutually interconnected networks (or cliques) to form among individuals with similar characteristics. Yet recent network theory challenges this view. In *Structural Holes*, Burt (1992:18–34) states that tie weakness is not a precondition for a tie to function as a bridge: A disconnection between individuals having nonredundant resources or holding different network posi-

tions is, however, critical. In the corporate world, such disconnections may result from a deliberate process because, Burt argues, disconnections give strategic players information and control in the competition for economic rewards. "The task for a strategic player building an efficient-effective network is to focus resources on the maintenance of bridge ties" (1992:30). Indeed, bridge ties are a key source of social capital that explains the success of those managers with connections, strong or weak, to a large number of disconnected others within corporations (Burt 1995).

In the social world, disconnections between individuals result largely from nondeliberate, social-cultural processes. Bott (1957) has provided a classic example of network building that is constrained by ego's and alter's social class and residential location. Her study also implies that relatives and friends are generally two independent intimate circles, creating opportunities for bridges to emerge between these circles. With respect to friendship networks, Laumann (1973:119) found that an average American man has three close friends. While 69 percent of his respondents are located in "interlocking networks" (i.e., their friends are good friends of one another), 31 percent are in "radial networks" (i.e., their friends are not good friends of one another). In certain cultures, radial networks are socially imposed by gender. For example, wives in many Asian countries must keep away from their husbands' male friendship circles. Likewise, husbands tend not to know the female friends of their wives (Fei [1949] 1992). Under these constraints, indirectly connected individuals are not in contact, but their relationship is mediated by mutual third-party friends.

Several studies provide evidence that strong ties can function as bridges. Burt and Knez (1995) demonstrate that in indirect connections, third parties have a positive effect on trust within strong ties, and a negative effect on trust within weak ties. Jackall (1988) finds that "informal" ties among managers are "relatively stable circles" that form the social basis for operating business organizations; in this case, bridge ties exist between different levels of managers, and loyalty (upward) and trust (downward) flow through these bridges. A similar account is

provided by Krackhardt (1992) to explain the importance of close friendship networks among managers in organizations.

Strong ties of trust and obligation also provide a social basis for what I call "unauthorized activities"—exchanges or transactions that may be illegal, socially disapproved, or for which mechanisms of coordination are either insufficient or unavailable in formal institutions. In A Village in Malta, Boissevain (1980) described the client-patronage systems of the Mediterranean, such as the Sicilian and Corsican mafia, which are examples of illegal, underground societies. Banfield (1961) studied the "wheeler-dealer" type of transactions central to the operation of political machines in Chicago, transactions disapproved of by most citizens. In the United States and elsewhere, "informal economies" are organized through personal, familial, and ethnic networks of trust and obligation, and such economies are receiving increasing attention (Light 1972; Portes, Castells, and Benton 1989; Light and Bhachu 1993).

Thus, strong ties rather than weak ties provide the network bridges that link individuals. I present here a case study of strong ties as bridges in job searches in China.

STRONG-TIE BRIDGES AND JOB SEARCHES IN CHINA

Guanxi in Chinese Society

Chinese society has long been known for its emphasis on interpersonal relationships as a guiding structure in economic and social organization (Fried [1953] 1969; Walder 1986; Cheng and Rosett 1991; Smart 1993). A widely used but loosely defined term describing this structure is *guanxi*. *Guanxi* literally means "relationship" or "relation," but its essence is a set of interpersonal connections that facilitates exchanges of favors between people (Hwang 1987).

Yang (1994) lists a number of characteristics of *guanxi* as observed in China in the 1980s and 1990s, but three characteristics are most relevant to the analysis of job searches. The first is familiarity or intimacy—for any two individuals to develop *guanxi*, they must know a great deal about each other and share with each other frequently. In other words, favors tend to be exchanged between persons

who are strongly tied rather than weakly tied. The second characteristic of *guanxi* is trustworthiness—the result of relatively longterm interaction and the basis for future exchange relations. Because exchanges facilitated through guanxi networks are not formally or legally instituted, trust established on this personal level is necessary. The third, and perhaps most important characteristic of guanxi, is reciprocal obligation. In popular discourse, obligations to reciprocate are often translated into emotional feelings of attachment (ganging), and people lose face (mianzi) if they do not reciprocate. This means that reciprocity between strongly tied persons is intensified by added moral and expressive dimensions. Fulfilling one's obligations to one's relatives and friends, for example, is culturally expected by both the Confucian tradition and the new ethics in contemporary China (Hu 1944; Gold 1985; Wand 1994; Yang 1994:70-71, 222-44). When one fails to fulfill one's obligations, one loses face (Cheng and Rosett 1991), and not only would be seen by others as being depraved, but also might pay the ultimate price of losing one's guanxi networks and the social resources embedded in them (Hwang 1987; Smart 1993). The web of these obligations was seen by Fried ([1953] 1969) as the "fabric" of Chinese society before the Communist revolution in 1949. Yang (1994) believes that in postrevolutionary periods, "the manufacturing of obligation and indebtedness is the primary and binding power of personal relationships" (p. 6). Similarly, Walder (1986:chaps. 3 and 5) argued that the personal relationships between party cadres and their political activists are the basis for the "Communist neo-traditional" mode of authority relations dominant in the Chinese workplace in the 1970s and 1980s.

Thus, guanxi networks facilitate the exchange of favors (Gold 1985; Hwang 1987; Yang 1994). Such favors can be intangible (e.g., emotional support), but tangible favors are more common (e.g., valued goods and services that are not readily available in the marketplace and therefore must be obtained through personal connections). The inflexibility of China's centralized economy after 1949 has signified guanxi as "instrumental-personal ties" (Walder 1986:179–85) or as "symbolic capital" (Yang 1994:198–204)

used to obtain and reallocate hierarchically distributed resources, such as housing, medicine, imported goods, or, as in this study, jobs.

Urban Job Allocation

A government program of job assignments is the core of the job allocation system in China. From the mid-1950s through the late 1980s, this program controlled the size, growth, and distribution of urban jobs. Control measures included food rationing, residence registration, and centrally planned labor quotas. After graduation from school, youths were required to wait for state job assignments, and once assigned the youths were restricted from switching between places of employment. Thus, the initial job was a vital step in career development (Walder 1986:68-74; Davis 1990; Lin and Bian 1991). Under these policies, any other mode of job search in the predominant state and collective sectors (which contained 96 to 98 percent of all jobs for three decades) were officially prohibited (Bian 1994a:chap. 3). Although some radical changes have occurred in the 1990s, this study is based on a 1988 survey and thus analyzes the pre-reform conditions of state job assignments.²

Job assignments were implemented through a hierarchy of employers, or "work units." In the research site Tianjin, China, work units were organized through three command lines within the hierarchy: (1) a small number of large and powerful work units managed directly by the central government's ministries; (2) municipal industrial bureaus, each commanding a large number of economic entities around a major or a minor industry; and (3) three lower levels of work units managed by district governments, subdistrict governments, or neighborhood committees. Altogether, then, these work units composed a five-level hierarchy from the highest ranked central work units, to the municipal work units, and to the three low-rank work units in the district command line. These five levels were in fact officially assigned to work units and indicated the levels of governmental jurisdiction, financing, and control; generally, the higher the rank, the greater the bureaucratic power and economic capacities of a work unit, and the better the jobs and benefits (Walder 1992; Bian 1994a: chap. 2).

Through this work unit hierarchy, labor quotas were allocated by the central and municipal administration to the five level of work units in consecutive order: High-ranked work units had priority in receiving labor quotas to satisfy their demands. High-ranked work units also had priority in selecting the best available candidates because these units could enter the screening process earlier and could recruit from a large number of schools and residential areas.

Youths waiting for state job assignments could express their job preferences, but their preferences did not necessarily affect their final assignments. Applicants were screened in private by authorities from schools, residences, and recruiting organizations. Screening was supposed to be impartial and to reflect the examination of each applicant's dossier-a secret official document that recorded one's demographic information, family background, and the political and academic performance evaluations from one's current and previous superiors since junior high school. The names and dossiers of screened applicants were then sent to a designated local government labor office for further review and approval. On approval, the labor office assigned applicants to work units, transferred their dossiers, and sent an employment notice to the newly hired workers on behalf of the recruiting work units. The new workers were notified only of their place of employment and did not know what their particular occupation would be. Only after checking in at the assigned work unit and attending a short training program were new workers given a specific job.

Webs of Guanxi and Informal Processes

The job assignment process just described is, in actuality, far less precise than it appears. Job assignments were largely based on *ad hoc* decisions by authorities making it possible for personal networks to influence the process.

² Reforms in the 1990s have allowed individuals to search for jobs on their own and to switch between employers. The roles of *guanxi* in China's emerging labor markets are documented elsewhere (Wand 1994; Bian forthcoming).

Job-seekers waiting for assignments were not just "waiting"—they mobilized their guanxi networks to contact job-assigning authorities (or "control agents") hoping to secure the best outcome by gaining favors and influence from control agents so they would be assigned a good job. In the Chinese context, information was only a byproduct of influence received: Job information was classified and circulated in a hierarchical government bureaucracy, designed for centralized control and planning. Under this circumstance, individual control agents only had information about those jobs to be assigned by their office.

Obtaining influence from control agents was illegal, and thus it was a private, informal process. Therefore, job-seekers and control agents must necessarily know and trust each other so as to eliminate concerns about potential risks. In reality, the risk of exposure probably was not very high, since a large number of people were involved in such activities (Bian 1994b), but the potential for exposure did exist, and exposure held very bad consequences for job-seekers (who would be forced to take a "bad" job or be given no job at all for a long period of time) and especially for control agents (who would lose their position, privileges, and so on). In addition, the stronger the tie between jobseeker and control agent, the more successful the job-seeker would be, because the control agent would feel obligated to do favors for someone to whom he or she was strongly tied. Although control agents could be bribed by strangers or people with weak ties, such ties would not concur unless both parties trusted each other. What all this means is that:

Hypothesis 1: Jobs are channeled through personal networks, and more so through strong ties than through weak ties.

Connections to control agents were always at work, because authorities were given enormous power to make ad hoc decisions in assigning jobs. For example, a government labor office could request that a person be recommended for a specific work unit. This request would be honored because, in the words of a high school official interviewed in Tianjin, "It came from above." If necessary, the powerful labor office would complete an assignment by transferring a per-

son's dossier from his or her school or residence to the assigned work unit without advanced notice.

Work units were expected to accept all assignments, but they could challenge the labor office if an assignment seemed incorrect (e.g., the person not fit for the work unit, incorrect procedure, etc.). One incentive for accepting all assignments was that work units would be permitted to recruit some of their favored candidates. Such incentives were also available to those school and residential authorities who complied with government initiatives. Finally, recruiting work units and school or residential authorities could exchange favors even before a name was sent to the labor office. In this case, recruiting work units would "suggest" that a person's name be included in the recommendation list from the school or residential authority, and the authority would benefit from doing this favor by asking the recruiting work units to hire his or her favored persons.

Control agents' influence on the job-assignment process varied according to their position in the work unit hierarchy. Government officials at the municipal and district levels controlled a large variety of jobs and thus had the greatest power in manipulating the job-assignment process. High-ranking work units, on the other hand, entered the assignment process early and therefore had more areas, schools, and candidates to choose from than did work units from lower ranks. This rank effect also applied to school and residential authorities. Given this hierarchical nature of job assignments,

Hypothesis 2: Job-seekers who receive help from control agents whose affiliated organizations are ranked high are more likely to be recruited by high-ranked work units.

Direct and Indirect Ties to Control Agents

How did job-seekers connect to high-ranking control agents for help? They could do so either directly or indirectly. Because interpersonal interactions and exchange relations are more likely to occur among persons of equal or similar status (Laumann 1973:chap. 5), persons of high (family and own) socioeconomic status had a greater chance of being in

a direct relationship with high-ranking control agents than did those of low socioeconomic status. High-ranking control agents were few in number, thus allowing only small numbers of direct ties. So, high-ranking control agents would be less likely to be contacted directly than indirectly. In other words,

Hypothesis 3: Job-seekers are more likely to contact control agents at high levels through an indirect tie than through a direct tie.

Given Hypothesis 2, that high-level control agents tend to provide better jobs, Hypothesis 3 implies that

Hypothesis 4: Job-seekers tend to find better jobs if they use an indirect tie than if they use a direct tie.

Note that because indirect ties are used to access control agents at the higher levels, when the level of control agents is taken into account, indirect ties should *not* have independent effects on status of the job attained.

Not everyone could use indirect ties for contacting a high-ranking control agent because not all job-seekers were in "rich" guanxi networks full of personal ties that could facilitate the exchange of favors. Rich guanxi networks may reflect one's long-term efforts at network building, thus favoring older people or those from affluent families. Taken together, thus,

Hypothesis 5: Older job-seekers or those with high socioeconomic backgrounds are more likely to use indirect ties to control agents than are younger or lower-status job-seekers.

Marsden (1982) has shown that the presence of brokers in "restricted exchange networks" reduces transaction costs to otherwise disconnected transactors. In the domain of U.S. government policy, for example, "brokerage" positions generate power and influence for the agencies occupying those positions (Fernandez and Gould 1994). In the Chinese job-assignment process, the intermediary's influence is contingent on the strength of his or her ties to the control agent and to the job-seeker. If the ties are weak, favors would have to be exchanged immediately. In this scenario, for a job to flow from the control agent through the intermediary to

the job-seeker, the job-seeker would have to immediately return two favors, one to the intermediary and one to the control agent. This is costly to the job-seeker, and if the job-seeker only returns a favor to the control agent and not to the intermediary, then the intermediary would not be interested in connecting the job-seeker to the control agent and the three-way exchange would be impossible.

If a job flows through strong ties, however, returned favors are replaced by obligations or debts. When the job seeker and the control agent are indirectly connected through the intermediary, and strong ties exist between the job-seeker and the intermediary and between the intermediary and the control agent, then the job-seeker gets a job, the intermediary fulfills his or her obligations to and wins trust from the job-seeker, and the control agent does the same for the intermediary. The transaction may be in the form of debt. Thus, the job-seeker may be in the intermediary's debt, who in turn is in the control agent's debt, without imposing immediate costs to the debtors. The precondition to grant a favor in guanxi networks, however, is that the debtor must be viewed as trustworthy by the potential favor-granter. Although debts might still occur between weakly tied persons, the probability that the job-seeker and the control agent are bridged by a mutual intermediary should be exceedingly high. Thus, I expect

Hypothesis 6: When job-seekers and control agents are not connected, or when they have only superficial relationship, they tend to be bridged in the job-search process by intermediaries to whom both job-seeker and control agents are strongly tied.

RESEARCH DESIGN

Data and Methods

The data come from a 1988 representative sample of 1,008 adult residents (ages 18 and older) in Tianjin, China. Details of the research site and the survey can be found in Bian (1994a:219–40). Tianjin is China's third largest city, with a population of 8.5 million in 1988. The sample was drawn according to a multistage random sampling

procedure to take into account a geo-administrative structure of districts, subdistricts, and neighborhoods. If more than one adult person was sampled in a household, a simple random selection (toss of a coin) was used to select a respondent. Based on a structured questionnaire, face-to-face interviews were conducted by trained female sociology majors from the Branch School of Nankai University in Tianjin. The response rate was close to perfect, which is typical of the Chinese surveys conducted in the 1980s (Blau and Ruan 1990; Lin and Bian 1991). The present analysis uses 948 respondents (507 men and 441 women) who had worked in the urban civilian labor force.

Given its leading role in state industry, its proximity to the national capital of Beijing, and its high administrative status as one of the three autonomous municipalities (the others are Beijing and Shanghai), Tianjin in 1988 did not represent urban China; instead it was located in the core of a planned economy undergoing reform. These features of Tianjin, however, satisfy the present study, which explores how interpersonal connections affect job searches within the system of state job assignments. Indeed, unlike southern regions, such as in Guangdong and Fujian Provinces where privatization effectively mobilized labor to participate in a fastgrowing market sector, only 4 percent of Tianjin's labor force worked in the market sector in 1988; the rest held primary jobs in state or collective work units.

Measuring Tie Strength

I measure two types of tie strength: role relation (relatives, friends, and acquaintances) and intimacy (knowing each other "very well," "well," "so-so," "not well," or "not at all"). The two measures are correlated in the .60 range. Because intimacy (shu) is a key feature of guanxi networks (Yang 1994:111), it is used in multivariate models assessed to test the hypotheses.

Respondents were asked if there was "someone" (hereafter referred to as "helper") who helped them get their first urban jobs. Slightly more than 45 percent said that there was.³ This figure is similar to those reported

for Western societies (Granovetter 1974; Lin et al. 1981; DeGraaf and Flap 1988; Marsden and Hurlbert 1988; Wegener 1991). However, the distribution of ties used in China is skewed toward strong ties rather than weak ties. As shown in Table 1 (column 1), 43.2 percent of the helpers were respondents' relatives, 17.8 percent were friends, and 39.0 percent were acquaintances. In terms of intimacy (column 1), 44.2 percent of the respondents knew their helpers "very well," 15.5 percent "well," 12.1 percent "so-so," 12.4 percent "not well," and 15.9 percent had contact with their helpers "not at all." These findings indicate that jobs in China are indeed found through strong ties more frequently than through weak ties (Hypothesis 1).⁵

Measuring Direct and Indirect Ties

Respondents were also asked if there was "a third party" (hereafter referred to as "intermediary") who helped link them to the ultimate helpers in their job searches: More than 45 percent of those who had helpers confirmed that there was an intermediary. Unfortunately, information about how many intermediaries were actually involved was not solicited. Nevertheless, remarkable differences are found in the measures of tie strength between direct-tie users and indirect-tie users. Respondents linked to helpers with direct ties

reported 42.3 percent (Bian 1994b) because an additional 10 cases were found.

⁴ The same respondents were also asked about their most recent job changes, which are analyzed elsewhere (Bian and Ang 1997). Only 21 percent of job changers obtained help from their relatives, but the distribution of levels of intimacy with relatives who helped with job changers was about the same as the distribution of intimacy with relatives who helped with first jobs.

⁵ The Chinese system of job assignments was basically intact from the mid-1950s to 1988, when 84 percent of the respondents obtained their first jobs. Of the respondents who used network ties to obtain their first jobs, 40 percent began working after 1977, 20 percent began between 1966 and 1976, and 23 percent began their first jobs more than 30 years before (prior to 1958). Errors about the strength of ties used are probably most likely for the last group of respondents. However, the two measures of tie strength—intimacy and role relations—are uncorrelated with the year of first jobs obtained.

³ This percentage is higher than the previously

Table 1. Descriptive Statistics for the Social Ties Used in Securing a First Job: Tianjin, China, 1988

	Total Cases	Direct Route Tie R-H (Model 2)	Ties in Indirect Routes			
Independent Variables	R-H (Model 1)		R-H (Model 3)	R-I (Model 4)	I–H (Model 5)	
Number of cases ^a	428	234	194	194	194	
Strength of Tie (Intimacy Score)						
Percent "Very well" (= 5)	44.2	69.7	13.4	73.7	73.2	
Percent "Well" (= 4)	15.5	15.4	15.5	18.6	15.5	
Percent "So-so" (= 3)	12.1	7.7	17.5	5.7	8.8	
Percent "Not well" (= 2)	12.4	6.0	20.1	1.5	1.5	
Percent "Not at all" (= 1)	15.9	1.3	33.5	.5	1.0	
Mean intimacy score (× 10)	36.0	44.6	25.5	46.3	45.8	
Role Relations						
Percent kin	43.2	58.5	24.7	57.2	25.8	
Percent friends	17.8	16.7	19.1	41.2	54.6	
Percent acquaintances	39.0	24.8	56.2	1.6	19.6	
Strength of Ties in Indirect Routes (Mea	n Intimacy S	$core \times 10$)				
Kin-to-kin (N = 28 , 14.4%)	_	_	40.8	44.6	43.4	
Kin-to-nonkin (N = $73, 37.6\%$)	_	_	24.6	44.5	46.6	
Nonkin-to-kin (N = 32, 16.5%)	_	_	25.0	47.8	43.4	
Nonkin-to-nonkin ($N = 61, 31.5\%$)	_	_	19.8	48.4	47.5	
Helper Characteristics ^b						
Percent in administrative position	67.1	53.8	83.0	_		
Mean score for work-unit rank (× 10)	32.7	29.2	36.9	_	_	
Mean score for occupational status	85.6	82.4	89.3	_		

Note: R = respondent; I = intermediary; H = ultimate helper.

(Table 1, column 2) were more dependent on kinship ties and friends, and their intimacy with their helpers was on average very high (about 70 percent know their helpers "very well"). In contrast, respondents linked to helpers indirectly (Table 1, column 3) had less intimacy with their helpers: More than 70 percent of these respondents either had no prior contact with their helpers (33.5 percent), or knew their helpers "not well" (20.1 percent) or only "so-so" (17.5 percent)—an average intimacy score of 25.5.

Fewer respondents knew their ultimate helpers reasonably well beforehand (15.5 percent "well" and 13.4 percent "very well"). These more intimate cases tend to occur in infrequently used kin-to-kin network chains (14.4 percent): In these cases the ultimate

helpers are their more distant relatives (kin of spouses, siblings, or cousins), and their close relatives are the intermediaries (spouses, siblings, or cousins). All three dyadic ties composing the kin-to-kin chains have high average intimacy scores, but intimacy scores between respondent and intermediary (R–I) and between intermediary and helper (I–H) are somewhat higher than between respondent and helper (R–H): In all chains, R–H intimacy is considerably lower than intimacies for R–I and for I–H.

Information about I-H tie strength was solicited from the respondents, thus error might exist, especially if the respondents had no knowledge of the relationship between I and H. However, ethnographic research suggests that *guanxi* users generally have good knowl-

^a Respondents who used a helper to secure their first job comprised 45.1 percent of the total sample in the study (N = 948).

^b See text on page 375 for explanations of measures of helper characteristics.

edge of tie strength between their targeted persons and those in between (Fried [1953] 1969; Yang 1994). In the job-assignment context, my in-depth interviews with an independent sample of 27 men and 12 women in Tianjin indicated that the ultimate helper was usually targeted first and the search for the "right" intermediary was planned accordingly. In one example, the interviewee wanted to get a job in Tianjin's railway company where wages and benefits were high, so she targeted as her helper the company's labor office director who was in charge of recruitment. She ultimately discovered that one of her uncles had been the best friend of the director's little brother on a soccer team in middle school some 15 years earlier and that the friendship had continued. This relationship helped her secure the job she wanted. Conversations with other interviewees revealed that job-seekers generally did know the nature of the tie between their ultimate helper and their intermediary.

Measuring Social Resources

Following Lin (1982), I view the status characteristics of the ultimate helpers as social resources. I consider three measures of status: First, does the helper hold an *administrative position*? Such a position involves the authority to engage directly or indirectly in the job-assignment process and the potential to exercise influence. Column 2 of Table 1 shows that 53.8 percent of the helpers for direct-tie users hold an administrative position. The percentage increases to 83.0 percent for indirect-tie users (column 3), which is significantly higher.

Second, what is the helper's work-unit rank? Work-unit rank is the level of the helper's work unit in the hierarchy of work units, thus indicating the level of influence the helper may have in job assignments. Ranks are scored, from lowest to highest, as follows: section or lower (= 1), department (= 2), division (= 3), bureau (= 4), and higher than bureau (= 5). Table 1 shows that the helpers for direct-tie users have an average work-unit rank close to the division level

(when multiplied by 10, the rank score is 29.2), but those for indirect-tie users have an average rank approaching the bureau level (an average score of 36.9). The difference is not large, but it is meaningful and statistically significant: In Tianjin, government offices and work units above the division level had significantly greater power and influence in job assignments than those units at and below the division level.

Third, what is the helper's occupational status? I measure occupational status using a Chinese version of Duncan's (1961) Socioeconomic Index score (Lin and Xie 1988).⁷ The difference in occupational status between helpers for direct-tie users (82.4) and for indirect-tie users (89.3) is not statistically significant.

Measuring Attained Status

Job status attained is measured by the rank of the work units to which respondents were assigned for their jobs and by the occupational status of the jobs attained. These two variables are measured in the same way as work-unit rank and occupational status of the helpers (see above). The rationale for using work-unit rank as a measure of attained status is that job benefits, wages, promotion, political mobility, and subsidized housing are functions of work-unit rank (Walder 1992; Logan and Bian 1993; Bian 1994a).

Other Variables

Because tie strength, helpers' status, and jobs attained may be correlated with the job-seekers' prior social position (Lin et al. 1981; Marsden and Hurlbert 1988; Wegener 1991), I include the respondents' status characteristics and socioeconomic background prior to their first jobs. The father's work-unit rank and occupational status measure socioeconomic background; the measures of work-

⁶ Although the status characteristics of the intermediary are important, this information was not collected.

⁷ The occupational status measure includes 19 occupational categories. For the sample in this study, the 19 occupational categories and the corresponding Lin-Xie SEI scores are: unclassified occupations (60.3), unskilled worker in industry (65.0), unskilled worker in commerce or service sectors (69.1), skilled worker in industry (70.3), skilled worker in commerce or service sectors (70.9), staff, clerical worker below section level

unit rank and occupational status are the same as for the respondents and their helpers (see above). Respondents' characteristics include sex, age, education, and Party membership. Education is measured on a five-level scale, from low to high: no formal schooling (= 1), elementary school (= 2), junior high school (= 3), high school and vocational school (= 4), and college or above (= 5). These levels, rather than years of schooling, were used by the government as formal criteria to assign jobs. Party membership indicates the respondent's membership in the Chinese Communist Party prior to his or her first job. Previous studies of status attainment processes in China show that education and Party membership, as well as sex and age, affect the job status attained (Blau and Ruan 1990; Lin and Bian 1991; Bian 1994a).

Influence or Information?

In the 1988 Tianjin study, respondents were not asked about the nature of help received from their contacts, because asking directly about this sensitive matter could have been detrimental to the survey. All questions concerning the process of job search and the use of personal networks were preceded by the following statement:

We would like to ask about a person who provided the greatest assistance or the most influence for you to obtain a job when you first entered work. Please answer the following questions concerning this person.

Given the specific context of job assignments, the words "assistance" (bang zhu) and "influence" (ying xiang) used in this statement strongly implied that we were interested in help that was substantial. The adjectives "greatest" and "most" were used to focus the respondent on someone who was key in assigning a job, but not on "a third party" about whom separate questions were provided later

(87.1), primary school teacher (89.2), middle-ranking cadre (90.6), low-ranking technical professional (92.2), high-ranking cadre (100.4), private sector workers (101.8), middle-ranking technical professional (104.4), middle and high school teacher (108.6), college or university assistant instructor or instructor (114.5), high-ranking technical professional (117.1), and college or university associate professor or professor (126.8).

in the questionnaire. Written instructions and in-field training about these subtle points were provided to interviewers. If the respondents were not clear about this, or if they sought clarification from the interviewers, the interviewers were authorized to provide explanation using a manual of instructions.

I conducted in-depth interviews with 39 individuals to provide information on whether influence, or information, or both, flowed through the direct and indirect ties used by Chinese job-seekers to contact helpers. Of these 39 individuals, 19 stated that they were helped by someone to obtain their first jobs. The nature and sources of help received varied from case to case. In 6 cases, the helpers were government officials who determined the job assignments (4 of these officials were indirectly connected through either a relative or a friend); 3 interviewees were helped by their school superiors; 8 used their relatives' or friends' connections with the heads of hiring organizations. The remaining 2 individuals stated that their contacts provided information about who should be contacted for help, and offered their connections to these helpers. Hardly representative, these 39 cases indicate, however, that influence was the key resource that flowed through Tianjin respondents' networks.

ANALYSES

Based on the total sample, I first analyze the characteristics of those who used personal ties to obtain their first jobs. Next, within the group who used personal ties, I estimate whether social resources (status of helpers) influence the job status attained (Hypothesis 2). Then, I address the questions of access to social resources, the relative efficacy of direct and indirect ties, and the comparative usefulness of strong versus weak ties (Hypotheses 3 through 6).

Use of a Helper

Like Americans, the Chinese discuss important matters with similar others (i.e., same sex and Party membership; similar age and education) (Blau, Ruan, and Ardelt 1991). Neither these characteristics nor fathers' work-unit rank or occupational status, however, significantly affected the likelihood

that job-seekers use a helper to obtain jobs (logistic regression available from the author upon request). This result is similar to findings by Marsden and Hurlbert (1988) for the United States and by Wegener (1991) for Germany; it indicates that using helpers to find jobs may be largely a random outcome in China as well as in Western countries. Since the model as a whole has only slight predictive power, I include all six variables (sex, age, education, and Party membership of the respondents at entry into first jobs and fathers' work-unit rank and occupational status) in the subsequent multivariate models to control for possible "selection bias" (Berk 1983), ensuring an unbiased estimation of the effects of tie strength on social resources and attained status.

Social Resources and Attained Status

Table 2 presents regression models assessing the independent effects of social resources on the work-unit rank and occupational status of the respondents' first jobs. Four models are estimated. Model 1 shows that indirect-tie users were more likely to enter high-ranking work units or to obtain high-prestige occupations than were direct-tie users, independent of their own and their fathers' characteristics. This finding supports Hypothesis 4, that indirect ties lead to attaining better jobs. As expected, indirect ties do not have independent effects on the occupational status of the job attained when helper's characteristics are taken into account (Model 2). Thus, the advantage of indirect ties lies entirely in the fact that they link job-seekers to helpers who have more resources.

For both direct-tie users (Model 3) and indirect-tie users (Model 4), the helper's administrative position and work-unit rank have independent and positive effects on the work-unit rank and occupational status of the job attained. Helper's administrative position has a significantly larger effect on entering high-ranking work units for indirect-tie users than for direct-tie users (coefficients of .62 and .16, respectively). Helper's occupational status affects the respondent's occupational status but not his or her work-unit rank. Recall that job assignments took place in two steps: first job-seekers were assigned to a work unit, and second they were as-

signed a specific occupation within the work unit. Our results indicate that helpers holding administrative positions or working in a high-ranking organization can influence both steps of job assignments, but helpers who have a prestigious job (e.g., engineers or professors) can only influence work duties assigned to job-seekers after they have entered a work unit. Taken together, these results strongly support the social resource hypothesis—that the higher the helper's status, the better the jobs attained (Hypothesis 2). The theory of social resources (Lin 1982) predicts no effects of tie strength on occupational status of job attained, net of the status of the helpers. As mentioned above, these results are consistent with this expectation.⁸

Direct and Indirect Ties

Table 3 presents regression models predicting the use of indirect ties and the strength of ties to helper. Model 1 shows that, as predicted by Hypothesis 5, older respondents and those whose fathers are employed in high-ranking work units are more likely than others to use indirect ties to locate a helper. Model 2 indicates that the intimacy between helpers and indirect-tie users was significantly lower than the intimacy between helpers and direct-tie users. For direct-tie users (Model 3), older respondents are more often connected to helpers through weak ties than are younger respondents. For indirect-tie users, intimacy to helpers is negatively associated with their intimacy to intermediaries (-.59 for R-I, Model 4) and with intimacy between intermediaries and helpers (-.43 for I-H, Model 5). Although the coefficient for I-H intimacy is not significant when R-I intimacy is controlled (Model 6), it remains negative. Basically, results in Models 4 and 5 indicate that the stronger the tie between respondents and intermediaries, or between intermediaries and helpers, the weaker the tie between respondents and helpers. This suggests that the weak ties between respondents and helpers result from their strong ties to

⁸ Unlike Wegener (1991), I did not find interactive effects of tie strength to the ultimate helper and job-seeker's prior position (education, Party membership, and father's work-unit rank) on attained status.

Table 2. Unstandardized Coefficients from Regression Models Predicting Job Status Attained from Respondent's Social Resources and Other Selected Independent Variables: Respondents' First Jobs, Tianjin, China, 1988

	Work-Unit Rank of First Job			Occupational Status of First Job				
Predictor Variables	Model 1 ^a	Model 2 ^a	Model 3 ^b	Model 4 ^c	Model 1a	Model 2a	Model 3 ^b	Model 4 ^c
Indirect tie	.16** (.05)	.12 (.10)	_	_	.13* (.06)	.07 (1.15)	_	_
Strength of Tie (Intime	acy Score)						
Respondent- helper (R-H)	_	03 (.17)	.01 (.15)	.03 (.20)	_	42 (.85)	-1.29 (1.20)	.18 (1.27)
Respondent- intermediary (R-I	_	_	_	.07 (.19)	_	_		1.06 (1.15)
Helper- intermediary (H-I	_	_	_	.07 (.03)	_	_	_	1.29 (1.07)
Respondent's Charact	eristics							
Education	.21** (.08)	.20** (.07)	.17** (.06)	.23** (.07)	6.54** (2.37)	5.94** (.54)	5.90** (.75)	5.60** (.78)
Party member	.20 (.12)	.16 (.11)	.17 (.15)	.13 (.17)	.97 (1.30)	.54 (1.29)	.68 (1.72)	.90 (1.91)
Sex (male $= 1$)	.07 (.10)	.07 (.09)	.08 (.12)	.15 (.15)	-3.08** (1.01)	-2.68* (1.05)	-1.73 (1.40)	-4.10* (1.63)
Age	.01** (.004)	.01* (.004)	.01* (.005)	.01 (.01)	.32** (.04)	.33** (.04)	.32** (.06)	.36** (.07)
Father's Characteristi	ics							
Work-unit rank	.40** (.06)	.35** (.05)	.32** (.07)	.40** (.08)	1.15* (.52)	1.12* (.55)	.83* (.37)	1.23* (.51)
Occupational status	.02 (.05)	(.03) (.04)	.01 (.10)	.01 (.01)	.01 (.05)	03 (.05)	04 (.06)	01 (.07)
Helper's Characterisis	tcs							
Administrative position	_	.23** (.09)	.16* (.07)	.62** (.25)	_	2.11* (1.03)	3.39* (1.54)	3.38** (1.19)
Work-unit rank	_	.17** (.06)	.16** (.06)	.19** (.07)	_	1.08* (.51)	1.69* (.65)	1.12* (.63)
Occupational status	_	.02 (.04)	.03 (.02)	.01 (.04)	_	.19** (.04)	.25** (.05)	.12* (.06)
Intercept	.18	37	76	.10	8.30	31.32	31.54	45.80
R ² . Number of cases	.22 428	.25 428	.25 234	.25 194	.30 428	.34 428	.39 234	.35 194

Note: Standard errors are in parentheses.

mutual third parties in the Chinese context of job assignments.

Access to Social Resources

Table 4 presents logistic regression models estimating the effects of tie strength on

helper's administrative position. Is influence (indicated by administrative position) accessed through direct ties or through indirect ties, and are those ties typically strong or weak?

Model 1 in Table 4 does not differentiate between direct-tie users and indirect-tie us-

^a Includes all respondents who used personal ties in job search.

^b Includes all respondents who used direct ties in job search.

^c Includes all respondents who used indirect ties in job search.

^{*}p < .05 **p < .01 (two-tailed tests)

Table 3. Unstandardized Coefficients from Regression Models Predicting Use of Indirect Tie to Helper and the Strength of Tie to Helper: Tianjin, China, 1988

		Strength of Tie to Helper							
	Use of Indirect Ties	Total Sample	Direct Tie Users	Inc	lirect Tie U	sers			
Predictor Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6			
Indirect tie	_	68** (.07)	_			_			
Strength of Tie (Intimacy Sc	ore)								
Respondent-intermediary (R-I)	_	_	_	59** (.10)	_	50** (.12)			
Intermediary-helper (I–H)	_	_	_	_	43** (.10)	15 (.11)			
Respondent's Characteristic	:s								
Education	.29** (.10)	07 (.05)	08 (.05)	06 (.05)	05 (.05)	06 (.05)			
Party membership	.06 (.25)	03 (.09)	03 (.13)	01 (.11)	01 (.12)	08 (.11)			
Sex (male = 1)	33 (.21)	04 (.07)	12 (.10)	06 (.10)	002 (.10)	049 (.10)			
Age (× 10)	.22** (.08)	17** (.03)	24** (.04)	06 (.04)	07 (.04)	06 (.04)			
Father's Characteristics									
Work-unit rank	.20* (.11)	04 (.04)	03 (.06)	12* (.05)	10* (.05)	11* (.05)			
Occupational status (× 100	.07 (.09)	09 (.34)	48 (.47)	09 (.44)	48 (.45)	13 (.44)			
Intercept	-3.05**	10.91	7.54	8.78	7.91	8.87			
-2 log-likelihood	589.60	_	_	_	_	_			
R ² Number of cases	428	.26 428	.17 234	.22 194	.15 194	.23 194			

Notes: Entries in Model 1 are logistic regression coefficients; those in Models 2 through 6 are OLS unstandardized regression coefficients. Standard errors are in parentheses.

ers—an assumption conveniently used in previous network studies of job searches in market societies. Model 1 shows that after respondents' and fathers' characteristics are taken into account, the lower the intimacy between job-seekers and helpers (R–H), the more likely it is that they procured helpers in an administrative position. Model 3 shows that this is also true among respondents who have direct relationships to helpers.

Model 2 in Table 4, which also includes direct-tie users and indirect-tie users, shows that indirect ties increase the probability that job-seekers use helpers in administrative positions, lending support to Hypothesis 3, that indirect ties lead to increased social resources. Among those with indirect ties to helpers, high intimacy between jobseekers and intermediaries (logistic coefficient of 1.47 for R-I in Model 4) and between intermediaries and helpers (1.37 for I-H in Model 5) increase the probability that job-seekers contact helpers in administrative positions. The strength of R-I ties and I-H ties each independently affects respondents' access to helpers in administrative positions (Model 6), supporting Hypothesis 6, that strong ties are the bridges in network chains of indirect ties in Chinese job searches.

^{*}p < .05 **p < .01 (two-tailed tests)

Table 4. Coefficients from Logistic Regression Model Assessing Effects of Tie Strength on Whether Helper Holds an Administrative Position: Tianjin, China, 1988

	Total Tie Users		Direct Tie Users	Indirect Tie Users			
Predictor Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	
Strength of Tie (Intimacy S	core)						
Indirect tie	_	.46** (.16)	_	_	_	_	
Respondent-helper (R-H)	-1.17** (.11)	91** (.15)	-1.53** (.21)	48** (.18)	62** (.18)	52** (.20)	
Respondent-intermediary (R-I)	_	_	_	1.47** (.29)	_	1.03** (.30)	
Intermediary-helper (I–H)	_	_	_	_	1.37** (.26)	1.00** (.26)	
Respondent's Characteristi	ics						
Education	.03 (.08)	.02 (.08)	.03 (.11)	.04 (.13)	.003 (.14)	.02 (.14)	
Party membership	.07 (.18)	.07 (.18)	.19 (.24)	.12 (.33)	.11 (.33)	.20 (.33)	
Sex (male = 1)	.31* (.14)	.34* (.15)	.22 (.20)	.97** (.33)	.64* (.29)	.89** (.35)	
Age (× 10)	.06 (.06)	.06 (.06)	004 (.08)	.02 (.11)	.03 (.13)	.02 (.12)	
Father's Characteristics							
Work-unit rank	.08 (.07)	.08 (.08)	.15 (.10)	.23 (.15)	.14 (.16)	.27 (.18)	
Occupational status (× 10	(.06)	.19** (.07)	.25** (.09)	.06 (.14)	.14 (.13)	.06 (.15)	
Intercept	11.18** (.69)	10.93** (.71)	11.99** (.96)	6.40** (1.60)	6.75** (1.55)	5.12** (1.75)	
Chi-square Degrees of freedom	674.42 420	646.31 419	674.73 226	187.24 185	172.34 185	256.27 184	

Note: Standard errors are in parentheses. R = respondent; I = intermediary; H = ultimate helper.

The negative, independent effect of a respondent's intimacy to an ultimate helper on whether the helper holds an administrative position (Model 6) must not be overlooked or overemphasized. We know that one-third of indirect-tie users do not know their ultimate helpers "at all" (see Table 1). Others have some intimacy with helpers beforehand, but even in these cases intermediaries are necessary because without them help might not have been provided. On the other hand, after the effects of the strength of intermediate ties (R–I and I–H) are taken into account, the ties between job-seekers and helpers (R–H) are negatively associated with social resource

variables. This may indicate that high-ranked helpers are contacted through more than one intermediary, a hypothesis that requires data on the length of network chains used in job searches. (Appendix A shows a reduced presentation yielding slightly different regression results about access to helpers' work-unit rank and occupational status.)

SUMMARY

Of 948 randomly selected respondents in Tianjin in 1988, 428 (45.1 percent) obtained their first urban jobs through substantial assistance from their personal helpers. I find

^{*}p < .05 **p < .01 (two-tailed tests)

that respondents whose helpers are at high levels in the hierarchy of job assignments tend to enter high-ranking work units or obtain high-status jobs, net of their own and their fathers' characteristics. About 55 percent of these helpers are found through direct ties. With direct ties, respondents tend to be strongly rather than weakly tied to their helpers. However, those who are weakly tied to their helpers are more likely than others to contact someone employed in a position of authority, who works in a high-ranking work unit, or who has a high-status occupation—again net of respondents' characteristics and fathers' characteristics.

About 45 percent (N = 194) of helpers are found through indirect ties (ties through an intermediary). Older persons or persons whose fathers are employed in high-ranking work units are more likely to use indirect ties than others. These respondents have much weaker ties with their helpers than do those using direct ties. However, they tend to have strong ties with their intermediaries, who tend to have strong ties with the ultimate helpers. Helpers found through intermediaries are more likely to hold authority positions, work in high-ranking work units, or have high-status occupations. Given that respondents' work-unit rank and occupational status attained are positively influenced by their helpers' authority position, work-unit rank, and occupational status, two points are evident. First, the better jobs are channeled by high-level helpers who are more likely to be accessed through indirect ties than through direct ties. Second, when they use indirect ties, job-seekers are connected with their ultimate helpers at higher levels through intermediaries to whom both the job-seekers and the helpers are strongly tied.

IMPLICATIONS AND DISCUSSION

My analyses and findings suggest several important implications for network theory and research on job searches. First, we need to specify exactly what flows through personal networks during job searches. In previous studies on market economies it has been assumed that job-seekers learn employment information through weakly tied contacts more frequently than through strongly tied contacts. This case study of job assign-

ments in China indicates that this tendency is altered when the strong ties of trust and obligation characteristic of *guanxi* networks can be mobilized to influence job-control agents to assign a job for someone. In other words, when influence rather than information flows through personal networks, jobs can be channeled through strong ties more easily than through weak ties.

This distinction between information and influence may provide a clue to long-standing controversies about the relative efficacy of strong and weak network ties in job searches. Early studies (Granovetter 1974; Lin et al. 1981) showed that jobs are found through weak ties more frequently than through strong ties, but more recent analyses (Marsden and Hurlbert 1988; Wegener 1991) have indicated that strong ties are also useful, especially for low-status workers. Although the latter findings imply that strong ties link people with different social statuses and social resources (Wegener 1991), given that low-status workers have relatively few qualifications, they also may be motivated to obtain influence and job information from their social contacts, making strong ties more important for them than for high-status workers. This hypothesis awaits empirical confirmation.

My analyses also point to the need to carefully model direct and indirect connections in job searches. In the Chinese context, when job-seekers and job-control agents are directly connected, I find that weak ties are more effective than strong ties in contacting authorities for better jobs. This is true even in the scenario that influence rather than information flows through networks used, and even when jobs are channeled through weak ties less easily than through strong ties. This must be interpreted as a structural effect: The higher the helper in the job-assignment hierarchy, the weaker the ties between the helper and the job-seeker; and the higher ranked the helper, the greater the helper's influence. What is to be understood is why help can be obtained through *direct weak* ties, even in the Chinese job-assignment context. A possible explanation for this finding is that tie strength is multidimensional (Marsden and Campbell 1984), and thus a weak tie may involve a relatively high level of reciprocity and interdependence between the persons having the tie.

Nevertheless, indirect ties are generally more effective than direct ties in assisting job-seekers to contact high-ranked helpers. In the Tianjin data, helpers found through indirect ties tend to have higher positions in the job-assignment hierarchy than do helpers found through direct ties. Consequently, respondents who use indirect ties tend to obtain better jobs. I have interpreted these results in structural terms—that helpers high in the job-assignment hierarchy are small in number, and thus the number of direct ties is also small. Therefore helpers holding positions of authority are more likely to be contacted for help through indirect ties than through direct ties. What is interesting about the Chinese case is that strong ties are more likely to be bridges between helpers and jobseekers than are weak ties.

Strong ties can function as bridges for two reasons. First, potential strong ties can be disconnected by structural and cultural constraints (Bott 1957), or through deliberate actions by strategic players to take advantage of bridge ties in a competitive arena (Burt 1992). Second, unauthorized activities rely on the strong ties of trust and obligation to bridge otherwise unconnected individuals with nonredundant resources. Strong ties may not be as likely as weak ties to serve as bridges in communication networks, in that weak ties are more wide ranging than are strong ties (Granovetter 1973). However, strong ties prove to be necessary to bridge the Chinese *guanxi* networks used to obtain influence, because mutual third parties offer

trust and obligation that ultimately connect job-seekers to job-control agents. Weak ties, in contrast, lack these characteristics and are therefore not as likely to function as bridges in influence networks.

The existence of these strong-tie bridges challenges the strength-of-weak-ties hypothesis, but does not totally disqualify it. This hypothesis—that weak ties have a greater instrumental efficacy in labor markets than strong ties—is true for the flow of resources through direct ties, even in the distinct institution of job assignments in China. But this theory should be modified to take into account (1) the distinction between direct and indirect ties, (2) the fact that either information or influence can flow through these ties. and (3) the varying institutional and labor market contexts that condition the use of ties of varying strengths for obtaining information or influence in job searches. Hypotheses about the instrumental efficacy of tie strength should be proposed after these dimensions are more fully specified.

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Appendix A. Coefficients from Regressions Assessing Effects of Tie Strength on Helper's Work-Unit Rank and Occupational Status

	W	ork-Unit Ra	nk	Occupational Status			
Predictor Variables	Total Sample (Model 1)	Direct Ties (Model 2)	Indirect Ties (Model 3)	Total Sample (Model 4)	Direct Ties (Model 5)	Indirect Ties (Model 6)	
Strength of Tie (Intimacy Sc	ore)						
Indirect tie	.29* (.12)		_	.82 (.59)	_	_	
Respondent-helper (R-H)	43** (.07)	42** (.10)	43** (.20)	-7.61** (.96)	-9.15** (1.22)	-3.83* (1.17)	
Respondent-intermediary (R–I))	_	_	.42* (.21)	_	_	4.17 (2.16)	
Intermediary-helper (I-H) —	_	.35 (.22)	_	_	7.37** (2.66)	

(Appendix continued on next page)

	W	Work-Unit Rank			Occupational Status			
Predictor Variables	Total Sample	Direct Ties	Indirect Ties	Total Sample	Direct Ties	Indirect Ties		
	(Model 1)	(Model 2)	(Model 3)	(Model 4)	(Model 5)	(Model 6)		
Respondent's Characteristic	s							
Education	.01	.03	.01	3.17**	4.04**	2.22*		
	(.06)	(.08)	(.08)	(.79)	(.99)	(1.02)		
Party membership	.20	.38*	.02	3.62*	2.74	3.90		
	(.13)	(.19)	(.20)	(1.79)	(2.34)	(2.60)		
Sex (male = 1)	.22*	.34*	.35*	.84	2.11	1.07		
	(.11)	(.15)	(.17)	(1.45)	(1.19)	(2.25)		
Age (× 10)	.02	.02	.03	.95	1.372	.29		
	(.04)	(.06)	(.06)	(.58)	(.76)	(.87)		
Father's Characteristics								
Work-unit rank	.25**	.28**	.27**	1.59**	1.00	2.67*		
	(.06)	(.08)	(.09)	(.78)	(1.22)	(1.25)		
Occupational status (× 10) .02	.02	.03	.13	.26**	.661		
	(.05)	(.09)	(.08)	(.07)	(.09)	(1.022)		
Intercept	2.35**	2.23**	2.38**	72.95**	63.08**	47.71**		
	(.54)	(.69)	(.85)	(7.13)	(8.75)	(11.18)		
\mathbb{R}^2	.28	.24	.27	.25	.33	.28		
Number of cases	428	234	194	428	234	194		

Note: Standard errors are in parentheses. p < .05 **p < .01 (two-tailed tests)

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