# L I V E S
# W O R K I N G
# P A P E R
# 2 0 1 5 / 38

**Authors**

Daniel Oesch

Anna von Ow

**LIVES**
Swiss National Centre of Competence in Research

**A u t h o r s**

Oesch, D. (1)

von Ow, A. (2)

**A b s t r a c t**

This paper analyzes, for a large sample of unemployed workers, who finds a job through a personal contact and how using a personal contact affects job quality. We argue that the distinction between work-related and communal contacts is decisive. Using a dataset for Switzerland which merges register data with a longitudinal survey of unemployed jobseekers, we find that work contacts are disproportionately used by privileged jobseekers: male mid-aged professionals and managers. In contrast, communal contacts act as search method of last resort; they are used by immigrants, the working class, the very young and elderly. Using a communal contact does not affect wages, but is associated with longer unemployment.

**A u t h o r s' a f f i l i a t i o n**

(1) Life Course and Inequality Research Centre (LINES) & NCCR LIVES, University of Lausanne
(2) NCCR LIVES, University of Lausanne

**C o r r e s p o n d e n c e t o**

daniel.oesch@unil.ch

## 1. Introduction

Between a third and half of all jobs in affluent market economies are found through informal contacts such as colleagues, family or friends (Granovetter 1995, Pellizzari 2010). Clearly, whom you know is key for where you work. This paper analyses the role that informal contacts play in the access to, and the quality of, jobs that workers find after a spell of unemployment. Our focus lies on the question as to whether informal contacts primarily facilitate the access to jobs for middle-class incumbents – and hence increase social inequality. Or, on the contrary, whether informal contacts are more consequential for jobseekers of the working class and thus reduce social inequality.

By analyzing the effect of social networks on inequality, we focus on the issue that Mark Granovetter (1995: 177) considered as "the single gap most in need of filling" in economic sociology. His hypothesis was that rational behavior at the micro-level such as the exchange of information between individuals with the right contacts would reinforce social inequality at the macro-level (Granovetter 1974: 100). The mechanism behind increasing inequality seems straightforward. Social networks are instrumental for the access to jobs because they transfer information and influence. Jobseekers in higher class positions befriend workers in similarly advantageous class positions, who have more information about job openings and more influence over who gets these jobs.

At the same time, the use of social networks in job search may also decrease inequality. This is the case if informal contacts substitute for the more formal educational credentials used by professionals and managers (Corcoran et al. 1980: 35), if low-educated jobseekers substitute social capital for a lack of human capital (Chua 2011). Notably disadvantaged groups of jobseekers such as youths, migrants and lower-status workers may compensate their disadvantage by relying on their social network rather than passing through formal channels, such as job advertisements or employment agencies. Moreover, they may disproportionately apply for jobs in low-wage sectors where employers appreciate informal contacts as a cheap, fast and reliable recruitment practice (Marsden and Gorman 2001: 470).

However, both expectations may fall short of making a convincing case because they treat informal ties as a homogeneous group. The distinction between formal and informal job search methods may not be fine-grained enough. Among informal contacts we further need to distinguish between work-related contacts on the one hand and communal contacts such as family, friends and acquaintances on the other (Granovetter 1974: 48; Bridges and Villemez 1986: 576). We thus argue that in untangling the links between informal contacts, job access and inequality, the distinction between work-related and

communal ties is crucial. While work contacts provide exclusive information about job openings and trustworthy referrals for jobseekers, informal information from family and friends may primarily serve as a last resort – after other search methods, both formal and informal, have failed (Loury 2006: 302). Accordingly, work contacts seem more instrumental for securing a good job and thus provide the upper-level search method, whereas communal contacts appear as the lower-level method for jobseekers without many choices. Our central task is then to identify the social categories benefitting from work contacts and those relying on communal contacts.

Influential studies on social contacts and jobs are based on samples biased towards high status respondents, typically people in employment, working as professionals, managers or technicians (e.g. Granovetter 1974, Boxman et al. 1991, Franzen and Hangartner 2006). This makes it difficult to identify the influence networks have on inequality. Moreover, it leads scholars to overestimate the role of informal contacts as many white-collar employees who obtained their job through their network had not actively searched for a job, but were contacted by an acquaintance – "jobs fell into their lap" (Granovetter 1995: 145).

Our paper innovates by analyzing an inflow sample of *jobless workers* in Switzerland who became unemployed at the same moment and who were all under the administrative obligation to actively look for a job. Our dataset combines register data from the unemployment insurance with a tailor-made longitudinal survey in which jobseekers were surveyed twice, at the beginning and the end of their unemployment spell.

The policy relevance of knowing who returns to a job thanks to an informal contact – and what type of informal contact – is evident. Public employment services gain from identifying the groups of unemployed jobseekers that are particularly likely to find employment through their social network. However, a policy that targets informal contacts does not make sense if informal contacts lead to worse matches between workers and positions (Bentolila et al. 2010), resulting in longer unemployment spells and jobs with lower wages than jobs found through other search methods. Therefore, we analyze who finds a job through informal contacts and how using these contacts affect unemployment duration and wages.

Our paper is structured as follows. Section 2 discusses why informal contacts, both work-related and communal, should facilitate the access to jobs. Section 3 presents our hypotheses about the effect of informal contacts on unemployment duration and wages. Section 4 shows our data and measures. The

following three sections present the empirical evidence: Section 5 identifies the groups disproportionately finding a job through informal contacts. Section 6 distinguishes jobseekers using work-related from jobseekers using communal contacts. Section 7 shows the effect of the hiring channel on unemployment duration and wages. Section 8 summarizes our findings and highlights their policy implications.

## 2. Informal contacts and access to jobs

Social networks and personal contacts are instrumental in the labor market because they provide jobseekers with three crucial resources. First, they provide information that increases the chance of getting a job, notably about upcoming job vacancies, job requirements and procedures for applying. Second, personal contacts may have an influence on who gets the job as they can recommend and vouch for jobseekers (Granovetter 1974). Third, personal contacts may convey social status and thus signal the type of social resources to which workers, once hired, can resort (Erickson 2001). The idea is that the recommendation by an important person reflects on the jobseeker and confers on her part of the value attributed to the person recommending her (Bureau and Marchal 2009: 583).

Why should the use of informal contacts increase inequality in the job market? Research in sociology systematically finds that individuals tend to choose as friends people who are similar to them – an empirical regularity known as homophily (McPherson et al. 2001). Jobseekers formerly employed in influential positions are thus likely to have friends in similar positions and to be able to call upon personal contacts with more information and greater influence to help them in getting a job. Accordingly, managers and professionals – specialists with friends in high positions – should be able to take greater advantage of informal contacts in their job search than blue-collar workers (De Graaf and Flap 1988: 468).

At the other end of the class structure, individuals suffering frequent spells of temporary work and unemployment likely face the problem that their friends will also be disproportionately un- and underemployed, and hence in a poor position to offer job information (Granovetter 1974: 136). In a similar vein, Bourdieu (1979) considered social capital to be strongly correlated with economic and cultural capital. Accordingly, people at the bottom of the class hierarchy may not only be relegated to subordinate work positions, but also have a social network that is of little help for getting a job.

However, although jobseekers in lower class positions may have fewer and less influential friends – and hence less social capital –, they may nonetheless be more likely to find a job thanks to a personal contact. One reason is that jobseekers without much to offer in terms of formal credentials depend on privileged information about job vacancies and a personal intermediary to recommend them to assure employers about their productivity. Acquaintances may thus compensate for the lack of formal credentials and facilitate the access to jobs (Corcoran et al. 1980: 35; Chua 2011: 3). This argument applies to low-educated jobseekers and the working class in general, to young labor market entrants and migrants in particular. Social networks allow migrants to bypass their potential limitations in language and knowledge of the local labor market (Falcón 1995: 19).

However, the use of recruitment channels not only depends on the characteristics of the jobseeker, but also crucially on those of the *hiring firm* – and blue collar workers may be more likely to find a job through an informal contact because of employers' behavior. Typical employers of low-skilled labor tend to have less extensively bureaucratized recruitment practices than organizations mainly hiring high-skilled labor – suffice to compare hotels and construction firms with public administrations and banks. An employer survey from France suggests that small firms without a personnel department hire more frequently through informal contacts than large companies (Bessy and Marchal 2009: 136). The recruitment through informal contacts presents employers with three advantages: (i) it does not involve any costs linked to advertisement or formal intermediaries and is thus cheap; (ii) it leads to reliable job candidates for whom common acquaintances, by recommending them, act as pre-screeners; (iii) it allows employers to fill vacancies quickly (Marsden and Gorman 2001: 470, 476).

Yet the opposition between two hypotheses – "it is either higher-level or lower-level classes that mainly benefit from informal contacts" – may be overly simplistic as it lumps all informal contacts (all personal ties) into a single category. Granovetter (1973) is widely known for his distinction between weak and strong ties. Yet, his early work also emphasized the importance of whether an interpersonal tie was situated in a work-related (occupational) or a family-social (communal) context (Granovetter 1974: 44-48). This distinction seems more helpful for the analysis of labor market outcomes than the difference between weak and strong ties – and the two distinctions overlap only partially: Work-related ties are often weak ties, but people also make close friends – and hence strong ties – at work. Likewise, communal ties often tend to be strong ties, but they also include acquaintances and neighbors with whom interactions are infrequent and the ties weak.

Why should work contacts be more instrumental than communal ties? Work contacts provide the key resources that give jobseekers an advantage in job search: privileged information about upcoming job vacancies and influence on employers. In addition, employers are prone to trust the recommendations of work contacts more than those of the applicant's family, friends and neighbors. The latter not only appear more partial to the jobseeker, but also less competent in judging his or her productivity (Marsden 2001: 119). In general, employers seem to consider applicants who are referred by their own employees as particularly interesting (Fernandez et al. 2000). Employees know what the job is about and they care about the productivity of someone who might work alongside them. Moreover, as their reputation is at stake, they have an interest in recommending only applicants who can do the job well (Bonoli and Hinrichs 2012: 356). More precisely, work ties may be instrumental because former colleagues value the pursuit of past collaboration (Godechot 2014).

A broad range of work contacts is probably a by-product of successful long-term participation in the labor market (Bridges and Villemez 1986: 579). It should thus correlate both with age and occupational class. In other words, youths and workers in subordinate positions may be less likely to benefit from their work-related network when looking for a job than experienced workers in more influential positions. Similarly, men's stronger attachment to the labor force may yield more opportunities to meet work contacts and gather information about jobs. They should thus be more likely than women to find their jobs through work-related ties (Petersen et al. 2000: 769, McDonald 2011: 1665)

While work contacts may disproportionately benefit dominant social groups, the opposite appears likely for communal ties. Contrary to work contacts, a jobseeker's communal ties are not expected to give an advantage over formal job search methods, but to compensate for the difficulty to obtain a job via other means. They may thus serve as a search method of last resort to which jobseekers turn if other methods such as formal recruitment channels or work-related contacts fail (Loury 2006, McDonald 2011: 1667).

The idea that communal contacts step in when formal search methods and work contacts fail is illustrated by a Danish survey on the long-term unemployed (Larsen 2008: 6, 11). As unemployment duration increases, jobseekers gradually lose their work-related ties. They thus depend more and more on their family, friends and acquaintances for information on job openings and for someone willing to "put in a good word for them" with the employer. Accordingly, individual characteristics that tend to reduce employability – such as low education, a migrant status, a very young or an advanced age

(McDonald and Mair 2010) – may be associated with a more frequent use of communal contacts in order to find a job.

This discussion leads us to three competing hypotheses about the link between informal contacts and the access to jobs. Based on the idea that jobseekers at the top of the occupational hierarchy have greater amounts of social capital and should thus be better placed to take advantage of social networks to obtain a job, *hypothesis 1* expects professionals and managers to disproportionately benefit from informal contacts in finding a job.

In contrast, *hypothesis 2* expects informal contacts to mainly benefit jobseekers at the bottom of the occupational hierarchy, blue-collar workers with low levels of education as well as migrants. These social groups may use informal contacts to compensate for a lack of formal (or recognized) credentials. In addition, they look for jobs in labor market segments where employers value recruitment through informal contacts as a cheap, fast and reliable method.

Finally, *hypothesis 3* expects well-educated professionals and managers to disproportionately find their jobs through work-related contacts, whereas low educated blue-collar workers are more likely to resort to communal contacts. By the same logic, male and mid-aged jobseekers should rely to a greater extent on work-related ties, whereas women and labor market entrants should turn more frequently to communal ties.

What do the empirical findings of earlier studies tell us about our hypotheses? Survey data of youths in six European countries suggests that informal recruitment is particularly prevalent in the market for unskilled labor. No occupational group has a higher probability to be hired informally – through family or friends – than those in elementary occupations (Harsløf 2006: 569-570). Likewise, an analysis of the European Community Household Panel (ECHP) shows that blue-collar workers are more likely to work in jobs found through informal contacts than white-collar employees (Pellizzari 2010: 501) – a finding confirmed by a large employer survey in France (Bessy and Marchal 2009: 136). Research from the US indicates that blue-collar, low-wage and non-professional jobs are more frequently filled via informal contacts than jobs held by college-educated white-collar workers (Corcoran et al. 1980: 33-35, Holzer 1987, Marsden 2001, Mouw 2003: 880). The finding is particularly clear for Latinos as an immigrant group, who more often find a job through their social networks than Whites and, above all, Blacks (Falcón 1995: 20). Finally, men access jobs more frequently through informal contacts than women in Britain, France and Spain (Marchal and Rieucau 2010: 13-16).

However, the empirical evidence is not clear-cut. Boxman et al. (1991) find that 61 percent of high-level Dutch managers located their current jobs using informal means, a figure much higher than typical for the Dutch labor force as a whole. A study of the French Labor Force Survey *Emploi* reports that workers from a higher social origin more frequently resort to non-family ties or their school-network in order to find a job than workers from a lower social origin (Forsé 2001: 200).

The disparity between these results is partly explained by the fact that studies finding a lower-class bias in using informal contacts focus on family and friends (Harsløf 2006, Pellizzari 2010), whereas studies reporting an upper-class bias in using informal contacts deal with work-related ties (Boxman et al. 1991, Forsé 2001). This argument clearly calls for an analysis which disaggregates the two types of contacts (Bridges and Villemez 1986).

## 3. Informal contacts and the quality of jobs

The research strand opened by Granovetter (1974) did not only focus on getting a job, but also on getting a *good* job. The double emphasis on access to jobs and the quality of these jobs – notably unemployment duration and wages – is also crucial for our analysis. On the nexus between informal contacts and job quality, the literature provides us with three arguments.

One argument expects informal contacts to promote better matches between workers and positions because personal contacts relay more accurate information on job requirements and business practices than formal recruitment channels (Marsden and Gorman 2001: 469). If informal contacts perform better in transmitting information between applicants and employers, the resulting matches should take less time, be of better quality and lead to higher productivity and better wages.

A second argument agrees that personal ties permit jobseekers to find a job more quickly. However, shorter search duration is expected to come at the cost of lower wages. The reason is that workers' personal contacts may help them to find a job in less time, but this may well be in occupations and locations in which their productivity is lower than it would be in other occupations and locations. Relying on family and friends to find a job may thus limit workers' occupational and spatial mobility. In this view, jobseekers using personal contacts sacrifice their productive advantage in order to find a job more easily, resulting in a lower wage (Bentolila et al 2010: 21, Pellizzari 2010: 495).

A third argument considers informal contacts to be just one of several hiring channels, which should not lead to a different outcome in terms of search duration or wages. This argument points to the risk of endogeneity in analyses of the network effect on labor market outcomes. If the same unobserved individual characteristics that affect one's social network – such as a pleasant personality or ambition – also affect one's wages, the observed relationship between network and wages may well be spurious; it is jobseekers' personality and ambition which explain both why they have a large social network and why they gain high wages (Mouw 2003, 2006). Similarly, if lower levels of labor market opportunity – for instance, discrimination against Blacks and Hispanics – cause these workers to resort to informal contacts to get a job, their lower wages may not be a consequence of the informal search method, but rather of the restrained labor market opportunities they faced to begin with (Mouw 2002).

We combine these three arguments into a more fine-grained expectation. Our *hypothesis 4* expects different outcomes in terms of wages and search duration depending on whether a job was found through a work-related or a communal tie. If work contacts provide exclusive information on job openings and direct influence on employers, they should lead to shorter unemployment spells and better wages than formal hiring methods. In contrast, if help by family, friends and acquaintances are a last resort that sets in once other search methods failed to provide a job, communal contacts should be associated with longer unemployment duration and lower wages than formal methods.

What do the empirical findings tell us? A study of labor market entrants based on the European Community Household Panel (ECHP) finds unemployment duration for jobs obtained through family and friends to be lower than for jobs obtained through formal channels. But while these jobs were found more quickly, they were paid lower wages (Bentolila et al. 2010). A disaggregated analysis of the same European data finds considerable cross-country variance. Getting a job through family and friends leads to higher wages in Austria, Belgium and the Netherlands, but to lower wages in Finland, Greece, Italy, Portugal and the UK (Pellizzari 2010). Using longitudinal data for the United States, Mouw (2003: 890) finds that workers who use personal contacts did not do better in terms of search duration or wages than they did when not using contacts.

While these studies lump together different types of informal contacts, two studies differentiate between the use of work-related and communal ties. They find that work contacts lead to a wage premium and communal contacts to a wage discount relative to formal search methods – for a Chicago sample of employed adults (Bridges and Villemez 1986) and for an Italian sample of University graduates three years after graduation (Sylos Labini 2004).

## 4. Data and measures

Empirical studies on the effect of informal recruitment practices on jobs tend to be hampered by two types of data problems. To begin with, several classic studies are based on samples exclusively composed of high status respondents such as top managers (Boxman et al. 1991), scientists and engineers (Simon and Warner 1992), professionals, managers and technicians (Granovetter 1974) or university-graduates (Sylos Labini 2004, Franzen and Hangartner 2006). It is questionable to what extent these results can be extrapolated to the general population of jobseekers.

In addition, the great majority of studies work with samples of *employed* individuals who report how they found their last job. As a consequence, these samples contain the answers of many non-searchers. For instance, nearly 30% of Granovetter's (1974) original sample, all of whom had recently changed jobs, denied having actively searched. This is significant for two reasons. First, as non-searchers disproportionately find a job after receiving unsolicited information from a personal contact, these studies overestimate the importance of informal ties for active jobseekers (Bramoullé and Saint-Paul 2010: 189). Moreover, these studies estimate a causal effect of finding a job through informal contacts on wages which does not generalize to active jobseekers – the reason is that non-searchers are likely to change jobs only if they are offered a wage that equals (or exceeds) the wage earned in their old job (McDonald and Elder 2006: 522).

We address these data issues by joining a handful of studies which analyze samples of unemployed individuals and thus focus on *active* jobseekers (Holzer 1988, Korpi 2001, Mouw 2003, Brandt 2006, Larsen 2008). We built a unique database which matches data from a longitudinal survey with data from the unemployment register. More precisely, we set up a survey on all jobseekers who newly registered with the unemployment service in Vaud, the largest French-speaking canton of Switzerland, between February and April 2012. This provided us with an inflow sample of 4860 unemployed individuals, a 3-month-entry-cohort, which we followed for 12 to 15 months. The first questionnaire was filled in by paper and pencil during the information session organized by the public employment service, a compulsory meeting which takes place at the beginning of unemployment. This setting allowed us to obtain a high response rate of 96%.

About three fourths of respondents gave us the permission to merge their survey data with data from the unemployment register and to re-contact them at the end of their unemployment spell. Therefore, at the end of each month, we addressed a second questionnaire to those jobseekers who had left the

unemployment system during the previous month, asking them whether and how they had found a job. 1448 individuals out of 2793 jobseekers who had quit the unemployment system answered this second questionnaire either by post mail or online, resulting in a response rate of 52%. Out of the respondents, 1213 individuals had found a job after 12 to 15 months and 235 individuals were in another situation (education, family work, expired benefit entitlement, etc.). Our analysis focuses on the group of successful jobseekers (N=1213) for whom the two questionnaires and administrative data provide us with detailed information on the type of the old and new job, duration of job search, channel through which the job was found as well as the old and new wage.

Our study takes place in Switzerland and the Swiss labor market shares many commonalities with Austria and Southern Germany, notably a strong reliance on vocational education, a tight link between education and employment, collective bargaining on the industry level and low levels of unemployment. In the year 2012 when our data were collected, the official unemployment rate was 4.7 percent in the canton of Vaud.

While employment protection in Switzerland is weak, unemployment insurance buffers the unemployed comparatively well against income loss. A contribution period of at least 18 months entitles workers to a benefit period of 18 months with a replacement rate of 70 per cent of the last wage (80 per cent for low-wage earners and job seekers with children). For workers aged 55 years or older, a contribution period of 24 months entitles to unemployment benefits during 24 months. Unemployed workers are strictly monitored, but benefit from active labour market measures such as job search counselling and training programmes.

Our study addresses two questions: Who accesses a job through informal contacts and what is the quality of jobs accessed through informal contacts? For the question on access to jobs, we examine two dependent variables. A first variable is binary and distinguishes whether a job was found through a formal search method (58% of our sample) or an informal contact (42% of our sample). We defined jobs as being found through an informal contact when respondents received the first information from a person who is part of their personal network and who they knew before, excluding professional intermediaries. As formal search methods, we define jobs found through job advertisements, the information received from public or private employment services, or direct applications to employers. A second variable takes on three values and, alongside formal search methods (58%), further disaggregates informal contacts into work-related (17%) and communal contacts (25%). We define three types of intermediaries as work-related contacts: former colleagues, peers from education who

work in the same sector, and other non-defined occupational acquaintances. As communal contacts, we define family, friends, neighbors, members of an association or club, and other non-defined acquaintances.[1]

For the question on the quality of jobs, we examine again two dependent variables: unemployment duration and wages. Unemployment duration is measured in weeks and right-censored at 73.9 weeks (17 months). We measure monthly wages before and after unemployment, which gives us two time points, allows us to calculate the within-person change in wages and thus reduces the risk of endogeneity. When calculating the wage difference between the pre- and post-unemployment job, we leave away earnings lower than 2000 CHF (25% of the national median wage) and thus exclude marginal part-time jobs, apprenticeships and internships.

Our independent variables include sex, age, nationality, education, social class and wage category. The operationalization of the last four characteristics calls for some explanation. In terms of nationality, over a third of our sample of successful jobseekers has a different passport than the Swiss one. We thus create seven nationality groups of decreasing size: (i) Swiss, (ii) Portuguese, (iii) French, (iv) Italians and Spaniards, (v) North Europeans and North Americans, (vi) Ex-Yugoslavians and Albanians, (vii) all other countries – notably South America, Africa and Eastern Europe. Concerning educational attainment, we distinguish between four levels: (i) lower secondary education or less; (ii) *vocational* education at the upper secondary or lower tertiary level (apprenticeships and advanced vocational training); (iii) general education at the upper secondary level (such as the Maturité); (iv) upper tertiary education such as technical college or university degrees (but excluding tertiary vocational degrees).

For social class, we use a version of the Erikson and Goldthorpe schema (1992) by creating four hierarchically ordered categories: (i) low-skilled working class including machine operators and elementary occupations in production, sales and services; (ii) skilled working class including craft workers, clerks and skilled sales and service workers; (iii) lower-middle class of associate managers, semi-professionals and technicians; (iv) upper-middle class of managers and professionals.[2] We complete the indicators of social position – education and class – with an ordinal variable of wage category, which attributes jobseekers to wage bands based on their pre-unemployment monthly earning. Since wage information is only available for two thirds of our sample, this measure is only used in a few analyses.

Table A.1 in the appendix shows the descriptive statistics of our variables separately for workers in jobs found through informal contacts and in jobs found through formal search methods. The p-values inform us on the statistical significance of the difference in the means between the two subsamples. It is noteworthy that there are no significant differences in the use of personal contacts between male and female jobseekers or between age categories. Contrary to what our literature review suggested, older workers or men are not significantly more likely than young labor market entrants or women to have obtained the first information on their new job through their social network.

## 5. Results on who finds a job through an informal contact

The influence of socio-demographic characteristics on the hiring channel is analyzed more systematically in table 1. We estimate logistic regressions where we control for age and sex (both insignificant) and then stepwise introduce and remove nationality, education and social class, before showing a complete model with all these variables at the end. Three results are noteworthy.

First, all nationality groups tend to be more likely to have found a job through personal contacts than the largest group of Swiss jobseekers. This result suggests that migrants in Switzerland depend, as in the United States (Falcón 1995), to a greater degree on informal job access than nationals. With a 20 percentage points higher likelihood of finding a job informally, the effect is strongest for the small group of jobseekers from North-Western Europe and North America. While the effect is also sizable for large group of the Portuguese and the residual group of "other countries" (mainly non-OECD countries), it becomes insignificant once we control for the lower educational and class attainment of these two nationality groups.

This leads us, second, to the greater chances of jobseekers with low education to find their job through an informal contact than jobseekers with upper secondary vocational education (the largest education group). With a difference of 10 percentage points, this effect is substantial and suggests that where education and employment are tightly coupled (as in Switzerland's vocational training system), personal contacts are less relevant (see Chua 2011: 2). In contrast, if we control for nationality and social class, university-educated jobseekers do not stand out one way or the other with respect to the recruitment channel.

While high levels of education do not make a difference once other socio-demographic controls are introduced, working in an occupation at the top of the class hierarchy does. Our third finding thus is that

members of the upper-middle class – managers and professionals –rely to a lesser extent on jobs found through informal ties than the low-skilled working class.

*Table 1: the effect of nationality, education and class on finding a job through an informal contact (relative to finding a job through a formal search method)*

| | M1 | | M2 | | M3 | | M4 | |
|---|---|---|---|---|---|---|---|---|
| | AME | SE | AME | SE | AME | SE | AME | SE |
| *Nationality* | | | | | | | | |
| Swiss | ref | | | | | | ref. | |
| Portugal | .089+ | (.047) | | | | | .029 | (.051) |
| France | .065 | (.054) | | | | | .057 | (.055) |
| Italy, Spain | .064 | (.062) | | | | | .043 | (.063) |
| NW Europe, North America | .210* | (.101) | | | | | .224** | (.103) |
| Ex-Yugoslavia, Albania | .059 | (.100) | | | | | .006 | (.102) |
| Other countries | .099+ | (.051) | | | | | .061 | (.054) |
| *Education* | | | | | | | | |
| Less than upper secondary | | | ref | | | | ref. | |
| Vocational upper secondary or vocational lower tertiary | | | -.111* | (.036) | | | -.090** | (.041) |
| General upper secondary | | | -.090+ | (.051) | | | -.072 | (.054) |
| Technical college and university | | | -.093* | (.040) | | | -.051 | (.050) |
| *Social class* | | | | | | | | |
| Low-skilled working class | | | | | ref | | ref. | |
| Skilled working class | | | | | -.049 | (.039) | -.009 | (.042) |
| Lower-middle class | | | | | -.062 | (.046) | -.027 | (.051) |
| Upper-middle class | | | | | -.121** | (.046) | -.095* | (.054) |
| Pseudo-R | .0079 | | .0077 | | .0057 | | .0060 | |
| N observations | 1194 | | 1194 | | 1194 | | 1194 | |

Note: average marginal effects based on logistic regressions on the dependent variable 0 "finding a job through formal method" / 1 "finding a job through a personal contact"

All regressions include controls for age and sex. Neither variable has a statistically significant effect on the way a job was found.

** p<0.01, * p<.05, + p<.10

How does the job search method affect the quality of the post-unemployment job? The regressions in table A.2 in the appendix suggest that finding a job through an informal contact has no impact whatsoever on either unemployment duration or wages. The binary distinction between informal contacts and formal search methods explains no variance in either the duration of unemployment or the evolution of wages.

Taken together, these findings lend some evidence to hypothesis 2 which expected informal contacts to mainly benefit individuals at the bottom of the occupational hierarchy: low-educated jobseekers, the working class and immigrants. However, class, education and nationality discriminate only weakly between jobseekers finding their jobs thanks to information passed on through an informal contact and jobseekers using formal hiring channels. Moreover, whether jobseekers rely on one or the other recruitment method seems to have no effect on job quality. These results imply either that there are no large socio-demographic differences in Switzerland between those who find a job through informal contacts and those who use formal means. Alternatively, we may need to further distinguish the type of informal contact by separating work-related from communal ties.

### 6. Results on who finds a job through a work-related or communal contact

We start our analysis of the hiring channel disaggregated into three categories (formal method, work contact, communal contact) by cross-tabulating it with four educational levels and four social classes (see figure 1). These descriptive results point to much larger and more systematic differences than those found for the binary distinction between formal and informal search methods. We find low-educated jobseekers to be much more likely than the other educational groups to have found their job through a communal tie. Likewise, jobseekers belonging to the low-skilled working class disproportionately rely on a communal tie to leave unemployment. 32 to 35 percent of the low-educated and the low-skilled working class received the first information on their current job from family, friends or acquaintances, as compared to only 17 percent of university-educated jobseekers and 15 percent of jobseekers in the upper-middle class.

While communal contacts primarily benefit jobseekers at the bottom of the social hierarchy, work-related contacts were used most often by the groups at the top – university-educated jobseekers and the upper-middle class. 23 percent of university-trained workers returned to employment thanks to a work contact as compared to only 14 percent among those without upper secondary education. Privileged education groups and classes are both more likely to use work contacts and formal search methods. Among successful jobseekers, 64 percent of the upper-middle class found employment thanks to a formal hiring channel as compared to only 52 percent among the low-skilled working class.
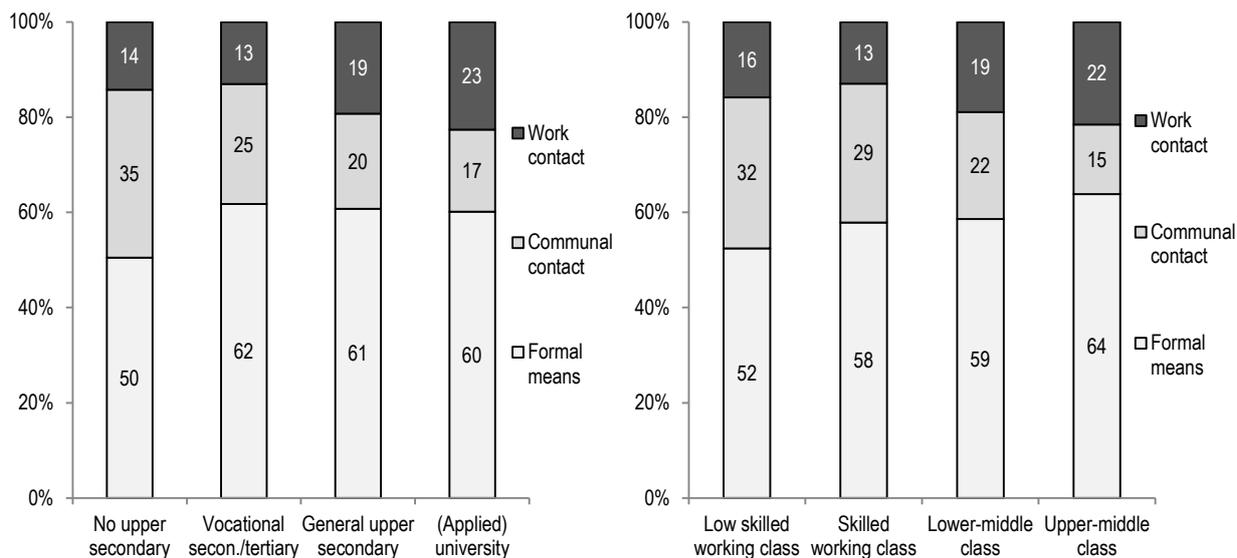
*Figure 1a: source of information by education      Figure 1b: source of information by class*

*Figure 1: the source of the first information through which the unemployed found a new job – by education and class*


We estimate a series of multinomial logistic regressions with the hiring channel as the dependent variable, distinguishing between (i) formal means, (ii) work contacts, (iii) communal contacts. Table 2 shows the average marginal effects relative to the reference category of formal means. Three findings are noteworthy. First, differences in gender and age do not matter for the use of communal contacts, but are consequential for work contacts. Consistent with findings from the US (Petersen et al. 2010, McDonald 2011), men are somewhat more likely than women to find a job through a work contact. Likewise, jobseekers aged between 25 and 54 years benefit to a much greater extent – by 10 percentage points – from work contacts than labor market entrants aged 15 to 24. Yet, jobseekers approaching retirement age (55-64) are no more likely to find their job through a work contact than very young jobseekers. Both labor market entrants and older jobseekers struggle to enter employment after a period of joblessness – and benefit to a lesser extent from work contacts. The oldest age category compensates for this disadvantage by relying most strongly of all age categories on communal ties, followed by the youngest cohort.[3]

Second, the distinction between work and communal contacts uncovers large differences between nationality groups. While migrants from North-Western Europe and North America are significantly more likely to use work-related ties than Swiss jobseekers, the Portuguese, Italians and Spaniards

disproportionately benefit from communal ties. Jobseekers from North-Western Europe and North America are strongly overrepresented in upper-middle class occupations, whereas Italians, Spaniards and, above all, Portuguese respondents are concentrated in the low-skilled working class. Accordingly, the nationality effect is no longer significant for the Portuguese once we control for education and class.

Third, work contacts are the favorite hiring channel of university-trained jobseekers and the upper-middle class, whereas communal contacts are the preferred way of job access for the working class and in particular low-educated jobseekers. The likelihood of finding a job through a communal tie is 19 percentage points higher for the low-skilled working class than the upper-middle class. After controlling for other socio-demographic characteristics such as sex, age, nationality and education, this difference remains substantial at 12 percentage points.

Of course, education and class are strongly correlated. Access to an upper-middle class occupation often requires university education, typically so for medical doctors or lawyers. Accordingly, we complete our analysis by resorting to another indicator of jobseekers' hierarchical status on the labor market, the monthly pre-unemployment wage. Since not everybody worked in the two years before becoming unemployed, this information is only available for two thirds of our sample. Figure A.1 (in the appendix) displays the average marginal effects of finding a job through a work-related or a communal contact relative to the reference category of a formal hiring channel for five wage groups relative to the group of very low earners.

We observe the same pattern as with education and class. Jobseekers with high pre-unemployment earnings of 7000 CHF or more (~7000$ or 1.16 times the national median wage) were much more likely to use work contacts and much less likely to rely on communal contacts than job seekers with earnings below 4000 CHF (~4000$ or 0.66 times the median). In other words, with increasing wages, an unemployed person's probability of finding a job through a communal tie decreases, while his or her probability of finding a job through a work tie increases.

*Table 2: average marginal effects (AME) of socio-demographic properties on finding a job through a work or communal contact relative to a formal method*

| | M1 | | M2 | | M3 | | M4 | | M5 | | M6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Work contact | Commu-nal cont. | Work contact | Commu-nal cont. | Work contact | Commu-nal cont. | Work contact | Commu-nal cont. | Work contact | Commu-nal cont. | Work contact | Commu-nal cont. |
| *Male* | .040+ | -.000 | | | | | | | | | .040* | -.004 |
| | (.021 | (.025) | | | | | | | | | (.021) | (.026) |
| *Age (ref: 15-24)* | | | | | | | | | | | | |
| 25-29 | | | .092* | -.023 | | | | | | | .071 | .002 |
| | | | (.043) | (.044) | | | | | | | (.044) | (.045) |
| 30-39 | | | .114** | -.037 | | | | | | | .094** | -.030 |
| | | | (.039) | (.039) | | | | | | | (.041) | (.042) |
| 40-49 | | | .104* | -.063 | | | | | | | .089** | -.061 |
| | | | (.041) | (.042) | | | | | | | (.041) | (.043) |
| 50-54 | | | .129** | -.068 | | | | | | | .114** | -.063 |
| | | | (.049) | (.058) | | | | | | | (.049) | (.058) |
| 55-64 | | | .035 | .057 | | | | | | | .028 | .058 |
| | | | (.059) | (.055) | | | | | | | (.059) | (.055) |
| *Nationality (ref: Swiss)* | | | | | | | | | | | | |
| Portugal | | | | | -.023 | .107** | | | | | -.022 | .045 |
| | | | | | (.037) | (.039) | | | | | (.041) | (.043) |
| France | | | | | .039 | .026 | | | | | .010 | .040 |
| | | | | | (.037) | (.048) | | | | | (.038) | (050) |
| Italy, Spain | | | | | -.049 | .109* | | | | | -.065 | .098+ |
| | | | | | (.053) | (.051) | | | | | (.053) | (.053) |
| NW Europe, North America | | | | | .170** | .005 | | | | | .121* | .076 |
| | | | | | (.057) | (.099) | | | | | (.058) | (.100) |
| Ex-Yugoslavia, Albania | | | | | -.046 | .093 | | | | | -.047 | .044 |
| | | | | | (.085) | (.083) | | | | | (.085) | (.084) |
| Other countries | | | | | .014 | .084+ | | | | | -.004 | .060 |
| | | | | | (.038) | (.043) | | | | | (.040) | (.047) |
| *Education (ref: no upper secondary)* | | | | | | | | | | | | |
| Vocational sec./ tertiary | | | | | | | -.019 | -.088** | | | -.019 | -.069* |
| | | | | | | | (.029) | (.030) | | | (.032) | (.034) |
| General upper secondary | | | | | | | .048 | -.139** | | | .039 | -.118* |
| | | | | | | | (.037) | (.046) | | | (.038) | (.048) |
| (Applied) university | | | | | | | .073* | -.175** | | | .031 | -.102* |
| | | | | | | | (.029) | (.036) | | | (.037) | (.045) |
| *Social class (ref: low-skilled working)* | | | | | | | | | | | | |
| Skilled working class | | | | | | | | | -.034 | -.021 | -.024 | .014 |
| | | | | | | | | | (.031) | (.032) | (.032) | (.035) |
| Lower-middle class | | | | | | | | | .026 | -.088* | -.006 | -.021 |
| | | | | | | | | | (.034) | (.040) | (.037) | (.044) |
| Upper-middle class | | | | | | | | | .051 | -.189** | .013 | -.118* |
| | | | | | | | | | (.033) | (.043) | (.039) | .049 |
| Pseudo-R | .0016 | | .0074 | | .0103 | | .0155 | | .0136 | | .0334 | |
| N observations | 1194 | | 1194 | | 1194 | | 1194 | | 1194 | | 1194 | |

The dependent variable is the channel by which a job was found, distinguishing (i) formal search methods (ref. category), (ii) work contacts; (iii) communal contacts. ** p<0.01, * p<.05, + p<.10

Socio-demographic characteristics come in bundles and render the interpretation of single marginal effects somewhat academic. Therefore, we calculate the predicted probabilities of finding a job through different hiring channels for a Swiss man, letting his age, wage, education and class vary.[4] Figures 3a to 3d show the predicted probabilities for finding a job through work-related and communal ties. Together with the jobs found through formal means (the residual category which is not shown in these figures), these percentages add up to 100%.

We first compute the predicted probabilities for a Swiss man with a vocational degree (the largest education group) and let his age vary. Figure 3a show a U-shaped age pattern for the use of communal contacts. Young and, above all, older jobseekers disproportionately use them, whereas workers in their prime seem less dependent on family, friends and acquaintances for job access. The opposite pattern applies to work contacts which take on an inverted U-shape: in the age group 30 to 54, the share of jobseekers benefitting from a work-related tie to find a job is almost twice as large as among young labor market entrants (15-24) and jobseekers slowly approaching retirement (55-64).

We then compute the predicted probabilities for a Swiss man aged 30 to 39 (the largest age group in our sample) to use a work-related or communal tie by varying his pre-unemployment wage (figure 3b), education (figure 3c) and social class (figure 3d). The probability of a Swiss man aged 30-39 finding a job through a work contact increases linearly with a rising wage. In the two lowest wage categories, only 15% returned to a job thanks to a work tie. In the highest wage category, this proportion doubles to 30%. The opposite scenario applies to communal ties: 25 to 26 percent among low-earning Swiss men aged 30-39 used family, friends or acquaintances to find a job as compared to only 15 percent among those with high earnings.

We observe a similar pattern for education and class. Swiss men aged 30-39 with low education found more often a job through communal contacts (29%) than through work contacts (21%). On the opposite, Swiss men aged 30-39 with a university degree were much less likely to use communal ties (15%) and more prone to rely on work ties (26%). Similarly, jobseekers of the upper-middle class resort more frequently to a work-related than a communal contact (25% and 12% respectively), whereas their counterparts in the low-skilled working class prefer communal over work ties (25% and 22% respectively).
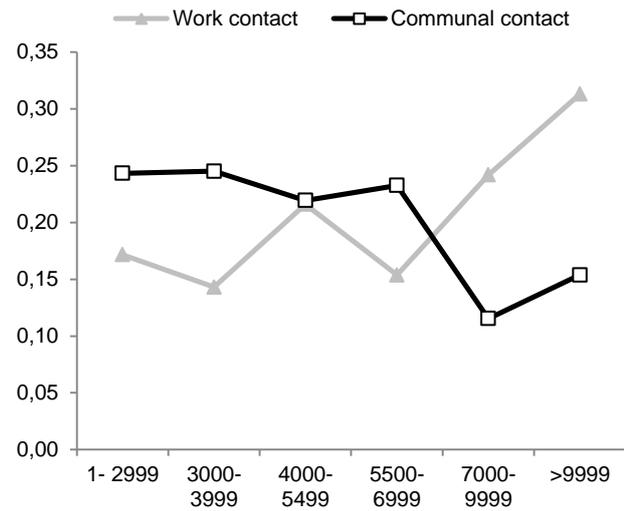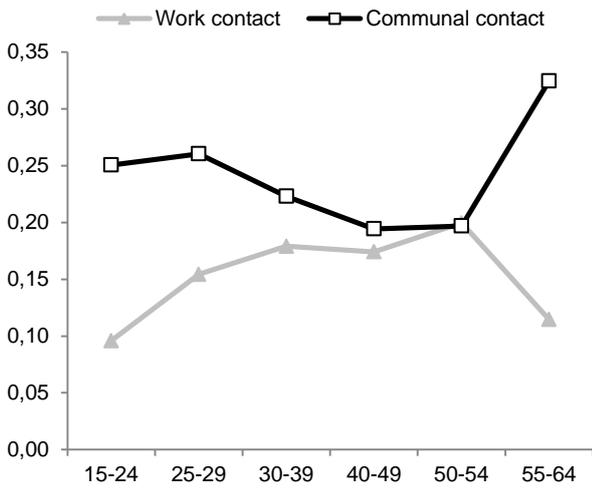
*Figure 2a: by age (Swiss man with vocational education)*

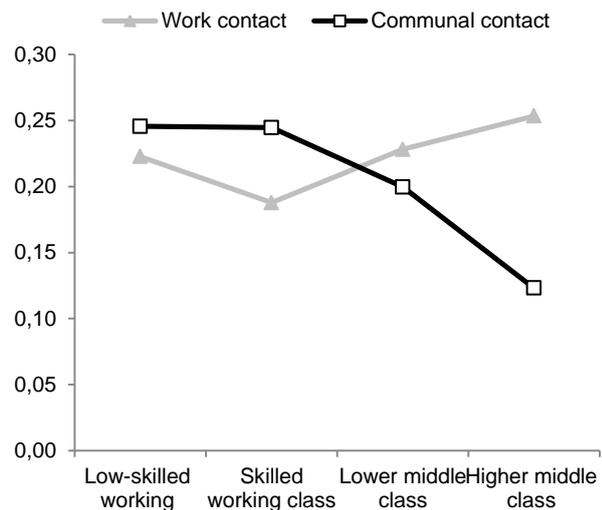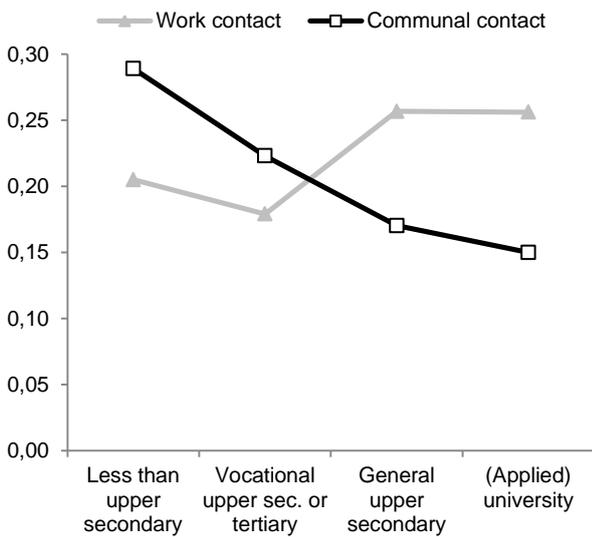*Figure 2b: by pre-unemployment monthly wage (Swiss man aged 30-39)*



*Figure 2c: by education (Swiss man aged 30-39)*

*Figure 2d: by social class (Swiss man aged 30-39)*

*Figure 2: Predicted probability for a Swiss man to have found a job through either a work-related contact or a communal contact (in %)*

Note:
Predicted probabilities are based on a multinomial regression with the dependent variable "mean through which the unemployed have found a job" (1=formal mean, 2=work contact, 3=communal contact). These analyses only include those individuals who found a job. The results of finding a job through a formal mean are not shown, but note that the probability of finding a job through a (1) formal mean, (2) work contact and (3) communal contact add up to 1 (100%).
N = 1195 (age, education, class), N = 1120 (pre-unemployment wage)

## 7. Results on the quality of jobs found through informal contacts

Our results are consistent with the hypothesis that highly educated jobseekers, notably professionals and managers, disproportionately find their jobs through work-related contacts, whereas low educated jobseekers in the working class more often resort to communal contacts. This leads us to the issue of how job quality varies depending on the hiring channel.

We compute in table 3 the mean unemployment duration, mean post-unemployment wage and mean wage change for the three recruitment channels. Mean unemployment duration is longest for jobseekers having used communal ties (28.9 weeks or 6.7 months) and shortest for jobseekers having relied on work-related ties (25.4 weeks or 5.9 months). Formal search methods are associated with intermediary unemployment duration of 26.1 weeks.

We find the same rank-order when looking at the monthly post-unemployment wage. Jobseekers who used their work contacts earn a significantly higher wage than those having used formal methods and, above all, those having learnt about their job through a communal contact. The differences are not trivial: Jobs found through work ties are associated with a wage that is 22% higher than jobs accessed through formal methods and 32% higher than jobs found through communal ties. However, this wage gap should not be interpreted as being caused by the hiring channel: If workers in management and the professions disproportionately learn about their jobs from work contacts (as figures 3b to 3d strongly suggest), it is the skill requirements of their jobs – and not the hiring channel – which explain their higher wages.

Accordingly, it is more interesting to look at a within-person measure, namely how an individual's post-unemployment wage differs relative to his or her pre-unemployment wage. This indicator suggests that work contacts lead to a wage loss of 247 CHF, which is not significantly different from the wage loss of 174 CHF associated with finding a job through formal means or the wage loss of 305 CHF associated with communal contacts. This suggests that jobseekers who used a communal tie to find employment were earning less than those who accessed a job through a work tie or a formal search method *to begin with*. However, when comparing individual's wage evolution over time, we realize that they did not lose out from having learnt about their job from family, friends or acquaintances relative to unemployed workers who found a job through a work contact or a formal recruitment channel. Here, the longitudinal nature of our data shows us that we cannot causally interpret the cross-sectional correlation between hiring channel and post-hiring earnings.

*Table 3: mean unemployment duration and mean wages by the way of how the job was found*

|  | Unemployment duration (in weeks) | Post-unemployment wage (in Swiss Francs) | Difference between post- and pre-unemployment wage (in Swiss Francs) | Change between post- and pre-unemployment wage (in %) |
|---|---|---|---|---|
| Formal means | 26.1 | 4963 | -174 | -3.1% |
| Work contact | 25.4 | **6064 | -247 | -3.6% |
| Communal contact | *28.9 | **4599 | -306 | -5.6% |
| *All* | *26.7* | *5101* | *-220* | *-3.8%* |
| *N* | *1213* | *751* | *615* | *615* |

Note: unemployment duration is right-censored at 17.9 weeks. We only take into account pre- and post-unemployment wages of 2000 CHF or more.

The asterisk show the statistical significance of the difference in the means between the jobseekers using a given method and the jobseekers not using that method (two sample t-tests: difference significant at ** p<0.01, * p<.05, + p<.10).

We proceed to a more systematic analysis of the effect the hiring channel has on job quality by estimating a multivariate model on unemployment duration. Since our duration data are right-censored at 73.9 weeks, we use a Tobit censored regression (Ashenfelter et al. 2005: 69). We then estimate OLS regressions on the post-unemployment wage and, more importantly, the wage change over time. For all three models, we first include only the hiring channel and then add controls for sex, age, age squared, nationality, education and class to a second regression.

The results are shown in table 4 and suggest that communal contacts are associated with significantly longer unemployment duration than both formal methods and work contacts. Once we include socio-demographic controls into the model, communal contacts are associated with an unemployment spell lasting 2.5 weeks longer than for jobs found through formal methods and 4 weeks longer than for jobs found through work contacts. This result is consistent with the idea that jobseekers resort to family, friends and acquaintances once other job search methods fail to provide employment. In comparison, the coefficient for jobs accessed through work contacts suggests that using work ties is associated with shorter unemployment spells relative to formal search methods. However, this difference is small (1.4 weeks) and not statistically significant.

With respect to wages, our results suggest that a job accessed through a work contact pays about 20% more than a job accessed through a formal hiring channel. Once we account for jobseekers' differences

in sex, age, nationality, education and class, this difference is more than halved and falls to 8%. The coefficient for communal contacts is negative and suggests that primarily low-paid jobs are filled through word-of-mouth from family, friends and acquaintances.

*Table 4: OLS coefficients for the effect of how the job was found on unemployment duration and wages*

|  | Unemployment duration in weeks (tobit coefficients) | | Log of post-unemployment wage (OLS coefficients) | | Difference between post- and pre-unemployment wage in CHF (OLS coefficients) | |
|---|---|---|---|---|---|---|
| *Controls* | *No* | *Yes* | *No* | *Yes* | *No* | *Yes* |
| Formal means (ref.) | | | | | | |
| Work contact | -.94 | -1.71 | .20** | .08 | -80 | -119 |
|  | (1.70) | (1.72) | (.07) | (.06) | (200) | (200) |
| Communal contact | 2.61+ | 2.63+ | -.14* | -.04 | -143 | -131 |
|  | (1.45) | (1.48) | (.07) | (.06) | (197) | (197) |
| adj. R2 | .0004 | .0081 | .019 | .286 | -.002 | .034 |
| N | 1194 | 1194 | 718 | 718 | 611 | 611 |

Controls for sex, age, age squared, nationality, education and class. In the model of the post-unemployment wage, we additionally control for usual working hours.

R2 refers to pseudo R for tobit regression and adjusted R2 for OLS regression.

** $p < 0.01$, * $p < .05$, + $p < .10$

The analysis of the hiring channel on the post-unemployment wage is plagued by reverse causality because a job's pay level affects the choice of hiring channel. Accordingly, we focus on within-person wage change over time in the last column of table 4. The regressions on this measure suggest that using a work-related or communal tie to find a job does not lead to a more favorable wage evolution than using a formal search method. On the contrary, the coefficients for work-related and communal contacts are negative and suggest a wage penalty. However, as the effects are small and the standard errors large, we interpret this result as showing *no significant difference* between hiring channel in terms of wage change.

This finding suggests that communal contacts are associated with longer unemployment duration, but do not entail a wage penalty compared to using either a work contact or a formal channel. This implies

that although jobs for less educated workers in the working classes are often passed on through communal contacts, these same low educated jobseekers would not have fared better in terms of wages if they had accessed a job through a work contact or a formal method.

## 8. Conclusion

This paper examined two questions: Who finds a job through an informal contact and how does the use of an informal hiring channel affect job quality? The objective has been to determine whether informal contacts primarily benefit middle-class jobseekers and thus increase social inequality, or, on the contrary, whether they are of greater relevance for the low-skilled working class and thus decrease social inequality. Taking advantage of a large inflow sample of unemployed jobseekers, our analysis produces three main findings.

First, there are few socio-demographic differences between jobseekers who find their job through informal contacts and jobseekers who find their job through a formal search method. Low-educated workers and immigrants are more likely to use an informal contact to secure employment, whereas members of the upper-middle class more frequently pass through formal hiring channels. Despite lower amounts of social capital, disadvantaged groups of jobseekers thus tend to rely to a greater extent on their social network than more privileged social categories. Concerning job access, the use of informal contacts *per se* does not seem to aggravate social inequality.

Second, the distinction between formal and informal contacts is too simple as it hides large variance among informal contacts, between work-related and communal ties. Work-related contacts are disproportionately used by jobseekers with the most favorable employment prospects: male mid-aged university-trained high-earners. Opposite to this, communal contacts primarily serve jobseekers with weaker employability, notably South European immigrants with only mandatory schooling who were formerly employed in a working class occupation. Communal ties seem particularly instrumental for labor market entrants and, even more so, jobseekers older than 55. These findings are consistent with the hypothesis that work contacts are the upper-grade hiring channel and disproportionately benefit dominant social groups, whereas communal contacts – family, friends and acquaintances – provide the lower-grade hiring channel more often used by low-educated working class incumbents. Once we disaggregate work-related from communal ties, the use of informal contacts in the labor market reinforces social inequality.

Third, the hiring channel is associated with differences in unemployment duration. For a given sex, age, nationality, education and class, the use of a work contact goes along with a four weeks shorter unemployment spell relative to using a communal contact. Work-related ties thus seem to pay off in terms of one additional monthly wage. However, compared to formal search methods, work-related or communal contacts are not associated with a higher wage relative to the pre-unemployment wage. Contrary to our expectation, there is no wage premium associated with finding a job through work contacts.

In sum, our analysis provides ambiguous evidence on the hypothesis that informal contacts increase inequality in the labor market. On the one hand, with respect to job access, informal contacts appear to be of greater benefit to low-educated jobseekers than to those in the upper-middle class. Accordingly, the widespread practice of recruiting workers through word-of-mouth does not in itself increase social inequality. On the other hand, the most instrumental informal contacts – work colleagues and occupational acquaintances – are used disproportionally by jobseekers with higher education and set in favorable class positions, whereas less qualified jobseekers rely more on family, friends and acquaintances. While this disparity has no influence on the evolution of wages, it extends the unemployment spell for those using communal contacts. The distinction between work-related and communal contacts thus suggests that the use of informal ties reproduces initial inequality in the labor market.

---

[1] Respondents had to choose among these categories in the same question – and therefore decided themselves whether someone was first and foremost a work colleague or a friend, an occupational acquaintance or a neighbour.

[2] It makes no sense to distinguish - in our population of unemployed workers – an upper class from the upper middle class. We coded occupations based on the Swiss Standard Classification of Occupations 2000 at the 5-digit levels. The Stata syntax used for coding is available from the authors.

[3] Jobseekers in the oldest age category 55-64 are significantly more likely – by 13 percentage points – to have found their job through a communal contact than jobseekers aged 30-54 (AME of 0.13, significant at $p<0.05$).

[4] We also calculated the predicted probabilities for women. Results are qualitatively very similar and available from the authors.

# References

Ashenfelter, O., Ashmore, D. and Deschênes, O. (2005). Do unemployment recipients actively seek work? Evidence from randomized trials in four U.S. States. *Journal of Econometrics* 125: 53-75.

Bentolila, S. Michelacci, C. and Suarez, J. (2010). Social Contacts and Occupational Choice. *Economica, 77*, 20–45.

Bessy, C. and Marchal, E. (2009). Le rôle des réseaux et du marché dans les recrutements. Enquête auprès des entreprises. *Revue Française de Socio-Économie 3,* 121-146.

Bonoli, G. and Hinrichs, K. (2012). Statistical discrimination and employers' recruitment practices for low-skilled workers. *European Societies 14(3)*, 338-361.

Bourdieu, P. (1979). *La distinction. Critique sociale du jugement.* Paris: Editions de Minuit.

Boxman, E., De Graaf, P. and Flap, H. (1991). The Impact of Social and Human Capital on the Income Attainment of Dutch Managers. *Social Networks 13(1),* 51-73.

Brandt, M. (2006). Soziale Kontakte als Weg aus der Erwerbslosigkeit. *Kölner Zeitschrift für Soziologie und Sozialpsychologie 58(3)*, 468–488.

Bramoullé, Y. and Saint-Paul, G. (2010). Social networks and labor market transitions. *Labor Economics 17,* 188–195.

Bridges, W. P. and Villemez, W. J. (1986). Informal Hiring and Income in the Labor Market, *American Sociological Review* 51*,* 574-582.

Bureau, M.-C. and Marchal, E. (2009). Incertitudes et mediations au Coeur du marché du travail. *Revue française de sociologie* 50(3): 573-598.

Chua, V. (2011). Social Networks and Labour Market Outcomes in a Meritocracy. *Social Networks* 33(1): 1-11.

Corcoran, M., Datcher, L. and Duncan, G. J. (1980). Most workers find jobs through word of mouth. *Monthly Labor Review* 103 (8), 33-35.

De Graaf, N.D. and Flap, H.D. (1988). "With a little help from my friends". Social resources as an explanation of occupational status and income in the Netherlands, the United States and West Germany. *Social Forces, 67*, 453-472.

Erickson, B. H. (2001). Good networks and good jobs. The value of social capital to employers and

employees. In Lin, N., Cook, K. S. and Burt, R. S. (eds), *Social Capital: Theory and Research* (pp. 127-58), Berlin: Aldine de Gruyter.

Falcón, L. M. (1995). Social Networks and Employment for Latinos, Blacks, and Whites, *New England Journal of Public Policy 11 (1),* 17-28.

Fernández, R. M., Castilla, E.,and Moore, P. (2000). Social Capital at Work: Networks and Employment at a Phone Center. *American Journal of Sociology* 105 (5), 1288–1356.

Forsé, M. (2001). Rôle spécifique et croissance du capital social, *Revue de l'OFCE, 76(1),* 189-216.

Franzen, A and Hangartner, D. (2006). Social networks and labor market outcomes: The non-monetary benefits of social capital. *European Sociological Review 22 (4),* 353-368.

Godechot, O. (2014) "Getting a Job in Finance. The role of collaboration ties". *European Journal of Sociology* 55 (1): 25-56.

Granovetter (1973). The Strength of Weak Ties. *American Journal of Sociology 78(6)*, 1360-1380.

Granovetter, M.S. (1974), *Getting a Job*, Cambridge, MA: Harvard University Press.

Granovetter, M. (1995). Afterword: Reconsiderations and a new agenda, pp. 139-182, in: *Getting a job: a study of contacts and careers.* 2nd edition.

Harsløf, I. (2006). The Impact of Welfare and Labor Market Institutions on Informal Recruitment in European Youth Labor Markets, *European Societies 8 (4)*, 555-576.

Holzer, H. J. (1987). Job Search by Employed and Unemployed Youth, *Industrial and Labor Relations Review* 40(4), 601-611

Holzer, H. J. (1988). Search Method Use by Unemployed Youth. *Journal of Labor Economics,* 6, 1–20

Korpi, T. (2001). Good Friends in Bad Times? Social Networks and Job Search among the Unemployed. *Acta Sociologica 44*, 159-169.

Larsen, C. (2008), Networks versus economic incentives, *CCWS Working paper N°2008-59,* Aalborg University

Loury, L. D. (2006). Some Contacts Are More Equal than Others: Informal Networks, Job Tenure, and Wages. *Journal of Labor Economics* 24(2), 299-318.

Marchal, E. and Rieucau, G. (2010). *Le recrutement.* Paris: la Découverte.

Marsden, P. V. and Gorman, E. H. (2001), Social Networks, Job Changes, and Recruitment. In Berg, I. and Kalleberg, A. (eds), *Sourcebook of Labor Markets: Evolving Structures and Processes.* New York: Kluwer Academic/Plenum Publishers. 467-502.

Marsden, P. V. (2001). Interpersonal Ties, Social Capital, and Employer Staffing Practicies. In Lin, N., Cook, K. S. and Burt, R. S. (eds), *Social Capital. Theory and Research.* (pp. 85-104). New York: Aldine de Gruyter.

McDonald, S. (2011). What You Know or Who You Know? Occupation-specific work experience and job matching through social networks. *Social Science Research, 40*, 1664–1675.

McDonald, S. and Day, J. (2010). Race, Gender, and the Invisible Hand of Social Capital, *Sociology Compass* 4 (7), 532–543.

McDonald, S. and Elder, G. H. (2006). When Does Social Capital Matter? Non-Searching For Jobs Across the Life Course. *Social Forces 85(1),* 521-549.

McDonald, S. and Mair, C. A. (2010). Social Capital and the Life Course: Age and Gendered Patterns of Network Resources. *Sociological Forum* 25(2), 335-359.

McPherson, M., Smith-Lovin, L. and Cook, J. M. (2001). Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology, 27*, 415–44.

Mouw, T. (2002). Racial Differences in the Effects of Job Contacts: Conflicting Evidence from Cross-Sectional and Longitudinal Data. *Social Science Research, 31 (4),* 511-538.

Mouw T. (2003). Social capital and finding a job: do contacts matter? *American Sociological Review 68,* 868–98.

Mouw, T. (2006). Estimating the Causal Effect of Social Capital: A Review of Recent Research. *Annual Review of Sociology 32,* 79-102.

Pellizzari, M. (2010). Do Friends and Relatives Really Help in Getting a Good Job? *Industrial and Labor Relations Review* 63(3), 494-510.

Petersen, T., Saporta, I. and Seidel, M.-D. L. (2000). Offering a Job: Meritocracy and Social Networks. *American Journal of Sociology 106 (3)*, 763-816

Simon, C. J. and Warner, J. T. (1992). The effect of old boy networks on job match quality, earnings and tenure, *Journal of Labor Economics 10,* 306-330.

Sylos-Labini, M. (2004): Social networks and wages: It is all about connections! LEM Working Paper Series, 2004/10.
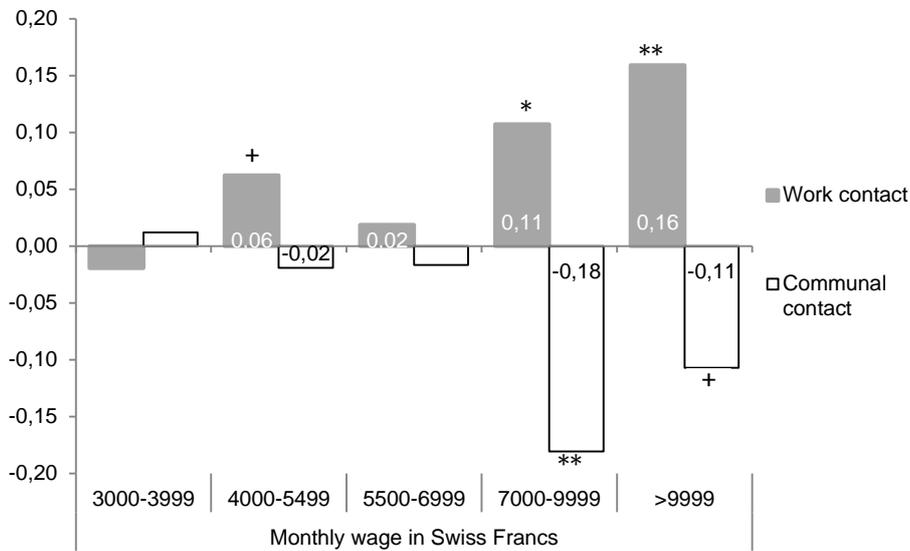
**Appendix**



*Figure A.1: finding a job through a work-related or communal contact for wage categories – average marginal effects relative to the reference category of low earners (1-2999 CHF)*

N=1126

Note: results show the average marginal effects (AME) of finding a job through a work-related or communal contact relative to the reference category of finding a job through a formal hiring channel. Wage categories are based on pre-unemployment monthly wages.

** p<0.01, * p<.05, + p<.10