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Finding a Job Through Social Ties. A Survey Study on Unemployed Job Seekers

Von Ow Anna Lydia

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FACULTÉ DES SCIENCES SOCIALES ET POLITIQUES

INSTITUT DES SCIENCES SOCIALES

Finding a Job Through Social Ties. A Survey Study on Unemployed Job Seekers.

THÈSE DE DOCTORAT

présentée à la

Faculté des sciences sociales et politiques de l'Université de Lausanne

pour l'obtention du grade de

Docteure

par

Anna Lydia von Ow

Directeur de thèse Prof. Dr. Daniel Oesch

Dr. Felix Bühlmann, Professeur à l'Université de Lausanne Dr. Giuliano Bonoli, Professeur à l'Université de Lausanne Dr. Christine A. Mair, Professeure à la University of Maryland, Baltimore Dr. Géraldine Rieucau, Maître de Conférences à l'Université Paris 8

Dr. Nicky Le Feuvre, Professeure à l'Université de Lausanne et Vice-doyenne de la Faculté des Sciences Sociales et Politiques

LAUSANNE (2016)



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IMPRIMATUR

Le Conseil de la Faculté des sciences sociales et politiques de l'Université de Lausanne, sur proposition d'un jury formé des professeurs

- Daniel OESCH, directeur de thèse, Professeur à l'Université de Lausanne
- Felix BÜHLMANN, Professeur à l'Université de Lausanne
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- Christine A. MAIR, Professeure à la University of Maryland Baltimore County
- Géraldine RIEUCAU, Maître de Conférences à l'Université Paris 8

autorise, sans se prononcer sur les opinions du candidat, l'impression de la thèse de Madame Anna Lydia VON OW, intitulée :

« Finding a job through social ties. A survey study on unemployed job seekers »

Lausanne, le 11 octobre 2016

Le Doven de la Faculté Professeur

Jean-Philippe Leresche

Summary

This study investigates how unemployed job seekers find employment, how long they take and if their wages change compared to pre-unemployment. We focus on the role of former co-workers and other occupational acquaintances, family, friends and other members of personal networks for finding a job. We explore more particularly the situation when employment was found through first job information from a network member.

To answer our research questions, we run a large-scale survey on a three-month entry cohort of people registering as unemployed in the largest canton in Western Switzerland. At the beginning of their unemployment, these job seekers were surveyed on their social network and their job-search strategies. Once they left unemployment, they informed us of their job-search behavior, if and how they had found a job, and what kind of job. This multi-mode survey was combined with register data.

We show that it is crucial to distinguish between network members who share occupational characteristics (work ties) and network members who do not (communal ties) (Bridges & Villemez 1986, Granovetter 1974). Work ties tend to provide job information that matches job seekers and job characteristics, whereas communal ties often provide less accurate information. Match quality is assumed to be related to getting and accepting a job offer, the time this takes and how well the job is paid.

Different kinds of resources are built up over time and within social contexts. These resources are to a certain degree convertible, and they are interrelated (Bourdieu 1986). Therefore, in the case of lower cultural capital (formal education and work experience recognized by employers) we also often find lower social capital (network members and their resources helpful for finding employment). Moreover, we observe job seekers differ in their capacity to recognize labor-market logics, in terms of recognizing the value of their social resources as capital (Savage et al. 2005), and mobilizing them to find a job. This can be understood if job search is seen as a process (Lin 1999 and Lai et al. 1998). We acknowledge this by distinguishing four components: i) social resources available (network resources), ii) activation iii) mobilization iv) the kind of tie that led to employment (contact's resources).

We observe that the group of job seekers finding employment via work ties is more heterogeneous in their capital endowment than expected. Recruitment practices may play an important role, as well as a job seeker recognizing his or her occupational resources as capital and thus activating them. Job access via work ties goes along with shorter unemployment duration for all job seekers and often prevents wage losses. However, different job access channels serve different age groups: younger job seekers are best off finding employment via non-network means, whereas older job seekers are best off finding employment via work ties. Job seekers with lower capital endowment are more likely to find a job via communal ties, which in their case is related to longer unemployment duration and lower wages and seems to be a job access channel of last resort. This leads to a situation where pre-unemployment inequalities in the labor market participation tend to be re-produced or even re-enforced after unemployment.

Résumé

Cette étude investigue comment les chômeurs trouvent du travail, combien de temps cela leur prend et si leurs salaires changent en comparaison des salaires qu'ils avaient avant leur période de chômage. Nous nous focalisons sur le rôle joué par les anciens collègues et autres contacts professionnels, la famille, les amis et d'autres connaissances. Plus précisément, nous analysons la situation dans laquelle un emploi est trouvé grâce à la première information sur un poste fournie par un membre du réseau du chômeur.

Pour répondre à nos questions de recherche, nous avons mené une grande enquête auprès d'une cohorte de tous les demandeurs d'emploi qui se sont inscrits au chômage auprès du service de l'emploi dans une période de trois mois, et ceci dans le plus grand canton de Suisse occidentale. Tout au début du chômage, nous avons interrogé ces personnes sur leur réseau social ainsi que les démarches qu'elles prévoyaient d'effectuer en vue de retrouver du travail. Après qu'elles aient quitté le service de l'emploi, nous les avons interrogées sur les démarches qu'elles avaient effectuées pour retrouver du travail, si elles avaient trouvé un emploi, si oui par quel biais et de quel type d'emploi il s'agissait. Finalement, nous avons pu combiner les données des deux enquêtes que nous avons réalisées avec des données administratives.

Nous montrons qu'il est crucial de distinguer entre les membres du réseau qui partagent des critères professionnels avec le chercheur d'emploi (liens professionnels) et ceux qui ne partagent aucun critère professionnel (liens communaux) (Bridges & Villemez 1986, Granovetter 1974). Ces premiers sont susceptibles de partager des informations choisies judicieusement, où les caractéristiques du poste vacant correspondent bien aux caractéristiques du chômeur, ce qui n'est le cas que plus rarement lorsque l'information est transmise par un lien non-professionnel. En effet, nous postulons que la probabilité de se voir offre un poste, de l'accepter, le temps que le processus prendra ainsi que le salaire correspondant dépendent tous de la qualité de la correspondance entre les caractéristiques du poste vacant et les caractéristiques du chômeur.

Différentes ressources sont accumulées dans le temps et dans des contextes sociaux, qui sont dans une certaine mesure convertibles et interdépendantes (Bourdieu 1986). C'est pourquoi on retrouve souvent qu'une personne désavantagée dans son capital culturel (dans ce contexte : éducation et expérience de travail reconnu par l'employeur) l'est également dans son capital social (membres du réseau et leurs ressources utiles pour trouver un emploi). Parallèlement, ces chômeurs avec moins de ressources reconnues sur le marché du travail dépendent souvent davantage de leurs ressources sociales. De plus, il existe des différences dans la capacité de reconnaître les différentes logiques du marché de travail, par exemple en reconnaissant quelles sont les ressources sociales dont ils disposent pouvant aider à trouver un travail et donc à savoir mobiliser ces ressources pour les recherches d'emploi (Savage et al. 2005). Pour considérer cet aspect, les recherches d'emploi sont vues comme un processus (Lin 1999, Lai et al. 1998), ce que nous distinguons dans cette étude par ces quatre éléments : i) les ressources sociales disponibles, ii) activation de celles-ci, iii) mobilisation de celles-ci, et iv) le type de contact qui a fourni la première information sur le poste retrouvé (ressource du contact).

Le groupe de personnes qui trouve un emploi par des liens professionnels est plus hétérogène dans ses différentes sortes de ressources disponible qu'attendu. Les pratiques de recrutement semblent jouer un rôle important, tout comme la capacité de reconnaître ses ressources sociales en tant que capital et le fait de les activer en conséquence. Trouver du travail par des liens professionnels prend moins de temps pour l'ensemble des chercheurs d'emploi et semble préserver des pertes de salaires importantes. En revanche, nous trouvons que les différents biais utilisés pour trouver un emploi servent des chercheurs d'emploi appartenant à différents groupes d'âges : les biais qui ne sont pas lié aux réseaux, comme par exemple répondre à une annonce de poste publié dans la presse, servent davantage les jeunes alors que les liens professionnels servent davantage les plus âgés. Les chercheurs d'emploi avec moins de capital pour trouver un emploi se retrouvent plus souvent à trouver un emploi par un lien non-professionnel qui semble servir comme dernière alternative, ce qui est souvent combiné avec des durées de chômage plus longues et des salaires diminués en comparaison des salaires avant le chômage. Ces enjeux mènent à une situation où les personnes déjà défavorisées avant le chômage ont moins de ressources pour trouver un emploi, elles nécessitent plus du temps pour ceci et trouvent souvent un emploi moins bien payé qu'avant. Nous observons donc que les inégalités dans la participation au marché du travail existantes avant la période de chômage ont tendance à se reproduire, voire à se renforcer, après une période de chômage.

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Introduction

"The best way to find work for me historically has been colleagues, agencies, and the Internet. All the solid leads I had *this time* were from (ex-)colleagues. People in the same business have their ear to the ground, know others in the same business."

(anonymous unemployed job seeker, respondent to survey on job access via network conducted among 4,600 unemployed in Switzerland, italicized by author)

This quotation sketches most adequately the interest of the study presented here: what is the role of former co-workers and other occupational contacts, of friends, family, and acquaintances, for finding a job when unemployed? What defines the unemployed job seekers who find a job via one of their network members and how are duration of spell and wages related to such a job access?

Theoretically, we refer to a capital approach as introduced by Bourdieu (1986), and further developed by Lin et al. (2001) to study the role of social capital for job outcomes. We combine this with some concepts of a life-course perspective particularly focusing on the upand down-building of resources in the occupational trajectory, which is marked by a phase of unemployment. In this context, the distinction between mechanisms leading to advantages and mechanisms leading to disadvantages outlined as cumulative inequality by Ferraro et al. (2009) is of particular importance.

The opening quotation emphasizes the importance of a particular kind of network members, namely contacts in the same firm, occupation or industry, as has also been shown by previous research (such as Chauvac 2011, Marin 2013, McDonald 2011, Larsen 2008, Rieucau and Solognon 2013). And it tells us why this is the case: these contacts "have their ear to the ground." In contrast to the unemployed person who temporarily lacks the work context, these contacts have access to job information, which is most likely to match the job

seeker's skill profile. At the same time, they are most competent and viable in sharing information not only with the job seeker, but also with the employer. The information function is the most important step in job access in the first place that is why this study puts its focus on this. Being better informed increases for the job seeker the chance of applying for jobs with an increased match to the skill profile and for the employer to invite candidates with a better corresponding profile, this should result for the job seeker in more and better job offers, which should increase chances to find a job, of finding it faster and getting better job offers, thus, potentially a better wage than when non-work related contacts are involved in job search. This points to two further questions, which this study aims to answer: does getting job information from a network member, and more particularly from a work tie, affect unemployment duration and wages?

By focusing on the distinction between work and non-work ties, which we call, following Granovetter's (1994/1974) early work, *communal ties*, we deviate from a whole body of literature based on the distinction between strong and weak ties introduced by Granovetter in his famous article "The Strength of Weak Ties" (1973). While strong ties are contacts seen frequently, and relationships with high intimacy, weak ties have infrequent interaction and low intimacy. Most research on the role of network for job search looks at employed job search and deals with specific occupations (e.g. Granovetter 1974), or is a single-firm study (e.g. Fernandez and Castilla 2001). There are few studies conducted on unemployed job search (e.g. Brandt 2006, Holzer 1988), and even fewer that dare to question the adequacy of the distinction between strong and weak ties for this group of job seekers (e.g. Korpi 2001) and suggest instead distinguishing work tie from communal tie (Larsen 2008). Bridges and Villemez (1986) argue that the distinction between work ties and communal ties leads to more robust results when including men and women in the analyses.

Many studies look at job access via network in general or focus only on work-tie or only on communal-tie job access without allowing for a comparison with the respective alternative (e.g. Bentolila and al. 2008). Also many scholars work with very specific samples, looking for example only at labor market entry (Bentolila et al. 2008), or focusing on male job seekers in mid-careers (Sprengers et al. 1988). This leads us to a third question, which we wish to approach by this study: who gets job information from network members, and more particularly from work ties, and who from communal ties, that result in job leads?

Not all unemployed people may have work contacts in their network. Such work contacts may not be available, especially for workers who are at the beginning of their occupational

career (McDonald and Mair 2010), or have joined the regional labor market only recently, and for job seekers who have been out of employment for a longer time (Larsen 2008). At the same time, non-network job access (such as via job advertisement in the press or online, spontaneous application, or via professional job placement agency) may become more and more difficult with the length of time since formal credentials were acquired (thus usually with increasing age) or with the length of time since the last work experience was attained (thus with increasing unemployment duration). Another quotation from a respondent to our survey illustrates the believe that finding a job thanks to job information from network members (work or communal ties) or non-network means is not equally widespread among different groups of job seekers, but may vary for example by age, nationality or education: *"I think the only way to find a job again when you are over 40 is to have well-placed acquaintances (friends) to hire you or to recommend you. Everything else is no more than an illusion"*¹.

The reasons for this may be manifold. Some interpretations are the following: employers are unsure how to evaluate the actual level of skills of a job seeker who has no recent or no recognized formal qualifications. Or employers have difficulty in interpreting the job skills acquired through long tenures in the same firm, because they are not able to judge how transferable they are to the new job. Another interpretation could be that they are suspicious when interpreting a period without work, especially when it lasts longer (Bonoli 2012). Thus, they may want to get additional information from a trustworthy intermediary, which, depending on the network composition, may be rather family and friends than a work contact. The latter can result in a lower match, or in pressure on income in order to compensate for the uncertainty of the employer (Couch and Placzek 2010).

This shows what has been observed since the establishment of the standard work contract during industrialization – unemployment is considered a non-standard event, "outside the norms" (Demazière 2006: 9). The present study is not designed to find out more about norms, but understands unemployment as a critical event and transition within an occupational trajectory, and thereby refers to a life-course perspective. Unemployment is embedded within a trajectory, often preceded by a shorter or longer phase of lower or higher valued employment, and before that various educational tracks. This leads to an unequal amount of labor-market-relevant resources available at the point in time of becoming unemployed. In the

¹ "Je pense que le seul moyen de retrouver du travail à plus de 40 ans est d'avoir des connaissances (des amis) bien placées pour vous engager ou vous parrainer. Le reste n'est qu'illusion"

case of unemployment, constraints are encountered and resources needed such as educational credentials, training, and work experience, by which employers estimate the productivity of a worker. Further, a job seeker may need work contacts helping to find employment by sharing information or recommending him/her. Finally, savings may help to bridge a period of low income. Thinking of these resources needed, we realize that different social fields and time spheres overlap. The unequal positions of individuals and groups within the labor market are thus constituted by the amount of resources, aggregated in different sorts of capitals, which job seekers have at their disposal and which they are able to mobilize for a certain goal such as finding a new job (Bourdieu 1986, Lin 2001b). With a prevalent interest in the relevance of social resources as a factor for leaving unemployment, we refer to the concept of social capital (as understood by Bourdieu 1986 and Lin 1999) and to the relevance of the principle of homophily (e.g. McPherson et al. 2001) to understand the role of social contacts in job search. The latter implies that people who are in contact with one another are more likely to be similar to one another. That means that people with a rather disadvantaged labor market position, who would need somebody in a better position to inform them about their opportunities or to vouch for them when applying for a job, are less likely to have such a person in their network. In contrast, job seekers with advantageous characteristics for labor market access are more likely to have more network members who could help them find a job, and more than that – finding a job in shorter time, and finding a better paying job. The latter outcome has been shown by various studies on position attainment and the relationship between the prestige of the job seeker and the prestige of the contact (De Graaf and Flap 1988, Marsden and Hurlbert 1988).

In order to look at job search itself as a process and to approach a more direct link between resources available and job search outcomes, we distinguish between accessed and mobilized social resources (Lin 1999, Lin 2001a), between a specific contact's and network's resources respectively (Lai et al. 1998). Failure to make this distinction can lead one to falsely assign differences in job search outcomes to differences in network characteristics instead of interpreting the latter as a result of homophily between job seekers and network members (Mouw 2003). The process of activation and mobilization of social contacts by the job seeker has to our knowledge been neglected in most previous studies concerning unemployed job search.

Finally, it is important to consider how jobs are found as a matching process between job seekers and employers, the related practices of specific labor markets and organizations. Therefore, the advantages of job matching processes via social contacts are discussed from an employer's and from a job seeker's perspective. As the quotation at the start of this Introduction suggests, for the same individual different job access channels may be successful in different situations of job search. Further it implicitly suggests that job search is multichanneled as recruitment has been shown to be (Marsden 1994: 979, Bessy and Marchal 2009). Another respondent emphasized the same, he stated: *"Several sources of information and several people helped me into this job"*².

Implications

It is worthwhile to encourage job search via the most important access channels, possibly including network-based job search, and make it more sophisticated. The more so, as previous research has shown that unemployment hurts less the faster it is overcome, and this concerning various aspects: psychological wellbeing (Oesch and Lipps 2013), employment prospects, income losses (Schmieder et al. 2016). Therefore, it is essential to know which are the most promising job access channels right from the start.

"Too many qualified candidates [...] connections needed"³ was the comment made by another respondent to our survey. It translates into a commonly used phrase: "It's not what you know but who you know." This short statement calls into question the idea that the labor market follows a meritocratic logic, according to which, if you work and try hard enough you will find a good job. Still, this belief is widespread in Switzerland and other European countries but also in the US, although around 30 to 40 percent of the jobs in Switzerland and an average of around 45 percent of the jobs in 29 countries participating in the International Social Survey Program are found via a social contacts (Diekmann et al. 1993, ISSP 2001⁴, Baumann and Oesch 2013). The goal of this study, however, is not to argue whether it is right or wrong to access jobs with a little help from friends, parents, former co-workers, or acquaintances, but to access their role for finding a job when unemployed and among different groups of the unemployed. The findings of this study could help job seekers to guide their efforts, and employment service counselors to encourage their clients in their different job search activities.

² "Plusieurs sources d'infos et plusieurs personnes m'ont aidé pour ce poste"

³ "Trop d'offres qualifiées. [...] Piston nécessaire"

⁴ The share in the ISSP 2001 lays at 39 percent (includes close family, enlarged family, close friends and acquaintances). We do however not know about colleagues from work, and former co-workers, and other occupational acquaintances, and we do not have any information on if the person looked for this job while employed or unemployed.

Context, Data, and Methods

This study is conducted in Switzerland, where employment rates are high and unemployment rates are comparatively low. Nevertheless, unemployment has been a major concern to the Swiss population since the Oil crises of the 1970s. In terms of social security Switzerland provides relatively generous unemployment benefits, which are combined with active labor market measures, following the trend observed in other countries too, from welfare to workfare. Public employment services are responsible for counseling and monitoring unemployment allowance recipients.

As in many other European countries the Swiss labor market too has experienced a strong tertiarization over the last decades (Oesch 2006). It is strongly structured by industry- and occupation specific skill requirements, in distinction particularly to the English speaking countries. In consequence, switches between sectors and occupations are usually not done that easily (Murphy 2013), which may be reflected in corresponding recruitment practices and job access strategies.

For the purpose of our study, we developed a tailor-made survey on network use by unemployed job seekers, together with an interdisciplinary research group joining scholars from sociology and economics. Our data was collected with questionnaires in collaboration with the public employment services. It is based on a large inflow sample of all workers who registered with the public employment services between February and April 2012 in the largest French-speaking canton of Switzerland, the Canton of Vaud. While at the beginning of their unemployment the job seekers were answering questions about their network composition and job search strategies at that point in time, they were surveyed a second time when they left the employment services, in order to know whether and, if so, how they had found a job, and what kind of job. Our study is based on exhaustive multi-mode survey information from a large sample of unemployed job seekers, which we combined with administrative data from the unemployment register.

What are the advantages of our survey data? To begin with, very few studies have extensively studied the role of social networks in the job search of the unemployed (exceptions are for example Korpi 2001, Brandt 2006, Holzer 1988, Blau and Robins 1990, Baumann and Oesch 2013). We contribute with new findings to these studies and enlarge the findings on job access via network by analyzing a broad range of occupations and skill levels. Moreover, to our knowledge it is the first Swiss study to analyze job access via work and communal ties and impersonal means. Further, information about the job search process has

been missing in most quantitative studies: it has not previously been possible to analyze together the combination of information about characteristics of activation and mobilization of social resources. To our knowledge, most previous studies did not have information about the different components of the process that led to a specific job (with specific characteristics), but had only information that concerned one of these components. The direct link between job characteristics and job access channel has previously been very uncertain in many studies. Having repeated measurement - two time points - for a broad variety of our variables, and information on (un-) employment history allows us to control for some (usually unobserved) heterogeneity between job seekers. Furthermore, having also administrative data available for the whole inflow sample allows us to have better measures and to discuss different kinds of potential selection bias.

Corresponding to the data we use, our analyses are based on quantitative methods. Logistic regression models are used to identify which groups of job seekers use formal means, work ties or communal ties. Event history techniques are used to analyze how long job seekers need to find a job via formal means, work or communal ties. How much job seekers gain compared to their pre-unemployment incomes is investigated by using linear regression models relying on robust estimation methods, and is validated by using objective *and* subjective wage change measures (for the latter generalized ordinal regression models were used).

Main Findings

We find unemployed job seekers to be heterogeneous in their capital endowment and activation behavior and accordingly in their likelihood of finding jobs via different job search strategies. Job outcomes differ by access channel: while non-network means and work ties lead to more advantageous outcomes, communal ties tend to be disadvantageous, and can be considered to be in most cases an access channel of last resort accompanied by longer unemployment durations and loss in income. However, this differential quality of communal and work ties is not observed for all job seekers, but more so for individuals with potentially more marginalized labor market participation. Moreover, the access channels result in different outcomes by age group: while younger job seekers have faster and financially more rewarding job exits via non-network means, job seekers with potentially advanced careers are best off when finding employment via job information from work ties. We interpret this result as follows: while the young have not yet built up much occupational social capital, their formal credentials are up to date and serve as point of reference to the employers. In contrast, job seekers who have already spent more time in the work context, have built up on-the-job

skills and experience, but also occupational social capital – work ties, which serve the employers as point of reference.

Structure of this study

The remainder of this dissertation is structured as follows: Chapter 1 presents the theoretical framework and debate in the literature. First, we start by looking at job search and recruitment, thus at a job seeker's and an employer's perspective of the job matching process. Second, we discuss different terms related to studying job access via former co-workers, friends, family, and acquaintances: social contacts, social ties, and networks and their measurements. Thereby, we emphasize the distinction between work ties and communal ties. Third, we discuss more in detail the role of social capital in job search. Additionally, we refer to Lin and colleagues who theoretically and empirically convincingly developed the role of social capital for job-search outcomes, and provided the distinction between accessible, mobilized/accessed social capital by emphasizing the procedural character of job search. Fourth, we present empirical studies on job search via network, more particularly via work or communal ties, and their impact on unemployment duration and wages.

After presenting the theoretical background of this study and previous findings, we discuss in Chapter 2 how we apply it to our research. We add some more detail to the procedural view of job search proposed by Lin et al. (2001) by splitting social resources into accessible resources, activated, and mobilized social resources and social capital that led to the job. Based on this theoretical framework we discuss our research questions on (i) who finds a job via network, work ties or communal ties and how the finding employment via first job information from a work tie and communal ties is related to (ii) duration and (iii) wage outcomes. We emphasize the role particularly work ties can play in enhancing a better job match due to having access and sharing more information. On the contrary, communal ties may potentially share less adapted information, which therefore may increase a mismatch. We present our hypotheses on the different determinants of finding a job via network, work tie and communal tie, unemployment duration and post-unemployment wages as compared to pre-unemployment wages. Chapter 3 presents the Swiss context, discusses our data collection and sample characteristics.

Thereafter, our results are presented in three chapters: the first, Chapter 4, starts with looking at general job access chances, then discusses job access via network starting with looking back to the pre-unemployment job, before focusing at the job access channel that led

to the post-unemployment job. Chapter 5 looks at finding a job via work tie, communal tie or non-network means and discusses factors related to finding employment these channels.

Chapter 6 analyzes which factors are related to the length of time it takes to find a job, to find it via network, and via work or communal ties or formal means. After emphasizing again the distinction between work ties and communal ties instead of an analysis of job access via network in general, we question the assumption that work and communal tie users should be a homogeneous group of job seekers.

Chapter 7 presents results on the role of these access channels for wages. We start to look at post-unemployment wages. Then, we take into account the fact that many determinants may rather reflect long-term effects than instantaneous effects on unemployed job search outcomes. We look in the following on 3 measures for wage differences: Absolute wage differences, relative wage differences, and subjective wage differences. We end chapter 6 by comparing the different wage measures with each other. This study concludes with a summary and discussion (Chapter 8).

1. Debate in the Literature

Our interest lies in unemployed job seekers and how they get back into the labor market. We examine the role of their social contacts and their resources in helping them find a job in as short a time as possible and of the best possible quality. We assume that the role of social contacts for job search outcomes is not the same for every job seeker. It depends on the attributes of the job seekers, the characteristics of the social contacts, and the kind of job searched for (e.g. occupation, industry, educational requirements).

Unemployment is embedded within a trajectory, often preceded by a shorter or longer period of lower or higher valued employment and, even earlier, by different educational tracks. This leads to an unequal amount of labor-market relevant resources at the moment of getting unemployed. The resources available during job search influence the possibilities, opportunities and constraints for overcoming unemployment to – again – unequal positions within the labor market. When different kinds of resources become relevant for reaching a certain goal such as finding a job they act as capital. According to Bourdieu (1986) and in line with Savage et al. (2005:31/33), we consider the potential of capital "to accumulate and to be converted to other resources". For example, different kinds of jobs require different levels of education. Thus, resources accumulated in the educational field become relevant for access to positions in the labor market. Other firms look for workers with titles from certain institutions or for people coming from certain organizations with a high reputation. In that case we would talk about symbolic capital at work. When a job is found thanks to the help of former co-workers, friends, family or acquaintances and their resources we talk about social capital.

The role social capital can play is different for groups of job seekers aiming to obtain different kinds of jobs, which are filled in accordance with certain hiring traditions and logics. Depending on how a job seeker recognizes his or her social resources as capital influences for example whether he or she activates his or her network and whether this action is successful – in the sense that the person is able to mobilize network resources, which would mean network members, or at least one network member provides job information that eventually leads to a new employment. This procedural character of job search via social capital had been emphasized by Lin et al. (1999) and Lai et al. (1998) and goes along with the crucial distinction accessed social resources and mobilized social capital. This makes also the distinction between network's and contact's ressources, and their potential impact on job search outcomes, very clear.

Social contacts (can) provide additional information on both sides involved: prospective worker and employer. Increased information on job opportunities, but also on candidates, raises the chances that this information could lead to a better match between job seeker's and job's characteristics, which could result for the job seeker in better chances of getting a job offer and accepting it, in shorter time and go along with increased productivity in case of better matching and thus potentially better conditions, such as higher wages. However, not every social contact is prone to be sufficiently able to judge whether job seeker's and job's characteristics match very well together, but particularly contacts who share with the job seeker labor market related characteristics, such as occupation, industry, professional training (work-related contacts). In contrast, contacts not informed adequately on labor market relevant characteristics may only be considered as job access strategy in case other job access strategies fail.

Discussing the two sides of the hiring process is crucial for a deeper understanding of the labor market and the particular situation of unemployed job seekers. Accordingly, there exist manifold studies on both sides – job candidates and employers – with only partly overlapping results. Previous empirical evidence on hiring mechanisms in firms and on job seekers – employed and unemployed – give important insights into the factors influencing job access channels and their outcomes, but also into the difficulty of drawing generalizable conclusions and dealing with endogeneity.

The first part of this chapter discusses the matching process between employer and employee (1.1). Then, we present the different terms of social contact, social tie and social network (1.2), before we discuss more in more detail the role of social capital, emphasize the role of occupational social capital and the distinction between accessed social resources and mobilized social capital (1.3). Thereafter, we discuss the specific situation of unemployment (1.4). The second part of this first chapter presents findings of the empirical literature (1.5).

1.1 Social Contacts in the Matching Process between Employer and Employee

Sharing Information

Employers try to fill vacancies. Job seekers try to find employment. How are they matched together? First of all, the two have to know about each other. To make that happen both communicate their needs. A job seeker usually uses more than one search channel, likewise, do the employers (Marsden 1994: 979, Bessy and Marchal 2009, Pellizzari 2005). The employer

publishes for example a job add in the press or the Internet, or informs his or her employees about an upcoming vacancy with the instruction to spread the word or presents himself at recruitment fairs. The worker, in order to find job opportunities, needs to know about how job advertising and recruitment is done in the local labor market, in his or her industry and occupation, or in the specific companies he or she is interested in. However, it is not only a matter of knowing where – in the sense of specific websites, mailing lists, events, etc. –, but also of knowing *who* can provide job information. One way to get information about labor-market opportunities is through friends, family, colleagues, and acquaintances. The worker may put his or her CV on-line, contact employers in oral or written form – either as unsolicited application or responding to job ads or to word-of-mouth information. The goal in this search - for both sides - is to get a best possible match between the requirement of the vacancy and the job seeker's profile. This study focuses on how job seekers get first informed about a vacancy – is it via a network member or via other means? What does the literature say?

A distinction is usually made between formal and informal search channels. Formal search channels include, among others, public and private employment agencies, job advertising in the media, and school placement services, whereas informal search channels refer to the use of social contacts. While job search via social contacts is clearly considered as informal, the case of direct application may be less clear (Rieucau 2008: 470, Bessy and Marchal 2007: 12f.), and also a direct contact of an employer offering re-employment may fall out of the dual categorization of formal versus informal.⁵

Success in finding employment via social contacts is influenced – like every other job-search strategy – by both the job seeker and the employer. Both actors are confronted with asymmetrically distributed and incomplete information regarding the other side: while the employer has all the information about his vacancy and his organization, he has only very limited information about the job candidate (Bonoli and Hinrichs 2012: 338f.). The applicant, in contrast, has all the information about him or herself, but only very limited information about the potential job and employer (Larsen and Vesan 2011: 11f.). As intermediaries knowing about both sides, social contacts may provide additional and informal information about the characteristics of both the potential employer and the employee. There are three different functions in which social contacts can act in the allocation process between employer and potential employee: it is the function of information, the function of influence (recommendation) and the function of signal

⁵ A walk-in - per se informal - could be just to hand over a very formalized application dossier (including motivation letter, CV, etc.).

(see e.g. Larsen 2008).⁶ The information function is in the focus of this study, and simply addresses the fact of either being informed or not about a vacancy or about a potential employee.

Employers' Perspective on Job Allocation via Social Contacts

How useful social contacts are also depends on the recruitment strategies of employers for particular positions. The latter has been shown to depend on occupational categories (e.g. Marsden and Campbell 1990, Holzer 1988, Korpi 2001: 164, Rieucau and Salognon 2013: 66). When employers need in-depth information about a job candidate they rely on further information sources such as tests, portfolios or – what interests us in this study – information gathered from social contacts. Contacts can provide information about difficult-to-formalize-attributes of a job candidate, usually summarized under the term "soft skills": components such as social skills, demeanor, punctuality, autonomous work, but also discretion and the like (Marsden 2001: 107f, Pfeffer 1977). The more important these kinds of skills are for a job, the more relevant the personal ties become for the hiring decision.

Looking at the employer's side, social contacts of an individual can be instrumentally used by the hiring organization, when they are mobilized to pursue an organizational goal such as hiring new employees or a selling contract. We can therefore look at the utility of social contacts to achieve certain goals not only as a hiring or job-searching strategy, but also as a job requirement (Erickson 2001: 147f.). This means that employers may not only appropriate the human capital of their employees, but also their social capital (Erickson 2001: 148). And Erickson even asks whether, for many positions, the requirement of human capital is not in fact also a requirement of a certain amount and kind of social capital, which usually goes along with the acquisition of human capital within an educational institution or a firm. She argues that especially work experience is strongly interrelated with the development of valuable contacts within the relevant industry (Erickson 2001: 149).

Hiring is for an employer like an investment under uncertainty. Therefore, "signaling" can become important in labor-market allocation processes (Spence 1973, Rieucau 2008: 473). What makes signals necessary is the degree of formalization needed to preselect candidates – preselection by the employer as well as self-selection by the job seeker – and the need to reduce the number of applicants as early as possible in the recruitment process. Signals consist of easily observable attributes such as educational attainment and job experience. The individuals can

⁶ Another aspect sometimes mentioned in the literature as function is favoritism. However, from our point of view, this treats another analytical dimension than the other three listed.

modify them. Recruitment via contacts could lead to a more diverse set of candidates regarding formal hiring criteria. This could be the case because two factors could become less important: first, the self-selection induced by the formal requirements communicated in a written job ad; secondly, the medium through which the vacancy is announced. Besides "signals," so-called "indices" such as gender or age also come into play in the selection process. These latter criteria, however, are usually not explicitly applied since a screening process relying on such criteria has a discriminatory character (Rieucau 2008: 473).

Another factor, which might influence the decision of an employer to search for in-depth information via social contacts is how high the potential costs of a bad selection are. This is related to factors such as how closely the performance of an employee is related to the performance of the organization, how much internal training is related to the position and how long the job tenure is expected to be. Thus, recruiting via social contacts often take place for higher hierarchy positions (Marsden 2001: 108f.). Addressing social contacts to generate candidates might result in a higher quality pool of applicants.

Because of the additional informal information from social contacts one could expect a better matching between employer and future employee. A richer and more adequate pool of applicants might reduce screening costs. Furthermore, it should decrease turnover rates and go along with a lower need for training after hiring (Freitag 2000: 191). The turnover rates might also be reduced because social integration might be easier, especially when the newcomer already has social contacts within the firm. Hiring via contacts very often involves a company's own employees, which has been shown in particular in the case of recruiting for jobs with lower skill requirements (Larsen, 2008; Bonoli and Hinrichs, 2012, Rieucau and Solognon 2013: 67). This also tends to raise commitment and loyalty, as the interdependence of attachment to the firm between referrals and referrers suggests (Fernandez and Castilla 2001: 87).

The quality of information might vary with the kind of contact used, and with the circumstances in which the referrer is knotted to the referral (Marsden 2001: 120). From an employer's perspective, the most useful connections in referring will probably be those who are best informed on the job-related skills and performance capacities of the applicant. We can expect people to be best able to judge the skills and attributes relevant for their own occupations and skill levels. Therefore, the best referrers might be those social contacts who have or have had a similar position to the vacancy (Laumann 1973, Marsden 2001: 120ff.). Moreover, business and professional contacts from outside the company might be primordially valuable to employers as referrers (Marsden 2001: 119), especially for higher hierarchy jobs. As the number of persons

occupying such a position decreases with rising skills and hierarchical level, it might become more difficult for employers to find referrers for such positions. At the same time, employers might trust more in business or professional ties than family ties between an employee and a job seeker. Family contacts may be interpreted to be less competent in judging the productivity and ability of the job seeker (Marsden 2001: 119f.). Additionally, they may be assumed to act more in the interest of the prospective employee than in the interest of the company.

Recruitment via an organization's social contacts is a cost-saving way of hiring: specialized staffing personnel is not necessarily needed, there is no direct monetary outlay and, depending on how active the recruiting via social contacts is, no or very little managerial time will be used. Recruitment via a firm's own employees done without a bonus system saves the employer almost all recruiting and screening costs (Marsden 2001: 109). Especially for small firms, the use of social contacts as a low-cost recruiting strategy is effective. Employers use informal recruiting with the main goal of reducing search costs and at the same time producing a better job match. This goal remains in good and bad times; thus, the role of the general economic situation might be rather subordinate (Stone et al. 2003).

There are not only direct savings of monetary costs, but also potential opportunity costs emerging from the fact that this kind of recruiting creates a limited pool of applicants. On the one hand, we expect formal hiring criteria to result in a more diverse pool. On the other hand, regarding socio-demographic characteristics, applicants are likely to be more homogeneous in case of hiring via contacts, because of the principle of homophily⁷ observable in networks (Marsden 2001). As a consequence, employers probably ignore eligible candidates from outside of the pool generated through the network (Marsden 2001). Opportunities are expected to be larger for big and multi-sited firms than for small firms, for which alternative recruiting procedures would simply be too expensive. Moreover, big firms with their specialized human resources department might also be less dependent on referrals or, on the contrary, might have more resources of networking and using their network when filling a vacancy. However, the usually centralized and highly formal recruitment processes in large firms makes the use of social network less easy.

To a certain degree, organizations' recruitment practices are also determined by their public exposure and legal or public regulation of their hiring procedures. For example, public organizations undergo stronger regulations regarding fair, traceable and standardized hiring

⁷ People more similar to each other are more likely to be in contact with each other.

practices in many countries (Marsden 2001: 111). Big organizations are more exposed, which makes it riskier to use indices, or non-standardized and informal characteristics as hiring criteria. Furthermore, there might be firm- or industry-related traditions of recruiting for certain jobs (Granovetter 1995b: 160). Given that these mechanisms point in different directions concerning the expected results in the success of informal job search, it is not surprising that, empirically, some organizational characteristics such as firm size do not seem to have much influence (Flap and Boxman 2000: 6), while other more labor-market specific characteristics like industry probably show differences regarding the importance of informal hiring strategies.

Job Seekers' Perspective on the Job Allocation Process

Regardless of the current economic circumstances, being informed raises the chance of a contact between a job seeker and an employer, which is a precondition for a future employment. The job seeker might hear about vacancies, which are never made public or which are made public, but in a place where he or she might not have looked. Information transmitted from one person to another can therefore reduce time and costs compared with a situation where the search for a job or for an employee continues (Marsden and Gorman 2001: 467).

Further, job information via a network member often leads to more differentiated and often to complementary information. For a job seeker, this means that he or she obtains additional information such as information about the work environment, colleagues, superiors and so forth (see e.g. Granovetter, 1995, Bessy and Marchal 2007: 12f.). Moreover, the informal channel can imply a less competitive process. These advantages are expected if the contact not only provides information, but also acts in the influence function as a referral. Notably, this often happens if the referral is working for the same employer (e.g. Fernandez and Weinberg 1997, see Flap and Boxman 2000: 15). The social contact might therefore recommend the job seeker or at least influence the employer to take a specific job seeker into consideration. Social contacts in the information function have some power of control as they decide how exclusively they share their information. Social contacts in the influence function decide how exclusively they make use of their position to influence either the potential employer to decide in favor of a specific candidate or the potential employee to accept a job.

Moreover, the use of social networks to find a job can be interpreted as a sign for the job seeker's social skills, for his or her belonging to a certain community, or for the job seeker's social network. The importance of this function is, according to Erickson (2001: 172), underestimated because the amount of one's social capital can be a qualification criterion for the future job.

Erickson emphasizes for a lot of upper-level jobs the importance of having a useful network. She points out the role of experience in the "collection" of work relevant social contacts, which might be needed for most jobs with external responsibilities (Erickson 2001: 164). Work experience thus might interact with some of the network effects on job quality (McDonald et al. 2012: 1673). Time and opportunities are needed to build up an occupationally useful network. It has been observed that the more work experience someone has, the higher the diversity of the network and hence the better their social network might be (Bridges and Villemez 1986, Erickson 2001: 153, McDonald and Mair 2010). At the same time, work experience not only gives the opportunity to build up more social capital, but also to develop more on-the-job skills.

1.2 Social Contacts, Social Ties and Networks

In this thesis, social contacts are understood as the members of the job seekers' network. They are the carriers of social resources, which are connected to the job seeker via social ties. Social ties are social relationships between network members of any kind (Wasserman and Faust 1994: 18, van der Gaag 2005). They are the channels that make resources available to other individuals than those possessing them. One of the resources that can be transmitted via ties is information, in particular job information and information about potential candidates for vacancies (Pedersen et al. 2008, Bessy and Marchal 2009). In job search, social contacts are thus interesting when they carry and transmit information, when they exert influence and when employers interpret them as signals for the size and/or quality of a job seeker's network or for the job seeker belonging to a certain group.

We can distinguish different categories of social contacts such as friends, family, colleagues, and acquaintances, which alternatively can also be divided into work and non-work or – so-called communal - contacts and ties (Granovetter 1974: 41-50, Bridges and Villemez 1986: 578). The latter distinction appears particularly promising, and was already discussed by Granovetter in his seminal book *Getting a Job*, where he points out the importance of work-related contacts (Granovetter 1995a/1974: 43f., 48). Other empirical studies also underline their relevance (e.g. Pedersen et al. 2008, Larsen 2008, Marin 2013, McDonald 2011). Granovetter (1994/1974) also introduced the better-known distinction between strong and weak ties. Weak ties are usually understood as relationships of infrequent interaction and low intimacy (e.g. Bian 1997). However, the definition of these two sorts of ties in the literature is very heterogeneous, which might be one of the reasons for different and even contrasting results in empirical studies analyzing the relevance of weak and strong ties for getting a job. Granovetter observes work-related contacts being in most cases weak ties (Granovetter 1974), and focuses on the distinction between strong

and weak ties, pointing out the importance of the latter. However, studying more vulnerable populations in terms of labor market integration, the latter distinction may serve less: Korpi (2001) emphasizes the importance of strong ties for the unemployed and Bridges and Villemez (1986: 578) come to the conclusion that the distinction of work and communal ties leads to more robust results, which they explain by work ties being also effective for women, whereas weak ties seem to be more exclusively a means for men.

Another scholar, Bian (1997), has argued that the distinction between direct and indirect ties is more useful than the distinction between strong and weak ties, and that it could help to understand mechanisms of strong versus weak ties. From the point of view of so-called egocentered social networks, a network consists of a set of network members, which are connected to the job seeker via direct or indirect dyadic ties. This implies that social capital includes the resources of one's "first order network," but those that are embedded in the "second order" network can also become relevant (e.g. Boissevain 1974 according to van der Gaag 2005). Particularly, the second increases non-redundancy of information. Considering indirect ties points to another phenomenon not very easy to deal with, not only in quantitative, but also in qualitative research on ego-centered networks: it is so-called hidden social capital, which means contacts who know the job seeker without him knowing them (Burt 1992, Flap 1991).

When we are interested in success in job search and want to consider the network's resources, the size and quality of a job seeker's network may be crucial. There are different ways to approach the characteristics of a network. The simplest measure is the number of network members (Borgatti and Everett 1998: 30). The expectation is in most cases that the bigger the network the better (e.g. Brandt 2006), with the idea that the more people and the more resources, the more job offers, thus the higher the probability of one matching well, and thus the higher the probability of success in job search.

Another measure applied to networks of individuals is the compositional quality, which is determined by the number of network members who have "advantageous" attributes to help the job seeker. A relevant characteristic of network members that possibly helps in job search is having a higher hierarchical position (Borgatti and Everett 1998: 30), which seems very important regarding the exclusivity of information (control on who and how many get information on a vacancies or on hiring criteria etc.) and the influence on employment decisions (Burt 1992: 81, 163). The character of a network can further be approached by taking into account its diversity: a more diverse network seems more likely to include members with access to other networks and therefore it seems more likely to provide new information (e.g. Brandt 2006). This network

measure is also called heterogeneity (Burt 1983) and it is defined by the variety of network members regarding relevant characteristics such as sex, occupation and age (Borgatti and Everett 1998: 30). A more heterogeneous network might increase the amount of non-redundant information, while a more homogeneous social circle may facilitate communication (Borgatti and Everett 1998: 32).

1.3 Social Capital in the Job Search

When it comes to job search, the job seekers' profile is judged upon the amount of labor market relevant resources she or he has built up by that point in time. In order to understand processes of positioning in the labor market a cumulative and convertible understanding of resources and their functioning in forms of capitals seems most useful to us (Bourdieu 1986, Savage et al. 2005, Pallas and Jennings 2009). We start from the idea that sources are built up over time and within social contexts, and that actual resources at disposal depend from past resources at disposal Bourdieu (1986). Bourdieu (1987) distinguishes different forms of capital – social, economic, symbolic, and cultural capital – as the aggregate of different kinds of resources, such as social contacts and their resources, financial resources, prestige, qualifications (formal credentials, labor market experience, on-the-job training) (Bourdieu 1987). The functioning of resources as capitals is framed by specific field logics – thus the labor market in general or specific occupation-/sector-/industry-/skill-level-wise organized labor markets. Thus, the logic of the labor market or specific labor markets determine if and which social resources can act as social capital in job search (Pallas & Jennings 2009: 219), and how it is related to different outcomes.

According to Bourdieu (1986: 51) the volume of individual capital is related to the capital of the network members, and social capital therefore has a multiplier effect on other sorts of capital such as cultural capital. The multiplier effect of social capital constitutes one of its major advantage, or its disadvantage in the case of somebody lacking it, and thus its structuring effect. The exchange value of cultural capital for example may not be the same in case social capital is implied in finding a job as compared to when it is not implied in this conversion into economic and symbolic capital. For example, social contacts can lead to better or less well-paid jobs: they can, on the one hand, be the only way to get a job at all due to poor general labor-market prospects or, on the other hand, they can give additional information to an already very well-formed application dossier. This means resources, and social resources in particular, may retard or accelerate certain trajectories (Ferraro et al. 2009: 425), and they can have a compensatory or reinforcing function.

How much social capital does a job seeker have? According to Bourdieu (1986: 49) "[s]ocial capital is the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition [...]." The extent of an individual's social capital consists, on the one hand, of the number of ties to other network members, which he or she is able to mobilize. On the other hand, it consists of the extent of capital possessed by these members and provided to the individual in question (Bourdieu 1986: 51). The maintenance of a network requires continuous investment of each member over time. It is based on exchanges, which have to be mutually recognized. Bourdieu (1986: 51ff.) points out that exchange requires a minimum of homogeneity in objective characteristics of the network members in order to create solidarity. Similarity of network members has also been theoretically captured by the term *homophily*. The principle of homophily implies that people who are similar to each other are more likely to be in contact with each other and to become friends than are people who are different from each other (McPherson et al. 2001: 416). People are more likely to refer to somebody similar to themselves (Fernandez and Castilla 2001: 91). This is often the case regarding their occupational and educational background, but it might also be the case for other dimensions such as having the same national origin or sharing the same spare time activities or being members of the same family. To look at the principle of homophily as constitutive for social contacts has proven to be fruitful in various contexts, among other matching processes between job seeker and employer (McPherson et al. 2001).

How an individual then interacts with the field given his or her capital endowment and how this interaction patterns structure the field is approached by the term habitus⁸. The habitus of the different job seekers "determines whether an individual recognizes the value of the capital in the field and "activates the capital through his or her actions." (Pallas & Jennings 2009: 219). Thus, it is responsible for an individual activating his or her social contacts for job search and/or applying for jobs via other channels. These patterns of individual action and resource mobilization become relevant when looking at ways of overcoming unemployment, in different job-search patterns formed by search effort, motivation, commitment and strategy and embedded within a given set of resources.

Lin's (1999) accentuation of the procedural character of job search via social contacts and his crucial differentiation between accessed and mobilized social capital, is relevant for a better idea of the different steps in job search. Many studies neglect that job search is a process as

⁸ "The habitus is a perceptual and classifying structure; it shapes what is recognized by the individual as a field, and hence as setting in which to engage." (Pallas & Jennings 2009: 225).
emphasized by Lin (2001a). Mobilization of social resources as a purposive action is part of this process since it is itself of procedural nature (cf. Lin 2001a, Mouw 2003: 873). The same scholar also introduced the distinction between *accessibility* and *mobilization* of social capital to call attention to which networks' resources or which contact's resources among those available have finally been instrumental to find a job (Lin 1999, Lin et al. 2001a, van der Gaag 2005, Lai et al. 1998). This distinction is relevant if we want to specify direct and indirect relationships between social resources and job-search outcome. If we understand job search via contacts as a process, in a first step, the so-called "accessed social capital" (Lin 1999), thus the network resources (Lai et al. 1998), become relevant. Their amount consists of the number of people and the amount of resources they have, which are relevant for a specific purpose (Van der Gaag 2005). In the case of finding a job as specific purpose, the relevant characteristics of the network members might be the following: being integrated in the labor market, having a permanent position as this potentially gives access to more information on vacancies and at the same time reduces the chance that the network member uses such information by him or herself instead of sharing it with the unemployed job seeker, being active in the same industry as the job seeker, having an influential position, having other contacts in the job market of interest reaching out of the job seeker's social circle.

For a person with limited access to the labor market, as is the case for unemployed people, it is of the greatest importance not only to have access to people integrated in the labor market, but also to be able to mobilize these social contacts with their resources. Mobilizing in case of lacking information means in a first place to be able to "make" these network members share job information. This can, but does not necessarily mean that the job seeker activates these contacts by talking to them about job search. Network members can also be motivated to share information by other factors than the job seeker asking for it.

When we consider the procedural character of job search via social contacts, we can think of different steps and decisions made along this process: in most cases, the job seeker decides whether he wants to activate his network as job-search strategy or not. This might be related to the number and quality of offers a job seeker expects (Holzer 1988, Horvath 2012: 14). Additionally, he might have to decide which of his social contacts' resources he wants to use. Therefore, not only the accessibility of potential resources is important, but also a decision process takes place, which is not independent of the alternatives available. Further, whether a job seeker is able to find a job via social capital also depends on the decisions made by her or his social contacts. The underlying assumption is that information is passed on selectively. A person holding information

chooses more or less carefully to whom and in what amount she or he wants to pass it on (Marin 2013). Finally, the job seeker will consider, which of the shared information fits best and apply for these jobs, and likewise does the employer. All that makes interpretation of not finding a job via social capital in relation with the resources of a job seeker more difficult, if not impossible.

Job search means in most cases to look for *one* job, thus to reach the goal of finding just *one* job. Usually only *one* social contact and his resources are leading to a job - out of many potentially useful social connections. This is also the case if others have given access to other job opportunities. As a consequence, if we look at a full catalogue of resources accessible via social capital and their effects on success in job search, the explained variance of such a model cannot be very high, because most of these resources are not directly relevant to the specific outcome (Van der Gaag 2005: 17). Therefore, it is important for theory as well as for empirical work to explicitly include the social contact that was crucial for getting a job, and not only general network information. As pointed out above contacts that share labor market relevant characteristics with the job seeker may be more likely to share the best matching information and thus to lead to job offers, and to job offers that are accepted.

Research on the processes of job seeking, and job matching, of vacancy filling and hiring, has clearly shown that both sides, job seekers and employers, refer to their social resources very often in an instrumental action, thus with a specific purpose. Nevertheless, the actual use of social contacts and their resources is dynamic and context-specific and the prime motivation of building up a relationship does not necessarily have to correspond to a current need to refer to somebody as a helper in job search. In this we distinguish our understanding of social capital, from that of Lin (2001) who discusses an overview of the various uses of social capital in the literature, but who identify as common trait of many definitions social capital as an "investment in social relations with expected returns in the marketplace" (Lin 2001b: 19). In line with Savage et al. (2005: 41) our understanding of Bourdieu's understanding of social capital differs from that.

The advantages of working with Bourdieu's definition is that it allows connecting different social fields, it is convertible, and dynamic and thus related with other sorts of capital, which is important if we think how manifold the criteria of job attribution can be. The advantage of thinking of social networks, social contacts and their resources, not only as social resources, but as social capital, implies the important distinction whether a resource actually is mobilized for a certain purpose such as finding a job or not. Such an understanding should also prevent from hastily conclude on a simple and direct relationship between a network size or composition and job outcomes.

Critique of the Use of the Term Social Capital

The social capital approach has received much support, but also harsh criticisms. Scholars such as Manski (2000) and Fishman (2009) point out that the usage of the term and the concept of social capital is not very consistent, sometimes derivative and in certain cases even without any congruency between different understandings at all, because different authors attribute different meaning to social capital (Manski 2000: 122; Fishman 2009).

One reproach has been that while some scholars define social capital from the point of view of its effects, others look at its characteristics (Manski 2000: 122). Let us look at the overlapping in Lin's or Bourdieu's definition. Both describe social capital as the aggregate of resources of one's network accessible and mobilized to pursue a certain goal. In this definition we find how both components – characteristics and their effects - may converge in the concept of social capital. As social capital are considered only social resources that play a role in job search, if they don't they do lose their character of being a "capital" for this purpose.

Another point of discussion has been that some scholars use "social capital" at the level of organizations or even an entire society (e.g. Putnam 2000), while others also apply it to the individual level (e.g. Bourdieu 1986, Lin 2001). This critic emphasizes how important it is that the authors clarify their use of the term "social capital" and on what level their analyses are situated.

Most problematic seems an undifferentiated use of the term social capital, especially regarding the interpretation of results. This is the case, for example, when one only analyzes a component or an aspect of social capital such as social ties or networks. This is a problem when different components of social capital have different kinds of effects, consequences and outcomes. And it becomes even more problematic in the case of confounding such diverging effects by the use of summary measures (Fishman 2009: 62, 72).

We can summarize the aforementioned main points of criticism by stating that it is crucial to be explicit about how the concept of social capital is theoretically captured and how it is operationalized within a study. In distinction from authors orientated more towards countable and manifest units who might talk about contacts and ties, users of the term "social capital" include the function and outcome dimension, which is crucial for approaching how social contacts and their resources help to achieve specific outcomes. This is actually constitutive for studies on social capital. In another critique, it has been doubted that supposing an economic logic within sociological fields is fruitful for a better understanding or identification of causal dynamics (Fishman 2009: 68). By stating this, Fishman refers to scholars who assume that social capital, like economic capital, is an investment made in an instrumental action from which the actors expect benefits. Fischer goes even further, questioning whether social capital is a capital at all (Fischer 2005 according to Mouw 2006: 80).

In contrast to these critics, Fernandez and Castilla (2001) distinguish the term social capital from the term *social network* by considering the first to capture network-dependent or -related mechanisms taking place in a market. These authors argue in favor of the use of the term social capital because of its transferability into economic capital, which they consider by calculating the costs saved by employers through the use of personal contacts (Fernandez and Castilla 2001: 85). This setting thus seems to fit very well into an understanding of the different sorts of capital as convertible - also defined by Bourdieu as such. Fernandez et al. (2000: 1289) argued that employers act as "social capitalists," who make use of their employees' social contacts as resources in which they invest and from which they expect returns. In this logic, it also becomes very reasonable to look at the importance of social capital as a qualification criterion of a potential employee as was done in the study of Erickson (2001). She states that the employers not only appropriate the cultural capital - the knowledge, skills and experience, of their employees -, but also their social capital for their organization's benefit (Erickson 2001). There, the transferability of social into economic capital seems again very evident. Probably it becomes clearer if we consider social capital - comparable to the other sorts of capital - as dynamic and highly contextdependent.

1.4 Unemployment

Unemployment, at the individual level, is often seen as a critical, stressful, and out-of-norm event or transition. Different definitions of unemployment have in common that they define unemployment as being of transitional character, ending in a state of employment or nonemployment. The latter means that the person will go from a state of being part of the active population (having an income, while being either employed or unemployed) to a state of being part of the inactive population (Tabin and Togni 2013: 193). As a transition within the occupational trajectory of a person it is limited in time, connecting a state before and a state after unemployment (Levy et al. 2005: 15). Thus, it is framed by an occupational position and a social position before unemployment and one after. When a transition includes a linkage between an individual and institutions, in the sense that a transition from one social position to another is framed by entry and exit markers and the duration and possible timing is institutionalized, as is the case for unemployment, it is referred to by the term "status passage" (Heinz 2009a).

As cumulative inequality theory points out, inequalities in trajectories "are affected by the onset, duration, and magnitude of exposure" (Ferraro et al. 2009: 420). Accordingly, two aspects of unemployment tend to be particularly problematic: repeated unemployment and long-term unemployment. First, "unemployment state dependence" has been observed, which means that there is a causal relationship between past unemployment and present unemployment (Narendranathan and Elias 1993, Omori 1997, Gregg, 2001 according to Manzoni and Mooi-Reci 2011: 340f.). Potential employers stigmatize unemployed job seekers by assuming them to be less performing and less productive. Hence, they often offer them only less secure and lower-income jobs (Stewart, 2000, Manzoni and Mooi-Reci 2011). Being stuck in low-pay-no-pay cycles means being more likely to end up in long-term unemployment. Duration of unemployment spell(s) plays a crucial role for different reasons: job seekers who experience long unemployment durations might get discouraged by their non-success in job search and might therefore show lower jobsearch intensity as time goes by. Further, one strand of research assumes decreasing skills and knowledge, when they are not used (Gregg 2001, Heckman and Borjas 1980). This "depreciation of human capital" reduces workers' employability, which means that unemployment interferes with the accumulation of resources or is at least interpreted as such by the employers. An employer's judgment on repeated and prolonged unemployment is different from a singular short spell out of work (on the role of duration, see for example Bonoli 2012: 173). These widely discussed and serious negative effects of unemployment on subsequent labor-market outcomes are so-called scar or stigmatizing effects (Gangl, 2004; Gregg, 2001; Manzoni and Mooi-Reci 2011: 339), which create a long-lasting disadvantage regarding employment access (see also Pallas & Jennings 2009: 226).

Besides the threat of completely leaving the labor market, other risks appear such as increasing isolation (Kronauer 1997, Julkunen 2009: 163). Thus, the risk of reduced or no participation at all might not only concern the labor market, but also other social fields, because different life spheres and different types of trajectories of an individual are interdependent. Thus, this might for example go along with cuts in the social network of a person, which means that one important employment access channel is negatively influenced. Moreover, it has been shown unequivocally that unemployment goes along with lower life satisfaction in general (e.g. Calvó et al. 2015, Oesch and Lipps 2013). Long-term unemployment has often been found to be combined with multiple worsening of living conditions. Besides despair in terms of employment prospects, a

study working with longitudinal data of the French labor force survey "Emploi" (Demazière 2006: 54) has shown that other behavioral, mental and physical problems tend to occur.

Who is concerned?

On an aggregate level, high unemployment rates for certain groups reflect the marginalization of these groups. For example, besides certain youth groups, some immigrant groups often have to stay within certain industries with a higher proportion of insecure and low-paying jobs (for example construction or catering), because they encounter obstacles to accessing jobs in a more regulated segment of the labor market. In the Swiss labor market, jobs with precarious traits are mostly related to atypical employment forms and are characterized as follows (Bühlmann 2013: 88): low wages, fixed-term contracts and jobs requiring a high degree of imposed flexibility. They are mostly found in catering, sales, personal services, transport and communication, industrial lower-skilled occupations such as mechanics or machine operators. Workers most often in precarious employment situations in Switzerland have low capital endowments: no or very little labor-market experience, only basic education, fewer social resources.

Unemployment is one expression of inequalities in labor-market integration, and sociodemographical factors impact on the risk of getting and staying unemployed – depending on the whole trajectory of a person (Levy et al. 2005: 369). The negative effects of unemployment tend to be higher for certain groups, in the sense that it might be more difficult for some groups to find a job again, or such that if a job is found, this might take longer, or the job might be of lower quality. How strong the negative impact of unemployment is and to what extent it is ir-reversible depend again on the attributes of job seekers.

Notably, the progression in age and career is important. The meaning of a period of unemployment is not the same at the age of 25 as at the age of 50, and it is not the same at the beginning of a professional life as after 5 years of occupational activity. The timing of unemployment in a person's life and career can go along with different amounts of resources at their disposal. For example, accumulating occupational contacts, which are particularly useful for employment access, is highly dependent on progression within one's career (McDonald and Mair 2010). Therefore, unemployment can have various effects on current and future occupational trajectories. One main criterion seems thus to be age, which is clearly fed by a social norm orientated at a linear, thus rather masculine, life trajectory (Levy, Gauthier and Widmer, 2006: 197). On the one hand, the risk of experiencing long-term unemployment is clearly higher for older (50+) job seekers (Demazière 2006: 56). Demazière's study is for France, but also in

Switzerland the proportion of older job seekers experiencing long-term unemployment is much larger than the proportion of younger job seekers (FORS, sources: State Secretariat for Economic Affairs SECO and Federal Statistical Office SFSO, Swiss Labour Force Survey SLFS). On the other hand, unstable employment in younger age seems to be more frequent. It is thus less stigmatizing for younger than for older workers (Furlong 2009: 145). A short period of unemployment between jobs at a younger age might be interpreted as necessary in the sense of job shopping according to search and job-matching theory (see for example Jovanovic 1979). At the same time, it is also interpreted as part of the difficult and complex transition from school to work. However, employment trajectories are, already in younger ages, highly stratified, with the typical structuring factors such as class, gender, immigration position and educational pathway, which means that we have to distinguish between youngsters with a precarious transition process and those who continue thereafter in fragmented careers in precarious jobs (McDonald, R. 2009, Furlong 2009: 145). Access to more secure sectors of the labor market is often facilitated by large support from parents and families in education, but also by activating their connections that give their offspring good opportunities in the labor market. Social capital – and often inherited social capital – is one of the basic influencing factors that lead to different careers after having followed the same educational track (Bourdieu 1987: 160, Furstenberg 2005).

1.5 Findings on Network and Jobs

Finding a Job and Unemployment duration

It has been shown that job-search intensity in sheer quantity of applications does not ensure better job-search outcomes, but that quality and well-informed job search is very important (Arni 2015, Krüger and Müller 2011). Social contacts can provide help in the guidance of job search, and make job search more concise, better directed, and therefore more efficient. Social contacts have been shown to be crucial to find a job for both unemployed and employed job seekers. The proportion of jobs accessed via social contacts ranges from 25 to 75 per cent (e.g. Granovetter 1995a, Blau and Robins 1990, Montgomery 1992, Bentolila et al. 2008). It differs depending on the sample analyzed and the measurement used. Nevertheless, the aforementioned numbers show that social contacts are an important resource in job search. In Switzerland about 30 per cent of the employees reported having found their jobs via social networks (Diekmann et al. 1999: 13). In the International Social Survey a proportion of 39 percent is found for Switzerland (ISSP 2001). And also a Swiss study on unemployed job seekers who experienced mass layoff between 2008 and

2011 revealed that about 31 per cent of those job seekers found their job via contacts (Baumann and Oesch 2013).

In a situation of unemployment, it is crucial to be as well informed as possible about different search strategies and their effectiveness to find a job as quickly as possible, because unemployed people are in danger that employers will interpret their unemployment as a signal of low ability or low effort in job search, and this risk rises as the duration of unemployment increases (Blau and Robins 1990). Korpi (2001) who worked with the Swedish Longitudinal Study among Unemployed considered unemployment duration. The author found that the activation of social contacts for job search raises the likelihood of finding a job over time. The data allows him not only to take into account a large number of individual characteristics, but also to follow the unemployed up one year later on labor-market experiences since the first interview. Also the activation of the social network in order to obtain job information is measured. This study explicitly discusses selection bias, and argues to avoid sampling bias by using an inflow sample of unemployed instead of current jobholders as many other studies do. However, like other studies, Korpi (2001) too only considers persons contacted during job search and does not have information on the whole network of a person, which implies a selection of people. Further, he does not analyze, which kind of contact lead to a job.

Two American Studies state that the use of contacts reduces unemployment duration (Holzer 1988, Blau and Robins 1990). The study of Holzer (1988) on unemployed youth uses the 1981 year of the Youth Cohort of the National Longitudinal Survey (NLS), whereas Blau and Robins (1990) use data from the Employment Opportunity Pilot Projects (EOPP) baseline household survey. Both of these studies use rather old data from 1979 and 1981 respectively, and are limited to the US. In contrast, Bentolila et al. (2008) look at the US and the European context for people who enter the labor market after full-time education followed by unemployment and find too that the unemployment spells of people finding a job via family and friends are reduced by one to three months on average. This reduction is still observable after controlling for workers' and job characteristics. They focused on relatively young workers, for the EU part of their sample on first jobs. The authors have tested alternative implicit definitions of an occupation (to check for differences in job quality within occupational category) and they have also controlled for cognitive ability, for economic and family background of the workers (EU study including pairs of siblings), and for other personal characteristics (US-survey: average high-school grades and computer use at high-school).

Finding employment via network and job quality

Contrary to the positive effect of finding a job via a network member on unemployment duration, results on whether finding a job via network or via non-network means leads to better jobs for unemployed job seekers are ambiguous and therefore need further exploration (Horvath 2012: 2). A match of lower quality, induced by occupational choices related to social contacts, may detract from the mentioned advantages.

The relevance of job quality after unemployment has been shown by studies on recurrent unemployment, among others by Manzoni and Reci (2011) based on longitudinal data of the German Socioeconomic Panel considering working-age men, and by Stewart (2006) using data from the 1991 to 1996 waves of the British Household Panel Survey (BHPS) including people in the labor force at the time of interview. They found that job characteristics are crucial for the risk of becoming repeatedly unemployed, also when controlling for unobserved heterogeneity and initial conditions. Thus, job characteristics are a major trigger for state dependence or so-called "low-pay-no-pay" cycles (Manzoni and Mooi-Reci 2011, Stewart 2006). Poor jobs, which are more likely to be accepted by unemployed job seekers, seem to be as bad as unemployment itself for future employment prospects and for future unemployment risks. In contrast, higher wage jobs seem to level out the risk of recurrent unemployment (Stewart 2006: 1f.). This means that to revalue somebody's skills level after a depreciating and stigmatizing period of unemployment, higher-level jobs would be needed to do repair work (Stewart 2006: 21f.).

At this point differences in social networks may come into play as an employer might want to have some additional guarantee on the qualities of the job seeker from a trustworthy intermediary in the case of hiring somebody previously unemployed. Analyzing what kind of contacts lead to what kind of jobs is therefore crucial to improve the situation of job seekers in the long run. In that perspective it is important to determine what kinds of contacts are prone to lead to employment with long-term perspectives and not only considering the immediate goal of finding a job. Thus, attention should be paid to which contact characteristics raise the likelihood of finding a "good" job.

Mouw (2003: 890) points out that in surveys of workers, no privilege in job access chances is found when being referred. In contrast, he emphasizes that single-firm studies, which explicitly considered the employer side of the hiring process, find clear evidence that referrals from current employees were advantaged in receiving job offers compared with other applicants. This was shown for example by Fernandez, Castilla, and Moore (2000: 1332) and Fernandez and Weinberg

(1997: 900), who use unique data on the pool of applicants for entry-level positions at the customer service call center of a large bank. They were able to link referrers to job applicants, and considered information on the characteristics of referrers and referrals and all job applicants. Also the results of a quantitative case study of the hiring process in a midsized US high-technology organization, taking into account a ten-year period 1985-94, with information on 35,229 applicants, 3,432 with offers, and 2,870 acceptances show the importance of referrals for being hired (Petersen, Saporta, and Seidel 2000: 785).

Besides job prestige focused on in research on status attainment most studies focus on wage outcomes of the jobs found. Many data sources used are quite old and we have to be aware of possible changes in the labor market and recruitment practices. More specifically, Pellizzari (2010) points out some of the problems with previous results on the relationship between using contacts and higher wages found for the US. They are often not enough generalizable because they look at very specific samples: Granovetter (1974), who finds higher wages for contact users, analyzed a sample of recent professional, technical, and managerial job changers living in a Boston suburb. Marmaros et al. (2002) work with data on Dartmouth College seniors who use social networks to obtain their first jobs. Most prestigious jobs are obtained through networks of sorority or fraternity members. Further, and this is very interesting, they find a strong relationship between a student's employment outcomes and outcomes for randomly assigned freshmen hallmates. Simon and Warner (1992) find higher wages for those who found their job via old boy networks when analyzing data from a 1972 Survey of Natural and Social Scientists and Engineers. Kugler (2003), who also observes higher wages for finding a job via contact in the US when analyzing the 1984 Current Population Survey (CPS) and the 1982 National Longitudinal Survey of Youth (NLSY), discusses high wage sectors only.

Another problem pointed out by Pellizzari (2010) is that many studies do not control for unobserved heterogeneity of individuals and their informants, such as Corcoran et al. (1980) who also found higher wages when contacts were used. They work with the Panel Study of Income Dynamics (longitudinal household survey), but only consider the 1978 Wave, to look at workers under 45 years who worked at least 250 hours in 1977.

The fact that social contacts lead to better wages than other job-search strategies is often explained by either ability (assuming that those with higher ability receive more offers) or better job matches (assuming that both – employer and employee side – are better informed about the other's characteristics). The latter was also argued by Simon and Warner (1992), based on their analyses without fixed effects or other methods to approach heterogeneity, but simply

differentiating between the sample of the job stayers and the sample of those with turnover. Kugler (2003: 549), however, who also observes higher wages for finding a job via contact in the US using fixed effect models, but concludes that this is rather due to industry specific wages and industry specific recruitment.

Contrasting the better-job-matching-argument, it could be that an intermediary knowing about a vacancy only has limited access to job seekers. Likewise, a job seeker has only limited access to people who know about a vacancy. Consequently, informal job allocation may be likely to produce mismatch and channel people into jobs where they cannot fully develop their potential and in that case, are less productive than they could be. This may reduce the wages of these workers (Bentolila et al. 2008).

In line with this argument, other authors find that informal search strategies lead to lower earnings compared with the formal market. Bentolila et al. (2010, 2008) use data from the European Community Household Panel containing representative samples of each country collected between 1994-1999. They find that the use of contacts had negative externalities for the average wages at the level of regional labor markets, which they found to be much higher than at the individual level (Bentolila et al. 2008: 34). Applying fixed effects and comparing unemployed job seekers and employed job seekers regarding wages of the new job found, Pellizzari (2010) found cross-country differences in Europe on the bases of European panel data for 1994-1999⁹. The case of lower wage jobs accessed via network was observed as often as wage gain, and the penalty and gain were about the same size. In this comparative study, the use of social contacts seems to result in higher wages in Austria, Belgium and the Netherlands, while it leads to lower wages in Greece, Italy, Portugal and the United Kingdom. Horvath (2012) suggests that such differences might have something to do with the overall economic situation and structure. An explanation could be that the presence of informal market structures enhances the relevance of social network structures (especially family and ethnic networks) (Bian 1997: 94, Light and Bhachu 1993: 31ff./42) and these structures might be associated with lower wages.

Moreover, it can be expected that the quantity and quality of social contacts is relevant for whether a job seeker can benefit from the informal channel. Empirical results, although most of them using older data or restricting their samples to people having a job or to males in specific occupations, have shown what is theoretically captured by the social resources approach (Lin 1999): position, prestige, and wages of informal contacts positively influence the position and job

⁹ The European Community Household Panel (ECHP) is a panel dataset of households that covers all European countries. The main advantage of this data source is the high level of cross-country comparability.

attained by a job seeker (for a review of the literature 1970s to 1990s see Marsden and Gorman 2001):

Lin et al. (1981) worked with data collected from a representative sample of males aged 21 to 64 among the non-institutional civilian labor force; De Graaf and Flap (1988) used the same American data to compare it with West Germany and the Netherlands. They find that the use of contacts does not necessarily lead to better jobs than formal means. They confirm theoretically and empirically based expectations that the higher the prestige of the used contact, the higher the likelihood of finding a job with higher occupational prestige. Further, Marsden and Hurlbert (1988: 1054) found that the occupational prestige of the contact is substantially associated with the occupational prestige of the respondent. They outline that education and respondent's prior prestige are good predictors of the prestige of accessible contact. Finally, they found that there is no net effect of social resources on wages. These scholars worked with data from the 1970 Detroit Area Study (DAS) on career histories of 638 men between the ages of 16 and 60 (1988: 1039). They confirm findings from preceding research, showing that these results were not affected by selection or the fact that they did not consider prior levels of their outcome variables. Flap and Boxman (2000: 4) working with data that took into account employee and employer side, find that higher prestige contacts are related to finding higher prestige jobs, but they also find that returns to the use of social contacts vary with the kind of job and that the variation in the returns is explained by the employer side (Flap and Boxman 2001: 15). They put in question that a job found via contacts should automatically be a better job. On the contrary, they find that putting in a good word for somebody is rather related with lower prestige occupations (Flap and Boxman 2001: 14). None of the studies mentioned in this section refer specifically to job-search outcomes of the unemployed. Some, however, exclude the unemployed explicitly.

Only a couple of status attainment studies analyzed accessed and mobilized social capital jointly. Most find an effect of contact's resources affect the job seeker's outcome, whereas network resources do not (Flap and Boxman 1996 according to Lin 2001: 92). However, some find – unsurprisingly – that the contact's resources are related to the network's resources (Lin and Dumin 1986 according to Lin 2001: 92).

The quality of a social network in terms of its access to job information may directly influence expectations of a job seeker whether using this job-search strategy is going to be successful. These expectations influence the effort in doing so (Holzer 1988). Thus, a possible reason not to use social contacts is that a job seeker has access only to a limited pool of contacts

and therefore only to a limited "choice" of occupations, which, for example, correspond to family traditions and to social conventions of his or her social environment (Bentolila 2008: 33).

Studies that differentiated between the use of work-related and family contacts have consistently found that work-related contacts lead to a wage premium, while family contacts lead to lower wages (Horvath 2012: 6). An example of such a study is Sylos-Labini (2004) who finds such results for Italian labor-market entrants, three years after they have graduated from university.

At the same time the occupational network is most sensitive to the time spent in unemployment: a Danish study shows that while in the first year of unemployment 63% of the job seekers indicated staying in contact with their former co-workers, only about 25% did so after 4 years out of employment (Larsen 2008: 13f.). Nevertheless, two studies on Germany seem to find that the unemployed manage to mobilize former co-workers (Gröhnke et al. 1996: 19ff., according to Brandt 2006: 471). Nonetheless, these contacts seem to become less useful as time goes by, as the study by Larsen showed for Denmark: in the first year, 12% find their job via a former co-worker, while after two years this proportion goes down to zero (Larsen 2008: 15f., Bonoli 2012: 157).

Some studies looked specifically at referrals working in the same company as the job seeker's new job was situated, and also found that those work-related contacts lead to higher wages (Granovetter 1974, Simon and Warner 1992 and Kugler 2003, Bentolila et al. 2008: 4). While Kugler (2003) considered same-firm-referrals only, Bentolila et al. (2008) focus on family and friends only. Using family and friends to find a job leads to a wage discount, even in the case of jobs with higher formal qualification requirements such as scientists and engineers, as a study in the US has observed (Simon and Warner 1992). Likewise, Bentolila et al. (2008) find in general a significant wage discount for jobs found through family and friends compared with jobs found by formal search strategies.

Comparing the wages of job seekers using social contacts with those using formal means, Pellizzari (2010: 509) finds that the wage differences are only observable for jobs the job seeker stayed in for less than six months, but not when tenure was longer than that. Kramarz and Nordstrom-Skans (2014) are not looking at unemployed job seekers, but at the transition from school to work of a whole "graduation cohort." They have extensive information on Swedish school leavers, their parents, the plant and the job found. They find equally that wages are lower at the beginning of employment when referred by parents. However, they are leveled out in the midterm. Additionally, they observe that these employees usually have longer tenure than those not referred by their parents, which could be interpreted as indicating a better match, or fewer alternatives. At the same time, they find that it is rather those with lower grades in school, but with parents in a higher position, who are referred into their first job after school.

Mouw (2003) proposes an indirect test to find out whether we measure spurious effects of social capital on job-search outcomes or if we identify a causal relationship. He argues that, other things being equal, higher social capital should go along with a higher probability of using it to find a job and states that "[...] although the social capital measures have an 'effect' on wages, they do not have a concurrent effect on the probability of using contacts" (Mouw 2003: 891). He finds that neither future wages, unemployment duration, job satisfaction, nor tenure were influenced by the use of contacts (Mouw 2003: 878). Thus, based on this approach, he concludes that common social capital measures such as education or job prestige of contact lead to rather spurious effects on wages. However, he points out that social capital might still matter for job search, but that we have to find better measures for it (Mouw 2006: 91).

Who benefits from social contacts and from what kind of social contacts?

As we focus on job seekers, one of the questions is how employers' choice of recruitment strategy affects different kinds of job seekers. The formalized way of recruitment via advertising is highly selective because of its focus on predefined measures and observables such as education, work experience, proficiency in regional language, age, or sex (the two latter are in many countries not legitimate selection criteria, and in some countries excluded from application forms¹⁰). The use of social contacts may thus be advantageous for people lacking formal credentials or work experience. Further, it could also be useful for those with little knowledge about the regional labor market - even though the latter might often go along with a lack of contacts in the regional labor market. Informal job access seems to play an important role, in particular in labor markets of low-skilled jobs. This is also reflected in the fact that 56% of the active population with poor formal qualifications from the 2001 ISSP data for Switzerland accessed their job via family, friends or acquaintances (Bonoli 2012: 175).

More or less consistent with other findings in the literature is that job seekers who found their jobs by means of social contacts tended to have less education (e.g. Holzer 1988, Bentolila et al. 2008: 23). Accordingly, being an unqualified worker raises the chances of being recruited by means of social networks, as shown by a French study based on interviews with 3580 firms that

¹⁰ In Switzerland it is still common to add information on age and sex in the CV when applying for jobs.

had hired within the previous 12 months (Bessy and Marchal 2009). This may also have to do with the kind of jobs accessed. They might require non-formal qualification, which is also not easily measured and therefore not formalized in a job ad.

Moreover, these jobs often have a higher fluctuation rate, and vacancies are filled quickly and on short term. The employer is neither interested nor has he or she the time and capacities to apply a formalized hiring procedure. Especially in countries where labor-market entry is difficult such as Spain, family contacts become relevant for job seekers without formal qualifications, young people and/or without work experience (Rieucau 2008: 477). Also re-engagement has been shown in the aforementioned employer study in France to be more likely to occur in the group of people who had no or very little formal qualification (Bessy and Marchal 2009: 142).

However, also at the top end of the occupational hierarchy, the formal way of recruitment is restricted in terms of knowledge about unobservable factors such as social skills or motivation, which are crucial for managerial jobs and are better accessible via social contacts. Therefore, this group of job seekers may also benefit from mobilizing the network.

As age and work experience are correlated, we discuss these factors jointly. Studies which compare wages or job quality by job-search strategy suggest that there might be differences by age group or by progression in one's career, respectively (e.g. Horvath 2012: 19). McDonald (2011) uses the 1994, 1996 and 1998 waves of US long-run panel data (NLSY) to reconstruct "the ways in which people were matched to their jobs." (McDonald 2011: 1668). Using fixed effects models his study shows that informal job access is usually related to work experience. Thus, such differences could emerge because younger workers in an early stage of their career probably have not yet made their own occupational contacts within their specific occupational field. Therefore, younger job seekers have to rely on friends and family who do not necessarily work in the occupational field which the job seeker's skills would match best (Horvath 2012: 19). In consequence, formal job-search strategies lead these workers to better paid jobs than using social contacts (Bentolila et al. 2010).

In their study on younger job seekers under 35 coming from the educational system with a subsequent phase of unemployment to a job (usually the first one), Bentolila et al. (2008: 23) found for their US- and their EU-data that workers who accessed their job by means of contacts were slightly younger. This observation is more or less consistent with other findings in the literature (e.g. Holzer 1988).

In a study working with employer data in France, Bessy and Marchal (2009) observed that people coming from an internship and people over 50 have higher chances of being recruited by means of social contacts. Moreover, people who had more than ten years of work experience and people who had done an internship before looking for a job were more likely to use work-related ties to find a job, more or less independently of the socio-occupational categories, age or level of education (Bessy and Marchal 2009: 142). However, in the case of those having done an internship it is usually re-employment in the same firm where they had done their work experience program. Accordingly, McDonald (2011:1673) finds *occupation-specific* work experience, which is also expected to be related to occupation-specific social capital, to be most effective, and specify that it comes into play foremost in the case of non-search in an advanced career, but not so much when actively searching via contacts.

In contrast, people coming from unemployment or directly from education and younger job seekers seem more likely to have been recruited via an unsolicited application than via contacts. The authors therefore conclude that people in a weaker labor-market position more often use non-solicited applications (Bessy and Marchal 2009: 136f.). Informal recruitment strategy excludes people with poor connections in the labor market, as is often the case for long-term unemployed and for people with very little labor-market experience, who are at the same time those who depend the most on referrals. The chances of getting exclusive information rise with fewer people seeking a job in their network as well as with a higher number of people in the network who have access to labor-market information (Calvó-Armengol and Jackson 2004: 428).

In general, it has been shown that work ties are advantageous compared with other ties (e.g. Pedersen et al. 2008, McDonald 2011: 1673). Particularly contacts in the same occupation should be an important source of information (Mouw 2003: 884, Chauvac 2011). A qualitative single-firm study on the market for entry-level, white-collar work, more specifically on insurance agents in a call center in Toronto, focused on the information flow, job information sharing opportunities and decisions in relation to network composition. It finds that people mostly share information, but information is actually shared at a higher rate by information holder (Marin 2013: 350). Thus, strong within-industry networks are the most advantageous.

Men seem to be generally more likely to find a job by means of social contacts than women, as has been shown for the US and several European countries (Bentolila et al. 2008: 23, Holzer 1988). One mechanism could be that men seem more inclined to build up increasing social capital with rising work experience, which proves to be helpful for informal job access, while this

relationship does not seem so straightforward for women (McDonald 2011). Gender focused research in the US observed that men have more diverse networks and more high position contacts within them (e.g. Hanson and Pratt 1991, for other literature see the overview of Mencken and Winfield 2000: 849).

Women, in contrast, have more social contacts, which have to do with childcare and task sharing in the domestic sphere, and they have more neighborhood contacts, though in general many fewer professional contacts (Russel 1999). Consistent with the principle of homophily, information is usually passed between individuals with similar attributes. In consequence, women compared with men get information on fewer jobs and on less desirable jobs by their close relationships (Granovetter 1995a, Ioannides and Datcher Loury 2004). As women's labor-market participation is constantly rising, these findings are likely to have changed over time and they may depend on regional or national patterns of labor-market segregation.

The evidence on the kind of jobs found by women when finding employment via contacts is mixed. One strand of the literature has observed a higher likelihood for women to get a job by social contacts in a non-female-dominated occupation. Using 1980/1981 data on the 1131 working women from the Chicago Metropolitan Employer-Worker Survey (MEWS) for example Mencken and Winfield (2000:846) make this observation regardless of the strength of the tie and regardless of that contact being work-related or not. This is relevant as female dominated occupations often go along with lower wages, limited training, fewer career opportunities, less autonomy and authority (e.g. Reskin and Roos 1990, Mencken and Winfield 2000: 846). Within the group of women who found their job by means of social contacts, the sex of the contact has been shown to be relevant: women who found their job through women compared with those who found it with the help of a man were more than two times more likely to find themselves in a female dominated occupation regardless of tie strength and whether the contact was work-related or not (Mencken and Winfield 2000: 858).

We are not aware of studies which look at male dominated occupations. Descriptive results suggest that women who work in male dominated jobs were more likely to have had accessed this job through a male contact who was more likely to be a strong tie, a close friend or family member (Hanson and Pratt 1991 for the US).

Most studies look at employed job seekers or do not necessarily distinguish between employed and unemployed job seekers. Exceptions are for example Brandt (2006) who uses German panel data 1998-2002 (NIEP) on people getting unemployment benefits and people receiving social assistance, Korpi (2001) for Sweden, Holzer (1988) for the US, and Larsen (2008) for Denmark. Network size, and thus the number of ties, also seems to matter for the unemployed (Korpi 2001).

Interestingly, in the case of the unemployed, Granovetter's assumption of the strength of weak ties does not necessarily seem to hold. Although, Brandt (2006: 485f.) finds that a more heterogeneous network is helpful for reintegration into the labor market and therefore proposes that there are more weak ties in a heterogeneous network. At the same time, she finds that with an increasing number of strong ties, the chances of returning to the labor market rise (Brandt 2006: 485). Korpi shows for a population of unemployed in Sweden the relevance of strong ties (Korpi 2001: 166). First, in the Swedish context almost half of the unemployed did not even talk to their network about their job information. Second, only 14 per cent of all those who talked to their network members talked to their weak ties, while all others only approached their strong ties (Korpi 2001: 166). This might be related to a restricted accessibility of weak ties for this specific group of job seekers, the unemployed. The availability of weak ties and the ability to mobilize them may be related to labor-market position. This observation seems to be similar to what had been discussed regarding work-related ties, which tend to be weak rather than strong ties.¹¹

Issues of endogeneity and selection bias

Already Blau and Robins (1990) pointed out that we have to consider selection bias when looking at job finding via contacts, because users of specific job-search methods are not a random sample of job seekers. They emphasize the importance of taking into account differences in the characteristics of employed and unemployed searchers and consider the choice of search method as endogenous (Blau and Robins 1990: 645). Moreover, among the unemployed job seekers, those getting a new job might be a specific sample, as may be those who access their jobs via contacts (Korpi 2001). Holzer (1988) pointed out that it is not at random who uses network as job-search strategy, as job seekers have an idea of whether there is any use in it or not, whether or not they have a useful network (Holzer 1988), or any network at all (Korpi 2001: 165). The attempt to use a certain type of tie, for example a weak tie, is dependent on the availability of such a tie, thus on the type of network a job seeker has (Korpi 2001: 164). Korpi emphasizes the importance of distinguishing between attempts to use a certain tie and the effective use of it (Korpi 2001), thus making the distinction between accessible and mobilized social capital (Lin 1999).

¹¹ And it might be the fact that they are occupational ties rather than that they are weak ties, what makes them important in job search rather then that they are weak.

Job seekers using social contacts may not have the same kind of contacts at their disposal as job seekers who do not use contacts, which is not random either. People getting along together have something in common, which can be "race, gender, social class, religion, behaviors, values and also income" (Mouw 2003: 872). Moreover, characteristics responsible for making friends easily, such as having a pleasant personality, and thereby having a large network to mobilize in the case of job-search, might also be advantageous when it comes to convincing an employer during an interview.

Mouw (2003: 891) points out that most studies fail to reveal causal effects of network quality, such as education or employment position of network members on wages, because friendship is not forged randomly, but obeys the principle of homophily (McPherson et al. 2001). Therefore, they are sensitive to socioeconomic properties, which are also of interest for measuring labor-market outcomes. The question is thus how to distinguish between selection of friends and influence of friends to treat the bias caused by correlated unobserved variables (see e.g. Manski 1995, Moffit 2001, Durlauf 2002: 262). In consequence, Mouw recommends looking more closely at how information and influence are transmitted by social capital in order to approach (direct) effects of network properties on labor-market outcomes (Mouw 2003: 891f.).

To mitigate bias due to endogeneity problems, different strategies have been suggested: (i) random "peer" assignments – done for example by studies looking at the outcome of randomly assigned roommates in college, (ii) working with longitudinal data to control for fixed effects – to see if the job seekers are better off when they use contacts than when they do not (Mouw 2003: 876), (iii) using an instrumental variable¹² (Mouw 2006: 93). For an overview, Mouw (2006: 99) discusses a few good attempts to deal with endogeneity problems when measuring peer effects on different outcomes, such as delinquency or educational attainment due to non-random friendship choices.

Only a few of the studies presented have dealt with selection bias and endogeneity. Some do not take these problems into account at all. Others find more or less elaborate strategies to counter them. Although only a few research designs and data allow treating selection and endogeneity issues properly, an explicit consideration is nevertheless helpful.

As a concluding remark to this chapter, we can state that the more access a person has to labor-market information, the more he or she may be able to make use of this information and the

 $^{^{12}}$ This means finding a variable that is correlated with the independent variable of interest, but not with the unobserved factor (Mouw 2006: 92).

better we expect him or her to know how to seek and apply for a job. A person with more links to the labor market may also be more expert in finding the right way of getting important information about vacancies, about firms, about conditions and recruitment processes as well as about expectations towards job candidates. This can lead to impersonal or personal job access. The number of contacts and the quality of their resources as well as the quality of the ties influence the amount of information provided by contacts. Different researchers show that even when controlling for occupational similarity, effects of network resources on job outcomes are found (Lin et al. 2013). Chen and Volker (2016: 19f.) point out that similar occupation contacts could be determining the returns to social resources, and thereby occupational similarity is supposed to moderate the efficiency of social capital.

Quantity and quality of the network influences the chance that the decisive job information leading to a new job is provided by a member of the social network. All this influences whether social contacts are considered and used as a job-search strategy – and it is related to the likelihood of getting one or more job offers. The latter influences the duration of unemployment as well as the quality of the job found (cf. Mouw 2003: 870).

2. Our Approach: Questions and Hypotheses of the Study

This chapter presents our research questions and basic assumptions, which lead to our expectations. It also shows the restrictions in the theoretical elaboration to what is analyzed in this specific study.

We are predominantly interested in how social contacts' and a job seeker's characteristics influence finding a job, how long this takes, and how it is related to wages of jobs found. The aim is thus to look at the following three main questions:

- 1) Who finds a job by which access channels?
 - a. Who finds a job? (Chapter 4.1)
 - b. Who finds it thanks to first information from a member of the personal network? (Chapter 4.2)
 - c. Who finds it thanks to job information from a work tie or from a communal tie? (Chapter 5)
- 2) Which factors are related to the time needed to find employment via first job information from a work tie, a communal tie, or non-network means? (Chapter 6)
- 3) How is finding employment thanks to first job information from a work tie versus from communal tie related to the wage of the job found as compared to the pre-unemployment wage? (Chapter 7)

Starting with the information on the resources available at the very beginning of unemployment, we examine what happens when people leave unemployment up to 18 months after having registered at the public employment services (PES). We focus on the role of social capital for whether and how job seekers get back into employment, how long this takes, and if they find a better or lower paying job than before unemployment, thus whether they resumed their preunemployment trajectory, or had to accept cuts, or could improve their situation. However, this is done by controlling for other sorts of resources, for example educational credentials (cultural capital).

Our focus lies first on the outcome of finding a way back into the labor market compared with the respective other outcomes, i.e. staying unemployed or leaving the labor market. The first state prolongs the transitory phase of unemployment, whereas the two other states define what kind of transition unemployment turned out to be for the respondents – a transition from job to job or a transition into inactivity. More precisely, we are interested in the way the unemployed get back

into employment: is it via one of their network members, a work or a communal tie? Finding a job via work contact implies that job seekers got the first information on the job found from a network member who either is a former co-worker or another occupational acquaintance or more generally works in the same industry. All other – non-work ties – are summarized by the term communal ties, which includes family members, friends, neighbors, club members and so on. In contrast are all other job access channels such as via job openings found online or in the press, spontaneous application, via a professional job placement agency. As we focus on via which channel the first information on the job found was passed, this means that while this first information on the vacancy was passed via an informal channel (network tie), the way of applying for the job could have been done via handing in a formal application to a job add also published in the press or via a phone call to or from the employer. This means that the distinction between formal and informal job access is less distinctive than it seems, and we prefer to be more precise and therefore talk about having found employment via first job information from a network member as compared to via non-network means.

In a second step, we are interested in understanding who is prone to get the first job information via which kind of access channel (Chapter 4 and 5). Our analysis aims at clarifying factors that influence the crucial phase of exiting unemployment and re-entering the labor market, thereby looking in further steps at how much time this takes and what jobs workers find. Unemployment duration and job quality after re-entering have been shown to be absolutely crucial for whether someone has an increased risk of becoming unemployed again or not (e.g. Stewart 2006).

We thus try in a third step to identify groups of job seekers who find a job via network or nonnetwork means, via work or communal ties *over time* in unemployment (Chapter 6). What factors influence the time needed to find employment via first job information from a network member, a work or a communal tie as compared to via non-network means? The end of unemployment defining unemployment duration and the fact of finding employment via first information from a specific job access channel are in a sense simultaneous, which means that we have to consider problems with the temporal logic of things – what comes before what – and with reverse causality. We use statistical models to try taking account of this.

In a fourth step, we focus on differences in the quality of the jobs found in terms of wages (Chapter 7). Is it rather a continuation of the previous trajectory or has an improvement or a worsening taken place? This means comparing the situation and position of our respondents before and after unemployment. How do job access channels influence whether a "better or a

worse paying job" is found and how do they interfere with age, education, nationality, occupational group, previous wage, previous unemployment, network size and network composition, as well as activation and mobilization of work-related ties? To consider state path dependency, we take into account what happened in the occupational trajectory before unemployment, whether a job seeker has already experienced unemployment before, unemployment duration and whether social position and income have changed from before to after unemployment.

Accumulation of advantages and disadvantages happens over time, and is influenced by time spent in work (and what kind of work) and time spent in education (and what kind of education). Although our data do not allow us to follow the process of accumulation over more than this one status passage into and one status passage out of unemployment, the concept can also inspire us to look at accumulated resources available at a given point in time for a specific goal, such as finding a job, and consider what happens to them at the point in time when getting back (or not) into employment. Figure 2.1 displays such a "trajectorial" perspective, it is a schematic view of the occupational trajectory "interrupted" by a period of unemployment, which by the way can be interpreted as affecting the symbolic capital. "t0" indicates the point in time when getting unemployed and "t1" the point in time when finding a job again. What may happen to different kind of resources over time? We mainly focus on resources available from cultural, social and economic capital. Cultural capital stems from resources accumulated in the field of education (formal educational credentials), but also from skills, knowledge and experience accumulated in the field of the labor market. We have measurements for formal education, work experience¹³, and whether someone has been previously unemployed. Education is displayed to lie before work experience, but of course there can be work experience before a person reaches his or her highest educational level. Some of the job seekers may not have worked before becoming unemployed, thus they may not yet have accumulated occupational social capital. Not everybody has experienced previous unemployment, and those who have may already have experienced some loss or at least non-accumulation of their occupational resources during that time. Previous may influence whether somebody has acquired an adequate amount of work experience, but also occupational social resources. At the same time, previous unemployment is often interpreted to stand for unobserved characteristics such as work norms and motivation, health or other factors influencing labor market participation.

¹³ Work experience as measured in the registry data however is not very precise and therefore left out in the models. Age is a commonly used proxy for work experience.

In terms of social capital, we take into account resources from social contacts accessible at the beginning of unemployment (network characteristics at t0) and activated and mobilized for job search (talking about job search to work-related contacts and receiving job information from work-related contacts) (between t0 and t1) and the specific tie that provided the information on the job found (t1). In all this we focus on occupational social capital as we expect it to be more useful in the field of the labor market. Concerning activation and mobilization of resources in order to find employment via network members or via non-network job access channels individual agency plays a role. A concept which relates individual agency, field logics and capital is the habitus of a worker. It is responsible for that a job seeker recognizes employment opportunities and knows how to best approach them, for that he recognizes his resources to be activated and mobilized as capital for this goal of finding employment. On the labor market, cultural and social capital can serve to acquire symbolic and economic capital. Economic capital is considered in terms of wages from before unemployment, and then of course as outcome variable in terms of wage after unemployment, which then acts on future living conditions. In the comparison, of the pre- and the post-unemployment wage, we approach one step in the chain of an accumulation process along the occupational trajectory. Cultural, social and symbolic capital are acting on this accumulation process, and we are interested in what term social capital enhances the accumulation process of economic capital.

The capital approach is suitable to account for the interaction between structural and individual constraints of different groups of unemployed job seekers. Moreover, it helps us to understand the interrelatedness of different kind of resources. Our study allows us also to better understand the interrelatedness of resources endowment over two points in time – the beginning and the end of unemployment. This means that we are able to trace a transitory and critical phase in the accumulation process of resources. Cumulative inequality (Ferraro et al. 2009) emphasizes the importance of the length of exposure to unemployment for how it affects the subsequent trajectory, it outlines the fact that the mechanisms of accumulating advantages and disadvantages cannot be assumed to be the same, and it emphasizes the importance of the individual perception of unemployment. This perspective helps us to understand whether unemployment induced a major change in the professional trajectory of our respondents and whether finding employment through social contacts constitutes a major factor in improving job-search outcomes after unemployment compared with non-network job-search methods, or rather the only alternative to ever find a job again.



Figure 2.1 Occupational Trajectory in terms of up- and down-building of capital endowment in different social contexts

Figure 2.2 presents the study's outline, it indicates the different topics by chapters and shows how they are related to each other (is to be read from up to down). It lists our underlying assumptions and expectations (left). This figure treats the time period between the two status passages – the one of becoming unemployed (summarizing all resources built up until that point in time as resources framing employment prospects) and the one of leaving unemployment by becoming employed again. However, we cannot emphasize enough, that of course this passage has an important impact on the set of resources the workers have at their disposal in their future occupational trajectory (Figure 2.1).

We first look at who finds a job in order to determine the labor market relevant resources (Chapter 4.1). Nationality, sex, age, and education are job seeker's characteristics. At the same time, the labor market and occupational positions tend to be segregated by these characteristics. Further, some labor markets, industries, occupations and positions show tendencies regarding predominant hiring procedures such as word-of-mouth recruitment for low-skilled construction jobs, which may allow easier job access for some job seekers than for others. Thus, aforementioned characteristics may be decisively interlocked with field logics. Additionally, not only labor markets, but also networks are segregated by sex, age, nationality, educational credentials.

At the same time networks are also marked by such characteristics getting structurally relevant, because social resources, like other resources, are accumulated over time and within social contexts such as institutions, organizations or neighborhoods. Not surprisingly, the principle of homophily is thus observable in networks. For all these reasons, age, gender, education, and nationality are expected to have an effect on the use of social contacts for job search and its outcomes. Further, we control and discuss the role of employment history in terms of pre-unemployment occupational group and pre-unemployment occupational class, and occurrence of previous unemployment, which again are related to the different resources and labor market logics.

We consider accessible social resources measured by number of friends, share among them in permanent employment, having or not friends among former co-workers, share of network members in higher hierarchical position. We also consider whether the job seeker activated his occupational social network (by talking to former co-workers and other occupational acquaintances about job search) and weather occupational contacts got mobilized in a first step by providing job information. This is dependent on the habitus of a job seeker who recognizes recruitment practices and social resources as social capital and therefore activates them (or not). "Advantaged" job seekers in the sense of having more labor market relevant capital (cultural, symbolic¹⁴, social capital) are expected to be rather younger (except for labor market entrants), being rather male than female, higher educated, having Swiss nationality, not have been previously unemployed, and having belonged to a higher occupational class and in occupational groups with more high-skilled occupations such as in the group of technicians and computer scientists, to have more friends, more employed friends, more friends among former co-workers, more network members in higher hierarchical position, be more active in general job search patterns as well as in job search via occupational social capital.

"Disadvantaged" job seekers are expected to have generally lower participation rates in the labor market, thus, to approach retirement age, being rather female than male, having lower education, neither-Swiss-nor-EU-15 nationality, having been previously unemployed and belong to the lower skilled occupational class, and occupational groups such as sales and transports or catering and personal services to have less friends, less employed friends, less friends among former co-workers, less network members in higher hierarchical position, being less active and less successful in general job search patterns and in job search via occupational social capital.

In a second step, we look at what are the factors related to finding employment thanks to receiving first job information from a network member, which makes this to be considered as social capital acting in the information function (Chapter 4.2). Two lines of arguments lead to two "opposite" expectations in terms of finding a job via network:

1) Our expectation is that job seekers disadvantaged in their endowment with resources, and thus in general job access are more likely to find employment thanks to first job information from a network member. This expectation is led by a two-fold logic: a) if a job seeker is disadvantaged in his setting of resources in general – does not have enough formalized skills, meets potentially discriminatory practices on the labor market (such as related to nationality or age), and has not enough work experience acquired eventually due to periods out of work or atypical employment forms, he or she may depend more on the help of network members. b) Such a job seeker may have access only to jobs in the low-skilled labor market, which is less formalized in general, and where recruitment is not formalized neither, and thus hiring logics encourage job access via network too.

¹⁴ Short unemployment duration could for example be read as still belonging to the active working population, whereas long unemployment duration could be read as not belonging to it and therefore de-evaluate previous work experience and on-the-job skills more strongly.

2) However, an opposite set of arguments leads to the expectation that it is not job seekers with less resources, but those with higher levels of different kind of resources, those who consequently are advantaged in their general job access chances that are more likely to find employment thanks to first job information from a network member. For this expectation the argument is twofold, too: First, these job seekers have not only higher labor market relevant resources, which act for example as cultural capital (education, work experience, training), but have also a higher amount and quality of social resources that potentially become most effective as social capital, because these network members have access to job information, which they can potentially make exclusive to the job seeker (information function with potential control over information). At the same time, high-level jobs, could demand for informal information in addition to the formalized criteria, when it comes to jobs which require high social skills, a big network, certain qualifications such as discretion, loyalty, and so on.

In a third step, we discuss in chapter 5 why we categorize the social contact that led to a job by one main criteria when it comes to sharing job information – it is homophily in work-related characteristics. While the literature on job access via network commonly distinguishes between strong and weak ties, studies specifically concerned with unemployed job seekers lead us to question the relevance of weak ties for this specific population (Korpi 2001, Brandt 2006). Additionally, results from previous research lead us to expect more robust results when distinguishing between work and communal ties instead (Bridges and Villemez 1986: 578). Moreover, as being unemployed is by definition a marginalization in terms of labor-market participation, a loss of access to labor-market information is related to this disadvantaged position. The access to work contacts is thus relevant to these job seekers. In the present study, we therefore expect the distinction between work-related and communal contacts to be crucial for success in job search. Therefore, we differentiate the kind of contacts that lead to a job by distinguishing between work and communal ties (non-work ties), and look at which characteristics of the network and the person lead to finding employment via the first job information from a work or a communal tie.

More precisely work ties include all contacts who are former co-workers or other occupational contacts, but also all contacts who work in the same industry. Communal ties are all other contacts, such as family members, friends and acquaintances, neighbors, and club members. To analyze the question on the kind of ties that are the most effective ones, we created a variable summarizing whether the job found was accessed via non-network means, via a work-related tie or via a communal tie. By work-related contact or tie we understand a person who had been a

former co-worker or another occupational acquaintance or had been working in the same industry as the respondent. The questions from the questionnaire were the following: "Who gave you the first information on the job found?" and "Did the person who gave you the first information on your new job work in the same industry as you?".¹⁵ Communal ties are non-work ties: people finding a job via communal ties got the first information on job found from a network member such as family, friends and acquaintances, which is not captured by the definition of work tie, and thus not working in the same industry.

We formulate the following expectations, which help to better understand the competing expectations treated in chapter 4: Job seekers advantaged in their endowment with different kind of resources, and therefore higher general job access chances are more likely to find employment thanks to first job information from a work tie. Advantaged job seekers are more likely to have an employment trajectory which enhances the occupational social resources (no interruptions, having been in higher positions before getting unemployed, having created an occupational network in different job related trainings and so on). As we have pointed out these job seekers have network members who are more and better informed and positioned in the labor market. Work ties are supposed to be better informed about job's and job seeker's characteristics, which raises chances for a good match between the two and they are more likely to be in a strategic position of better information access, control over information and eventual influence on hiring decision. Work ties can also be read as sign for the job seeker being still connected to the field of the labor market, by getting job information from an occupational contact he is in an advantageous position as compared to somebody not getting any job information or less tailored information from a communal tie.

In contrast, job seekers disadvantaged in their endowment with different kind of resources, and therefore with lower general job access are more likely to find employment thanks to first job information via communal ties. These job seekers are considered to find employment thanks to these contacts rather out of a lack of alternatives than as a result of this job information being the best matching one.

Then, in chapter 6, we investigate how the endowment with different kinds of resources is related to the time needed for finding employment via first job information from a work tie, a communal tie or non-network means. As job information from a work tie is assumed to be more adequate in terms of matching job seeker's and job's characteristics, and on the contrary, job

¹⁵ Full questions can be seen in the second questionnaire in Annex (Questions F1 and F5).

information from a communal tie is assumed to be less adequate for matching, we assume the first to be related to shorter and the latter to longer unemployment duration.

Additionally, prolonged unemployment is a handicap on the labor market. In the case of prolonged unemployment spells, job seekers may be more dependent on somebody informing them about vacancies (or even to vouch for them) in order to overcome the potential stigma of longer lasting unemployment (Silver 1994: 563). Work ties have been shown to become less available as time out of work goes by (Larsen 2008). This is another reason, why we expect work ties to lead to a job in the case of short unemployment durations.

Equally, employment access without job information from a network member may be easier for job seekers with shorter unemployment durations. Accordingly, we expect job seekers finding employment thanks to job information from work tie or by soliciting non-network means to be more advantaged in their general job access chances (personal and network characteristics) and also therefore to find a job faster. In contrast, communal ties are expected to jump in in the case of longer unemployment durations, which means these job seekers are also expected to be less advantaged in their general job access chances and therefore to take longer to find a job.

We expect in chapter 7 that higher wages are earned when a job was found via work ties than when it was found via communal ties. Work ties are better informed about job's and job seeker's characteristics relevant for a good match. A good match is also assumed to go along with higher productivity and thus higher wages. Moreover, getting first job information from a work tie may more generally reflect a better integration in the occupational field of the job seekers, and therefore also be read as a sign of the degree of integration in the labor market. In contrast, communal ties are prone to be less able to judge characteristics relevant for a job match and therefore information from these contacts may only be considered when there are no better alternatives. This potentially lower match is expected to be "punished" with lower wages.

Thus, our analysis focuses at this point on the social contact that led to the job. It is important to underline, that while accessible, activated and mobilized social resources may play a role for which job offer is finally accepted, it makes only sense to assume a direct relationship between the characteristic of the contact that led to a job and the outcome such as wages. With this stepwise perspective on the role of social resources in job search we follow Lin (2001) and Lai et al. 1998, but we introduce a more nuanced understanding of mobilized social capital in job search (compare Lin 1999, where the distinction between mobilized social resources and social resources that led to the job is not clear at all). To our knowledge, this is the first quantitative study on unemployed job seekers, which not only looks at the outcome of finding a job and the time needed to find a job,

but rather analyzes the role of the social network and its activation and mobilization for actually finding a job via occupational or non-occupational ties, and for the time needed to do so. This study design fulfils a necessary, but not sufficient condition for checking an eventually causal relationship between social capital and job search outcomes (Mouw 2003).

Finally, we do not agree with Lin's emphasis on an instrumentalization of a social relationship to get benefits out of it in the case of job search (Lin 2001). Although, we agree that it becomes instrumental in the case and for the moment of leading to a job, of course, and at this point it illustrates the conciseness of the term social capital. However, we do assume that exchange of information and support in different forms is part of the constitution of social relationships, but that support in job search is just one form of exchanging support beside others. Thus, building up and maintaining social relationships does not have to be instrumental for the specific goal of finding a job, but can become so - as a side-product - in the specific situation of job search.





2.1 Detailed mechanisms and measurements

Job seekers' characteristics

Age

Age is a key dimension for sociological research on inequalities. Over the life course, and thus with increasing age different institutional and organizational settings are experienced, and normative expectations in terms of occupational trajectory vary by age group. On the one hand, different kinds of resources are accumulated in these contexts, such as educational credentials, professional skills and work experience. On the other hand, social resources are built up through participation in educational institutions and working in organizations (Erickson 2001).

The most relevant contacts for job search are work-related contacts (Pedersen et al. 2008, Larsen 2008), which result from a continuous and successful labor-market trajectory (Bridges and Villemez 1986: 579). Therefore, they tend to rise in number over the life course, but level out or can even decrease around the age of 50 (McDonald and Mair 2010). Thus, age is often a proxy for time-related skill accumulation, thus for work experience (cultural capital) and social capital built up through participation in different work environments, trainings and educational institutions.¹⁶

After a certain length of tenure, often observed for older job seekers cultural capital may depreciate, when skills have to be evaluated by others than the firm in which they have been developed (Jacobson et al. 1993: 686). New employers, particularly when they belong to another sector, might consider those skills too firm-specific and interpret long tenure as producing a loss in transferable skills (Daniel and Heywood 2007). In consequence, older unemployed job seekers might experience larger wage losses when changing jobs (Couch and Placzek 2010: 584). Moreover, as employers might "under-evaluate" their resources, job seekers having passed a certain age might not only be at risk of getting a job of lower quality compared with the pre-unemployment one, and taking longer to find it, but might be more at risk of not finding one at all. Their unemployment is more likely to be stigmatizing. Longer durations are often assumed to depreciate skills. In contrast, unemployment among the younger seems more often interpreted as part of the job-search and job-matching process, reflecting a harder transition between educational system and the labor market, upon which employers seem to judge less.

¹⁶ Although we do have measures for work experience and degree of qualification in our administrative data, this information is too short-armed to be useful and providing any insights. Nevertheless, we checked for their impact, but due to aforementioned reasons they do not explain anything nor are they related to any of the analyzed outcome dimensions. We therefore stick to the proxy of age – a proxy for social and cultural capital.

Going along with the principle of homophily and processes of accumulation of resources, we expect job seekers who were advanced in their careers, and possibly even had higher hierarchical positions, to have a higher number of contacts with similar properties, and therefore to have more useful social contacts to help them in job search. Job search via social contacts may be more promising for older job seekers with many work-related contacts. In contrast, we expect younger job seekers to have low levels of "useful" social capital, except for highly class-dependent inherited social capital.

Job access via communal contacts is expected to bring the danger of lower job matching, especially for younger job seekers and persons with little labor-market experience, because they may be missing contacts with similar properties regarding work-related skills. Thus, they are expected not to have access to information on the most appropriate jobs for them (Bentolila et al. 2008).

We assume that the likelihood of finding a job starts at a high level when young and first increases due to accumulation of job-relevant resources through training and work experience over the first decade(s) in the labor market, and then drops constantly with increasing age (inverted U-shape). We expect the likelihood of finding a job via network raises with increasing age. Particularly, we expect the use of work contacts to rise with increasing age, but level out after a certain point. Therefore, the oldest and the youngest group should be less likely to use work contacts. However, while we expect young job seekers to be more likely to find employment via non-network means, we expect the oldest job seekers to depend more on communal contacts.

We expect that younger job seekers find a job faster without getting their first job information from a network member, whereas we expect older job seekers to find employment faster thanks to a network member that provides first job information. We assume young job seekers to have recent qualifications, but not much work experience and therefore no big occupational network available. In contrast, older job seekers have much work experience and more occupational social capital to testify for the quality of the latter, but formal qualifications may lay too far in the past in order to serve as reference point for employers. Therefore, employers may interpret formal qualifications of young job seekers as most useful to judge their skills. Thus, for this group of job seekers network comes into play only once formal means have turned out not to be judged positively by the employers. In contrast, when hiring older job seekers, job access may be more successful, and therefore faster, when it goes via occupational social capital as this may be the point of reference for the new employer.

In terms of job wages, we expect that older job seekers find better paying jobs via social contacts than via non-network means, younger job seekers find better paying jobs via formal means. For aforementioned reasons, we assume formal qualifications to be most useful to measure whether the skill requirements of the job and the job seekers skill profile matches when they are recent. In contrast, occupational contacts may be best able to judge on the matching between skill requirements of a job and a job seeker's skills. Better matches are assumed to lead to higher wages.

Sex

Female labor-market participation is still lower than male labor-market participation in Switzerland as in most other countries. And within their working lives, women spend fewer hours in the labor market than men, as they still are more strongly engaged in family and household work. This is a problem if we recall that social capital is built over time and work-related contacts are assumed to be particularly relevant for job search. At the same time, as the name indicates, they are primordially found in work environments.

Furthermore, the labor market is still segregated by gender (female vs. male dominated occupations). Moreover, path dependency and homophily plays a role for (social) capital endowment. Therefore, women have fewer opportunities and less time to build up occupational social capital; at the same time, gender is one criteria in which network members tend to be similar to each other, thus women tend to have more women and men tend to have more men in their networks. Thus, women tend to have more women in their network who have the same "problem" as they have. This leads us to the assumption that not only labor markets but also social resources are gendered, as men have a higher employment rate and men tend to occupy more influential positions. Therefore, men are more likely to have work contacts *and* communal contacts in their network who are employed and who are in higher positions, and thereby are more likely to provide crucial job information.

Therefore, we expect men to be more likely to find a job via contacts than women, and that they are more likely to access their job via work-related contacts and via communal ties, because - still assuming men have more men in their network - both kinds of contacts are more likely to have access to labor market information, whereas in women's networks it may be only work contacts who are more likely to have access to labor market information, but still these work contacts may be in other positions than work contacts of men. Thus, we assume that finding a job via contacts when being a man may result in better matches because the occupational social resources may be better positioned to judge job seeker's and job's characteristics than when being a woman.

Further, for the same reasons we expect male job seekers to have shorter unemployment spells when accessing their job via network than when finding it via non-network means, whereas we expect women to have shorter unemployment durations when accessing their job via non-network means than when finding it via network. Moreover, we expect men to find higher paying jobs when they access them via social ties than when they access it via non-network means, whereas we expect women to find lower paying jobs when they access them via contacts than when they find it by nonnetwork means.

Nationality

The argument regarding nationality follows a similar line to that for gender. Some labor markets are not only segregated by gender, but also by nationality. We assume social resources to be marked by homophily in nationality and other characteristics. There are certain occupational fields within the Swiss labor market that show a particularly high homogeneity in terms of the nationalities of their workers (for example construction work or catering jobs). At the same time, informal hiring procedures are prevalent in specific industries and for certain occupations.

As the accumulation of social capital is related to spatial and temporal factors, we expect that the duration of residence within a country or a region affects the role that networks can play in job search. At the same time labor-market access, migration and residence traditions are related to migration policies, which differ between individuals with non-EU and EU nationality in terms of the conditions for work and residence permits. We therefore expect the legal framework of labor-market access and the length of time that specific migration policies had been in force to affect job access channels available to job seekers.

Swiss job seekers have full rights to live and work in Switzerland, without any administrative barriers or expenditures. They probably had their education and work experience in Switzerland, and therefore Swiss employers will accept, recognize and trust these credentials. As a side product, most of these job seekers have also built up their occupational and non-occupational network in a Swiss context, and thus have their whole network at their disposal for support. Additionally, most of them master the regional language.

Members from the EU-15 member states, who have had the right to live and work in Switzerland since 2002, and have a long residence tradition and are well established in Switzerland. As long as the legislation on the free circulation of persons is in force, they have the right to work and live in Switzerland if they find a Swiss employer or have proof of financial resources. Accordingly, administrative barriers to work in the Swiss labor market are low. Often they speak the regional language well or have it as second or third language. They may have a network integrated in the labor market. Even in cases where their formal or informal credentials are not Swiss, they have higher chances of having them accepted by regional employers than job seekers with a non-Swiss and non-EU-15 background.
Job seekers with neither-EU-15 nor Swiss background have no basic right to work and live in Switzerland, but have to apply for a permit and prove they fulfill requirements attached to such a permit. They have either to be highly qualified to obtain working and residence permits conditional on having an employer,¹⁷ or come to Switzerland for family reasons or as refugees. Work migration is in most cases only possible for highly educated or specialized occupations, and employers must undertake considerable administrative effort to get work permissions, which is more easily done by bigger and more internationally acting firms with specialized human resources departments. Family migration often goes along with waiting periods to get not only residence, but also work permission. The chances of experiencing pauses in the accumulation of work experience are thus higher.

Additionally, many of these job seekers have a foreign education and therefore lack formal credentials that would easily be recognized by Swiss employers, and also work experience is often devalued, unless it has been within internationally operating firms. Moreover, the regional language, French, is the mother tongue only for some. Moreover, residence traditions are sparse and national communities smaller. Many of these workers therefore may meet different constraints: higher administrative expenditures, smaller network and less access to information on the Swiss labor market, less recognized qualifications, but also discriminatory behavior of employers.

There is a fourth group of job seekers comprising workers from a higher positioned international community, mostly having Northern European or North American nationality and usually subsumed colloquially as expats (expatriates)¹⁸. They are often highly educated, with internationally recognized diplomas and work experience and an internationally working social network. They often work with employers that have high capacities in dealing with Swiss administration. Their network is very efficient in channeling them into high paying jobs and they work in environments where often English, which they master, is the common language. Therefore, they encounter less hassle in accessing jobs independently of having EU-15 or non-European nationality.

We expect job seekers with a nationality of long residence tradition in French-speaking Switzerland (such as France, Italy, Spain, Portugal) to be more likely than job seekers from other countries to find a job in general, and via work ties and via non-network means. Individuals with a nationality usually represented in so-called expat communities are expected to have highest chances of accessing their job via work contacts. Job seekers with a non-EU-15 and non-Swiss nationality

¹⁷ Additionally, the employer has to prove that he or she cannot find a worker with Swiss or EU-15 nationality to do the job.

¹⁸ However, the scientifically used term is not congruent with the colloquially used as the article of Andresen et al. (2014 : 2303ff.) makes clear. This article disentangles common criteria of being classified as expatriat or not, where neither nationality of origin nor skill level seem to play a role.

who are not part of an expat community are expected to be more likely to find their jobs via communal ties or non-network means.

We expect all job seekers to have shorter unemployment durations when having found employment via social contacts, and even more so when it was thanks to first job information from work contacts than when they accessed employment via non-network means, but we expect the duration reduction to be bigger for Swiss job seekers and workers from expat communities than for workers with other nationality than Swiss or EU-15.

We expect Swiss job seekers and those belonging to colloquially so-called expat communities to find better jobs when they are accessed via work contacts, while we expect all other job seekers to find better jobs when accessing them via non-network means. We expect particularly for non-Swiss and non-EU-15 job seekers that jobs found via communal ties offer lower wages.

Educational levels differ largely by nationality groups, which gives access to very different types of labor markets: he specific group of the North and Northwest Europeans and North Americans, as differs in their educational and professional profile: with more than three quarters (77 percent), they have a much higher proportion with tertiary education than all others. With 44 percent, the French have the second largest proportion tertiary-educated, among the Swiss it is 30 percent, whereas among the Portuguese it is only 4 percent. Further, these unemployed from Northern Europe and North America have a proportion of people with no more than compulsory schooling that is comparable to that of Swiss or French unemployed: 13 percent. In contrast, the proportion of Portuguese with low education is 68 percent, that of the Italian and the Spanish 35 percent. All other countries are lumped together – notably Eastern Europe, Africa, Asia and Latin America.

Education

Participation in educational institutions does not only provide individuals with qualifications – cultural capital or human capital – that are evaluated by employers, but as a by-product, also with colleagues and friends and thus social capital (Erickson 2011). In terms of the first aspect of education, higher formal credentials tend to be better rated by employers than low formal qualification. When it comes to skill assessment, it is, however, not only formal credentials, acquired through education, but work experience and skills acquired on-the-job that are evaluated by employers.

Often, higher education leads to better positions within organizations, and employees in higher positions are often better informed about the firm and upcoming job vacancies and thus are potentially able to control some information. Such positions may also go along with influence on recruitment processes or hiring decisions. Therefore, and in line with the principle of homophily, we expect people with higher education to be more likely to know highly educated people who have useful information and social resources for job search and therefore for job access via network *and* via non-network means.

At the same time, hiring procedures seem to vary by qualification requirements of jobs. Jobs requiring either highest or lowest qualifications seem to be more likely to be accessed via social ties. In the case of accessing high quality jobs, informal contacts can provide additional information about the job applicant and at the same time be interpreted as a signal for more extensive social capital of the job seeker, which is potentially useful for the company too (Erickson 2011). In the case of jobs with low skill requirements, recruitment has to be fast and skills required to do these jobs are less or not at all formalized. Therefore, hiring strategies tend to be informal and not very standardized.

In line with these arguments, the chances of finding a job should rise with increasing education. Moreover, we expect that it is the lowest and highest educated individuals who have a higher probability of finding a job via social ties. In contrast, we expect job seekers with intermediary education (upper-secondary education) to be more likely to find their job via non-network means. Further, we expect higher educated individuals to be more inclined to find employment via work contacts than job seekers with only basic education because the skill requirements of their jobs are more specialized and therefore other personal contacts would not suffice. At the same time, higher educated individuals should be less dependent on communal contacts compared with job seekers with basic formal credentials only. We expect finding employment via communal contacts to be the job access channel of last resort to leave unemployment and thus helped workers with low formal job access chances to find employment, i.e. job seekers with no more than compulsory schooling.

We expect that the more formalized educational credentials are, the faster the exits via nonnetwork channels, which concretely means: in the case of highly standardized upper-secondary education, we expect job finding without job information from a network member to be the most common and fastest job access channel. Further, we assume that, in the case of higher positions, particularly managerial positions, more additional non-formalized information may be needed to fill a vacancy, because non-formal qualifications and characteristics such as loyalty, discretion and social skills may play a role. Additionally, for such positions, occupational, social capital is itself likely to count as a qualification (Erickson 2001). We expect both higher and lower educated workers to find a job in a shorter time when they got their first job information via contacts, particularly via work contacts, than when they do not. In the first case because we assume work ties to have access to particular job information and be able to complement formal information on the job seeker and the employer by soft factors not available to one another in case of non-network recruitment. Therefore, a match is found faster when having job information from a work tie, which result in generating faster and better job offers. In contrast, we expect the intermediate educated to leave unemployment faster when finding employment via non-network means. Moreover, we assume finding employment via first job information from communal ties to go along with longer unemployment durations, particularly for workers with higher education or upper-secondary education, because we assume the distinction between work and communal ties to be less relevant in case of low skilled jobs because of lower specialization than in jobs with higher skill requirements which may be more occupation specific.

If hiring procedures are decisive in how jobs are obtained, job seekers having access to the most common job access channels in their occupations may obtain better jobs.

Employment history

Occupational class

Class indicates the position of a person in society, and occupational class is a good indicator for the position of an individual in the labor market. We thus use information on a job seeker's previous occupation in order to operationalize occupational class. We resort to a version of the Erikson and Goldthorpe schema (1992) distinguishing four hierarchically ordered levels: low-skilled working class, skilled working class, lower-middle class and upper-middle class. Low-skilled working class includes machine operators and elementary occupations in production, sales and services. Skilled working class includes craft workers, clerks and skilled sales and service workers. Lower-middle class comprises associate managers, semi-professionals and technicians. The upper-middle class consists of managers and professionals.¹⁹

In contrast to education, occupational class not only considers formal credentials mostly acquired before entering the labor market, but takes into account the current qualification of the job holders in a certain category. Thus, this measure could be closer to labor-market reality. Not only does search behavior differ by occupational class, but also hiring traditions in the jobs available to the occupational classes differ.

¹⁹ We do not distinguish additionally upper class from upper-middle class because we basically have no upper class individuals registered as unemployed. To build the occupational classes we use the 5-digit level Swiss Standard Classification of Occupations 2000.

Occupational group

In addition to occupational class, we distinguish nine groups of occupations based on the Swiss Standard Classification of Occupations 2000 (SSCO 2000: 1) Occupations in agriculture, forestry and animal production, 2) Occupations in manufacturing and production, 3) technicians and computer scientists, 4) occupations in construction, 5) occupations in sales and transport, 6) occupations in catering and personal services, 7) occupations in management, administration, banks, insurance, or legal services, 8) occupations in health, teaching, culture, research, 9) unidentified occupations. This categorization is similar but not equal to a categorization by industries (BFS 2003: 31).

Literature on the employer side of the recruitment process has shown clearly that hiring strategies depend not only on the skill profile of jobs but also on the kind of jobs (e.g. Bessy and Marchal 2007). These job seekers have industry and job specific knowledge about recruitment processes. Thus, we for the type of the pre-unemployment job. We focus on type of job rather than on industry because we consider this more precise for capturing recruitment practices, as type of jobs and recruitment practices within one industry vary greatly.

Previous unemployment

Studies on recurrent unemployment (Manzoni and Mooi-Reci 2011, Gangl, 2004, Gregg, 2001) have clearly shown the existence of low-pay-no-pay cycles, and thereby the circular effects of previous unemployment for wages and also job access chances, and the risk of becoming long-term unemployed. Our study is not focused on recurrent unemployment, but still takes into account the information on previous unemployment. On the one hand we consider it to be an important factor of how current unemployment is judged by employers and therefore we expect it to be related to job-search outcomes. Workers who have experienced previous unemployment may also have experienced skill depreciation, which makes them more dependent on referrals. At the same time, having previously been out of the labor market also goes along with a loss in occupational social capital. On the other hand, it might be a proxy for other unobserved characteristics of job seekers (at least for some of them).

We expect job seekers with previous unemployment to have more difficulties in finding a find a job in general and more difficulties in finding a job via work-related contacts, but not necessarily via communal ties. They may be more likely to resort to communal ties than job seekers without previous unemployment spells. Further, in line with previous findings, we expect repeated unemployment to go along with longer unemployment duration and lower wages, especially if no

work contacts are led to the job, and with longest unemployment durations and lowest wages if communal ties led to the job.

Network characteristics

Decades of research have tried to define the role of network in job search and for job-search outcomes. Our starting point is the assumption that different sorts of resources are connected to each other. Therefore, we assume that individual characteristics such as education or age are clearly related not only directly to job access, but also indirectly via network resources to job access, job access thanks to information from network in general, and via work-related or communal contacts more specifically. Thus, it is often difficult to capture the direct effects of network characteristics on job access, which thus should be job access via network, via a specific kind of tie, and for different related dimensions of job-search outcome such as unemployment duration and wages. Unobserved characteristics may at the same time play a role for finding a job *and* in creating a network with favorable labor-market-relevant characteristics. Moreover, according to the principle of homophily, similar people are likely to be in contact with one another. Thus, it is difficult to disentangle the effect of network from the effect of personal characteristics.

We expect network size and quality to be an indicator for access to labor-market information in general and for access to information about specific job vacancies in particular. Therefore, we assume that network characteristics affect job access via network, but we also expect them to be correlated to job-search outcomes when no social contact has been used for a specific job found. At the same time, individuals who have higher capital endowment in general are likely also to have higher social capital at their disposal, thus network characteristics are moreover an indicator for other characteristics relevant for job search,

Our main interest, however, is job access via network, which we expect to be affected by network characteristics, particularly by contacts clearly related to the domain of the labor market, such as network members in higher hierarchical positions, friends among former co-workers. Thy should increase chances to find a job via work-related ties. The advantages of this job access channels were already discussed.

Although we assume network size and quality to matter for job access in general and for job access via network in particular, the underlying processes might be different for these two outcome dimensions: for job access in general "a better network" might reflect that somebody is better integrated and better informed. Particularly the former, but maybe also the latter, might be enhanced

by characteristics of the job seekers that at the same time enhance advantageous network characteristics *and* finding a job – such as communication skills and/or a pleasant personality.

Regarding job access via network, we can assume that a "better" network enhances relevant factors in the job-search process, namely the chance that someone within the network has access to useful job information and therefore also the chance that someone in the network will share this information with the job seeker. Further, having a "better" network might also encourage the job seeker to activate it, thus, again enhancing chances that network members can help the job seekers by sharing information or exerting influence on hiring decisions.

We investigate the role of network size in terms of the number of friends in the network, and mean by network quality a) the proportion of employed friends, b) the proportion of network members in a higher hierarchical position, and c) having friends among former co-workers. Thereby, we consider the influence of quantity and compositional quality measures on job access chances and on the chances of accessing jobs via network.

We expect the probability of finding a job per se and of finding a job via social ties in general, but in particular for finding a job via a work-related tie, to rise with an increasing number of friends, with an increasing proportion among them who are permanently employed, with a bigger proportion of network members who work in a higher hierarchical position and with more friends among former co-workers. Moreover, we expect unemployment duration to fall with increasing network size and quality.

Further, we expect an increase in wages with bigger network size and higher quality, and we expect an even stronger increase in wages when the job has been accessed via a social contact, specifically via a work contact. In terms of the mechanisms concerned, we expect higher quantity and quality networks to increase the chances of finding a job via a work contact. This should in turn raise the chances of getting a better job due to higher chances of relevant job information and influencing hiring and potentially better job matching compared with people with lower quality network characteristics.

Job-search patterns

Activation and mobilization of occupational social resources

Not all network members are willing to share network information, or even if they are willing to do so, not all of them are able to provide help in job search, because not all network members have access to job information. Therefore, it is important to distinguish between accessed and mobilized social capital. While the first means resources potentially available in one's network, the second means network resources actually used to find a job, thus in most cases it is one network member's resources that are used. Accessible resources can be captured by measures of network characteristics, such as its size and compositional quality and affect the activation behavior of the job seeker. The job seeker will talk more about his job search and try to get help from network members if he or she expects them to be able to help (Holzer 1988). Thus, we distinguish between accessed and mobilized social capital (Lin 1999: 473) and consider agency relevant for an individual's trajectory (e.g. Heinz 2009b). By doing so, we split the mobilized social capital into activated (job seeker talks about job search to them), mobilized (job seeker receives job information from these contact-s) and used social capital (the one network member, which provided the first crucial information that lead to the new job). We also refer to numerous findings on job-search effort and intensity for job-search outcomes. We assume that job seekers who actively use their social contacts in job search and are able to mobilize them can thereby affect their job-search outcomes.

The unemployed should be more likely to find a job, to find it in a shorter time and to find a good job when having the help of social contacts with access to the labor market in general, and preferably with access to job information in occupations and industries which best match the job seekers skills. We therefore emphasize the role of homophily in occupational characteristics, look at the activation and mobilization of former co-workers, and analyze in particular the use of work-related versus communal contacts.

We expect that job seekers who activate their social network, particularly their occupational network, have a higher likelihood of finding a job and finding a job via contacts. Concretely, job seekers who often talk to former co-workers about job search should be more likely to find a job, to find it via social contacts, and more precisely via work contacts. Further, they should be more likely to find a job in a shorter time and to find a better job than job seekers who do not often talk to their former co-workers about job search.

Moreover, we expect job seekers who often receive job information from former co-workers and/or other occupational contacts to be more likely to find a job, and to find it via network, more precisely via work-related ties. Additionally, we expect these job seekers to find a job faster and one that pays better than workers who have not often received job information from former coworkers and/or other occupational contacts.

Number of applications and interviews, failure rate, and number of different access channels

Economic and economic sociology literature has emphasized the importance of job-search effort for finding a job and for unemployment duration (e.g. Krueger and Mueller 2011). In order to control

for job-search patterns in general, we take account of the average number of applications and interviews per week and their ratio. Thereby, we not only consider quantity, but also get a measure for quality of job-search effort. Further, we account for the number of different job search channels used. Thereby, we add in a measurement of diversity of access channels.

2.2 Summary

Table A2.1 in the annex summarizes our main expectations regarding different influence factors. In the second and third columns, we look at their interrelation with social capital endowment and dependency on it; the last column displays the mechanisms expected to be behind the expected outcome. While the tabular summary goes into detail, we briefly sum up our main expectations.

We can roughly distinguish between job seekers with high and low job access chances in general. From the literature, we can expect that younger age, more work experience, higher education, non-immigrant position, no previous unemployment spells, and more advantageous network characteristics in terms of labor market relevant characteristics affect job access chances positively. Due to the principle of homophily, higher job access chances in general are usually related to having network members with advantageous characteristics when it comes to being helpful in job search. Such advantageous characteristics of network members are: being employed, working in the same occupational field or industry as the job seeker, and having a higher hierarchical position. Workers who have the highest job access chances in general also have (1) networks with more resources relevant for being able to help in job search, and (2) jobs in which employers usually recruit via formal means or work ties. Thus, they are more likely to use either formal means or work contacts.

Work ties are more likely to be informed on vacancies of interest for the job seekers and they are more likely to be able to judge whether the job's and the job seeker's characteristics match. Better matches promise better hiring chances, which go along with shorter unemployment duration and better salaries. Also, work-related ties may share information on attainable salaries for a job and may put the job candidate in a better position to negotiate his or her salary, which also leads to higher salaries.

Workers with the lowest job access chances in general are more dependent on informal job access even if they usually have networks with fewer resources useful for job search. At the same time, they usually find jobs which are filled by employers using informal channels, as such recruitment is quicker and cheaper. Thus, this group of job seekers is less likely to use formal access channels and more likely to use communal ties instead. Communal ties are less likely to

judge very well whether the job seeker's and the job's characteristics match. Therefore, they are more likely to lead to a job when other channels fail and thus go along with longer unemployment durations and lower salaries as compared with both finding employment via formal means and work-related contacts.

We thus expect work-tie users to have shorter unemployment durations and higher wages than communal-tie users. In contrast, the latter have longer unemployment durations and lower salaries. We emphasize the importance of distinguishing between work and communal ties in order to identify different functioning and mechanisms of job access via network.

Although we cannot entirely rule out endogeneity, the advantage of our data is that we have information on: the job seeker, the network at the beginning of unemployment, the job access channels used, the channel by which the respondent had the first information on the job found, and the kind of contact that gave this and its characteristics, as well as the characteristics of the job found. Further, we know how the last job was found and we have information on the unemployment history in terms previous job and on previous unemployment. All this allows us to meet a good number of challenges which were remaining in previous research, and it allows us to make a more direct link between network and tie that gave the information on the new job, and between this tie and job characteristics, while controlling for personal characteristics and (un-)employment history. Additionally, we are able to take account of individual agency in the sense that we know whether the job seekers talked to their former co-workers about job search, whether they got job information from them, which refers to a procedural understanding of job search via social capital. Finally, we are able to control for how intense job search was in general (average number of applications and interviews per week and their ratio and variety of different job search channels used).

3. Context, Data and Sample(s)

Our study analyses a sample of unemployed workers in Switzerland, where the unemployment rate is low compared with most other countries. At the same time there is not much protection from being dismissed. In Switzerland, welfare institutions for those who experience unemployment are well defined: on the one hand, they protect people concerned by job loss from poverty by providing unemployment benefits; on the other hand, they are designed to help job seekers find a way back into the labor market. This is done by relating benefits to continuous counseling from the public employment services (PES) and active labor market policies (ALMP). The first part of this chapter will discuss unemployment and the institutions dealing with it in Switzerland. We pay particular attention to the situation in the Canton of Vaud, the largest French-speaking canton of Switzerland, because the data was collected there.

The second part of this chapter presents our data collection and instruments in detail. In collaboration with the employment services of the Canton of Vaud, we collected data on a three-months-entry-cohort and surveyed the unemployed at two different points in time: first, after they had registered at the PES, and secondly when they left them again or became long-term unemployed. While our first questionnaire collected information on network characteristics and job-search strategies at the beginning of unemployment, our second questionnaire informed us on how a job was found, what kind of job, and which search strategies were used before leaving unemployment.

In the third part of this chapter we discuss response rates and sample characteristics and possible consequences for interpretation of the results. We find the typical non-response biases in terms of age, gender, education and nationality in our final data (for nationality and education see for example Lipps et al. 2013). However, we had the opportunity for most of our respondents to complement survey with registry data. Due to this setting we can draw a clear picture of the final sample, and to what degree it represents the inflow sample.

3.1 Context

The labor market of Switzerland and the Canton of Vaud

The employment rate in Switzerland is still one of the highest among OECD countries. It was around 80 percent in the period of our study, i.e. 2012/2013 (OECD statistics). For men between 15 and 64 it was 84 to 86 percent, for women 73 to 74 percent according to the OECD (OECD statistics). Although the proportion of women in the active labor force has continued to rise since

the late 1970s, men are still the main breadwinners, and women tend to work part-time in Switzerland (Bonoli and Mach 2001). Compared to other industrialized countries, the Swiss labor market shows a strong tertiarization: 74 percent of all workers were employed in the service sector in 2012 compared with 39 percent in 1960. At the same time tertiarization of employment has led to a dual skill structure, with high skill requirements and high wages on the one end and low skill requirements and wages on the other end. In contrast, employment in production clearly diminished compared with other European States. Nevertheless, Switzerland still has a high employment ratio in different sectors and a high level of employment in manufacturing (Oesch 2006: 31f., Bonoli and Mach 2001).

The Swiss labor market is flexible, and in terms of employment regulations comparable to English speaking countries, but with a strong social protection at the same time. On the one hand, we recognize characteristics of a so-called liberal market economy in structurally weak industries such as personnel services, which are characterized by low productivity, lower salaries, low employment protection, lacking trade union representation and hence lacking collective agreements. On the other hand, other sectors are characterized by a so-called coordinated market economy. Especially in the traditional manufacturing of higher quality products, we find stronger unions and regulations, as well as institutionalized training by the dual educational system leading to broadly recognized qualifications (Estevez-Abe et al. 2001: 173, Perret et al. 2007: 18).

Our study is conducted in Western Switzerland, in the Canton of Vaud with Lausanne, its capital, the fourth biggest Swiss city. The Canton of Vaud is the largest French-speaking canton in Switzerland, and has about 734,000 inhabitants, half a million living in Lausanne and its agglomeration. The activity rate is 78 percent for 15 to 64 year olds. The Canton of Vaud has many aspects in common with other Swiss cantons such as Basel, Geneva, Neuchâtel, Schaffhausen, Ticino, Zurich (Perret et al 2007: 63): a relatively higher degree of urbanization (75 percent), a higher proportion of people working in the service sector, of lower educated people, of foreigners, and a lower proportion of people with apprenticeships (Korber and Oesch 2016, Flückiger et al. 2007). The aforementioned factors often co-occur with higher unemployment rates than we find in central and north-eastern Switzerland. We conclude from these descriptions that the Canton of Vaud is a very interesting region to study as it is representative for major Swiss unemployment problems also found in other important regional Swiss labor markets that are characterized by being economic centers of the country, such as Geneva, Basel or Zurich (Perret et al 2007: 63). For some more numbers on the characteristics of the Canton Vaud compared with the Swiss average, see Table A3.1 in annex.

Unemployment in Switzerland and the Canton of Vaud

For a long time after the Second World War, there was full employment in Switzerland. One determinant of this situation was that foreign and female labor acted as buffers in the economic downturn of the 1970s, which means they were pushed out of the Swiss labor market in times of recessions (Flückiger 1998). The *saisonnier* (seasonal worker) permit was a short-term work and residence permit, which had meant having to leave the country as soon as harvest, tourism or construction season was over. This permit could be renewed each year, thus many workers repeatedly had to come and leave over years.²⁰ In the 1980s some significant changes had taken place and had an impact on the unemployment rate: women took on a bigger share of the labor market and foreigners were no longer only accepted as seasonal workers, but received residency permits, and their labor-market integration was stabilized. Further, these groups – women and foreigners (and their employers) – now also had to contribute to the henceforward mandatory unemployment insurance (Perret al. 2006: 17f.) and were entitled to unemployment benefits.

In the 1990s, the unemployment rate went up from 0.5 percent in 1991 to 4.7 percent in 1994 and even 5 percent in 1997 (Weber 2001). Unemployment, in the 90s for the first time, was perceived as social and political problem (Perret et al. 2007: 16f.), and it has been a major concern in the population ever since (Bonoli and Mach 2001). The fact that the former low unemployment level has never been re-established may have contributed to this perception (Oesch 2013: 128). Swiss unemployment rates are still low compared with other European and Non-European countries.

There are competing definitions of unemployment for calculating unemployment rates per country. Our study works with the unemployed population as defined by the unemployment insurance and Switzerland's State Secretariat for Economic Affairs (SECO). According to their definition an unemployed job seeker has to be registered at the regional PES, and being immediately available for accepting a new job.²¹ A second way to measure unemployment is based on the internationally recognized definition of the International Labor Organization (ILO) and also used for the OECD statistics. For Switzerland, this unemployment rate is computed by using information from the Swiss Labor Force Survey (SLFS). According to this definition, respondents are considered unemployed if they were without job in the week of the interview, were already

 $^{^{20}}$ It was abolished in 2002 with the free circulation of persons with the European Union (which was again put into question since an initiative accepted by the population in 2014).

²¹ However, we find that some of our respondents to our second or third questionnaire who have found a job may have had short-term intermediary gains, or participated in educational or occupational programs or being forcefully or on their own will exempted from unemployment benefits by the end of our study period (it is the case for 20 of our respondents, which we had included in the analyses on job access channel).

looking for a job in the four previous weeks, and were available disposal to start working in the following four weeks (ILO 2009).

Unemployment in Switzerland during our study period was, depending on the definition, at a rate of 2.9 percent (SECO, based on registered unemployed only) or 4.3 percent (harmonized unemployment rates OECD according to ILO definition). The unemployment rates of the Canton of Vaud are with 4.7 percent (according to the SECO unemployment rate considering registered unemployed only, SECO 2013: 20) and 5.7 percent (according to the ILO definition, calculated by Korber and Oesch 2014: 25) clearly above Swiss average.

The Swiss dual vocational training system ensures a high rate of youth employment and a low rate of youth unemployment respectively (Bonoli and Mach 2001: 89). Between February 2012 and April 2013, according to the SECO definition, it was 3.3 percent as a Swiss average and 5 percent in the Canton of Vaud for 15 to 24-year-old job seekers. If we compare the unemployment rate of the Canton of Vaud with that of Switzerland for our study period from February 2012 to April 2013, we find a similar evolution in terms of relative changes, but the level in the Canton of Vaud is clearly higher than the Swiss average. This is the case for the total unemployment rates, but also for the unemployment rates by gender, nationality and age group. If we take a closer look, we find that the proportion of people becoming unemployed each year is higher in the Canton of Vaud than in the rest of Switzerland. A higher risk of becoming unemployed is observed among the youngest job seekers (15 to 24), lower educated, and foreigners, whereas the oldest job seekers (over 50) have a lower risk of becoming unemployed (Korber and Oesch 2014: 45).

Different factors are responsible for the higher unemployment rates in the Canton of Vaud: in 2012 it was the fact of having a higher proportion of people entering into unemployment rather than having a lower proportion of exits. The latter was quite comparable to the Swiss average. In terms of exits, we observe the contrary to what we described for the entries: it is the youngest who face the highest chance and the oldest job seekers facing lowest chance of exiting unemployment. Further, we find that in the Canton of Vaud the average unemployment duration is clearly higher than the Swiss average, it is 131 days compared with 111 days in Swiss average, and it is mainly the older job seekers who were concerned by prolonged unemployment spells, while other criteria such as sex or nationality do not seem to play a role (Korber and Oesch 2014: 45). Moreover, the Canton of Vaud has a high proportion of long-term unemployed workers, who remain enrolled at the

employment offices even though they have reached the end of their benefit period (Korber and Oesch 2014: 29).²²

It has been shown that the inter-cantonal differences in the unemployment rate are stronger during an economic boom than in an economic downturn (Flückiger 1998: 380). Therefore, differences in cantonal unemployment rates are rather due to structural factors than to differences in the economic cycle (Korber and Oesch 2014: 21). Since 2000, the proportion of jobless people who also register as unemployed with the employment service has been higher in the Canton of Vaud than in the Swiss average (Korber and Oesch 2014: 25).²³ This would mean that measured by the ILO definition the unemployment rate of the Canton of Vaud differs less from Swiss average.²⁴ Thus, an important part of the explanation of inter-cantonal differences lies in the registration behavior.

Some authors assume differences not only in registration behavior, but also pre-conditional to that in cultural work norms playing a role for the return to the labor market (Brügger et al. 2009). They find people from the rural areas to be more reluctant to register as unemployed. The authors explain this behavior with stronger work-related norms in the rural areas, which go along with a higher stigmatization of being dependent on the welfare state (Perret et al 2007, Flückiger et al. 2007). The latter would be another argument for studying a region with higher unemployment: we can assume that it may include in its unemployed population more people with characteristics that, in other cantons, would not be included in this group, but just be categorized as jobless (which is what the ILO unemployment rate measures, and which accordingly is higher for Switzerland than the unemployed rate based on register data).

Institutions dealing with unemployment in Switzerland

Post-industrial affluent states use at least three strategies to reduce poverty and other difficulties going along with job loss when no immediate transition into the next job is possible: employment protection laws, passive labor market policies, and active labor-market policies. Switzerland responded to the changes on the labor market rather with income replacement programs and active

²² This difference is due to diverging regulations for receiving social assistance (as social assistance is regulated on the cantonal level), which implies that if these job seekers are able to work, they remain registered at the PES and have to follow its control and sanction system (Korber and Oesch 2014: 29f.). In terms of financial support there are different institutions depending on the situation of the job seeker. There is primordially the unemployment insurance for the unemployed who are in principle able to work. Otherwise, there is social assistance.

²³ The authors compared the unemployment rates per canton based on the SECO definition with those based on the SAKE/ESPA information that uses the ILO definition.

²⁴ Thus, the co-occurrence of characteristics like high degree of urbanization mentioned above may rather co-occur with registration and exit behavior.

labor-market policies than with employment protection. Thus, employment protection laws, which try to make it harder for firms to dismiss their employees, are very moderate in Switzerland. Passive labor-market policies (PLM), define, in the case of job loss, the compensation schemes until a new job is found and bridging programs for those approaching labor-market exit. They vary in amount, duration, and eligibility conditions across different countries. In Switzerland they are considered to be comparatively generous as compared with most other countries (OECD 2002, Merrien 2000: 5).

In the context of industrialization and the expansion of the normal working contract many European countries introduced an unemployment insurance, from 1905 in France, up to 1921 in Sweden, Luxemburg, Czechoslovakia, and 1927 in Germany (Tabin and Togni 2013: 9). In Switzerland a law for public funding of non-mandatory unemployment insurance was introduced in 1924. In 1951 a law was introduced that allowed cantons to make unemployment insurance mandatory on cantonal level. Only in 1976 did a change to the first article of the constitution lead to the first federal law on a mandatory insurance for unemployment and insolvency that was introduced in 1977 (AVIG). Public unemployment insurance only became mandatory in 1982 at the federal level (enacted in 1983); since then it has been revised four times in 1990, 1995, 2002 and 2010 (Tabin and Togni 2013: 193).

The unemployment system in Switzerland is public, and unemployment insurance is self-financed. Administration, services, courses and training are financed partly by public funding. Unemployment insurance as pension system is mandatory and contribution-based (Armingeon 2001: 150). It offers a minimum of security also for those not able to contribute for different reasons. The contribution is split between employers and employees each of them paying 50 percent of the total contribution. The amount of the contribution is 2.2 percent of the annual salary (max. 2772 CHF) for salaries up to 126 000, 1 percent (max. 1890 CHF) for the part of income above 126,000 CHF.

As in other countries, the way of dealing with unemployment had evolved from a welfare to a workfare orientation, in the sense that there was a shift away from solely compensating the unemployed for experiencing job loss to a focus on reintegration of the job seeker in the labor market (Giugni 2009: 3). Unemployment benefits as well as some social assistance are conditional on the participation in activity programs such as work experience programs, job placing, training, personal counseling, and tracking of job-search activities. Possible sanctions, which can mean a reduction or even removal of unemployment allowances. Active labor-market programs for getting people back into jobs are important in Switzerland. They provide elaborated public employment

services, training programs, subsidized jobs, job creation and other measures (Giugni 2009: 7, Bonoli 2012).

Although Swiss unemployment policies are considered to be resistant to radical liberalization, and although emphasis on active labor-market polices is rather social democratic, they became more liberal in the last revision(s) (Nollert 2007). Changes in these revisions concerned contributions, duration and amount of benefits, the definition of what is a suitable or decent job/employment, and youth unemployment (Tabin and Togni 2013: 193). They tightened the link between contribution and benefit duration. Moreover, they reduced services and benefit duration, and prolonged waiting times for people, especially young people, who enter the labor market (Steiger 2007: 2).

Unemployment law and regulations are implemented at cantonal level, where the PES are situated. Actual guidance, control, mentoring and "hands on" put in practice are done on the level of districts and their regional PES. Their functions as we have them nowadays, came with the second revision of the unemployment law (approved in 1995 and introduced in practice in 1996), when active labor-market policies were introduced, as it was also the strategy of the OECD (1994). Professionalization of the PES was taking place, and the organization was put in place regionally (Perret et al. 2007: 16f.).

Whoever gets unemployed can register at a) the regional PES of his community of residence and b) at one of the unemployment insurance funds. This has to be done at the latest on the first day for which the unemployed wishes to get benefits. The PES are available already before the anticipated unemployment is starting (for example during the notice period) for counseling, and there is the obligation to demonstrate job search already during the notice period. The official introduction to the use of this service starts with a mandatory collective information session, which consists of an overview of rights and duties of the unemployed. After that, an individual interview takes place with the counselor in charge in order to discuss strategies for re-insertion and, if necessary, to define adequate courses or programs. For an overview of the different training and reintegration schemes see Duell et al. (2010: 19ff.).

The prerequisites for eligibility for unemployment compensation include being a resident of Switzerland, having finished mandatory schooling and not having reached the official age of retirement (in 2014 at the age of 64 for women and 65 for men), having worked at least for 12 months during the 24 preceding months or having been exempted from contribution (for reasons like education, illness, detention during more than twelve month or after divorce, after

discontinuation of invalidity benefit, or returning from abroad),²⁵ being employable (according to predefined criteria), undergo the control by the employment services (demonstrate required amount of job-search activity), and, possibly, participation in labor-market programs.

Benefit duration is adjusted to the contribution period. This means 90 days of benefits only for people who have been exempted from contribution; benefits during 200 days for people under 25 years old with no children who had been contributing for 12 to 24 months. For unemployed aged 25 or more or with children, the benefit period is 260 days for a contribution period of 12 to 18 months, and it is 400 days for a contribution period of 18 to 24 months.²⁶ The amount of benefits depends on the wage. If there are dependent children or the insured wage was under 3797 CHF per month, one has the right to a replacement rate of 80 percent of the salary. Otherwise it is 70 percent of it. The maximal monthly benefit for the first group ranges up to around 8400, for the latter around 7350 CHF. In the case of exemption of contribution, the amount of benefits depends on age and education.

3.2 Our Surveys, Data and Sample

We collected our own survey data, which we combined with administrative data to explore the role of social ties as a job-search strategy for unemployed. In order to obtain data of unemployed job seekers from the beginning of their unemployment spell until they left employment services, we used the institutionalized entry marker of registering as unemployed and the institutionalized exit marker of checking out or being checked out from employment services. We define unemployment of 12 months and more as "long-term" unemployment, and thereby follow the administrative categorization and the common understanding in research.

Our study is based on a large-scale survey that we conducted among more than 4500 unemployed job seekers in the Canton of Vaud. Our sample is a three-month-entry-cohort, in the sense that it contains people who registered in spring 2012, from February to April 2012, at the PES of the Canton of Vaud.²⁷ We chose this time of the year for our survey for two main reasons: first, this time of the year fitted well in organizational terms for the PES who played a crucial role in our data collection; secondly, because we expected seasonal fluctuations within specific industries to be close to their yearly average at this time of the year (e.g. construction workers with widespread unemployment during winter and very low unemployment in summer). This way our survey period

²⁵ Special conditions are given if somebody was preceding unemployment engaged in child care or was self-employed.

²⁶ If the contribution period has been 22 to 24 months and the unemployed is 55 years old or more or the person is 25 or more or has children and is considered at least 40 percent disabled, the unemployed has the right to receive 520 days of unemployment benefits. Having contributed 12 to 24 months and being close to retirement (max. 4 years before) gives 120 days extra.

²⁷ One of the regional unemployment offices out of ten could only participate from February to March due to internal restructuring.

would represent an average unemployment population regarding socioeconomic characteristics. This argument, however, may hold to a greater extent for the entry than the exit population. Exit rates for specific occupations might be higher than on the yearly average, notably in construction or farming, where the timing of the passage from winter to spring is decisive. Our database thus consists of a convenient inflow sample and covers almost the whole newly unemployed population of this region during this time period, job seekers who experienced the same macro-economic labor-market-conditions at the beginning of their unemployment spell.

Combination of survey and register data

Our sample is "institutionally" framed as the contact to our potential respondents was coordinated by the employment service of the Canton of Vaud and established via the regional PES of the Canton of Vaud. In the compulsory information session (called SICORP) taking place at the very beginning of the unemployment spell, each new job seeker filled in a first questionnaire. With this setting of the first part of the data collection in the regional employment offices, we could ensure nearly a complete inventory account.²⁸ Over a period of three months our first questionnaire was distributed and recollected at the beginning of the initial information sessions of the regional employment offices.

The second questionnaire was sent out individualized as each person left the employment services at a different point in time. At the end of each month we were informed by the cantonal PES about who had left the PES in the previous month. We then contacted those respondents who had left the PES because they had found a job or for other reasons, such as deciding not to undergo the strict constraints while still looking for a job or going for further education or family work. Alternatively, they may also have arrived at the end of their benefit entitlement period.

While the first questionnaire was a paper-and-pen-questionnaire only, it was possible to fill out the second questionnaire on paper or online. The potential respondents were contacted in several steps: first, they received a letter informing them that they would receive a second questionnaire by post and that the questionnaire was also accessible online; then, we contacted them by email if we had their addresses available. By this channel, we sent them a direct and personalized link to the online questionnaire. Third, the paper version of the questionnaire was sent by post. To increase the response rate, each person received (together with the paper version of the questionnaire) an

²⁸ There are about 5 to 10% missing data for people who did not have to join the information session for different reasons. Reasons for being exempted from this session can be on one hand "not enough French language skills to understand what is explained during the session," on the other hand "having become unemployed previously, but not longer than six months ago, and therefore being exempted from the actual information session, because of having attended such an information session already within the previous six months."

unconditional incentive in form of a voucher of 10 CHF. Previous studies showed that adding incentives has a positive effect on response behavior, particularly if it is unconditional (Shine and Dulisse 2012: 368; Lipps 2010: 85). People who did not respond within about one month were repeatedly invited to participate in the study. This was done first by email and one to two weeks later by post.

People who had not responded within several months, despite of two or more reminders were followed up with a two-page questionnaire, which only contained a few key questions from our second questionnaire. The idea behind this non-response follow-up questionnaire was to raise the response rate – to our most crucial questions as well as to crucial questions with otherwise low response rates due to group-specific applicability.

Finally, people who had become long-term unemployed – and thus, had not left employment services within the 12 to 14 months of our study period – were contacted with a third questionnaire. The contact procedure regarding this third questionnaire was the same as for our second questionnaire, but without a non-response follow-up. For a graphic overview of the survey process, instruments and samples see Figure 3.1.

The first questionnaire (Q1) at the entry to unemployment contains an exhaustive set of questions on the networks of the job seekers. The goal here was to measure network inequalities between different groups of unemployed. Further, it gathers information about job-search strategies used within the previous seven days. Moreover, it assessed whether job seekers had experience in finding a job via their social network in the past.

The same individuals filled out a second questionnaire (Q2) when leaving unemployment. It contains the crucial question on whether our respondents had found a job or whether they had moved to another position. Besides that, again a number of questions were asked on the job-search strategies used. Further, it asked about the degree to which job seekers activated their family, friends and acquaintances and got help from them for finding a job. It assessed the characteristics of those social contacts, which provided job information in general, and of the specific contact that helped accessing the job found in particular. Further, this second questionnaire collected information about the quality of the job found. The short non-response follow-up questionnaire only includes questions on the actual occupational situation and, if a job was found, through which channel. Further, there is a small number of questions on the crucial contact's characteristics and job quality.

The job seekers who entered long-term unemployment received a third questionnaire, which is a combination of the aforementioned first and second questionnaire (Q3). More concretely, it

contains questions on networks and participation in associations (from Q1). Moreover, it gathers information about how the respondents looked for jobs, whether they activated their network, got help from their network, whether they had found a job meanwhile, and if so, of what quality (questions from Q2).²⁹





Our survey data was combined with administrative data. Working with the employment services of the Canton of Vaud and the Swiss State Secretariat of Economic Affairs (SECO), we had the opportunity to combine our survey data with administrative data stemming from the unemployment insurance registry (LAMDA³⁰) provided by the SECO. This additional data source contains information about sociodemographic characteristics, job quality (of previous job), and the unemployment history. Additionally, we obtained monthly administrative data from the cantonal

²⁹ Complete questionnaires can be viewed in Annex.

³⁰ Labor Market Data Analysis

public employment service on the actual exits of our sample population from unemployment. By having registry data available we are able to identify eventual response biases.

Response rates and response bias

Figure 3.1 indicates the data collection process, but also response rates to the different questionnaires. 4825 unemployed were contacted with a first questionnaire, among whom 4601 answered, which defines our inflow sample. The response rate lies here at 95 percent. In the first questionnaire, respondents had the possibility to refuse to let their survey data be matched with their register data (LAMDA), and 1066 persons (23 percent) did so. We could contact those who did not refuse that we combine administrative data with survey data (3538 cases) from March 2012 to June 2013 (reminders were sent out until August and September 2013). Among those respondents who had left employment services by the end of our study period (April 2013), 2770 persons were contacted with our second questionnaire (Q2). 1284 persons replied. Another 133 persons replied to our non-response follow-up of the second questionnaire (FU-Q2), which gives us in total a response rate of 51 percent to this second questionnaire. Accordingly, we have information on 1417 individuals, consisting of Q1, administrative and Q2 data. 768 individuals remaining in (long-term) unemployment could be contacted with our third questionnaire starting in May/June 2013 (reminders were sent out until August, September 2013).³¹ 438 responded, which means a response rate of 57 percent. In total, this gives us a response rate of 52 percent for our second and third questionnaire taken together. We have 1856 cases for our database consisting of information from questionnaire 1, registry data and either questionnaire 2 or 3.

As the different questionnaires were filled out in very different settings, we deal with the usual non-response biases known from survey research concerning our second and third questionnaire in terms of sociodemographic characteristics of our respondents, with females, better educated, Swiss and older persons being over-represented. Moreover, we have to keep in mind that not all respondents answered all questions and not all questions were applicable to all respondents (item non-response bias).

We expect that the response behavior regarding single questions within the questionnaires will go in the same direction. We have tried to keep the questions as simple as possible, but are aware that there are large differences in the degree of literacy in general, and in French in particular. Thus,

³¹ Answers to both questionnaires were considered until December 2013.

the accessibility is to a certain degree reduced. This means that a non-negligible part of our analyses deals rather with a subsample of the samples presented here.



Figure 3.2 Over-representation of sociodemographic characteristics per sample

Further, we also have to be aware that a sizable proportion of our respondents had not found a job at the time they left PES (and eventually filled out the second or third questionnaire). Thus, analyzing who finds a job via network compared with other channels means analyzing a specific sample of job seekers who found a job within a limited time period.

Luckily, however, we have administrative information and extensive network information on our inflow sample, which allows us to discuss the potential biases emerging at each step of the data collection. The next subsections discuss in detail the differences in response rates and samples by characteristics considered in our analyses. We summarize these findings here in advance: most sociodemographic characteristics play a role for different steps of the sample constitution: Swiss are over-represented among those who answered our first questionnaire, and they are over-represented among those who answered to our second questionnaire compared with those individuals who left PES after 12 to 14 months and whom we were able to contact. In contrast, there were no differences in nationality when it comes to the Q3 respondents (long-term unemployed). Having tertiary education leads to an under-representation in those accepting the combination of survey with registry data. In contrast, it leads to an over-representation among those answering the second or third questionnaire. Also over-represented among Q2 and Q3 respondents are women and those older than 30.

If we intend to identify and compare different groups of unemployed, we have to be aware of nonrandom sample collection (Ferraro et al. 2009: 428). This can lead to a situation where we find less difference between groups than there would be, had we compared the groups of the whole sample. This might be of particular relevance in the case of respondents to our third questionnaire. Therefore, we also look at the pre-final samples and not only at the final sample constituted by integration of information from Q2/Q3. Table 3.1 displayed at the end of this subchapter indicates the group-specific response rate in the different samples, whereas Table 3.2 displayed at the end of this subchapter gives an overview of the different samples displaying the relative proportions of job seekers belonging to groups identified by sex, nationality, age and education in the different samples. Table A3.6 in the annex indicates whether the differences in the sample characteristics are statistically significant.

We start by comparing job seekers who became unemployed in our study's entry period and job seekers who were asked in the mandatory information session to fill out our first questionnaire: among people becoming unemployed between February and April 2013 we have at least around 95 percent of each subgroup who attended the mandatory information session (Table 3.1). Job seekers 50 and older reach the highest attendance rate (more than 97 percent, compared with 96 percent for the under 50), the lowest we find among job seekers with another than Swiss or EU-15 nationality (95 percent compared with 97 percent among the Swiss). Accordingly, comparing the unemployed who did not attend to the information session (SICORP) with those unemployed who did, the differences in sample characteristics seem to be minor, although statistically significant.

4.6 percent of the unemployed who were attending the mandatory information session did not answer our first questionnaire. The lowest response rate is found among job seekers with another nationality than Swiss or EU-15 (93 percent), the highest is found among the Swiss (96 percent). Accordingly, comparing the unemployed who answered to our first questionnaire with the unemployed who did not we have slightly, but statistically significantly, more Swiss who answered our first questionnaire (Table 3.2, sample 2 – sample 3 comparison).

The acceptance rate of combining survey and registry data does not vary much by these characteristics except concerning educational level: 80 percent of the unemployed with only basic education compared with 78 percent of those with upper-secondary, and only 72 percent among those with tertiary education accepted the data merging (Table 3.1). Accordingly, among the unemployed who answered our first questionnaire a significantly higher proportion of those with lower education than of those with higher education allowed us to combine their registry data with their survey data (Table 3.2, sample 3 – sample 4 comparison).

Further, we compare the sample of job seekers who left PES after 12 to 14 months and who had agreed to a combination of registry and survey data, with the sample of job seekers who had answered to our second or third questionnaire (Table 3.2, sample 6 – sample 7 comparison). We have slightly more men than women in our basic sample (52 percent compared with 48 percent), but inverse to that slightly fewer men than women in our $Q2^{32}/Q3^{33}$ sample (48 percent compared with 52 percent) (Table 3.2). This confirms the expected typical response bias in favor of women (e.g. Voorpostel and Lipps 2011).

The potential bias in response behavior goes in the same direction regarding the educational level. Among respondents to our second or third questionnaires 28 percent had tertiary, 47 percent had upper-secondary education, and 25 percent had compulsory schooling at most, while among our inflow sample the proportions were around 23 to 24 percent of tertiary, 48 percent of upper-secondary educated and 28 to 29 percent had compulsory schooling at most. Accordingly, the response rate of job seekers with tertiary education lies at 81 percent, whereas the response rate of those with compulsory schooling lies at 58 percent only. The one of job seekers with intermediary education (upper secondary degrees) is at 66 percent.

Further, in our inflow sample there were more Swiss than foreigners (54 percent compared with 45 percent), the same had been observed for the people who had left unemployment (in total 56 percent compared with 45 percent). We find also here the typical response bias regarding native and non-native unemployed with clearly more Swiss respondents in our second (61 percent compared with 39 percent) and third questionnaire (54 percent compared with 47 percent).

³² Second questionnaire: 48 percent men compared with 52 percent women.

³³ Third questionnaire: 46 percent men compared with 54 percent wom

Table 3.1 Attendance, Acceptance and Response Rates in the different samples

	Sample1 : Total PLASTA, N=5031	Sample2 : Total PLASTA Attended SICORP N=4825	Attendance Rate SICORP (Sample1 – Sample2)	Sample3 : Total Q1 who attended SICORP PLASTA N=4601	Response Rate Q1 (Sample2 – Sample3)	Sample4 : Did not refuse combination of survey and registry data LAMDA N=3538	Acceptance Rate LAMDA (Sample3 – Sample4)	Sample5: Left Unemployment Total	Sample6 : Left Unemployment and attended SICORP and accepted combination N=2770	Sample7 : Questionnaire 2 and 3	Response Rate Questionnaire 2 and 3 (Sample4 – Sample7)	Sample8 : Questionnaire 2, N=1417	Sample9 : Questionnaire 3, N=438
Nationality													
Swiss	2686	2602	96.9	2509	96.4	1916	76.4	2139	1534	1104	57.6	869	235
Non-Swiss	2345	2233	95.2	2092	93.7	1622	77.5	1784	1236	751	46.3	548	203
EU-15	1419	1354	95.4	1279	94.5	982	76.8	1110	775	483	49.2	364	119
Other	926	879	94.9	813	92.5	640	78.7	674	461	268	41.9	184	84
Age													
<30 years	1710	1645	96.2	1583	96.2	1240	78.3	1525	1105	529	42.7	470	59
30-49 years	2535	2434	96.0	2308	94.8	1759	76.2	1900	1325	983	55.9	745	238
50 or older	776	756	97.4	714	94.4	539	75.5	498	340	340	63.1	202	141
Gender													
Men				2403		1858	77.3		1483	880	47.4	737	238
Women				2198		1680	76.4		1287	975	58.0	680	200
Eduation													
<=9 yrs of schooling 1299			1035	79.7		785	454	43.9	317	137			
Upper secondary 2168			1680	77.5		1336	876	52.1	690	186			
Tertiary				1128		817	72.4		644	523	64.0	408	115

No information available on sex and education from the PLASTA Data. Note: Counselors of the employment services informed us that people who do not know at all French usually are excluded from participating in the collective information session at the beginning of unemployment. They estimated their average share to be about 5 percent of the newly registered as far as the counsellors informed us. And it is not necessarily the lower educated, but also often English or German speaking clients with better education who have the advantage that the most counsellors know their language and can give them a more individualized information session. But still we have to assume that the language constraints might also restrict the access to certain jobs available for other people wine the same attributes except for the language. Further, we encounter the problem that people repeatedly unemployed within 6 months, when we constituted our sample are not included in our sample, because they did not have to attend the information session. Which would mean that we missed out further information about this potentially most vulnerable sub-group. But at least this could be controlled for if we have access to all LAMDA Data for the Canton of Vaud during our study period (without personal identifier as PLASTA or AVS number).

Table 3.2 Overview different samples, proportions by socio-demographic characteristics per sample

	Sample 1 (S1) : Total PLASTA, N=5031	Sample 2 (S2) : Total PLASTA Attended SICORP N=4825	Sample 3 (S3) : Total Q1 who attended SICORP PLASTA N=4601	Sample 4 (S4) : Did not refuse combination of survey and registry data LAMDA N=3538	Sample 5 (S5): Left Unemployment Total	Sample 6 (S6) : Left Unemployment and accepted combination and attended SICORP N=2770	Sample 7 (S7) : Questionnaire 2 and 3	Sample 8 (S8) : Questionnaire 2, N=1417
Nationality (%)								
Swiss	53	54	55	54	55	55	60	61
Non-Swiss	47	46	45	46	45	45	40	39
EU-15	28	28	28	28	28	28	26	26
Other	18	18	17	18	17	17	14	13
Age (%)								
<30 years	34	34	34	35	39	40	29	33
30-49 years	50	50	50	50	48	48	53	53
50 or older	15	16	16	15	13	12	18	14
Gender* (%)								
Men			52	53		54	53	48
Women			48	47		46	47	
Eduation* (%)								
<=9 yrs of schooling			28	29		28	25	22
Upper secondary education			47	48		48	47	49
Tertiary education			25	23		23	28	29

* No information available on sex and education from the PLASTA Data

Note: An overview on the summary statistics in the different samples is given in annex 2 (Table A2.2 to A2.5). The numbers differ slightly from the above mentioned numbers as we have restricted Table 2.2 to people having attended an information session between February and April 2012 (except for the first column), and us having the information about that (thus we have for this purpose excluded the cases that could not be identified by PLASTA number, personal code respectively). For the samples including cases for which we do not have LAMDA data available, we do not have information about educational level and sex.

Moreover, a lower proportion of the job seekers younger than thirty responded to our second and third questionnaire than job seekers older than that. Accordingly, we find a large variation in the response rate (Table 3.1, 3rd column from the right). While 63 percent of the over 50 years old responded, only 43 percent of the youngest job seekers did. Accordingly, the age distributions between the samples differ (Table 3.2). The youngest job seekers are largely underrepresented, whereas the oldest job seekers and, to a smaller extent, the intermediary age groups are overrepresented in the final sample.

The Q1 sample and the Q2/Q3 sample do not differ much in their network characteristics, with the exception of the proportion of network members in higher hierarchical position: the proportion without anybody in higher hierarchical position is with 29 percent higher in the Q1 sample than it is with 25 percent in the Q2/Q3 sample (Table A3.7).³⁴

Finding a job is related to different factors, such as age, education, nationality and network factors, which are related to response behavior, and at the same time also finding a job influences response behavior. Among job seekers who have left unemployment services until the end of May 2013, we find that 68 percent found a job. In contrast, 74 percent of the job seekers who have left unemployment services until the end of May 2013 *and* answered our second questionnaire found a job. This means that job seekers who found a job were more likely to answer our questionnaire, which leads to sample selection bias on this outcome variable.

Looking at respondents of our second and third questionnaire, we find that 66 percent of our respondents to our second or third questionnaire have found a job. If we include also the unemployed still registered at the employment services and consider them as not having found a job, only 58 percent of the unemployed who had accepted that we combine survey data and registry data, found a job. Moreover, if we include job seekers who did not let us combine their survey data with registry data we find that only 55 percent found a job. This shows that non-response and sample selection on the job found variable plays a role right from the start of our data collection.

 $^{^{34}}$ Going along with non-response bias, it is difficult to distinguish between changes in effects due to sample reduction and due to the introduction of additional variables in the models, such as network variables or activation and mobilization, information which is solely available for the Q2/Q3 sample. The effects concerned are those of the following variables, which change by sample reduction (thus without introducing other variables): age, preceding unemployment, previous occupational group (2 and 4), proportion of network members in higher hierarchical positions.

Characteristics of the final sample used for testing our hypotheses

In this subchapter, we discuss the characteristics of the sample on which our analyses are based. Thereby, we start with the personal characteristics, then present the network characteristics, and finally look at how network characteristics are distributed by personal characteristics.

An overview of the characteristics of our sample, we get by looking at Table 3.2, Sample 7 (S7), which displays the relative proportions by sociodemographic characteristics³⁵, see also Table A3.5 in Annex. Half of our sample is female (53 percent). 60 percent are Swiss, 26 percent have EU-15 nationality, and 14 percent have a non-EU and non-Swiss nationality. If we look at nationality more in detail, particularly distinguishing further for very common European countries, we find 10 percent of our sample is Portuguese, 7 percent French and 6 percent are either Italian or Spanish. Further, we group the typical ex-pat nationalities in one category, it is those North-American, or Northern European nationalities, which make more than 3 percent of our sample. While one quarter has only basic education (no more than compulsory schooling), nearly half of the sample (47 percent) has upper-secondary education and a little more than a quarter (28 percent) has tertiary education. The average age is 38, the median age is 37, 25 percent are 28 years old or younger, whereas 25 percent are 47 or older.

Distinguishing social class of our respondents, we find that the biggest proportion of our respondents belongs to the skilled working class (40 percent), while the rest are distributed in more or less equal proportions among the other three categories: 21 percent belong to the low-skilled working class, 19 percent are lower, and 20 percent upper-middle class (Table A3.5 in the annex). In terms of occupational group, we observe that the largest proportion of our sample works in an occupation in management, administration, banking, insurance or legal services (26 percent). The second largest proportion has an occupation in sales or transport (17 percent). 14 percent work in the occupational group of health, teaching, culture or research jobs and another 14 percent works in jobs in catering or personal services. 10 percent work in production, and 7 percent in technical and computer science occupations, 6 percent are in undefined occupations. 41 percent of our sample was concerned by previous unemployment.

³⁵ The fourth column from the right of Table 3.1 displays the absolute numbers.

Let us look at how network characteristics and network activation and mobilization are distributed in our sample. Our respondents indicated to have 16 friends on average.³⁶ While the bottom 25 percent have up to eight friends, the median lies at 14 friends, whereas the top 25 percent have indicated to have 23 or more friends. We also have several indicators for network quality and start with the indicator for the proportion of friends in permanent employment (Table A3.5).³⁷ The overall mean lies at 9.48. The bottom 25 percent has an indicator value of 7, while 50 percent have a value of 10 and the top 25 percent has 12. Thus, the range is quite big.

Further, while a quarter of our respondents have nobody or almost nobody in their network who has a job with hierarchical responsibilities such as team leader, director or chief executive officer, more than half of our respondents seem to have a minority of their network members in a higher position. Over 20 percent declare having either a majority, almost all or even all of their network members in a higher hierarchical position. For original question see questionnaire 1 in Annex (Question E12). Moreover, a small proportion of 12 percent indicated to have no friends among their former co-workers.³⁸

Next, we present activation and mobilization characteristics. The original questions can be found in questionnaire 2 in Annex (questions B4 first and fourth question, and C2 first and fourth question). We examine the role of activation by looking at whether respondents have often talked about job search to former co-workers, which 27 percent did³⁹. And we look at whether they have often talked to other occupational contacts about job search, which 21 percent did. For the role of mobilization, we looked at which occupational contacts provided job information⁴⁰: 7 percent

 $^{^{36}}$ In our first questionnaire respondents were asked about the number of friends of different types (friends from the neighborhood, education, work, other), for the original questions see questionnaire 1 (questions E1, E3, E5, E7). We measured friends network size by adding up the values measured for the different kind of friends. As these variables were ordinal going from 0 (=no friends), over 1-2, 3-4, 5-6, 7-10, to 11 or more friends, we added up the minimal number of friends of each category. Therefore, the number of friends we use is actually the minimal total number of friends of our respondents.

³⁷ It is built by summing up the values indicating the proportion of different kind of friends (again friends from education, work, neighborhood or other friends) who are in permanent employment (0=no one, 1=nearly no one, 2=several, 3=nearly everybody, 4=everybody). For the original questions see questionnaire 1 in Annex (questions E2, E4, E6, E8). A difference of one indicator point seems very small; however, if we think about how the variable is constructed, this means that having 8 compared with 9 indicator points can mean having in one category of friends such as former co-workers, nearly everybody employed compared with having only several among them employed.

³⁸ The question was: how many of your former co-workers are still your friends? The answer options were: 0, 1-2, 3-4, 5-6, 7-10, 11 or more. We created a dummy variable out of this categorical variable distinguishing between having or not having friends among former co-workers. We find that most people have between 1 and four friends among former co-workers, about one quarter has between 5 and 10, and 12 percent have no friends among former co-workers, while 15 percent have more than 11 friends among former co-workers. The original question can be found in Questionnaire 1, Question E5.

³⁹ This binary variable was created using a four category variable measuring the frequency of talking to former co-workers ranging from "never", over "rarely", over "sometimes" to "often." The original question can be found in Annex questionnaire 2, question B4, first response line for former co-workers, 4th response line for other occupational acquaintances.

⁴⁰ This binary variable was created using a four category variable measuring the frequency of talking to former co-workers ranging from "never", over "rarely", over "sometimes" to "often" (the original question can be found in Annex questionnaire 2, question C2, first response line for former co-workers and 4th response line for other occupational contacts

indicated to have often received job information from former co-workers and 5 percent from other occupational contacts (Table A3.5).

We know that network characteristics correlate with personal characteristics such as education and nationality. In order to get an idea of how unequal resources are distributed among job seekers in our sample, we begin with gender and find that women indicated to have 15 friends on average, whereas men indicated to have 17 friends on average. On all other dimensions we find no statistically significant differences between the two sexes in our sample.

The means in both the size of friends network and the proportion of friends in permanent employment differ significantly among educational groups: with increasing education, the values of these two indicators rise too. Those with basic education have an average of 14 friends and the indicator for employed friends takes on an average value of 7. In contrast, those with secondary education have on average 16 friends, with an indicator value of 9 for the proportion among them in permanent employment. The tertiary educated score highest on these two dimensions with 18 friends on average and an indicator value of 10 for the proportion among them in permanent employment.

Not only the proportion of friends in permanent employment, but also the distribution of having higher hierarchy contacts in the network differs by educational level. We find what we would expect referring to the principle of homophily: with increasing education the proportion of higher hierarchy network members rises; respondents with only basic education have the highest proportion with nobody or almost nobody in higher hierarchical position (41 percent). In contrast, this proportion is only 26 percent for jobseekers with upper-secondary education and only 12 percent for individuals with tertiary education. Network members without hierarchical responsibilities are less likely to control information on job vacancies, and to be able to influence hiring decisions. Therefore, a large proportion of the job seekers with basic education is disadvantaged in job search when it comes to well informed and influential network members.

Moreover, we find that 18 percent of jobseekers with basic education have no friends among their former colleagues. This proportion is higher than for the two other educational groups: 12 percent of the secondary educated and only 8 percent of the tertiary educated have no friends among former co-workers. This observation could be related to the average tenure in different kinds of jobs accessible dependent on educational level. Also in terms of activation, we find differences by educational level: the proportion of people who have often talked to their former co-workers about their job search is significantly higher for the tertiary educated – 33 percent – compared with 25 and 22 percent for those with upper-secondary and with basic education. There are no

differences by education in the frequency (often vs. not often) of talking to other occupational contacts about job search, and of receiving job information or not from former co-workers or other occupational contacts.

The distribution of the network characteristics by nationality groups also shows a few interesting differences. Job seekers with Swiss and European (EU-15) nationality have more friends on average (17) than those with no Swiss and no EU-15 nationality (12), and this difference is statistically significant. If we distinguish by more detailed country groups, we find that most European countries (Portugal, France, Italy and Spain) have an average of around 16, the Swiss have an average of around 17 and those from North America and Northern Europe have an average of 20 friends. All other nationalities taken together have an average of 12. Further, we find differences in the average indicator values for the proportion of employed friends by a more detailed grouping of the countries (listed in the following in descending order ranging from more than 10 to less than 7): the group of North Americans and North Europe, France, Swiss, Italy and Spain, Portugal, all other countries. Thus, while in terms of size Swiss and EU-15 are equal they differ slightly in this first network quality indicator. Job seekers with another nationality than Swiss or EU-15 are most disadvantaged regarding size and quality of their friends' network.

Moreover, we find that job seekers with another nationality than EU-15 or Swiss are clearly disadvantaged regarding the proportion of their network in higher position. Also members of the EU-15 nationality group have less advantageous network characteristics in this respect: while those with another nationality have 45 percent who have no such network member in their network, it is 33 percent among those with EU-15 and only 23 percent among those with Swiss nationality. There are exceptions if we distinguish between more nationality groups: the Portuguese resemble more the non-EU-nationals in this respect – with 48 percent indicating to have nobody or almost nobody with a higher hierarchical position in their networks; among the North Americans and Northern Europeans, only 10 percent indicated not to have somebody with a higher hierarchical position. Non-EU-15 and non-Swiss and non-North-American job seekers are accordingly also disadvantaged in terms of having fewer of their network members with hierarchical responsibilities.

Among respondents with another than EU-15 or Swiss nationality 20 percent have no friends among former co-workers as compared to 9 percent of the job seekers with EU-15 nationality and 12 percent of the Swiss. The picture for nationality groups in terms of activation and mobilization differs slightly from the one regarding educational groups: we see no statistically significant differences in talking often to former co-workers and receiving often job information from former co-workers by nationality groups. We find significant differences in the average number of friends by age group: with 14 friends on average, the group of the oldest job seekers differs significantly from job seekers up to 25 who have 18 friends on average, and they differ at a 0.1 significance level from job seekers aged 35 to 44. with 16 friends on average. Additionally, we find a slight but statistically significant difference in the indicator for the average proportion of employed friends: the youngest (15 to 24 years old) and the oldest job seekers (older than 55), have an indicator value of 8 on average, whereas the 25 to 54 years old have an indicator value of 9 on average.⁴¹

Also in terms of having network members in higher hierarchical position, the age groups differ significantly from one another: the youngest have clearly the highest proportion with no one and the highest proportion with all network members in higher hierarchical position, whereas job seekers older than 45 show the inverse pattern. Further, the youngest job seekers have smaller proportions with friends among former co-workers (79 percent), while with rising age the proportion with friends among former co-workers increases. It ranges from 86 percent of the 25 to 34 years old who have friends among former co-workers to 92 percent of those who are 55 or older. This is not surprising as we assume social context and time to play a role in the accumulation of social capital.

Moreover, we find differences by age group in talking to these contacts: the youngest job seekers have the *lowest* proportion who have often talked to their former co-workers, while the 35 to 54 years old have the *highest* proportion. This is again not surprising as the youngest job seekers have spent less time in an occupational context and have therefore had less time to build up occupational social capital (McDonald and Mair 2010: 17).

There are also large differences for class, the lower-skilled working class having clearly fewest friends on average (13), followed by the skilled working class (16), the lower-middle class (17), and higher-middle class having most friends (18). Differences in the indicator for proportion of friends in permanent employment range from 7 in the case of the low-skilled working class and 8 among the skilled working class to 10 for both lower- and higher-middle class. Moreover, the higher the class, the lower the proportion of job seekers with no network members in higher positions, and the higher the proportion of job seekers with a minority or majority of network members in higher positions.

Further, lower-class members are also disadvantaged regarding friends among former coworkers: 18 percent of those from the lower-skilled working class, 14 percent from those in the

⁴¹ A difference of one indicator point seems very small; however, if we recall how the variable was constructed (the original four variables had the following values: 0=no one, 1=nearly no one, 2=several, 3=nearly everybody, 4=everybody, which were summed up into this indicator). This means that having 8 compared with 9 indicator points can mean having on one category of friends such as former co-workers, nearly everybody employed compared with having only several among them employed.

skilled working class, but only 12 percent of the two service classes have no friends among former co-workers. Accordingly, also concerning activation and mobilization of former co-workers, higher-middle class members are in a more promising position: the proportion of those who often talked to former co-workers about their job search rises with class position, ranging from 62 percent among the low-skilled working class and over 68 percent of the skilled working class, to 75 percent of the lower and 78 percent of the upper-middle class. A very similar picture emerges for receiving job information from former co-workers – 52 percent of the low-skilled workers, 61 percent of the skilled workers, 66 percent of the lower-grade service class members, and 69 percent of the higher-grade service class job seekers indicated they had often received job information from former co-workers.

We also find differences between occupational groups in terms of network characteristics and activation behavior. Those occupational groups with more high-skilled occupations such as health, teaching, culture, research in management, banks and insurance have more advantageous network and activation properties.⁴² Interestingly, there are no differences in the number of friends, the proportion among them in permanent employment, and in activation and mobilization of former co-workers depending on if somebody had been previously unemployed. Only small but statistically significant differences are found in terms of having friends among former co-workers between those with previous unemployment experience (15 percent have no friends among former co-workers) and those with no such experience (12 percent). Further, those with previous unemployment spells have higher proportions with no one or a minority in higher position and lower proportions with a majority in higher positions.

Another study using our data systematically examines the effect of personal characteristics on network characteristics in multivariate models (Turtschi 2015: 97f.).⁴³ Education, nationality, and gender are found to be related to network characteristics, in most cases to the disadvantage of the lower educated, non-Swiss, and women.

⁴² Differences by occupational group range for the number of friends from 13 to 17, and for the indicator of the proportion among them in permanent employment from 8 to 10. Also differences for occupational groups are statistically significant with highest proportions of no network members in higher position in the occupational groups with more low-skilled jobs such as construction, restaurants and personal services, followed by agriculture and productions. The differences in the distribution over occupational groups is also statistically significant, ranging from 24 percent without friends among former co-workers in the group of the undefined occupations, to 18 percent in productions, 16 percent in restaurants and personal services, 15 percent in construction, 14 percent in sales and transport, 12 percent in technical occupations, 11 percent in health, education, culture, research, 10 percent in management, banks, insurance and 9 percent in agriculture. The activation of former co-workers can be found in production (19 percent), followed by catering and personal services with 23 and sales and transport with 24 percent. Highest proportions are with 34 percent found in health, teaching, culture, research, followed by management, administration, banking, insurance and legal services (29 percent) and construction (28 percent), the remaining groups have between 26 and 27 percent who activated former co-workers.

⁴³ These results were generated by analyses of the sample of those answering our first questionnaire and allowing the combination of survey with register data. Thus, they are not specified for the sample of respondents to the second and third questionnaire.

3.3 Conclusion

To sum up, our database consists of a convenience inflow sample and basically covers the whole newly unemployed population of the Canton of Vaud in spring 2012. The sample thus covers individuals with a broad range of occupational and socio-demographic characteristics who experienced the same macro-economic labor-market conditions at the beginning of their unemployment spell.

Our data includes information on job seekers when they register at the employment services, but also when they leave them again or when they become long-term unemployed. It allows us not only to take account of initial characteristics – such as different network characteristics at the very beginning of unemployment, but also for job-search outcomes, and which factors influenced them.

Thanks to having registry data available, we are able to capture non-response bias at the different stages of our data collection. In terms of our final sample, we deal with the typical characteristics influencing (non-)response behavior, with females, better educated, Swiss and older persons being over-represented. Further, those who have found a job are more likely to answer our questionnaires. There are competing or complementary explanations for the latter: either unobserved characteristics such as language and cooperation skills or general literacy play a role in both finding a job and filling out a questionnaire, or people feel more confident in filling out the questionnaire once they have found a job and feel in that sense successful, which could be interpreted as falling into the category of a response bias due to following norms of what is socially desirable (having a job and not being dependent on the welfare state).

The respondents who allowed us to combine their survey with their registry data, have significantly higher proportions who found a job, which introduced a bias in the people we were allowed to contact with our second questionnaire when they left unemployment. Moreover, the proportion that found a job among the respondents who answered our second or third questionnaire is much higher than in the overall inflow sample. Thus, when looking at our results, we have to be aware not only of non-response bias, but also of sample selection.

This means we deal with a positive selection of unemployed job seekers. This is probably acceptable as most of our analyses deal with job seekers who found a job only. Different strategies of dealing with sample selection and non-response bias are possible: We constraint our result to the sample described and accept the fact that we may under- or overestimate certain effects of structural dimensions, second we run a heckman selection model in order to check whether results may be biased or not , third we run weighted analyses, which risks to introduce other biases or inflate regression models.

4. Job Access

This chapter analyzes whether and how unemployed people find jobs. It focusses primarily on the information function of social capital: Who is prone to find employment, and who finds it via first job information from a member of the personal network? Who, in contrast, finds a job without benefitting from information through a network member, and relies on other job access channels only, namely on job advertisements in the press or online, sending out unsolicited applications or walk-ins, or via public or private job placement agency?

When looking at job access via information from network members, we have to be aware that selection takes place regarding general employability and therefore regarding job access in general. Although networks may alleviate the constraints of certain employability criteria, this is only the case to a certain degree and some pre-selection still has to be considered. These differences raise the question on how these groups of disadvantaged job seekers find a job, nevertheless? Is it them to benefit from job information via network members or is it rather the more advantaged job seekers who get additional support from their social resources? Knowing more about which groups of job seekers are most successful in finding jobs via certain strategies of job access can help in counseling unemployed job seekers by either encouraging them to activate their network or particular network members or to work on their formal application profile.

First of all, we need to know who are the groups of job seekers advantaged in job access and who are the groups of job seekers disadvantaged in job access in general (4.1). Interested in the factors that enhance chances of finding a job via network, we start by looking at the past experiences of our sample in job search via network. We compare these results with finding employment via a network member in the current unemployed job search situation. Then, we investigate finding employment thanks to job information from a network member (4.3). We conclude this chapter by a little summary (4.4).

4.1 Finding employment

When looking at job access while unemployed, we find that 66 percent of our respondents had found a job, while 34 percent had not. Before analyzing how network characteristics are related to finding a job, we are interested in who – in terms of socio-demographic characteristics and (un-) employment history - is more likely to find a job. Table A4.1 in annex (column 3 and 4) represents the distribution of these characteristics within our sample,
depending on whether a job was found or not. The multivariate analyses control for employment history operationalized by previous unemployment and occupational group before unemployment. These results are presented in table A4.2 in Annex.

More in detail, we find that while the predicted probability of finding a job lies at 64 percent for job seekers aged 25 to 34 find a job, it is 11 percentage points less among the 45 to 54, and even 30 percentage points less among job seekers 55 or older. This is consistent with findings from the literature (Bernard 2012, Arni 2015). Further, the predicted probability of finding a job among the Swiss lies at 62 percent, whereas it is 21 percentage points lower among job seekers with neither-Swiss-nor-EU-15 nationality. Splitting nationality into 6 groups, we find it is job seekers from Northern Europe and Northern America (-16 percentage points) as well as the undefined nationality group (-21 percentage points) who have lower chances to find a job as compared to Swiss job seekers.

The predicted probability of finding a job again when having basic education only lies at 51 percent, in contrast, it is 8 percentage points higher among the upper-secondary and 13 percentage points higher among the tertiary educated job seekers. 61 percent is the predicted probability to find a job for job seekers who were not unemployed before compared to 55 percent among those who experience repeated unemployment. Also our findings on nationality, and educational level are consistent with other research on unemployment in Switzerland (Djurdjevic 2005), except we do not find any effect for being a woman, which could be due to a selection of women registering as unemployed in the first place.

These findings show that job seekers who already had a higher risk to become unemployed, at the same time have a lower chance of finding a job again, which suggests that disadvantages are accumulated over their occupational trajectories. And as cumulative inequality theory puts it – dis-advantaged job seekers have a higher risk to experience future disadvantages (Ferraro et al. 2009), which we can reconstruct here by 3 steps with the example of education and with the example of nationality: having only basic education means having not enough cultural capital to get access to more secure labor markets offering more stable positions. The same can happen to workers having non-Swiss and non-European nationality who often do not get their get their formal education and their non-Swiss work experience recognized by Swiss employers. This means to work in contracts that are less stable, jobs that are less secure and less paying, and occupational fields, where there is more fluctuation – these disadvantages are accompanied by a higher risk of becoming unemployed. Now our results show these same group of job seekers also have a higher risk of not finding a

job and becoming long-term unemployed, which as we know puts them in a even worse situation when it comes to ever find a job again. On the contrary those with higher education and those with Swiss nationality as well as those with no previous experiences of unemployment had a lower risk to become unemployed in the first place. Once they still experience unemployment, they are however not equally to job seekers disadvantaged already in their labor market position before unemployment, but they have higher chances of finding a job again. An exception to this observation are our findings for age, where job seekers with advanced age have a lower chance to find a job again, whereas it is the younger who have had a higher risk to become unemployed in the first place.

Job access via social contacts has been shown to be highly effective in persuading employers to get hired despite discriminatory practices (see for example Bonoli and Hinrichs 2012). In a next step it is going to be interesting to see whether social resources could eventually compensate these groups disadvantaged in general job access in order to overcome statistical discrimination related to having immigrant status, being older, lower educated, having disrupted career patterns.

The role of network characteristics for finding employment

How do networks of respondents who did not find a job differ from networks of respondents who are employed again? Through all of our network measures, we find that respondents who continue to be unemployed for more than 18 months are already at the beginning of their unemployment disadvantaged in the size and composition of their network: They have slightly fewer friends, less of them in permanent employment, a lower share of network members in higher hierarchical position and more of them do not have any friends among former co-workers (descriptive results can be found in table A4.1). This is not surprising and in line with our assumption that different kind of resources are interrelated (as theoretically argued for example by Bourdieu 1986): we find network characteristics to be related to socio-demographic characteristics in the expected way, which is that they are often related to nationality and educational level; some of them are related to age (see also findings from the same data used here by Turtschi 2015). The distribution of the different network characteristics by socio-demographic characteristics shows that generally advantageous labor market properties appeared in bundles. This could for example point to differences in tenure, activity rate, interaction levels of previous jobs or geographical mobility.

Multivariate results are presented in Figure 4.1 below. The effects of the more general network measures – number of friends and share among them in permanent employment are negligible in size, still these differences are statistically significant at the 0.1-significance level also after controlling for socio-demographic characteristics and employment history: in line with findings from the literature who find the size of network matters for finding employment (e.g. Brandt 2006), we find a 4 percentage point higher predicted probability of finding a job when having 10 friends more, and when belonging to the upper quartile instead of the lower quartile on the indicator for the share of permanently employed network members. The latter result points in the same direction as observations made in other studies and for other countries: the unemployed are more likely to have more other unemployed people in their network than the employed (Barbieri et al. 2000: 216, Gallie 1994, Gallie 1999: 153). This can again be read as manifestation of the principle of homophily, but also as a sign for marginalization.

In contrast, the general size of the network loses its effect once we control for having or not friends among former co-workers, which may point to the fact that the main difference in the number of friends between job seekers finding employment and job seekers remaining unemployed are in this category of friends. This may mean that previous studies emphasizing the importance of the size of networks did not make this crucial distinction (for example Brandt 2006 who controls for heterogeneity of the network, but does not include any measure on work related contacts

Also the differences in having or not friends among former co-workers are confirmed by the multivariate analyses: When having friends among former co-workers predicted probabilities of finding a job rise by about 8 percentage points to 62 percent compared with when having no friends among former co-workers (Figure 4.1). The result was consistent at each step of introducing the other independent variables (sociodemographic characteristics, employment history and other network characteristics). The fact that this relationship remains also once we control of network member in higher hierarchical position suggest that same hierarchy contacts may be as important as higher hierarchy network members (as proposed by Chauvac 2011).

We can interpret these findings in the sense that more advantaged job seekers potentially have more and more continuous work experience and thus have had more time to build up occupational social resources as a side product (Bridges and Villemez 1986). Now the question remains whether these work contacts are implied in job access (which then should be reflected in an increased chance of job access via work ties), or if they simply reflect a good general integration in the labor market, understanding its logics and practices.

The share of network members in higher hierarchical position is differently distributed among workers who found a job than among those who did not. Among job seekers who found employment more have some network members in higher hierarchical position, whereas among workers who did not find a job, more have nobody or everybody in higher position. Controlling for personal characteristics, we find that having at least some of the network members (at least a minority up to a majority of network members) in a higher hierarchical position results in a predicted probability of finding a job of 60 percent, which means it enhances the probability of finding a job by 9 to 10 percentage points compared with when not having any network members in a higher position. This is thus up to 20 percent more compared to the predicted probability when having none of the network member in higher hierarchical position. Thus, job seekers already advantaged by their personal resources may due to the principle of homophily also have network members who are in a position where they are potentially better informed about vacancies and may even control information or hiring processes. However, these analyses do not give any insight on how the job was found.

Network characteristics, particularly characteristics measuring network quality seem to be related to job access chances, however, it could be that it is more about homophily in employment position of network members, which has been observed by other studies (e.g. Calvó-Armengol and Jackson 2004, Gallie 1999). It could also be that we rather measure the role of unobserved characteristics influencing both network composition and job access chances (such as personality traits or social skills). To approach this question, it is important to distinguish by which access channel a job was found.

Thus, after looking at job search patterns, which refer to individual agency (or in the bourdieusian terminology to the habitus of a job seeker), we will look at how network characteristics are related to job access via network. In this we follow Mouw's (2003: 873) proposition that if we intend to approach a more causal relationship between social capital and job search outcome, job seekers with more social capital should be more likely to find jobs through it, and get better outcomes by doing so. This he calls necessary, but of course not sufficient condition for approaching a more causal relationship (Mouw 2003: 873)



Figure 4.1: Differences in predicted probabilities for *finding a job*, by network characteristics

Note: N=3055 m1: bivariately (Pseudo- R_1^2 =0.0067 / Pseudo- R_2^2 =0.0205 / Pseudo- R_3^2 =0.0091 / Pseudo- R_4^2 =0.0087), m2: controls for socio-demographics and employment history (Pseudo- R_1^2 =0.0538 / Pseudo- R_2^2 =0.0595 / Pseudo- R_3^2 = 0.0582 / Pseudo- R_4^2 =0.0546), m3: controls for network characteristics (Pseudo- R^2 =0.0640)

The role of job-search patterns for finding employment

In terms of general job search patterns, we find descriptively (Table A4.1) that job seekers who found a job sent out less applications per week in average are more successful in finding a job. This is confirmed by our multivariate results (Figure 4.2). However, the effect size with 3 percentage points per ten applications more per week is small, but stable throughout models with different sets of controls. The success/failure rate has been found to be a good predictor for job access chances also by other studies for Switzerland such as Arni (2015: 26). We can confirm this finding, but only descriptively. In our multivariate models, the failure rate seems sensitive the model composition and sample size (large differences in sample size of 1131 and 865). In terms of the variety of job search channels used, we find that most job seekers use a broad variety of them. The variety of search channels used has a sizeable negative effect of finding a job, which is at 4 percentage points per one access channel more.



Figure 4.2: Differences in the predicted probabilities to *find a job*, by job search patterns

Notes: N=865, based on logistic regression models, Model m1: bivariate analyses, (Pseudo- $R_{v1}^2=0.0207$, Pseudo- $R_{v2}^2=0.0050$, Pseudo- $R_{v3}^2=0.0222$): Model m2: controls for socio-demographic characteristics and employment history, (Pseudo- $R_{v1}^2=0.0644$, Pseudo- $R_{v2}^2=0.0500$, Pseudo- $R_{v2}^2=0.0638$); Model m3: controls for network characteristics and job search patterns, (Pseudo- $R_{v2}^2=0.1077$)

The fact that the number of applications and the number of different search channels used should be negatively related to job access chances may be contra-intuitive, but may reflect the fact that job search patterns are dependent on success. Somebody finding a job in shorter time may not need to adapt his or her search behavior (frequency or type of channels used), whereas somebody who needs longer or does not find a job at all may need to try out all possible ways. This explanation is confirmed by the fact that if we weigh the variety of job search channels used by the time spent in unemployment, we do not find any statistically significant relationship anymore.

About 30 percent of the jobseekers, who found a job indicated that they had often talked to former co-workers about job search compared with a proportion of 21 percent among those who did not find a job (Table A4.1, multivariate results see Figure 4.3). Results from multivariate analyses confirm this observation, which is in line with out expectations. In contrast, talking often or not to other occupational contacts than former co-workers does not

seem to be relevant for job access overall. Therefore, this variable was removed from the model.



Figure 4.3: Differences in the predicted probabilities of *finding a job*, by activation and mobilization of former co-workers and other occupational contacts

N=1355, m1: bivariate, R_{v1}^2 =0.0089, R_{v2}^2 =0.0082. R_{v3}^2 =0.0059, m2: controls for socio-demographics and (un-)employment history, R_{v1}^2 =0.0750, R_{v2}^2 =0.0725, R_{v3}^2 =0.0731, m3: controls for network characteristics and activation and mobilization, R^2 =0.1041

Former co-workers were expected to be the most useful network members when it comes to job search because they are prone to have access to job information and be able to judge its relevance in terms of a match of the job's and the job seeker's characteristics. Thus we find confirmed that talking to these contacts is related to higher job access chances. The fact of activating these contacts is related to two factors, first, having access to them (accessible social resources), which may at the same time reflect the workers integration in his occupational community, and second, recognizing these occupational contacts as social capital for job search, which is related to the habitus of the worker.

Whether somebody has often received job information from former co-workers and from other occupational contacts results in a similar pattern as for activation: the proportion of jobseekers who often received job information from their former co-workers is clearly higher among jobseekers who found a job (9 percent) compared with those who did not (4 percent).

The same observation can be made when we look at "often receiving job information from other occupational contacts" (Table A4.1). For the latter multivariate analyses indicate that the predicted probability of finding a job is with 81 percent 16 percentage points higher for job seekers who often got information on vacancies from other occupational contacts as compared to among job seekers who did not (Figure 4.3). As we have seen just talking to this group of occupational contacts does not seem to count, but it is rather about the recognition of these contacts who in consequence share job information with the worker. In contrast, the effect of often receiving job information from former co-workers is not statistically significant, once we control for often receiving job information from other occupational acquaintances. Thus, these two categories seem to partly overlap or stand for the same unobserved characteristics such as being integrated in a community of occupation or industry wise homophile network members. By these analyses, we do not know what finally enhanced job access – was it more general information about how the labor market works, is it reflecting rather the integration in the occupational community, or was it unobserved characteristics promoting contact to former co-workers and other occupational contacts and finding a job?

To sum up, we dare to distinguish between – in terms of general job access chances - more advantaged versus more disadvantaged job seekers classified by criteria such as age, nationality, education and previous unemployment, bigger networks of higher quality, and more active job search behavior in terms of activation and mobilization of occupational social resources. Now, we are interested if these characteristics affect job access channel that led to a job and/or stand for more general characteristics, such as belonging to a well-integrated community, having social skills, or unobserved personality characteristics.

4.2 Job via network: Finding employment thanks to first job information from a network member

Access channel to previous job

It is plausible that having found a job through a network member in the past encourages present job search via network. Additionally, a network that has proved to be helpful in job search in the past may have resources that will also be useful in the current situation where the job seeker is unemployed. Also, the same kinds of jobs may be likely to be found via the same access channels. Therefore, we first look at whether people have had experience with job access via network in the past.

We find that a little more than 30 percent accessed their last job via contacts (including former co-workers, relatives, good friends, and acquaintances), while nearly 70 percent did not indicate to have found their last job via non-network means (N=1089). These numbers correspond to other findings on Swiss data (Freitag 2000, Baumann and Oesch 2013). If we look at how many *ever* received help from network members in job search (Table A4.1), we find that 38 percent either never have had a job before the last one (7 percent) or have never found a job through their network (31 percent). This means that 62 percent of our sample got help in job search from their network members at least once in their life (51 percent once or twice, 11 percent more than twice). However, we do not know whether people were unemployed or employed while looking for one of those jobs. The present study allows us to gain more insight into the job-search processes of this specific group of unemployed job seekers.

Job access channel when unemployed

When looking at job access while unemployed, we find that 66 percent of our respondents had found a job, while 34 percent had not (Table A4.1). Of course, we only know who found employment after unemployment via their networks, and who did not, among individuals who answered either our second or our third questionnaire and who had already found a job by that point in time. Among these respondents who found a job 42 percent got the first information on their present job via network, while 58 percent did not (Table A4.1).⁴⁴ This is a slightly higher share than found in the ISSP 2001, where 39 percent found a job via close or large family, close friends and acquaintances (without indication of the labor market position before finding that job).

We find among the unemployed the difference between respondents that found their job repeatedly through contacts and respondents who did not is not very big, but still statistically significant at a 0.1 level: 66 percent of the job seekers who found their current employment without job information from a network member had found a previous job via a contact

⁴⁴ Differences in the proportions finding employment via their network between the pre-unemployment and the postunemployment job access could be for two reasons. First, the unemployed are more dependent on networks and therefore more likely to find jobs via this channel; second, it could be different due to measuring procedure: data of the exit questionnaire was entered differently than for the entry questionnaire inasmuch as terms of all responses were entered exactly as found in the questionnaire, regardless of whether the question had suggested it was a single choice question, which was not done for the entry questionnaire.

(Table A4.1, first column). 71 percent of those who accessed their current job via network did so for one of their previous jobs too or got help in job search for one of their previous jobs at least once. Due to this rather small differences, it seems previous experience with network as an effective job access channel is not necessarily decisive to be successful with this job-search strategy again. Further, for workers whose networks have been helpful in the past, it does not seem that they have to be helpful in the present job search situation. In contrast, Granovetter (1995a: 90) – who distinguishes additionally the number of previous jobs found by contacts – finds that a range of 63 to 91 percent among those who find a job via contacts did so before.

The results of other researchers in our group using the same data as we do and looking at search behavior at the very beginning of unemployment as an outcome variable would in a first step suggest that there could be an impact: having found the previous job via network is a very strong predictor of talking to one's network members about job search at the very beginning of unemployment (Bonoli 2014: 95); at the same time they find job-search behavior at the very beginning is positively related to the expected probability of finding a job via network after unemployment (Bonoli 2014: 98). However, not having had the whole sample at their disposal at the time of their study and with another focus of their analyses on perception of usefulness of job-search channels and job-search behavior, they do not use the individual job access channel, which finally led to a job, but a constructed probability of doing so.

In contrast, we look now multivariately on whether having found the last job via contacts affects current job access via network. Thereby, we only consider workers who have had a job before. In contrast to aforementioned previous study, we find that having found the last job via contact increases chances of finding a job via network at a 0.1 significance level only before we control for further characteristics: the introduction of age, nationality and occupational group makes the significance and effect level drop, whereas sex and education do not seem to interfere. Further, and this is important, the fact of controlling for having found the last job via network does not affect the effects of the other factors in the model. Therefore, in the following analyses of this chapter we do not take account of this.

The role of socio-demographic characteristics for finding employment thanks to first job information from a network member

Against our expectations we find no sizeable and no statistically significant differences in job access via network by age groups and sex. The youngest job seekers find employment via first job information from a network member least frequently (37 percent). This is confirmed when

controlling for other socio-demographic characteristics, but seems to be related to the occupational group rather than being age inherent. Descriptively, we observe the oldest job seekers find employment through their network most (46 percent). However, the differences do not seem to be statistically significant. Neither on a bivariate nor on a multivariate level, we can confirm our hypothesis that older job seekers are more likely to find employment via job information from a network member than younger job seekers (Table A4.1, column 5 and 6). This is also in contrast to some of the literature, such as for example what Bessy and Marchal (2009) found on the employer side in France, according to which job seekers over 50 are more often recruited via contacts, or Port (1993), who found descriptively that job access via network increases over age. Or Bonoli and Hinrichs (2012) who interviewed employers that stated that job access via network would be one way to overcome discrimination related to age, however, most did not admit to make hiring decision depending on this signal, but rather pointed out the advantages older workers bring. At the same time, other scholars find a decrease in finding employment thanks to hearing about the vacancy through a network member with increasing age (Corcoran et al. 1980, Marsden and Campbell 1990).

Contrary to our expectation, we do not find differences in finding employment thanks to first job information from network member between women and men. In this, our results contrast with findings from studies discussing gender differences in other countries and earlier periods (Bentolila et al. 2008: 23, Holzer 1988, Russel 1999, Granovetter 1995a, Ioannides and Datcher Loury 2004). However, our result could be specific to the women registering as unemployed, particularly in Switzerland, where norms prohibit many from registering as unemployed, and more women than men may have home-maker roles as alternatives.

Contrary to our expectations, we find the Swiss are less likely to find employment thanks to first job information from their network than respondents with EU-15 or another nationality (Table A4.1). As outlined in the theoretical part, this could be due to higher chances of the Swiss in non-network, and particularly in formal job access as they are more likely to have formal qualifications and work experience in Switzerland, both recognized by employers and professional guilds. Additionally, they may be less subject to direct or indirect discrimination (Fibbi et al. 2006). For these reasons they could depend less on network job access.

Another factor could be the types of jobs these different nationality groups prevalently work in. If we look at the distribution of the different nationality groups by occupational group, we find that they differ non-randomly. The proportion of some EU-15 nationalities in the occupations with a proportion of 50 percent or higher of job access via network is clearly

higher than for the Swiss. Examples are occupations in agriculture, construction and catering, where around 50 percent have accessed their jobs via network and where the Portuguese, the largest immigrant group in the Canton de Vaud, are over-represented (see also Amaro Galhano 2016: 3).

The predicted probability for finding employment thanks to first job information from a network member lies at 40 percent among Swiss job seekers. The Portuguese job seekers have a 9 percentage points higher predicted probability to get a job through network than the Swiss, a difference that is statistically significant, which however disappears once controlling for education or occupational group (Figure 4.4). This may be explained by the recruitment practices of lower skilled jobs as found for example in a qualitative study on recruitment practices of construction workers in the French-Speaking part of Switzerland (Amaro Galahno 2016).

Moreover, we find a 23 percentage points higher predicted probability for getting first job information from network members for people coming from Northern Europe or Northern America compared to the Swiss, also after controlling for socio-demographic characteristics and employment history. This seems to represent an internationally connected group of job seekers potentially accessing internal labor markets of international organization, and potentially belonging to a community of - colloquially so-called - expats⁴⁵.

How do we interpret these results? It seems that in the case of the Portuguese job seekers it is field logics, thus recruitments practices in these pre-dominantly low-skilled occupational groups with – often seasonal – fluctuations, who are responsible for increased chances of job access via network. In case of the other group it does not seem to occupational group or skill-level, which could explain job access channel, however, we hypothesize (but cannot test) that these Northern European and Northern American job seekers are likely to come to work in Switzerland as part of internationally organized labor markets from jobs with allow to create a big occupational network. Accordingly, they are more likely to find their jobs via these networks (see also chapter 5). Thus, due less cases and no information on internationality of labor markets accessed, we are not able in that case to separate empirically well-connected nationality group from recruitment practices.

⁴⁵ However, the scientifically used term is not congruent with the colloquially used as the article of Andresen et al. (2014 : 2303ff.) makes clear. This article disentangles common criteria of being classified as expatriat or not, where neither nationality of origin nor skill level seem to play a role.

Figure 4.4: Differences in the predicted probabilities to find employment thanks to job information from a network member by nationality groups



Note: N=1204, marginal effects calculated on the basis of logistic regression models - m1: contains nationality dummies only (Pseudo- $R^2=0.0071$); m2: controls for other socio-demographic characteristics namely age, sex, education, (Pseudo- $R^2=0.0161$); m3: controls additionally for (un-) employment history measured by previous unemployment and pre-unemployment occupational group, (Pseudo- $R^2=0.0228$)

These multivariate findings on nationality give partial support to the expectation that more disadvantaged job seekers in terms of general job access chances are more likely to find a job via network, however, as we see, it is only some of them, who are able to compensate some of their disadvantages in formal job access. In contrast the group with lowest job access chances in general are not more likely to find their job via network as they do not have such a network (those with Northern European and Northern American nationality have for example a higher number of friends as compared to the Swiss, whereas the job seekers with un-defined nationality groups have lowest number of friends).

Consistent with our expectations is that while 40 percent of the job seekers with uppersecondary or tertiary education found their job via network, around half of the job seekers with basic education did so. The latter approaches the 56 percent among all active with poor qualifications who found their job via family, friends or acquaintances according to the ISSP 2001 (Bonoli 2012: 175). Consistent with findings in the literature (e.g. Corcoran et al. 1980) also our multivariate results suggest that job seekers with upper-secondary or tertiary education are much less likely to find a job via network compared with those with only basic education (Figure 4.5): For job seekers with basic education only the predicted probability to find a job via network lies at 49 percent. The difference in the predicted probabilities of finding a job via network ranges from 8 percentage points for job seekers with uppersecondary to 12 percentage points for the tertiary-educated; these differences are statistically significant. This finding may be explained by the fact that selection based on candidates gathered through formal job advertising usually refers to predefined and formalized educational credentials. Thus, people lacking formal credentials may rather depend on contacts.

These findings give support to the expectation that it is more disadvantaged job seekers who depend on their network for first job information that leads to employments. Also these results are consistent with other findings in the literature on the job seekers' side for different countries (e.g. Holzer 1988, Bentolila et al. 2008: 23), but also for the employer side (Bessy and Marchal 2009).

Thus, our findings the tertiary educated contrast the expectation that particularly higher level managerial positions need additional non-formalized information on the candidate and therefore enhance job access via first information from a network member.





Note: N=1204, marginal effects calculated on the basis of logistic regression models - m1: contains education dummies only, Pseudo- R^2 =0.0077 m2: controls for other socio-demographic characteristics, Pseudo- R^2 =0.0161 m3: controls additionally for (un-) employment history measured by previous unemployment and pre-unemployment occupational group, Pseudo- R^2 =0.0228

The role of employment history for finding employment thanks to first job information from a network member

Against our expectation previous unemployment is not related to finding employment thanks to job information from a network member, which may be due to fewer occupational contacts, but more dependency on network. Thus, this is against our expectation that job seekers disadvantaged in general job access chances are more likely to find their job via network.

Research on the employer side emphasize that recruitment strategies differ by occupational groups (e.g. Bessy and Marchal 2007). Compared with the reference group of people in jobs in management, administration, banking, insurance, or legal services, we find bi-variately job seekers to be more likely to have accessed their jobs via social networks rather than via non-network means in most occupational groups (except for example for occupations as technicians or IT specialists). Controlling for socio-demographic characteristics and previous unemployment, job seekers working in the reference group have a predicted probability of 41 percent to have found their new employer via job information from a network member. In contrast it is 13 percentage points higher for job seekers who had worked in construction jobs (group 4), this is in line with findings on recruitment practices in construction in Switzerland (see also Amaro Galhano 2016). Also job seekers coming from occupations in sales and transports (group 5) have a higher predicted probability to find a job via network, it is 9 percentage points higher for these job seekers. These are the groups with more precarious working arrangements, where workers with lower capital endowment are found most often in Switzerland (Bühlmann 2013: 88). Our expectation had been that job access via network in general is more widespread for less skilled occupations – and these occupations may predominate in the aforementioned occupational groups. However, we find another occupational group with more mixed skill profile, where we observe a 9 percentage points higher predicted probability to have found their jobs via network: it is for job seekers from occupations in health, culture, research (group 8). To our surprise we find non statistically significant effect of coming from occupations in catering and personal services.

We can conclude that we find so far only partial confirmation of our hypotheses on disadvantaged job seekers being more likely to find jobs via network. However, this could be related to the fact that these job seekers often are also disadvantaged in their social resources. But also for the competing expectation that maybe it is the advantaged job seekers that is more likely to find employment via network, we find if at all only very wage support. Thus, in a next step, let us see what results on the network characteristics reveal.

The role of network characteristics for finding employment thanks to first job information from a network member

For the size of the friends network we observe bi- and multivariately that the differences in effect size are negligible (3 to 4 percentage points for having an additional ten friends), but point in the expected direction (Figure 4.6). The small effect could be due to the fact that the mere number of friends may be less relevant for job access via network. However, none of the *network quality* measures seem relevant for job access via network.

The share of employed friends has not impact on this outcome dimension, once we control for other network characteristics, which goes against our expectations. One explanation of this result is that it is more about homophily in employment position of network members, which has been observed by other studies (e.g. Calvó-Armengol and Jackson 2004, Gallie 1999). Finally, employed friends can also share more general information on the labor market, employers and application procedures than information on actual vacancies.





Note: N=1079, m1: bivariately, (Pseudo- $R_1^2 = 0.0045$, Pseudo- $R_2^2 = 0.0003$, Pseudo- $R_3^2 = 0.0020$, Pseudo- $R_4^2 = 0.0014$), m2: controls for socio-demographics and employment history, (Pseudo- $R_1^2 = 0.0274$, Pseudo- $R_2^2 = 0.0230$, Pseudo- $R_3^2 = 0.0235$, Pseudo- $R_4^2 = 0.0225$), m3: controls additionally for network characteristics, (Pseudo- $R^2 = 0.0298$)

That the share of network members in higher position is not related to this outcome dimension goes against our expectation. We interpret in two ways. First, it in the sense that most of our respondents are not themselves in a higher hierarchical position, and it is more same-level work contacts, which are helpful for job leads. Thus, in the case of higher hierarchical contacts, they must share other characteristics with the job seeker such as belonging to the same family or sharing the same leisure activity, or nationality.

Second, also in this case it is more about homophily, more advantaged job seekers in the sense of having advanced careers with potentially higher characteristics find easier a job again. Due to their educational and occupational trajectory, they are at the same time more likely to find a job and to have network members with similar characteristics in their network.

Against our expectation also having friends among former co-workers does not robustly relate to job access via network. We may thus consider this to be an indicator for unobserved characteristics, which at the same time influence whether one stays friends with former co-workers and whether one finds a job such as personality, social skills, or reasons to have quit the last job, or tenure in the last job, which is related to skill requirements of the last job, or geographical mobility meaning being a newcomer to the regional or Swiss labor market.

However, there is a relationship between finding employment thanks to first job information from a network member and having friends among former co-workers as long as we do not control for other network characteristics in the model: the predicted probability is up to 10 percentage points lower for job seekers who do not have any friends among former co-workers (significance level of 0.1). This means, that the effect of this factor could also be covered by the effect of other related variables such as the number of friends in total, as people with different job access chances may mainly differ in their occupational network. Thus, this is the only measure, besides the size of the friends network, that potentially has an effect on finding employment via first job information from a network member.

Another explanation for our "non-result" of most network characteristics could be that finding employment thanks to getting first job information from a network member is a too general measure and it should rather be examined by a more detailed view of social ties, namely by distinguishing work ties from communal ties.

The role of job-search patterns for finding employment thanks to first job information from a network member

None of the general job search measures – number of applications, interviews, and their proportion, nor the variety of job search channels - is related to finding employment thanks to job information from a network member. In contrast, activating former co-workers seems to matter: job seekers who have accessed their new jobs via network have, with 35 percent, a significantly higher proportion among them who often talked to their former co-workers compared with 26 percent of the respondents who accessed their jobs via non-network means (Figure 4.7). Bivariately, we observe a similar relationship between having often talked to other occupational contacts and finding employment via the network (Table A4.1). Talking to other occupational contacts than former co-workers seems from a multivariate perspective, however, not to be relevant for job access via network in general. Therefore, this variable was removed from the model.

For mobilization, we observe a similar pattern as for activation: the proportion of respondents who often received job information from their former co-workers is clearly higher among job seekers who found a job via network (11 percent) compared with those who found it via non-network means (7 percent). The same observation can be made when we look at "often receiving job information from other occupational contacts". Multivariate analyses show that often receiving job information from former co-workers as well as from other occupational contacts only has an effect on finding a job in general, but not on finding a job via network. Receiving job information from former co-workers is related to finding a job via network in the expected direction as long as we do not control for whether somebody has often talked to former co-workers about job search. It makes sense that the latter is in most cases a precondition of the first. Receiving job information from other occupational contacts has a statistically significant positive effect on finding a job via network as long as we do not control for the proportion of higher hierarchy network members, which means that these might be relevant in providing information. Thus, if there are none, there is no information to obtain.



Figure 4.7: Differences in the predicted probabilities of finding employment thanks to job information from a network member by activation and mobilization of occupational contacts

N=900, average marginal effect based on logistic regression models, Model m1: bivariate model, (Pseudo- $R_1^2=0.0092$, Pseudo- $R_2^2=0.0035$, Pseudo- $R_3^2=0.0048$, Pseudo- $R_4^2=0.0041$); Model m2 controls for socio-demographic characteristics and employment history, (Pseudo- $R_1^2=0.0475$, Pseudo- $R_2^2=0.0396$, Pseudo- $R_3^2=0.0403$, Pseudo- $R_4^2=0.0375$); Model m3: additionally controls for network characteristics and activation and mobilization of former co-workers and other occupational contacts, (Pseudo- $R^2=0.0600$)

4.3 Summary on finding a job and finding it via network

In line with other findings on job access via network in Switzerland, which observe portions of 30 to 39 percent of finding a job via network, about 30 percent of our sample indicated having found their last job via contacts. In the present situation of unemployment, however, it is more: 42 percent. This could be interpreted in three ways. First, the unemployed are more dependent on somebody providing labor market information or even vouching for them and therefore are more likely to find their job via network. Second, we have an underrepresentation of younger job seekers in our sample, who are generally speaking more likely to find employment via non-network means. Third, we might have measured it differently: for the job following the current unemployment spell we also considered as job access). We asked where the first information on the job found stemmed from, which may have encouraged multi-channel job access answers as it may for example include people who got a

job ad forwarded by a friend. Further, we found only a weak relationship between previous job access via contact and current job access via contact.

Chances of finding a job again differ clearly by personal characteristics: Being older than 45 instead of 25 to 34 years old, having neither-Swiss-nor-EU-15 nationality instead of Swiss nationality, and having basic education only compared to upper secondary and tertiary education as well as having experienced unemployment before the actual spell decreases the likelihood of finding a job again. This is in line with previous studies with the same data (see for example Turtschi 2015) and a large body of literature on unemployment (for example Djurdjevic 2005, Arni 2015, Baumann 2015).

We find network characteristics to be related to socio-demographic characteristics in the expected way, which is in line with our assumption that different kind of resources are interrelated (as theoretically argued for example by Bourdieu 1986): job seekers with lower chances of getting a job also have less favorable network characteristics. The latter are thus often related to nationality and educational level; some of them are related to age (see also findings from the same data used here by Turtschi 2015).

To sum up, our first argument that job seekers disadvantaged in general job access chances should be more likely to find jobs via network information is confirmed only in terms of educational levels and in some partial results on occupational group and on nationality. Our second argument – it is advantaged job seekers are more likely to find a job via network – is not confirmed. In contrast to our expectation our multivariate analyses reveal no differences in network job access by age, sex or previous unemployment. However, we do find a relationship between age and getting recommended or even hired by a network member (influence function), which points in the expected direction.⁴⁶ First, older job seeker have network members who are also older and who therefore are more likely to have advanced careers and therefore be in a position, where they can get influential. Second, older job seekers are highly dependent on recommendation and hiring via network members for ever finding employment again.

In the same vein as the advanced career argument, we observe that the higher the preunemployment occupational class the higher the chance of having been recommended or even hired by a network member, whereas we found no relationship of social class with the being informed or not on vacancies by network members. In contrast, previous unemployment is

⁴⁶ These findings stem from exploratory analyses not presented within the here presented study.

negatively related with being recommended. These findings would give support to the argument that it is the more advantaged job seekers who are more likely to benefit from social capital in job search when it comes to the influence function, and not the disadvantaged job seekers.

Further, we find barely any effect of network characteristics on finding employment via first information from a network member (except negligible effect of the number of friends). Nor do we find any of the network characteristics would play a role for being recommended or hired by a network member. This could mean that it is more about homophily and unobserved characteristics, which are reflected in the relationship between network characteristics and job access chances in general.

In contrast, and the fact of a relationship between activation of former co-workers and finding employment via network points in this direction, it could be due to an opposite relationship of these factors with different kind of network members furnishing the first job information. Therefore in next chapter (chapter 5) we disentangle finding employment via the first job information from a network member into whether it comes from a work tie or from a communal tie.

5. Finding employment thanks to first job information from a work tie or a communal tie

From the almost 31 percent who found their pre-unemployment job via contact, almost 28 percent had received the first information on their pre-unemployment job from a former co-worker. When it comes to the post-unemployment job the 42 percent of job access via network are split into 30 percentage points that found their job via a work-related contact and 12 percentage points via a communal tie. To ensure comparability between previous and current job access, we look at this point more particularly with regard to having received job information from former co-workers. 28 percent of the unemployed job seekers who found a job via network received the first job information via a former co-worker. While we know job seekers this time are unemployed, we do not know in what labor market status they were when looking for the pre-unemployment job, but we see that the proportion coming via former co-worker seems stable independent of this.

Now, we wonder what are the factors that are related to finding a job via work tie, communal tie or non-network means. Our expectations are that job seekers disadvantaged in general job access chances are more likely to find a job via communal ties (due to a lack of alternatives). In contrast, job seekers advantaged in general job access chances may in case of being at the beginning of their occupational trajectory be more likely to find employment via non-network means. Advantaged job seekers with advanced careers or jobs where soft skills are important may be more likely to rely on work ties. Work ties are expected to be best informed about job seekers's and job's characteristics and therefore more likely to furnish information that leads to better matches, which then influences hiring and job acceptance probability.

We start with an overview on the different factors related to finding employment via first job information from a work tie, a communal tie or via non-network means (5.1). First, we discuss the role of socio-demographic characteristics, second look at employment history, and third explore job search patterns. In a next step, we exemplify some of the results on activation and mobilization of former co-workers by education, nationality and previous unemployment (5.2). We conclude this chapter with a summary (5.3).

5.1 Factors related to finding employment thanks to first job information from a work tie a communal tie or non-network means

The role of socio-demographic characteristics for finding employment thanks to job information from a work tie or communal tie

In line with what could be expected when looking at findings of reduced occupational social capital available at the very beginning and the end of occupational trajectories (McDonald and Mair 2010), there are differences in finding employment via first job information from a work tie compared with finding employment via non-network means or via communal ties by age group. However, our generalized expectation, that finding employment via first job information from a work contact rises with increasing age, is not met. What is met, however, is our expectation that the youngest job seekers are less likely to find employment via work contact (only from a bivariate perspective statistically significant). The youngest job seekers have, in line with our expectation, higher predicted probabilities of finding employment via non-network means, which lies at 62 percent and is 8 percentage points higher than the one of the 25 to 34 years old, which serves as reference group (not statistically significant). In line with our expectation, but not statistically significant neither, the oldest have higher predicted probabilities of finding employment via communal ties. Formal qualifications of the youngest job seekers may in most cases be their most recent interpretable criteria to employers, whereas in case of advanced age work experience and occupational social capital may be more speaking as evaluation criteria than formal credentials. However, we have an underrepresentation of younger job seekers in our sample. This could mean that this result could eventually reflect an over-representation of workers finding employment via non-network means among the young job seekers who answered this questionnaire. The latter could be the more privileged job seekers among the young.

Meeting our expectations, we find that the 45 to 55 years old are least likely to find employment via communal ties rather than the other two access channels – they have with 6 percent as compared to 12 percent a predicted probability to find employment via communal ties which is half the size of the reference group. This difference is statistically significant.

This age group is potentially the most advanced in their careers and accordingly also in their up-building cultural and occupational social capital. However, this age group may already meet some discriminatory practices of employers, and/or at the same time it may be difficult to find employment, which corresponds to the previous position when having to change the employer after potentially longer tenures. Some skills and knowledge may not be transferable or not be recognized by new employers.



Figure 5.1: Differences in the predicted probabilities of finding a job via work tie, communal tie, or non-network means

Notes: N=1204 m1 does not include any controls (Pseudo $R^2=0.0072$), m2 controls for socio-demographic characteristics, previous unemployment and previous occupational group (Pseudo $R^2=0.0362$)

When it comes to the role of being a woman or men for finding employment via first job information from a work tie, a communal tie or non-network means, our expectations are not met. Men are not statistically significantly more inclined to find a job through job information from work ties or communal ties. In this, our results contrast with findings from studies discussing gender differences in other countries and earlier periods (Bentolila et al. 2008: 23, Holzer 1988, Russel 1999, Granovetter 1995a, Ioannides and Datcher Loury 2004). A possible explanation could be that we have very broad understanding of what work ties are as in a narrower operationalization, men seem to have a slightly higher likelihood of finding employment via work ties, which is statistically significant at the 0.1 level (Oesch & von Ow forthcoming). Another explanation could be that in Switzerland registering-as-unemployed behavior may differ between men and women, and female unemployed may be a particular selection of women strongly engaged in or strongly dependent on labor market participation.

Distinguishing six nationality groups, we find while the Swiss have a predicted probability of more than 60 percent to find employment via non-network means, the Portuguese have bivariately a 9 percentage points smaller predicted probability to find employment via non-network means, which however may be explained by educational requirements and skill profiles of the jobs. We find no statistically significant difference in the finding employment through first job information from a communal contact by nationality groups. However, this could be related to the fact that cell numbers become very small for some groups.

In contrast, there is one nationality group that – compared with the Swiss – is more likely to have found their job via work contacts rather than via non-network means independently of controls. The probability of these job seekers with Northern European or Northern American nationality finding a job through non-network means is 21 percentage points lower than for the Swiss. Instead finding employment via first job information from a work tie is 26 percentage points higher than for the Swiss, who have a predicted probability of 28 percent of having found their job via a work contact, i.e. almost double. These differences are statistically significant.



Figure 5.2: Differences in the predicted probabilities of finding employment thanks to job information from work ties or communal ties as compared to via non-network means

Notes: N=1204, Multinomial logistic regression models, m1: nationality (Pseudo R²=0.0075), m2: controls for age, sex, education (Pseudo R²= 0.0228), m3: additionally controls for previous unemployment and previous occupational group (Pseudo R²=0.0362)

Thus, while a majority of Swiss is expected to find their job via non-network means, a majority of these international professionals find employment thanks to job information from their work contacts. This finding would lend support to the argument that some job seekers disadvantaged in general job access chances are able to compensate for lower job access chances via non-network means by getting first job information from work ties. Thus, their occupational social capital seems effective, and suggests that this group approaches a more internationalized labor market. However, we do not have any measure for this.

Having upper-secondary or tertiary education goes along with lower chances of finding a job via a communal tie rather than via non-network means compared with when having only basic schooling: Finding employment thanks to job information from a communal tie is much more common among job seekers with basic education. The predicted probability lies for them at 17 percent, whereas it is 6 percentage points lower for the job seekers with upper secondary, and 9 percentage points lower for job seekers with tertiary education. This lends support to our expectation that job seekers disadvantaged in general job access chances are more likely to find employment via communal ties. One explanation could be that in case of approaching less skilled occupations, this could go in hand with being less specialized occupations, which would mean it does not make such a difference if it is a communal or a work tie who shares the information. Interestingly, there are no statistically significant differences between educational levels for finding employment thanks to information through a work ties.

For workers with only basic education the predicted probability of finding a job via nonnetwork means is 51 percent, whereas it is 8 percentage points higher for job seekers with secondary and 12 percentage points higher for job seekers with tertiary education. This point underlines the logic of if there are more formal credentials job access via non-network means (particularly formal means) is more likely.

The main contrast by educational level is not between finding employment thanks to first job information via a work tie versus via a communal tie, but that job seekers with basic education only prevalently find employment via communal ties rather than via non-network means, and rather find it via work ties than via non-network means (Table A4.1). Findings in the literature also point in the same direction (e.g. Holzer 1988, Bentolila et al. 2008, Bessy and Marchal 2009). This result gives support to our expectation that job seekers

disadvantaged in general job access chances are less likely to find employment via nonnetwork means, and more likely to find employment thanks to first job information from a communal tie.



Figure 5.3: Differences in the predicted probabilities of finding a job through information from work ties or communal ties as compared to via non-network means by educational level

Notes: N=1204, m1 without controls (Pseudo $R^2=0.0102$), m2: controls for age, sex, nationality (Pseudo $R^2=0.0228$), m3: additionally controls for previous unemployment and previous occupational group (Pseudo $R^2=0.0362$)

The role of employment history for finding employment thanks to job information from a work tie or communal tie

The predicted probability of finding employment thanks to *non-network* means is around 50 percent or higher for workers from most occupational groups, except for construction jobs. For the category of occupations in management, administration, banks, insurance, or legal services (our reference category) it is 60 percent. Job seekers coming from construction jobs have with a difference of 23 percentage points significantly lower predicted probabilities of finding their job via non-network means. The same is observed for job seekers from sales and transport, with a 10 percentage points difference (0.05 significance level for both coefficients), as well as job seekers from occupations in health, teaching, culture and research

who have a 9 percentage points lower predicted probability of having found employment via non-network means (0.1 significance level).

Job seekers from occupations in construction and in health, teaching, culture and research were more likely to find a job via a work contact than via non-network means compared with job seekers from the reference group who worked in management, administration, banking, insurance, or legal services jobs. They have a predicted probability of 37 percent to find employment thanks to job information from a work tie, which is 11 percentage points higher than for the reference group. This group joins mixed skill profile, with many higher skilled, and many asking for soft skills and network social capital.

People coming from occupations in sales and transports, which has been shown to reassemble more precarious working contexts (Bühlmann 2013), have a 6 percentage points higher predicted probability to find employment thanks to job information from a communal tie compared to the reference group, whose predicted probability lies at 10 percent. This finding suggests that workers rather in low-skilled jobs are prone to find employment via communal ties.





Note: N=1204, m1: without controls (Pseudo R^2 =0.0158), m2: controls for age, sex, nationality, education, previous unemployment (Pseudo R^2 =0.0362)

We had guessed that previous unemployment has no effect on the fact of getting first job information from a network member as compared to via non-network means may be due to oppositional effects of previous unemployment on finding employment thanks to first job information from work and communal contacts. Indeed, we find that job seekers who had been previously unemployed are less likely to find a job via work ties, but more likely to find it thanks to first job information from a communal tie. Accordingly, when not having experienced previous unemployment the predicted probability of finding employment through job information from a work tie lies at 33 percent, whereas it is 6 percentage points lower for job seekers who have been unemployed before. In contrast, job seekers with previous unemployment thanks to job information from a 5 percentage points higher predicted probability of finding employment thanks to job information from a communal contact.

This may be due to having had less time to build up occupational social capital, and therefore being more dependent on job information from communal contacts. This finding gives support to our expectation that job seekers potentially disadvantaged in general job access chances, and with potentially lower capital endowment (occupational social capital and occupation relevant cultural capital) are more likely to find a job via communal ties.

Figure 5.5: Differences in the predicted probabilities of finding employment through job information from work ties or communal ties as compared to via non-network means, by previous unemployment



Note: N=1204, Model m1: with previous unemployment as the only independent variable (Pseudo $R^2=0.0043$), m2: controlling for age, sex, nationality, education, pre-unemployment occupational group (Pseudo $R^2=0.0362$)

The role of network characteristics for finding employment thanks to first job information from work ties or communal ties

Job seekers with 10 friends have a predicted probability of finding employment thanks to first job information from a work contact, which lies at 31 percent, while it lies at 34 percent for those who indicated having 20 friends. In contrast, the predicted probability of finding employment via non-network means drops by around 4 percentage points per 10 additional friends. The small effect of having 10 friends more or less could be due to the fact that the mere number of friends may be less relevant for job access via network and via work ties than the characteristics of friends such as being employed or not.

Interestingly, finding employment thanks to first job information from a communal ties seems barely to vary with different amount of friends in one's network. This goes along with the assumption that communal ties are a resource when all other job access channels fail. And / Or they act independently of other factors, and in that are more similar to the logic suggested for strong ties, which are supposed to have more motivation to help independently of other circumstances.

We find a relationship of the share of permanently employed friends with finding employment thanks to job information from a work tie only as long as we do not control for education. Accordingly, comparing the average proportion of employed network members by educational level, we find statistically significant differences to the advantage of those with more education.⁴⁷ This leads us to speculate that network quality measured with the proportion of friends in permanent employment is too general to be directly relevant for finding employment thanks to job information passed on via work ties or communal ties, and thus primarily matters for job access in general because of mechanisms of homophily.

Figure 5.6: Predicted probabilities for finding employment thanks to job information from a work tie or communal tie as compared to via non-network means

 $^{^{47}}$ 6.8 is the indicator value for those with basic education only, 9.3 for those with upper-secondary and 10.3 for those with tertiary education.



Notes: N=1079, m1: bivariately (Pseudo R^2 =0.0042), m2: controls for socio-demographics and employment history (Pseudo R^2 =0.0403), m3: controls for network characteristics (Pseudo R^2 =0.046)

Now, we look at two factors that may be more directly related to occupation specific information and hiring processes – having or not friends among former co-workers and the proportion of network members in a higher hierarchical position. To our surprise none of these two factors is related to finding employment thanks to first job information from a work tie or communal tie as compared to via non-network means. Only at a bivariate level do we see that job seekers with friends among co-workers slightly more often find employment via first job information from a work contacts, followed by accessing jobs via non-network means (p=0.056) (Table A4.1). It is surprising to find no effect on access via network in general, nor on whether a job is found via a work or communal contact. It is however in line for example with Van der Gaag (2005) who argues that it does not even make sense to expect that network characteristics should have an effect on job search outcomes.

We can interpret our findings on these two dimensions of compositional quality – former co-workers and higher hierarchy - that they add to the quantity and the quality of the network. The first is captured by the number of friends, which seems to help predict job access via work tie rather than via non-network means. The second is supposed to indicate quality of the network, which seems not to be clearly distinctive when it comes to job access via work ties rather than via communal ties. This is a little bit surprising if we think of scholars who did

find that contact's resources are related to the network's resources (Lin and Dumin 1986 according to Lin 2001: 92). Thus, we would have expected that compositional quality of networks could be related to whether a job is found via work tie or via communal tie. A possible explanation is that all these factors may be related to the same unobserved characteristics such as personality, which may not only help maintaining relationships, but also finding a job (independently via which channel).

The role of job-search patterns for finding employment thanks to job information from work ties or communal ties

Findings from the literature such as Larsen (2008), McDonald (2011), Marin (2013) and Granovetter (1973/1995) suggest that occupational contacts are the most helpful for job search. Therefore, recognizing former co-workers and other occupational contacts as potential social capital and activating and mobilizing them means recognizing this field logic and should result in higher job access chances via work ties. By putting these information in relationship with actually finding a job via work tie, we are able to narrow down if these factors rather stand for unobserved characteristics. This could be indicated when they only affect job access in general, but not job access via work tie.

Having often talked to former co-workers about job search raises the predicted probability of having found a job via first job information from a work contact by 16 percentage points, to 45 percent (Figure 5.7). In contrast, the predicted probability of finding employment via non-network job access channels is reduced by 11 percentage points to a predicted probability of 47 percent when having often talked to former co-workers.

We find higher proportions who often talked to other occupational contacts about job search among job seekers who found it via work contacts rather than via communal contacts or via non-network means (Table 4.1). Finding a job via a communal tie seems not affected by this factor. Talking to other occupational contacts than former co-workers seems from a multivariate perspective, however, not to be relevant for finding a job via a work tie. Therefore, this variable was removed from the model.

For mobilization, we observe a similar pattern as for activation: the proportion of jobseekers who often received job information from their former co-workers is clearly higher among jobseekers who found employment thanks to first job information from a work tie (14

percent) compared with those who found employment via non-network means (7 percent) and those who found it information from a communal tie (3 percent) (Table 4.1).



Figure 5.7: Differences in the predicted probabilities of finding employment via first job information from work ties, communal ties or without such help from network members

Note: N=916, m1: bivariately (Pseudo-R² = 0.0178 / 0.0120 / 0.0056), m2: controls for socio-demographic characteristics and (un-) employment history (Pseudo-R² = 0.0649 / 0.0590 / 0.0523), m3: controls additionally for network characteristics (Pseudo-R²=0.0812)⁴⁸

We find, in accordance with our expectations, that receiving job information from former coworkers significantly enhances finding employment thanks to first job information from work ties compared with via communal ties. The predicted probability of finding a job via a work tie rises by 13 percentage points to 46 percent when often receiving job information from former co-workers and this difference is statistically significant (Figure 5.7). On the other hand, the predicted probability of finding a job via communal ties drops by about 10 percentage points to 5 percent (statistically significant at the 0.1 level), when receiving often

⁴⁸ Results on general job-search patterns are not in the center of this study. Therefore, they are only mentioned, but not discussed any further: We find that both the average number of interviews as well as the failure rate are positively related to finding a job via communal ties. This latter finding strengthens our assumption that communal ties are an access channel of last resort. Additionally, we checked for the number of different job search channels used, but did not find any effect of this factor on the outcomes.

job information via former co-workers, which is half the predicted probability of when finding employment via a communal tie without receiving often job information from former co-workers. This could mean that information received from former co-workers is very useful as outlined by other studies (Larsen 2008, Mouw 2003, Marin 2013, McDonald 2011), at the same time reducing the dependence on communal ties who are prone to provide less qualified job information.

Descriptively, results for "often receiving job information from other occupational contacts" look the same as for often receiving it from former co-workers (Table 4.1). Multivariately, however, receiving job information from other occupational contacts does not seem to be related to finding employment thanks to first job information from a work tie compared to from a communal tie, once we control for the other activation and mobilization factors. However, all effects go in the same direction for receiving job information from former co-workers and from other occupational contacts.

5.2 The role of activation and mobilization of occupational social capital for job seekers advantaged and job seekers disadvantaged in general job access chances

To exemplify our results, we discuss the role of individual job-search patterns in terms of activation and being able to mobilize former co-workers for groups of job seekers that differ in terms of general job access chances identified by educational level, nationality and previous unemployment. We expect job seekers with lower general job access chances and higher predicted probabilities of employment via first job information from their network to know about the importance for them to activate and mobilize their occupational network to find a job. As pointed out, work-related contacts are mainly found during time spent in work environments, and they are prone to have useful job information and are therefore considered to be most valuable when activated.

We start by weighing up the importance of the two components of the job-search process – talking often about job search with former co-workers and receiving job information from former co-workers: In Figure 5.8, on the left hand side, we find the net effects of activating and mobilizing former co-workers on finding employment thanks to job information from a work tie. We see that often talking to former co-workers is more important in order to find a job via work ties than often receiving job information from former co-workers (once is enough if it leads to a job), but the combination of the two results in highest predicted

probabilities for finding a job via work ties and in lowest for finding employment thanks to job information from a communal tie.



Figure 5.8 Predicted probabilities of finding a job via work tie (left) and via communal tie by activating and mobilizing former co-workers

By contrast, talking *not* often to former co-workers about job search and receiving *not* often job information from them clearly reduces the predicted probabilities of finding employment via first job information from a work tie and in contrast, increases the probability of finding a job via a communal tie (Figure 5.8, on the right hand side). Thus, we find that workers with the highest predicted probability of finding employment through work ties are those with the lowest probabilities of finding a job via communal ties, and vice versa.

According to the fact that the combination of often talking to former co-workers and often receiving job information from former co-workers is strongest related to finding employment via work tie. In the following steps, we look at them jointly, and while doing so we look at job seekers with different educational levels (5.9), with different nationalities (Figure 5.10), and job seekers with and without the experience of unemployment prior to the current unemployment spell (Figure 5.11). We restrict our discussion to the cases of often activating and often mobilizing former co-workers versus doing neither of the two often. The

combinations between the two, such as often talking to former co-workers about job search, but not often receiving job information from former co-workers, lie between the two extremes. Therefore, they are not displayed in the graphs, with the goal of making them better readable.

As seen before network job access partly compensates for lack of formal credentials among job seekers with basic education only, whereas more formalized upper-secondary education allows job access via non-network means. Figure 5.9 shows that job seekers with lower job access chances in general due to educational level (upper left), have higher chances of finding a job via network (upper right).

We also find that workers who often activate and are able to often mobilize their former co-workers have higher chances of finding a job in general and higher chances of finding it via network (Figure 5.9, upper graphs), and more particularly via work ties (Figure 5.9, lower left). Job seekers with only basic education, who have not activated and mobilized their former co-workers, and who have lowest job access chances in general, have the highest chances of having found their job via a communal tie (Figure 5.9, lower right). This confirms our expectation that finding a job thanks to a communal tie is the job access channel of last resort. Unsurprisingly, finding employment thanks to job information through work ties is mostly affected by activation and mobilization of former co-workers – and the difference is largest for those with basic education only.

Only for job seekers with upper-secondary education is often activating and often mobilizing former co-workers for job search statistically significantly related to all dimensions: it results in higher general job access chances, higher employment chances thanks to job information via network, and more particularly via work ties, and at the same time reduces employment chances via communal ties.

For the other educational levels, activation and mobilization of former co-workers affects job access via work ties positively without acting on the other outcome dimensions. This means that, in terms of job access via work ties, all job seekers benefit from this behavior; however, in terms of the more general dimensions, we do not find any statistically significant differences, but the tendencies go in the same directions as for those with upper-secondary education. It also means that the lower-educated cannot significantly increase their general job access chances despite their "agency".
Figure 5.9 Predictive margins of finding a job (upper left), finding it via network (upper right), finding it via work tie (lower left) and finding it via communal tie (lower right), by educational level and dependent on activation and mobilization of former co-workers (both: often versus not often)



Note: the categories for the combination between often talking to former co-workers and not often receiving job information and the combination of not often talking to former co-workers and often receiving job information from former co-workers lie basically in the middle of the two extreme categories and are very close to each other. Therefore, we did not display them in these graphs. Values for different educational levels are connected by dots in order to make the differences between educational levels better visible (it is not a continuous variable, however).

Figure 5.10 shows for the different nationality groups their chances of finding employment, of finding it via first job information from a network member, a work tie or communal tie dependent on whether they talked often to former co-workers about job search and whether they often received job information from former co-workers. According to our observation concerning educational level, we find the Swiss benefiting most from often talking to former co-workers about job search and receiving job information from them – in the sense that they are more likely to find employment, to find it thanks to first job information via network, via work ties more particularly, and to have lower chances of finding it via communal ties. Moreover, job seekers with EU-15 nationality also benefit from this behavior in terms of finding employment thanks to job information from a network member and more particularly from work ties.

Job seekers with neither-Swiss-nor-EU-15 nationality who are most disadvantaged in job access in general increase their general job access chances clearly, in the sense that when activating and mobilizing their former co-workers they are no longer statistically significantly disadvantaged on this dimension as compared with the other two nationality groups. But it does not seem to affect the other outcome dimensions statistically significantly, which could, however, be due to smaller numbers or larger heterogeneity within this group of job seekers. This result could mean that talking often to former co-workers and getting often job information from them could be in this case and probably also in others be also measurement for integration in the working community, which is advantageous when trying to find a job.





Note: Values for different nationality groups are connected by dots in order to make the differences between nationalities better visible (it is a nominal variable with no reason to assume any continuity). Splitting up the nationality variable into six groups does not add any value for these results as they stay basically the same.

Figure 5.11 looks at a last criterion, it is having experienced unemployment prior to the current spell. It disadvantages job seekers in terms of general job access chances and is expected to go along with less cultural capital (work experience) and less occupational social capital due to the time off work. We find that if previously unemployed job seekers manage to activate and mobilize their former co-workers they are able to level out their disadvantage of prior unemployment in general job access, and they raise their chance of finding employment

thanks to first job information via network and via work ties, which is similar to that of those without prior unemployment often activating and mobilizing former co-workers. They are more likely to find employment via communal ties compared to job seekers without previous unemployment spells, which is, however, not related to activation and mobilization (large confidence intervals).

Figure 5.11 Predictive margins of finding a job (upper left), finding it via network (upper right), finding it via work tie (lower left) and finding it via communal tie (lower right), by previous unemployment and dependent on activation and mobilization of former co-workers



Note: Values for those with and those without previous unemployment are connected by dots in order to make the differences between nationalities better visible (it is a nominal dummy variable, however).

5.3 Summary

Generally speaking, neither older workers nor job seekers with non-Swiss-and-non-EU-15 nationality, nor job seekers with lower educational level, nor job seekers with previous unemployment spells, were able to off-set their disadvantage in general job access chances by finding employment thanks to job information from a network member. However, we observe that most of them have a higher chance of finding employment thanks to job information from a communal tie. The same is confirmed for job seekers coming from occupations in sales and transports where we tend to find more low-skilled jobs and more precarious employment. Further, we find that job seekers having a higher failure rate in applications (getting less interviews per application), as well as job seekers not talking often to their former co-workers

and not often receiving job information from former co-workers have higher chances to find a job thanks to information from a communal tie. These findings seem to underline the argument that job access via communal ties is the job access channel of last resort.

Work ties, in contrast, we argued should be better able to select the information to share in order that there is a good match between job's and job-seeker's characteristics. With the latter should go along a higher likelihood of a job offer and accepting of a job offer. Therefore, we expected, it is primordially job seekers advantaged in general job access chances who are more likely to find employment via first job information from a work tie. Although, some findings support this expectation, others are less clear.

The age group of the 45 to 54 years old are least likely to find employment thanks to communal ties, they are more likely to access their jobs thanks to work ties or without any information from a network member, which suggests that these job seekers potentially at the top of their career have at their disposal social and cultural capital (work experience and work ties potentially in positions of control and influence) - however, not enough, to completely overcome disadvantages in general access chances related to advanced age.

We have identified a very specific group of job seekers with Northern European and North American Nationality which is very successful in finding employment via work ties, which comes at the expense from job access without any job information from network members, and is assumed to serve an internationally organized labor market. It also suggests that outside of these labor markets these job seekers have hard time to find a job again.

Further, we have seen that job seekers who have been working in occupations of health, culture, teaching, research tend to find employment thanks to job information from work ties, whereas job seekers from occupations in sales and transports are more likely to find employment via communal ties. This would be an argument for the expectation that it is the more advantaged job seekers who find their jobs thanks to information from work ties, and the more disadvantaged are relying on communal ties.

All network characteristics are positively related to job access in general. However, after consideration of further variables, it has no impact on either job access via network in general or more specifically via work-related ties. This is observed for the share of employed friends, for having or not friends among former co-workers, and for the share of network members in higher hierarchical position. Moreover, employed friends as friends among former co-workers and network members in higher hierarchical position.

information on the labor market, on employers and application procedures than information on actual vacancies. Further, their effect on job access chances in general may have been primarily through homophily in labor market relevant characteristics and/or an indicator for unobserved characteristics, such as personality, social skills, or reasons to have quit the last job, or tenure in the last job, which is related to skill requirements of the last job, or geographical mobility meaning being a newcomer to the regional or Swiss labor market. But the non-effect of these influence factors could also be covered by the influence of other variables. Namely it could be that the number of friends in total actually differs most by the size in the occupational network, which may consist to a large share of former co-workers

These findings add to the doubts on a causal relationship between network characteristics and job-search outcomes very extensively discussed by Mouw (2003). According to Mouw (2003: 886), job seekers having more social capital should be more likely to find a job via this channel, which we only found confirmed for the number of friends (with small effect size), but for none of the other network characteristics. The finding on the number of friends is in line with what other research has found – the size of the network also matters for unemployed job seekers (Korpi 2001, Brandt 2006). One convincing explanation for why bigger networks are an advantage is that if there are more people in the network it is more likely that there are more people reaching out to other networks and thereby giving access to non-redundant information on vacancies and employers.

Moreover, we observed an overall positive effect of activating former co-workers, which emphasizes how important these ties are (McDonald 2011, Granovetter 1973/1995a, Larsen 2008, Marin 2007) and how important activation behavior is, and thus individual agency, as pointed out by other scholars, such as Heinz (2009b) or captured as part of the habitus in a Bourdieusian language – knowing the field logics and recognizing which resources serve as capitals in order to position one-self better within the field of the labor market. This interpretation is underlined in Mouw's logic (2003) by the consistent finding that talking often to former co-workers not only is related to job access chances in general, but more concretely to the fact of finding employment thanks to first job information from a network member, more concretely from a work tie. The result that often receiving job information from former co-workers is not only positively related to finding a job in general, but also to finding it via job information from a work tie (whereas both are negatively related to finding a job via communal ties) could be interpreted in the same logic. In contrast, one could still suggest that this solely reflects being included in an occupational community, which facilitates job access and job information access and that all three may be related to unobserved characteristics, and be a result of something like a habitus defined by the position somebody has in the labor market and defining the position somebody will have in the labor market. Further, one could argue that longer unemployment duration may go along with a decline in the number of work ties (Larsen 2008, although no short-term effects analyzed), which then could mean that unemployed more likely to have longer unemployment durations for reasons unrelated to the occupational network (such as discriminatory practices of employers) may be at risk of having lost more work ties, which then would result in a lower chance of getting job information from a work tie due to their mere number available at different time points in unemployed job search.

Additionally, the comparison of the relationship between the independent variables and the *stepwise analyses of the* outcome dimensions – job access in general, job access via network, job access via work or communal tie - makes us observe two different mechanisms: in the first case, network access only partly compensates for disadvantages in non-network job access; whereas in the second case, compensation is full; thus, we observe a positive effect on (some) network access *and* on job access in general. First, we observe compensating effects, which do not affect job access in general, - the case for having a higher number of friends, which enhances job access thanks to information from a network member, and more particularly via work ties. Second, we observe compensating effects, which go along with higher job access chances in general. This is the case for the positive effect of talking to former co-workers for job access via work ties. Moreover, job seekers who often receive job information from former co-workers have higher chances of finding a job via work ties, and their job access via communal ties are negatively influenced by this factor. The effect on job access in general is positive.

Additionally, we have shown the importance of distinguishing between work and communal ties as different categories of job seekers find employment thanks to job information from them. Therefore, the effect on job access via network may often only represent the effect of different factors on one of these two subcategories (the case for education, nationality, occupational group, number of friends, activation of former co-workers). Or in case the effect on job access via work tie goes in the opposite direction then the effect on job access via communal ties, this may result in observing no effect at all when looking at job access via network in general (for example in case of previous unemployment and the mobilization of former co-workers).

Moreover, we have not only seen that having lower general job access chances (only basic education, or previous spells of unemployment) increases the chances of finding employment via first job information from a communal tie to find a job, but we have also seen that these job seekers can make a bigger difference when activating and mobilizing their former co-workers in terms of raising their chances of finding their job via network, more precisely via work ties, although without being able to make up their lower general job access chances.

Further, we see, interestingly, that often talking to former co-workers is more important in finding a job via work ties than often receiving job information from former co-workers, whereas doing none of these activities clearly reduces the probability of finding a job via this channel and in contrast increases the probability of finding a job via communal tie. This analyses – considering network's and contact's characteristics – as inspired by Lin (1999) adds to the understanding of the job search process when information from network members is involved.

From these findings, we conclude that communal ties are in most cases the job access channel of last resort. Activation and mobilization of occupational social capital are an important job-search channel, and work ties are not only helpful for advantaged job seekers, but potentially improve the job-search outcomes of job seekers with otherwise lower labormarket prospects.

6. Unemployment Duration Until a Job is Found via Network, Work Ties or Communal Ties

We assumed that the different kinds of resources are interdependent and that resources are accumulated over time and within social context. Therefore, it is crucial to take account of the time spent in the specific occupational status "unemployed", which means out of the work context – and thus, out of the context where most resources relevant for job access are generated and constantly validated. Occupational contacts are lost when leaving a job. In the case of unemployment there are no new colleagues to replace them as a new work context is missing. Additionally, relationships may be affected by differences in occupational status. Particularly work-related social resources are prone to be negatively affected by unemployment, the more so the longer it lasts, as has been shown by previous research (Larsen 2008). That is why we assume that the resources available for job search are not independent of the time spent in unemployment.

At the same time, the longer somebody stays out of work the more stigmatizing it is, as for example a study on employers' attitudes towards the long-term unemployed in Western Switzerland has shown (Bonoli 2014). This same study also found that employers are more inclined to hire somebody long-term unemployed if this job seeker is referred by a trustworthy person. Thus, the longer the unemployment period, the more dependent the job seeker becomes on people providing job information or vouching for her or him. In line Korpi (2001) who worked with the Swedish Longitudinal Study among Unemployed found that the activation of social contacts for job search raises the likelihood of finding a job over time.

As the occupational network is assumed to suffer from prolonged unemployment and formal job access may become harder due to employer's skepticism towards unemployment, communal ties are expected to come into play. Thus, this is the channel of last resort, of overcoming the stigma of being unemployed and of having other disadvantageous properties in terms of labor-market access. In contrast, work ties are expected primarily help job seekers with good labor-market prospects. Therefore, the functioning and mechanisms of job access via work ties are expected to differ greatly from those at work when finding employment thanks to first job information form a communal tie. This is also in line with theory of cumulative inequality, which outlines that mechanisms to accumulate advantages cannot be assumed to be the same as mechanisms to accumulate disadvantages (Ferraro et al. 2009).

At the same time information from work ties is expected to match job-seeker's and job's characteristics better, and therefore results in more and faster job offers, which decreases unemployment duration. The contrary is expected to be the case for job information from communal ties, what potentially makes that more time is needed until it comes to a match accepted by employer and job seekers. The results presented in this chapter clarify mechanisms of job access via network, some of them in line with, some of them challenging or complementing previous findings in the literature. They clarify processes of re-production of in-equalities of advantages and disadvantages.

This chapter starts by presenting descriptive statistics on the distribution of unemployment duration in our sample (6.1), before we discuss the role of socio-demographic characteristics, employment history, network characteristics and job-search patterns for the time needed to find a job via different kind of ties (6.2). We emphasize the added value gained by splitting job access via network into job access via work ties and job access via communal ties. We find that by mixing different kind of ties into one pot, some factors of influence for job access via network are ignored, as the effects can go in opposite directions for finding employment thanks to first information from a work tie as compared to from a communal tie. For other factors the mechanisms leading to finding a job via the network are captured insufficiently, as they may not be the same for respondents who find a job via work tie as for respondent finding employment via a communal tie. It is therefore crucial to look at both work and communal ties, but separately, in order to better understand the broad range of functions and mechanisms of job access via network.

In the next subchapter, we discuss the different groups of job seekers finding employment thanks to first job information from a work tie and the potential relevance of hiring regimes for accessing different kinds of jobs (6.3). Recruitment practices are not the same for different kinds of labor markets; depending on the sector and a job's skill requirements, hiring procedures vary and different job access channels are prone to be successful (e.g. Granovetter 1995b: 160, Marsden 2001: 107f./115, Rieucau and Salognon 2013: 66f., Pfeffer 1977, Bonoli 2012: 176f.). Thus, a job seeker has to recognize such field's logics and have the corresponding resources available and activate and mobilize them in order to find job faster.

The following subsection points out that there are not only different kind of job seekers finding employment via work ties, but also different kind of job seekers finding employment via communal ties (6.4). Communal-tie job finders seem to be composed of two contrasting types: one corresponds to a profile of a job seeker with low labor-market prospects and

therefore finding employment thanks to communal ties can be interpreted to be the access channel of last resort. For the other, on the contrary, the finding employment via communal ties may reflect a higher position in the social strata. This finding is not surprising if we think about research on social capital and position attainment measured for example by job prestige (Lin 1999, Marsden and Gorman 2001). After having presented detailed results, we conclude with a short summary and discussion (6.5).

6.1 Unemployment duration and finding a job

In Switzerland the median unemployment duration between 1991 and 2012 was 111 calendar days; in the Canton of Vaud it was 131 calendar days (Korber and Oesch 2016). We find in our sample of respondents to our second or third questionnaire a median duration of 26 weeks (182 calendar days) for all respondents (N=1585). Among respondents of our second or third questionnaire who found a job, the median duration is 21 weeks (147 calendar days) (N=1214). We see that the median duration in our sample considered for the analyses in this chapter is longer than it has been over the subsequent 10 years. This may be due to the fact that young job seekers are under-represented among our sample.

A recent study of mass redundancy in Switzerland found 88 percent of the laid-off workers, to be unemployed for less than 12 months in their sample (Baumann 2015: 95). The great majority of the job seekers who answered our second or third questionnaire and indicated that they had found a job left the employment services in most cases within a year (84 percent) (Figure 6.1). However, only 55 percent of our sample found a job within 12 months (respondents to questionnaire 2 and 3). These large differences reflect the selection into the sample of unemployed job seekers who seem to have characteristics (other than being unemployed), which make it harder to find a job again. The within differences in our sample show that the unemployed can nevertheless not be taken as a homogeneous group.

We now look at how personal characteristics intervene in finding employment via work ties and communal ties over time. The average unemployment duration varies for different groups of job seekers. The largest differences in the average unemployment durations are found by age groups, ranging from 22 weeks for the youngest job seekers aged 15 to 24, to 42 weeks for those 55 or older. Older job seekers are less likely to become unemployed, but once unemployed they have a harder time in finding a job again, and often have to deal with longer unemployment durations (Korber and Oesch 2016).





Notes: On the x-axis are indicated the weeks of unemployment, on the y-axis the portion that is still in unemployment. Reading example: Among the sample of job seekers who found a job, we see, marked in gray, that after about 21 weeks only 50 percent are still unemployed (50 percent found a job), after 52 weeks only 16 percent are still unemployed (84 percent found a job).

Figure 6.2, which looks at exit rates over time in unemployment by age – measured for this purpose in five categories with a range of 10 years each – confirms these findings on job exit over time. We observe that 25 percent of the job seekers found a job within 20 weeks – this is the case for all ages except for job seekers aged 55 or more, where more than 30 weeks pass until the first quartile found a job. Their unemployment is more likely to be stigmatizing. Longer durations are often assumed to depreciate skills.

Additionally, the (transferable) skills of older job seekers have often already been devalued by the longer tenures more common among them or judged as such in the employer's perspective (Couch and Placzek 2010). Unemployment among the younger seems more often interpreted as part of the job search and job matching process (Jovanovic 1979), reflecting a harder transition between educational system and the labor market, upon which employers seem to judge less than in the case of older job seekers (Furlong 2009: 145).

The differences in the other personal characteristics are much less accentuated: On average, women are unemployed two weeks longer than men (33 compared with 31 weeks), job seekers with only basic education and job seekers with tertiary education have longer unemployment spells than those with upper-secondary education (34 and 33 weeks compared with 31 weeks), workers with neither-Swiss-nor-EU-15 nationality have longer

unemployment duration (36 weeks compared with 31 weeks among the Swiss and 32 weeks among the EU-15).

Additionally, previously unemployed job seekers have current spells that are 4 weeks longer than those without such experience (34 compared with 30 weeks), and we find differences by occupational groups, with shortest unemployment spells for occupations in agriculture (23 weeks) and construction (25 weeks), and over 32 weeks for all other occupational groups. The short unemployment duration in agricultural and construction occupations may reflect seasonally high number of vacancies.





6.2 Job access via network, work tie and communal tie over time

When we look at the average unemployment durations by job access channels, we find no difference in job access via network compared to via other means: while job seekers finding employment thanks to first job information from non-network means have an average duration of 26 weeks, those finding employment via first information from their network have an average duration of 27 weeks. Also, when looking at how the job access channel varies over time, there is barely any difference between job seekers finding employment via network as compared to via non-network means, in particular when we look at job seekers with shorter unemployment durations (Figure 6.2, left). The overall nil effect for job access via network

could thus be explained by an opposite direction of the relationship between duration and employment via work ties and the relationship between duration and finding employment via communal ties.

On average, job seekers finding employment via work ties are unemployed for 25 weeks while job seekers getting their first job information from a communal tie remain unemployed for 33 weeks. Looking at what happens over time in unemployment, we find larger (and "earlier on") differences when we distinguish those finding a job via communal tie from those finding it via work tie or via non-network means (Figure 6.2, right): consistent with findings in the literature (Pedersen et al. 2008, Larsen 2008, Sprengers et al. 1988), we observe that finding a job via communal ties goes along with fewer exits over time, whereas more people find a job in shorter time when finding employment via work ties or non-network means. Thus, we find network access in the case of prolonged unemployment may often be via communal ties. This can be interpreted as a sign that communal ties come into play when the other two channels fail.





Notes : x-axis displays unemployment duration in weeks, the y-axis displays the portion that is still unemployed. Reading example : On the right-hand-side graph, we see that after about 40 weeks only 25 percent of the job seekers finding employment via work tie or non-network means are still unemploymed, whereas it takes clearly more than 60 weeks until only 25 percent of the job seekers that find employment via communal ties are still unemployed.

In order to analyze the effect of different factors for finding a job via network over time, we use event-history techniques. Thereby, time spent in unemployment is taken into account

inherently in the models. Cox regression models are used for multivariate analyses for a binary time-to-event variable: More precisely, these models analyze the influence of different factors on the time until employment is found thanks to first job information from a network member compared to via other means.

Competing risk models are used to analyze the time to more than one possible event, which contrasts job access via work tie, via communal tie and via non-network means. In order to take account of the non-proportionality of hazards, we introduce whenever necessary the interaction of the factors with duration.⁴⁹ Hazard ratios and sub-hazard ratios are presented in the tables displayed in the Annex and in some of the figures. In order to make the interpretation more accessible in the text, we refer to the hazard ratio by calling it the chance of experiencing a certain outcome over time (which is more precisely at any point in time) in unemployment; in the case of the sub-hazard ratio, we call it the relative chance of experiencing a certain outcome over time (which is more precisely at any point in time) in unemployment.

The role of socio-demographic characteristics for the time needed until finding employment thanks to first job information from a network member, a work tie or a communal tie

Compared with the 25 to 35 year olds all age groups have a higher chance of finding a job thanks to information from their network rather than via other means at a given point in time (Figure 6.4). We find thus that job seekers between 25 and 35 have the slowest and fewest exits via network, whereas those 45 and older have the most and fastest exits via this channel:

After 40 weeks the probability of finding a job via network compared with via other means is 90 percent for job seekers over 45 and only 25 percent for the reference group of the 25 to 34 year olds; for the other two groups it ranges between a probability of 61 percent (youngest) and 51 percent (35 to 44 years old). These findings on job access via network in general may suggest that job seekers aged 45 and older are a homogeneous group who depend on social capital to find a way back into employment.

Finding employment through first job information from *work ties* rises with increasing age up to the age group of the 45 to 54 years old (Figure 6.5 left): after 40 weeks the probability of finding a job via work tie is 28 percent for the 45 to 54 year olds, whereas it is

⁴⁹ Unfortunately, hazards are hardly interpretable in the case of non-proportionality, detectable by a significant interaction effect between the dependent variable and duration.

only 9 percent for the youngest job seekers, and 15 percent for the reference group aged between 25 and 34.



Figure 6.4 Kaplan-Meier curves for finding a job via network over time in unemployment, age groups (model includes interactions between age groups and duration)

Note: Graphs based on models that control interaction of age dummies with duration, for sex, nationality, education, previous unemployment and their interactions with duration, further for previous occupation, number of friends, share among them in permanent employment, having friends among former co-workers, share of higher position contacts, talking often to former co-workers about job search and receiving job information from former co-workers and from other occupational contacts. N=1374, N of failures (job found through network) = 416, N (censored)= 459.

These findings seem consequential on findings on the amount of occupational social capital over the life course, which has been shown to be accumulated over the occupational trajectory and flatten out or even decrease towards the end of it (McDonald and Mair 2010). It means in case of work experience and past employment history being relevant to judge ones skills (in case of advanced age and potentially advanced careers), and assuming homophily on the age dimension between network members, it is work ties who provide more detailed and better matching job information, which then is more likely to end up finding a new job faster.

After 40 weeks the probability of finding a job via *communal ties* is 15 percent for the oldest job seekers, whereas it is less than 4 percent for all the other age groups (Figure 6.4 right). We see that only the 55 and older job seekers have much higher probability of finding employment thanks to first job information from a communal tie over time, and all other age groups are very similar in their probability of finding a job via communal ties over time. This confirms our expectation of communal ties being an access channel of last resort.

Figure 6.5: Cumulative incidence* of finding a job via work tie (left) and via communal tie (right) over time in unemployment by age group



Note: Again the x-axis indicated unemployment duration in weeks, the y-axis indicates the probability that a job is found via a work tie (left) or a communal tie (right). *Cumulative incidence function "represents the probability that an event of type j has occurred by time t" (Rodriguez 2012: 1). Competing risk models, graphs based on models that control for sex, nationality, education, previous unemployment and their interactions with duration, further for previous occupation, number of friends, share among them in permanent employment, having friends among former co-workers, share of higher position contacts, talking often to former co-workers about job search and receiving job information from former co-workers and from other occupational contacts. N=1374, N of failures (work tie)= 307, N of failures (communal tie)=109.

The distinction in age categories and in job access via work and communal ties allowed us to view these job seekers 45 and older as heterogeneous and easier to split into two groups: one of well-connected people with shorter unemployment durations who are able to find a job via work contact, the other being 55 and older and thus closer to labor-market exit age, with longer unemployment durations. The latter may face the potential stigmatizing effects of age and unemployment and unemployment duration, and at the same time have less occupational social capital available, and therefore depend on communal ties to find a job. This is in line with what Bonoli and Hinrichs (2012) state in terms of the importance of social capital when having by employers more or less openly negatively judged signals such as advanced age. Further it is interesting that the role of social capital also in an information function becomes as clear once we account for duration.

The chance of finding employment thanks to first job information from a network member over time is higher for job seekers with EU-15 as well as for job seekers with neither-Swiss-nor-EU-15 nationality than it is for job seekers with Swiss nationality (table A6.1). This is not surprising if we think of the Swiss to be advantaged when it comes to more formalized application procedure, potentially having cultural capital (credentials and work experience recognized by employers), but also potentially having had more time to know the Swiss labor market better, know to look for vacancies and which firms are of interest etc. We find more particularly, the relative chance of finding employment via a work tie is higher for all non-Swiss job seekers (Figure 6.6, left). At the same time the relative chance over time to find a job via communal ties is lower for job seekers with neither-Swiss-nor-EU-15 nationality (Figure 6.6, right).



Figure 6.6 Finding a job via work or communal tie by nationality group in three categories

Note: competing risk models include interaction of nationality with duration in order to take account of non-proportionality of hazards, see Table A6.1, N=1374

To look at job access via network over time only, would also in the case of the role of nationality lead to an incomplete and even wrong picture when thinking of communal ties. This could be interpreted in the way that against our expectation it is not only the more advantaged job seekers who find employment via work ties over time. Further, against our expectations, job seekers with neither-Swiss-nor-EU-15 nationality disadvantaged in general job access chances have no communal ties at their disposal, which potentially reflects more disadvantageous situation. The finding on work ties may suggest that this group of job seeker is more heterogeneous that one might think (Chapter 6.3).

The results from our multivariate models show that workers with basic education have the highest relative chances for both - finding employment via first job information from a work tie and a communal tie over time (Figure 6.7, Table A6.1). While this is not statistically significant for job access via communal tie, it is for job access via work tie. Having considered unemployment duration allowed us to re-evaluate the meaning of work ties for lower educated as compared to when only looking at the likelihood of finding a job via information from one kind tie instead of the other.

The cumulative incidence functions for workers with secondary and tertiary education are about the same. We see that after 20 weeks in unemployment the probability of finding employment via a work tie is 16 percent for job seekers with basic education, whereas it is half of that for job seekers with tertiary and upper-secondary education. After 40 weeks of unemployment it is 26 percent for job seekers with basic education and 14 percent for job seekers with upper-secondary or tertiary education.

Figure 6.7 Cumulative incidence function for finding a job via work tie (left) or via communal tie (right), by educational level



Note: Competing risk models, figures are based on models that models include interaction of education, with duration in order to take account of non-proportionality of hazards and further control for age, sex, nationality, previous unemployment and their interactions with duration, further for previous occupational group, number of friends, share among them in permanent employment, having friends among former co-workers, share of higher position contacts, talking often to former co-workers about job search and receiving job information from former co-workers and from other occupational contact. N=1374, N(work ties)=307, N(communal tie)=409, N (censored)= 459.

In contrast, both descriptive and multivariate results show that job access via non-network channels are as important as work ties for job seekers with upper-secondary education. This is

consistent with our expectations. For the tertiary-educated, work ties seem to become relevant in producing more and faster exits only after a couple of months in unemployment.

In terms of job access via network in general over time, we saw that both - job seekers with only basic education and job seekers with tertiary education - have higher chances of finding employment via first job information from their network over time. This is in line with our expectations, which were guided by the assumptions that these job seekers may approach jobs, which may include less formalized requirements. However, we do not find statistically significant differences for the tertiary educated, once we distinguish work ties from communal ties. This may reflect a certain heterogeneity within this group of tertiary-educated job seekers insufficiently captured by our controls. And it means the result as such would underline the hypotheses that it is job seekers disadvantaged in general job access who find employment thanks to a network member, surprisingly in this case via a work tie, which could be an evidence for firms offering low-skilled jobs who use their own employees for word-of-mouth recruitment (Larsen, 2008; Bonoli and Hinrichs, 2012, Rieucau and Solognon 2013: 67).

Our descriptive and multivariate evidence, confirms that repeated unemployment means higher chances of finding employment thanks to information from a network member over time in unemployment (Table A6.1). While the relative chance of job access via work-tie over time is negative, that of job access via communal ties is positive when controlling for other influence factors. This would confirm our expectations that it is the more disadvantaged job seekers who – over time - find employment via network and more precisely via communal ties, whereas it is the more advantaged job seekers who over time find employment thanks to job information from a work tie.

As we have seen previous unemployment as well as job access via communal ties is related to longer unemployment durations this means these already disadvantaged job seekers are at risk to be even more disadvantaged through the actual situation of unemployment, as it tends to last longer and it tends to end in job access thanks to ties who are less able to judge the match between job seeker's and job's characteristics, which raises chances for less "good" employment, and potentially less secure employment. This results in potential scar effects of unemployment for subsequent labor market trajectories (Manzoni and Mooi-Reci 2011). This is an example where looking only at network access in general covers the opposite direction of effect of previous unemployment on job access via work tie and via communal ties. However, these relationships are not statistically significant.

The role of network characteristics for the time needed until finding employment thanks to first job information from a network member, a work tie or a communal tie

As pointed out at the start of this chapter, we expect work ties to serve more advantaged and communal ties more disadvantaged job seekers in terms of general job access chances. However, we have seen that this is not always the case, but that work ties have a double function – besides reinforcing advantages, they may (partly) compensate for lower general labor-market prospects of some job seekers (see also discussion in 6.3). It must then be the case that these job seekers have more advantageous properties of their network that enhances finding employment thanks to first job information from a work tie over time in unemployment. Now, it will be interesting to get an idea if these network characteristics act on finding a job via a specific access channel or influence general network access chances or if they have no influence at all once we take account of duration. In this case they would be assumed to reflect other unobserved characteristics.

Multivariately, we find that an increasing number of friends raises the chances of finding a job via network over time in unemployment (Table A6.2).⁵⁰ This is in line with other studies on unemployed job seekers who into account unemployment duration, but who however did not distinguish, by which channel a job was found (Brandt 2006, Korpi 2001). More precisely, we observe that the relative chance of finding employment thanks to first job information from a work tie over time rises with an increasing number of friends (Table A6.3). Finding employment via a communal tie is not affected by the size of the friends network. Thus, the result for job access via network reflects the result of job access via work ties only. This could mean that differences in the size of the occupational network explain a large part of differences in the size of network as a whole.

An increasing value of the proportion of friends in permanent employment raises the chance of finding a job via network over time. This is due to the fact that we find a higher proportion of employed friends increases the relative chance of job access via communal ties over time once we account for its interaction with age (Table A6.4), and not as we would have expected due to enhancing faster exits via work ties (Table A6.3). Descriptively, we saw that only the case of job seekers with highest proportions of employed friends differs from job seekers with lower proportions of employed friends in that communal ties are at least as advantageous as the other two access channels up to 40 weeks of unemployment (Figure 6.8).

⁵⁰ We checked for the interactions between the number of friends and personal characteristics, but do not find anything in this direction for age, sex, education, and previous unemployment.

This may reflect that for generally more advantaged job seekers, finding employment via communal ties does not necessarily go along with prolonged unemployment.

Figure 6.8 Kaplan-Meier curves for finding a job via work ties, communal ties or formal means over time in unemployment, by indicator value of share of friends in permanent employment (in 4 categories)



No robust results are found for the other network characteristics, thus, they may have had an effect on job search due to homophily and unobserved characteristics related to both network composition and time needed for finding a job.

Our results on the size of the friends network add to the findings of Brandt (2006) and Korpi (2001) in re-enforcing and clarifying their results on the probability of finding employment over time in relationship to the size of network. They cement their findings in that they confirm - their not analyzed assumption - that network size acts on finding employment by enhancing chances of job access *via network*. To our knowledge, our study is the first study, which looks at how long it takes to find a job via different access channels when unemployed.

Further, the results on the share of employed friends clarify what the observation means, that there is homophily in occupational position and that unemployed tend to have more unemployed in their network than employed people (Barbieri et al. 2000: 216, Gallie 1994, Gallie 1999: 153): It means that job seekers who have at the moment of becoming unemployed less contacts in the same occupational position are better off as it helps them not

only to get faster back to employment, but that this difference in occupational position seems to particularly mobilize communal ties in sharing job information with the job seeker that leads to a job. We thus can speculate that people differ more in the share of employed and unemployed communal ties than in the share of employed and unemployed work ties.

The role of general job-search patterns and activation and mobilization of occupational social resources for the time needed to find employment thanks to first job information from a network member, a work or a communal tie

Descriptive results on the role of the number of applications sent out per week are not very clear. From a multivariate perspective, we find that the chance of getting first job information from a network member decreases over time with an increasing number of applications as does the relative chance of finding a job via work and via communal ties over time (Tables A6.2-A6.4). Thus, this is one of the few factors where the measurement of network access in general is adequate for both work and communal ties.

We do not see any effect of the average number of interviews per week on job access via network in general or via work or communal tie. In contrast, the failure rate of applications, the ratio between the number of applications and the number of interviews, increases network access chances in general (Table A6.2). In this case network access reflects results found for job access via communal ties once we control for its interaction with age (Table A6.4). This underlines the assumption that communal ties act as the job access channel of last resort, which means that those least successful in terms of getting interviews from their applications find their jobs rather via communal ties.

Test-wise, we checked for the variety of job search channels, which once we account for duration increases job access chances in general over time. This result gives support to our explanation why this factor affected job access in general negatively as long as we do not account for unemployment duration. There is more time to relay on different access channel when being unemployed for longer time. Further, we find the more access channels were used in job search, the higher chances to find a job via network over time, whereas it has no effect on finding a job via work tie or finding a job via communal tie.

We find that having often talked to former co-workers goes along with much faster and more exits via work ties over time as compared with job seekers who did not talk to former co-workers, which leads to faster and more job access via network in general. The frequency of talking to former co-workers does not seem to affect finding employment via a communal tie. We find these relationships confirmed by our multivariate analyses, independently of accounting for job-search intensity (Table A6.2, Table A6.3): The probability of finding a job via work tie after 40 weeks in unemployment is 21 percent when having often talked about job search to former co-workers, whereas it is 13 percent when not having done so (Figure 6.9). This result can be interpreted as job seekers recognizing the value of their occupational social resources as capital for labor market access and therefore activating them seem to be able to mobilize them and increase chances to find a job via occupational social capital over time.



Figure 6.9 Cumulative incidence function for finding a job via work ties

Additionally, we find that often receiving job information from former co-workers versus not often receiving it from them affects finding a job via work ties positively, whereas we find no statistically significant effect neither of activation nor of mobilization of other occupational contacts (Table A6.3).

As occupational social capital is assumed to be related to work experience for which age serves as a proxy, we look at differences in the effect of talking to former co-workers by age groups by looking at the interaction of age and activation. We find often talking to former co-workers about job search increases the chance of finding a job *via network* over time as does increasing age. The interaction with age, though, is negative, which means that with increasing age the positive effect of talking to former co-workers decreases (Table A6.5). This could mean that former co-workers are less powerful in providing older job seekers with

Notes : based on models presented in table A6.3.

information on vacancies that results in job leads. It could also reflect that job access via work ties is much more common among older job seekers or above all that the oldest job seekers have to rely on communal ties.

Multivariate results on finding a job *via work tie* over time more specifically underline the latter interpretation: we find activation of former co-workers and age increases the relative chance of finding a job *via work tie* over time. The effect of activation of former co-workers is only observable when we control for search intensity, which could mean that talking to former co-workers goes along with sending out applications. In contrast to job access via network in general, for job access via work tie the interaction between age and activation of former co-workers is not statistically significant, which means there is no age penalty when activating former co-workers in the case of job access via work tie.⁵¹ We observe no effect on the finding employment thanks to first job information from a communal tie.

These findings on activation and mobilization of former co-workers underline the importance of occupational social capital for job access via work ties. By distinguishing between work and communal ties and the specific activation and mobilization of occupational social resources, we are able to clarify this relationship, which would not be possible if we would just look at finding a job in general, or at finding a job via network in general or at activation of social contacts in general. Further, as we find no effect by the mere fact of having or not former co-workers as friends, we however see how important it is that the job seekers recognize their occupational social resources as occupational social capital and accordingly activate these resources.

6.3 Work-tie job access: a homogeneous group of job seekers?

Results on the relationship between nationality, education, and age suggest that there may be different types of job seekers who find employment via work ties, which could be related to social network structures and labor-market characteristics with specific recruitment practices.

Respondents with basic education have significantly higher relative chances of finding employment via work ties over time than respondents with upper-secondary education. However, this only holds as long as we do not control for job-search intensity – more precisely for failure rate (ratio between average number of applications per week and average number of interviews per week). This is not surprising as we find that workers with basic

⁵¹ Although the sub-hazard of the interaction is also slightly negative

education and workers with upper-secondary education have the lowest failure rate (and thus the highest success rate) when they find employment via work ties, and failure/success rate can be used as a useful indicator for successful job finding in general (Arni 2015: 26). While job seekers with upper-secondary education have additionally very formalized job access channels at their disposal, this is less the case for job seekers with basic education. Thinking of recruitment processes for low-skilled jobs, which are expected to be fast and low-cost, and thinking of employers using the social capital of their employees, "word-of-mouth" filling of vacancies should be common. Thus, the hiring strategies of employers could explain why work ties are a widespread and successful job-search strategy particularly among lower educated workers (Larsen, 2008, Rieucau and Solognon 2013: 67, Marsden 1994, Holzer 1988: 19).

In terms of nationality groups, we have two opposite groups of workers finding employment via information from a work tie – one with a big majority of lower-educated and one with a majority of higher-educated job seekers. Compared with the Swiss, we find higher relative chances of finding employment via first job information from work ties over time for job seekers (i) from Portugal and (ii) with North European or Northern American nationalities as well as (iii) with undefined nationalities (Figure 6.8, left). We assume that these three groups of job seekers are heterogeneous in the types of jobs they apply for, and in their other characteristics.

We assume recruitment practices to be decisive for getting access to low-skilled jobs, but also to the internal labor markets of big international organizations and firms, which we find potential evidence for when looking into nationality groups. Thus, putting this together, there are two groups of workers finding employment via work ties, potentially serving different kinds of labor markets: one is a very well organized nationality group of the Portuguese, which typically works in low-skilled segments (see also Amaro Galhano 2016); the other one potentially serves internal labor markets of international organizations and firms and is thus a very well-connected international community. The job seekers of the undefined nationality group are heterogeneous and potentially situated in both kinds of labor markets.

In the first case, we have to assume that it is often network induced migration who may have led these job seekers to work in the Swiss low-skilled labor market, to which these networks may pre-dominantly give access to. In the second case, we may speculate there has been a typical "expat"-migratory background where workers work more or less temporarily in different countries and where we often find either firm internal or self-initiated migration, but in both cases within an internationally operating labor market (although often internal labor markets of big organizations).



Figure 6.10 Finding a job via work or communal tie by nationality group in six categories

Note: competing risk models, figures are based on models that control sex, nationality, education, previous unemployment and their interactions with duration, further for previous occupational group, number of friends, share among them in permanent employment, having friends among former co-workers, share of higher position contacts, talking often to former co-workers about job search and receiving job information from former co-workers and from other occupational contact. N=1374, N(work ties)=307, N(communal tie)=409, N (censored)= 459, models include interaction of nationality with duration in order to take account of non-proportionality of hazards.

The same groups have particularly low probabilities of finding their job via communal ties. To bring it more to the point, barely any job seekers with Northern European or Northern American nationalities as well as barely any job seekers from other neither-Swiss-nor-EU-15 nationalities do find their jobs via communal ties. At the same time this is the groups of lowest residence tradition in Switzerland and thus to assume less community besides the work community.

The finding on job access via work ties relativizes the importance of residence tradition and legal conditions for obtaining work permits for finding a job via work tie, and enforces the importance of recruitment practices. However, at the same time it cannot to be seen independently of it: Communal ties seem barely an option for the "typical" group who gets a job via work-ties, particularly for those with low residence tradition and more restrictive legal conditions. Compared with the Swiss, the relative chance of finding a job via a communal tie over time is smaller for job seekers with neiter-EU-15-nor-Swiss nationality (Figure 6.5, right), more precisely those from undefined nationalities. Finding employment via communal ties is basically non-existent among job seekers from Northern European and Northern American countries.

For understanding the low probability of the Portuguese job seekers finding a job via communal tie over time, we have to remind the reader that our definition of work-related ties includes work ties in the most straight forward sense such as former co-workers who are related to the job seeker by homophily in work only, but it also includes family members and friends who have been previously working with the job seekers or who have been working in the same industry as the job seeker. As a qualitative study on construction shows, in the case of Portuguese job access and recruitment in these occupations, a distinction between work ties and family ties is not very useful, because often family members and friends share the same work place (Amaro Galhano 2016).⁵²

We have seen activation and mobilization of former co-workers play a role for finding employment via first job information from a work tie and even more so when belonging to nationality groups who strongly count on job access via work tie: for them activation of former co-workers is even more valuable. As the positive interaction with activation of former co-workers indicates, this is the case for job seekers with Swiss, Portuguese, Northern European or Northern American nationality and with neither-Swiss-nor-EU-15 nationality (see Figure 6.9, Table A6.6). This means they need to activate their occupational social capital in order to get a job (via work ties). This may allow them to deal with some discriminatory employer practices related to nationality as also suggested by a qualitative study (Bonoli and Hinrichs 2012).

We see differences not only by nationality groups but also by age groups, but only descriptively. For the oldest job seekers, not talking to former co-workers is associated with slow and fewer exits via work ties over time. In contrast, in the case where they often talk to

⁵² It is exactly to deal with this situation that our definition of work-related ties was explicitly kept particularly large in order to be able to also capture family and friends as work ties if they are employed in the same industry or occupation.

former co-workers, the oldest job seekers find a job as fast and as frequently via work tie as those aged 45 to 54. This observation is made up to an unemployment duration of more than 20 weeks. Thus, there seems to be a small number of less disadvantaged job seekers who are 55 years old or older, and who have a job access more similar to those in the middle than to those at the end of their occupational trajectory.



Figure 6.11 Job access via work ties cumulative incidence function by nationality and by activation of former co-worker

Note: $N_{all}=1148$, $N_{Swiss}=772$, $N_{Portugal}=73$, $N_{France}=98$, $N_{Italy, Spain}=74$, $N_{Northern Europe, Northern America}=31$, $N_{Other countries}=100$

These nuanced findings on education, nationality, and age suggest that our hypothesis that it is only job seekers with better general labor market prospects who have faster access to jobs via work ties is generally re-enforced, but ignores within-group differences (for example in the case of age groups), but also labor-market and occupation-specific determination of which job access channels are prone to be successful and therefore lead to faster job exits (for example in the case of nationality groups).





6.3 Job seekers who find employment via communal ties: a homogeneous group?

Following the literature (Larsen 2008, McDonald et al. 2012, Bridges and Villemez 1986), we expected so far that the main criterion in successful job search via network is whether job information from a work or a communal tie led to the job: on the one hand, finding employment via work ties was expected to be available for the more advantaged job seekers and to go along with shorter unemployment durations, which has been confirmed only partly. On the other hand, finding employment via communal ties is generally related to longer unemployment durations, and to groups of job seekers with weaker labor-market prospects, which confirms our expectation that communal ties prevalently turn out to be the access channel of last resort.

The finding that it is the oldest group of job seekers approaching retirement age within less than 10 years who have a higher relative chance of finding employment via communal ties over time also points in this direction. Effects found for the interactions between age and network characteristics, between age and job-search intensity, and between age and activation show that the mechanisms of job access via network differ by age group. While a higher proportion of employed friends increases the relative chances of job access via communal ties, this increase is weaker the older the job seekers are (Table A6.4). There are two different interpretations possible. First, it could be that in the case of the younger job seekers differences in the proportion of employed friends reflect basically differences in the employment position of communal ties, whereas in the case of the older job seekers the proportion of employed communal friends is generally lower.

A second interpretation is that this finding could reflect the dependency of older job seekers on communal ties, independently of their network characteristics and – as the following finding suggests – also independently of other characteristics: while the relative chance of finding a job via communal tie over time decreases with an increasing average number of applications per week, this decrease is less accentuated with increasing age. Looking at the means of average number of applications and interviews per week and their proportion by age group, we find that the older the job seeker, the lower the number of interviews he or she gets per week and the higher the failure rate. This can be interpreted as follows: also when sending out many applications, older job seekers have a hard time in getting an interview and finding a job and depend more strongly on communal ties for job information and potentially even on somebody recommends them than younger job seekers do (table A6.3), and so, finding employment via communal ties is more common among the older job seekers.

These results for the oldest age group and interactions of age with activation and jobsearch intensity emphasize communal ties as job access channel of last resort. This is also suggested by the fact that job seekers for whom unemployment is a repeated experience have higher relative chances of finding employment thanks to first job information from communal ties over time (although not statistically significant). Also results for job seekers with basic education suggest the same tendency: we see descriptively that workers with no more than basic education have slower and fewer exits over time when finding employment via communal ties. Moreover, they have higher relative chances of finding employment via from the multivariate analyses are not statistically significant).

The effects of interactions between personal characteristics and network characteristics on job access channel that lead to a job over time suggest that there is another distinction to be made, which does not come as a surprise for researchers from a tradition of social capital and job prestige (research on status attainment). Could finding employment via a communal tie

for some job seekers rather reflect their advantageous social position, whereas for the majority of the others the opposite is the case, and still others do not even have access to communal ties?

Our descriptive findings confirm that finding employment via a communal tie is accompanied by fewer and slower exits over time for job seekers with basic education and to a lesser degree for those with uppers secondary education. However, the same is not observed for job seekers with tertiary education who have similar exit frequencies and speed over time independently of which job access channel led them to the job.

Figure 6.13 Kaplan-Meier curves for finding a job via formal means, work or communal ties when having basic, upper-secondary or tertiary education



The fact that if we look at the descriptive results on education and failure rate of applications (ratio between average number of applications per week and average number of interviews per week), we find that the failure rate of the tertiary-educated is lowest when finding employment via communal ties, gives support to this suggestion. This could be interpreted as meaning that the quality of the communal-tie network differs by educational level, which is consistent with findings from research on status attainment and social capital, and with the principle of homophily. It could also mean when a job seeker is more advantaged in job

access in general he or she relies on job information from a communal tie if this job fits his or her profile well.

Does the meaning of finding employment thanks to job information from a communal tie vary for men and women? We observed for job access via network in general that women – after a couple of months – seem to take slightly longer and have fewer exits over time when finding employment via their network, which is due to slower and fewer exits when finding employment via first job information from a communal tie. This is not surprising in the light of research on gendered networks, and can be interpreted in the sense that communal ties could be more of a last resort job access channel for women, which led to jobs in the case of prolonged unemployment (Figure 6.11). In contrast, this does not seem to be the case for men. Could we state that in the case of unemployed job seekers the differences between men and women are not so much about occupational social capital as about the quality of communal social capital?

Figure 6.14 Finding a job via work or communal tie or via formal means over time in unemployment for women (upper left) and men (upper right)



From a multivariate perspective, we see that being female reduces the relative chance of finding a job via communal tie over time (Figure 6.14 right, Table A6.1). These findings go against our expectations, but could be interpreted in different ways: We could also speculate on the selection of women registering as unemployed as compared to men registering as unemployed, which is potentially related to a stronger labor market attachment (voluntary or to make ends need). In terms of different role models of men and women. It could be that communal ties become more active for men because they see a greater need to bring them quickly back into the labor market. Unfortunately, our data do not provide us with more

insights on this point. However, we could also think of networks being gendered. According to this premise, men would have more men in their network, men have a higher employment rate and men more often occupy more influential positions. Therefore, men are more likely to have employed men and other men in a higher position as communal ties, who are more likely to provide crucial job information. This could explain the result that men have a higher relative chance over time of finding employment via communal ties than women, and thus more and faster exits than women when accessing their job via communal ties, simply because their communal ties lead to better matching job offers and thus can be accepted in shorter time.

It may thus be that men and women differ not in the efficiency of the occupational social network but in that of the communal network when it comes to the time needed to find a job by access channel. This moves the focus away from gendered occupational networks, and it reinforces findings on gendered leisure-time-related networks, which say that women in their spare time spend more time with contacts related to family and foremost children, whereas men rather spend time with more work-related associations and engagements (McDonald and Mair 2010, Russel 1999, Lin 2011: 140).





This suggestion could be supported by the fact that finding employment via communal ties compared with work ties or non-network means does not result in very different exit behaviors among the tertiary-educated. Additionally, we find that while an increasing proportion of employed friends increases the hazard of finding a job via network, this hazard is decreased when being a woman. This could be related to the fact that the proportion of employed friends actually influences network job access via communal ties, which as we have seen women are less likely to find employment through over time.

Finally, we observe that the relative chances of finding employment via communal ties over time are significantly lower for job seekers with Northern European and Northern American nationality and non-defined other nationalities compared with those from Switzerland. The quantity and quality of communal ties available may be related to residence tradition. This may mean that in the worst case that there is no job access channel of last resort, which could be one of the reasons why job seekers from the non-specified nationality group have fewest job exits and why in the case of no work-tie job access also job seekers with Northern European and North American nationality have much longer unemployment durations.

6.4 Summary and discussion

We have confirmed that network characteristics and job-search patterns are relevant for the time needed to find a job via network. Moreover, we have shown that looking at network access in general paints an incomplete picture and ignores relevant mechanisms of informal job access. This, because of an opposite relationship of finding employment via work ties with duration as compared with the relationship of finding employment via communal ties with duration. Our results underline the assumption that mechanisms of finding employment via work ties and communal ties over time in unemployment are different from each other, and potentially reflect that more advantageous and more disadvantageous job seekers are not affected the same way by unemployment as it has been proposed by a cumulative inequality theory (Ferraro et al. 2009). At the same time job seekers finding employment via work ties and job seekers finding employment via communal ties are two non-homogeneous groups, as we could find opposite types of job seekers within these groups in terms of their general labor-market prospects – advantaged and disadvantaged.

Still, we found our expectation confirmed that more advantageous characteristics go along with job access via work ties over time in unemployment in many aspects. And finding employment via work ties is related to shorter unemployment, which is not surprising if we assume work ties to deliver more tailored job information than communal ties. This means that these already more advantaged job seekers are more likely to overcome unemployment in shorter time and at the same time potentially with having found a better matching job, which then could affect their subsequent employment trajectory. Moreover, our results show that the number of friends as well as activating of former co-workers is positively related to finding employment via first job information from a work tie over time. Thus, size of network is not only related to finding a job faster (Brandt 2006, Korpi 2001), but more particularly via job information from a work tie, which promises a better job match. Further, we find activating former co-workers is worth the effort, as it reduces not only the time needed to find a job, but the time needed to find a job via work tie. This more detailed analyses of the type of tie which led to the job shows that information from potentially better informed network members is related getting a match between job seeker's characteristics and job's characteristics faster.

Moreover, job access via work ties can compensate for some of the characteristics assumed to be less advantageous: lower education, and increasing age (up to 55 years). Additionally, Portuguese nationality seems to allow efficient work-tie job access over time and we assume it to serve specific occupations of the low-skilled labor market particularly. These findings point to the importance of recruitment regimes for different kinds of jobs and segregation of networks along occupational and non-occupational criteria (see also Amaro Galhano 2016).

Additionally, we found evidence for the hypothesis that finding employment via communal-ties is a sign of lower labor-market access chances in general and thus serves as a job access channel of last resort: finding employment via communal ties goes along with longer unemployment durations, oldest and lower-educated, and previously unemployed job seekers have higher relative chances of finding employment thanks to first job information from a communal tie over time. That it takes longer to find a job via communal ties could be related not only to job seeker's characteristics, but also to the fact that these tie have a harder time to judge whether a job offer matches the job seeker's profile and therefore there may be more trial and error implied.

However, communal ties do not seem to be a strategy of longer unemployment durations for all groups of job seekers: it is not necessarily so for men, nor for the tertiary-educated. This suggests that there are different kinds of communal ties and that these contacts may differ in their characteristics due to the principle of homophily. It could at the same time show that these job seekers only rely on this access channel when it fits their profile well. Further, we see that not all groups of job seekers have access to communal ties: neither-EU-15 nor-Swiss nationality groups seem to be excluded from this way of compensating for unfavorable labor-market conditions or strengthening advantageous positions.
7. Wages

Wages are an important indicator for income, which is an important indicator for life chances. This chapter focuses on the wages of the jobs found after unemployment. The main question is how job access channel influences whether job seekers find a higher or lower paying job as compared to before unemployment. We want to know whether job seekers continue their occupational trajectory in terms of wages, or whether unemployment has a disruptive effect in the sense that it results in lower wages than before unemployment, or whether it gave some job seekers a chance to improve their position by finding a better paid job.

Work-related ties are expected to have more access to relevant labor-market information and know better about the labor market relevant characteristics of the job seekers than do communal contacts. Therefore, they are expected to share more relevant information with both sides – job seekers and employers. This should lead to better matches, and thus be paired with better paying jobs. In contrast, communal ties are less likely to be able to judge whether the job seeker's and the job's characteristics match. Therefore, they are more likely to lead to a job when other channels fail and thus go along with lower wages as compared with both finding a job via work contacts or without first job information from a network member.

We start by giving an overview of different wage measures and the methods used in this chapter (7.1). These measures are post-unemployment wages, and the differences between pre- and post-unemployment wages. We distinguish between objectively measured and subjectively measured wage differences. Sub-chapter 7.2 analyzes the role of job-access channel and other factors for post-unemployment wage in CHF. In chapter 7.3 we look at "objective" wage differences in pre- and post-unemployment wage in absolute terms (CHF) and in relative terms (percent). Sub-chapter 7.4 focuses on the determinants of "subjectively" measured wage differences as indicated by the respondents answering a question on whether they experience strong or slight wage losses or gains, or continuity in wages. In sub-chapter 7.5 we compare the role of job-access channel for the different wage measures, in order to define most consistent results across measures and samples. We conclude with a short summary (7.6).

7.1 Wage Measures and Methods

Wage Measures

Pre-Unemployment Wage

Our database included the pre-unemployment wage. It is indicated in the form of the insured monthly wage in CHF, on the basis of which unemployment allowances are calculated. It is based on the average wage of the last six months, or that of the last twelve months before unemployment, in cases where the latter is more advantageous to the unemployed.

The advantage of this measure, retrieved from the register data LAMDA, is that it covers basically all job seekers who signed up for unemployment benefits. The disadvantage of this measure is that it is top-coded at 10,500 CHF as the highest possible amount insured for unemployment. This means that for people with an insured wage of 10,500 CHF we do not know whether before unemployment they had a wage of 10,500 CHF or a wage exceeding this amount. However, only 23 respondents who have found a job and answered our follow-up questionnaire had pre-unemployment wages of 10,500 or higher. Among the respondents to our second questionnaire, 25 percent of the job seekers had a pre-unemployment wage of up to 2919 CHF, the median earned up to 4245, and the upper 25 percent earned 5741 CHF or more per month.

Post-Unemployment Wage

We also have at our disposal the monthly post-unemployment wage in CHF as indicated by the respondents to our second questionnaire. As observed in many other surveys, some of our respondents were reluctant to inform us of the precise amount of their wages in the post-unemployment job. From the 1076 respondents of our second questionnaire who have found a job, 756 respondents (70 percent) indicated their post-unemployment wage. In our multivariate analyses we use the logarithm of this measure to satisfy assumptions of the linear regression models, i.e. to take into account the skewed distribution of post-unemployment wage. Moreover, linear regression, which we use for our analyses on post-unemployment continuous wage outcomes, is very sensitive to outliers as it is more precisely a regression to the mean. In order not to give too much weight to extreme cases, we cut off the upper and lower 2.5 percent wages per access channel with the idea of avoiding biases due to outliers.⁵³

⁵³ This means we cut off in the case of job access via network: post-unemployment wages of 694 and below, and postunemployment wages of 14,500 and above; in the case of work tie job access: post-unemployment wages of 600 and below, and of 15000 and above, in the case of formal means: 700 and below and 10,833 and above, in the case of communal ties:

The median post-unemployment wage is 4700 CHF $(N=701)^{54}$, which is lower than the regional median of 5894 CHF for the whole working population of the Canton of Vaud in 2012. However, the median wage differs considerably by the job access channel, which led to the job. Figure 7.1 gives an overview of the distribution of wages for all workers taken together (upper left), for individuals who found a job through non-network channels (upper right) and for those who got their first job information from work ties (lower left) or from communal ties (lower right).



Figure 7.1 Quantile plot post-unemployment wages by job access channel ("wage difference sample")

Note: numbers in gray indicate the wages of the first, second (median), and third quartile. The sample of respondents with pre-unemployment wages of below 10 500, under the exclusion of values at the upper and lower 2.5 percent per access channel.

Highest average and median wages are earned by job seekers who found their job via work ties (mean: 5306, median: 4800), followed by respondents who got no information from their network members (mean: 4862 CHF, median: 4750 CHF). Respondents who found

⁵⁰⁰ and below, and 11 000 and above. We do this only for the descriptive statistics because we have decided on a more "sophisticated" procedure to deal with outliers for the multivariate linear regression analyses.

 $^{^{54}}$ On average, it is 4935 Swiss francs (CHF). Without cutting off the upper and lower 2.5% it would be an average of 5011 and a median of 4650 CHF.

employment through first job information from communal ties gain clearly lower wages, in terms of average and median wage (mean: 4383 CHF, median: 4400 CHF).

"Objectively" Measured Wage Differences

Third, we are interested in the difference between pre- and post-unemployment wage, in absolute and relative terms. In contrast to looking at post-unemployment wages as such, using a "within-individual estimate" of wages enables us to approach a more direct relationship between the independent variables and the outcome, because it has the potential to rule out long-term labor market effects of some independent variables and time-constant unobserved individual characteristics.

Because the pre-unemployment wages are top-coded at a maximum value of 10,500 CHF, it is not possible to calculate adequate wage differences for these high-wage earners. We tried to circumvent this problem by looking for ways to impute the pre-unemployment wages for these workers, for example by replacing missing information by their indication of reservation wages and/or minimal wages they would work for. To do so we looked for patterns among workers with insured wages of 9,000 CHF and upwards. We assumed these job seekers to be most similar to those with wages even higher than that, but for whom we have information on insured wages and reservation wages and minimum wages. However, we did not find any satisfying solution regarding a possible replacement of the insured wage by reservation and/or minimal wage. Therefore, we decided to exclude from our analyses on "objective" wage differences the 23 cases with pre-unemployment wages of 10,500 CHF and higher for whom we also have information on the post-unemployment wage. However, this means that we potentially overestimate positive wage changes among the higher wage earners as we allow for post-unemployment wages above 10,500 CHF. We are able to check for this by validating our results on "objective" wage differences with the finding of "subjective" wage differences.

We start by analyzing the absolute difference in CHF, which measures the amount of money the workers have more or less in their wallet, on their bank account respectively, at the end of the month. For the measure of the absolute wage difference, we subtract the insured wage from the post-unemployment wage. Moreover, again we cut the upper and lower 2.5 percent wage differences per job access channel.⁵⁵ Figure 7.2 shows the distribution of wage

⁵⁵ This means we exclude cases finding employment via non-network means with a wage difference lower or equal to minus 3155 CHF, and equal or higher 4066 CHF; we exclude cases finding employment via first job information from work ties having a wage difference equal or lower than minus 2731.5 CHF, and equal or higher than 5300 CHF; we exclude cases finding employment via communal ties with wage differences equal or lower than minus 3741, and equal or higher than

differences depending on the job access channel. Further, the corresponding mean and median difference is indicated. We see that respondents who found employment thanks to first job information from a work tie not only have a higher average post-unemployment wage, but they find a job where they earn 254 CHF more on average than in their pre-unemployment job. However, the median of the work-tie job finders experienced no change or even a slight loss of 62 CHF. In contrast, the median job seekers finding employment thanks to communal ties lose 289 CHF (mean: 267 CHF). Job seekers who found employment without first job information from a network member experience almost no wage change (median: -9 CHF, average: + 56 CHF).



Figure 7.2 Quantile plot for wage differences by job-access channel

Note: the overall mean is 115 CHF, and the overall median -49 CHF. In gray are indicated the first, second (median) and third quartile. The sample of respondents with pre-unemployment wages of below 10 500, under the exclusion of values at the upper and lower 2.5 percent per access channel.

Finally, we look at relative wage difference. For this measure we divide the absolute wage difference by the insured wage and multiply this result by 100 to get the percentage change compared with the insured wage. In doing so, we take into account the fact that the same

^{3090.} We do this only for the descriptive statistics because we have decided on a more "sophisticated" procedure to deal with outliers for the multivariate linear regression analyses.

amount of money may not have the same value for everybody, but is relative to the wage of a worker: 2000 CHF can mean an increase of salary of 100 percent when the preunemployment wage was 2000 and the post-unemployment wage is 4000 CHF. This same amount of 2000 CHF difference can mean an increase of 10 percent when the preunemployment wage was 20,000 CHF and the post-unemployment wage is 22,000 CHF.



Figure 7.3 Quantile plot for relative wage differences by job-access channel

Note: In gray are indicated the first, second (median) and third quartile. The sample of respondents with pre-unemployment wages of below 10 500, under the exclusion of values at the upper and lower 2.5 percent per access channel.

The relative wage change lies overall at -1 percent at the median (mean=+9 percent), the first quartile at -16 percent and the third quartile +20 percent. The change patterns of job seekers who did not get their first job information from a network member look very similar, as does the one for job seekers who got their first job information from a work tie. The distribution of respondents finding employment thanks to job information from a communal tie is lower situated: 25 percent lost up to 25 percent, 50 percent lost up to 5 percent, the upper 25 gained at least 13 percent (mean: +1 percent).

Unsurprisingly, these results confirm the advantages of finding employment via work ties or via non-network channels. At first sight it may be surprising that overall we find a positive average wage difference, and only a very slightly negative median wage difference. It could be due to different factors; two of them are: we are only able to integrate into these analyses people that have found a job by the end of our study period, and this may be a positive selection, whereas those with even longer unemployment duration may accept higher wage losses in order to get back into the labor market at all. Moreover, among these unemployed there are people who have not been working at all before unemployment or who have not been working very regularly.

"Subjectively" Measured Wage Difference

In addition to these wage differences calculated on the basis of indications on monthly preand post-unemployment wages, we use a subjectively measured wage difference: the respondents were asked whether – compared with their pre-unemployment situation – they had experienced small or large wage gains or losses or if they had the same wages as before.⁵⁶ This measure has several advantages: first, the question had been asked not only to respondents of our second, but also to those of our third questionnaire; secondly, people answer more freely to a comparative wage indicator than when asked precise wage information. Thus, it is not concerned by the same amount of item-non-response that typically occurs when asking people about wages in terms of exact numbers (e.g. Riphan and Serfling 2005) – this means we have many fewer missing values on this dimension. Accordingly, the sample size with information on wage differences is much bigger (N=1120 compared with N=454). Third, we do not have the problem of the top coding of the pre-unemployment wages, which makes the interpretation of the "objectively" measured changes in case of high wage earners difficult. For all these reasons the "subjectively" measured wages serve as a strategy of verifying results found for the "objectively" measured wages.

Moreover, it reflects how people experience the wage difference applied to their lives, and how they feel to be affected by their wage difference. The importance of subjective experiences of whether things change to the better or to the worse for subsequent trajectories has been underlined by the cumulative inequality theory (Ferraro et al. 2009). The individual judgments of what differences are, may also be best captured by this approach. Some wage difference may be chosen voluntarily, some less so, and some may be compensated by other components of working agreements (such as commuting costs, or other costs taken on by the employer or the employee).

 $^{^{56}}$ The original question can be found in the questionnaire 2 and 3 in Annex question G13. The question was: Compared with your pre-unemployment wage, your post-unemployment wage means ...? - a) big wage gain b) a small wage gain c) equal wages, d) a small wage loss, e) a big wage loss.

Only 20 percent have equal wages to before unemployment, 22 percent have a little lower, and 20 percent much lower wages, whereas 26 percent have a little higher and 13 percent have much higher wages than before. This means "subjectively" measured the portion who loses in wages is with 42 percent slightly bigger than the portion of 39 percent who gains in wages. Respondents who have found employment thanks to first job information from a communal tie have the highest proportion with major wage losses (27 percent compared with 16 percent of the respondents finding a job via a work tie and 17 percent of the respondents finding employment via non-network channels), and with 7 percent the lowest proportion who attained much higher wages (compared with 10 percent of the respondent who found employment via work ties and 15 percent who found a job via non-network channels). This corresponds to findings based on the "objective" measure of relative wage change. It is also in line with our expectation, which was that communal tie lead to a worse job matching, because of a higher probability of inaccurate information.

Objectively versus subjectively measured wage differences

To compare results of the objective and subjective wage difference measure, we use for both measures – the objective and the subjective – a three-category variable built from the continuous objective relative wage measure and the categorical subjective wage measure.

A cross-tabulation gives an idea of the degree to which "subjective" wage loss and "objective" wage loss (relative measure) correspond to each other (or not) (Table 7.1). Testing different options, we decided that the comparison can best be done by distinguishing these three outcome categories, which are "major wage gains", "continuity in wages" and "major wage losses". We find most correspondences when distinguishing between "much lower", "equal" (including also a bit lower or higher wages) and "much higher wages", and in the case of "objective" measure assuming wage losses and gains of 20 percent or more to be major wage changes.

Table 7.1 shows that the categories of the two measurements are congruent for a little more than 60 percent (61 to 65 percent). In contrast, relative wage difference of up to +/- 20 percent is considered by 25 percent as a major loss and by 30 percent as a major gain. In contrast, 15 percent consider a loss of 20 or more percentage points as equal wages, and 21 percent consider a gain of 20 or more percentage points as equal. Note that, in the objective measures, we were interested in what the person receives at the end of the month independently of how

much the person works.⁵⁷ In the subjective measurement some respondents may take account of this.

	Subjective wage difference: « How is your post-unemployment wage compared with your pre-unemployment wage? » (3 categories)					
Relative wage difference based on the comparison of the pre- and post-unemployment wage	much lower	equal	much higher	Total		
loss of 20% or more (in percent)	61	15	8	23		
equal plus minus 20% (in percent)	25	65	30	53		
gain of 20% or more (in percent)	14	21	62	25		
Total (in percent)	100	100	100	100		

Table 7.1 "Objective" versus subjective wage difference measure between pre- and postunemployment wage (in percent)

Pearson chi2(4)=139.0560, Pr=0.000

Methods and Models

With the exception of the subjective wage change measure, our dependent variables are continuous. Therefore, for most of our multivariate analyses in this chapter we use multiple linear regression models. One advantage is that coefficients are read in an intuitive way: a one-unit change in the independent variable results in a change in the dependent variable that is in the size of the coefficient. For the outcome variable that is in logarithmized post-unemployment wages, we interpret the coefficients as follows: a one-unit change in the size of the coefficient in the dependent variable that is in the size of the coefficient in the dependent variable that is in the size of the coefficient multiplied by 100 and reads as percent (Blank and Shierholz 2006: 46). A fictive example would be if the coefficient has the size of 0.15, we would read: a one unit change in the independent variable results in a change of 15 percent in the dependent variable.

However, these ordinary least square models are particularly sensitive to outliers. There are different strategies to deal with it in order to obtain more robust results. We use more robust estimation method, which can take account of different kinds of outliers and uses an iterative procedure, thereby excluding extreme cases and leveling down less extreme cases in

⁵⁷ We do not have the information on the average number of working hours of the pre-unemployment job, but only on the post-unemployment job. Therefore, we do not take account of that when calculating wage differences, but we do take account of it as a job characteristic of the new job.

order to reduce their weight on the mean regression. This method uses a so-called mmestimator. The mm-estimator has been found to perform particularly well with the different requirements – to cope with different kinds of outliers, and still be statistically sufficiently efficient (Verardi and Croux 2009: 451). Results presented are based on this procedure.

This leads us to another related concern of this study - we question looking at continuous wage differences without distinguishing wage gains from wage losses. Our doubts arise from the fact that this makes the implicit assumption that wage gains and wage losses are induced by the same mechanisms. We get hints on that by looking at the subjective wage measure.

In the case of the subjective wage difference measure, we are dealing with a categorical dependent variable, which is ordered. Further, we pointed out, we do not expect mechanisms to be the same for the different levels of the outcome variable, especially not for wage gains and wage losses. Therefore, the analyses are made using a so-called generalized ordered logit model, which is a hybrid form of ordered logit regression and multinomial logistic regression. While the classical ordered logit model assumes proportionality of effects at all levels of the dependent variables, this is not the case for the generalized ordered logit model. The latter frees independent variables, for which proportionality of effects is not given for changes between the different levels of the outcome variable, from that constraint, and keeps it for independent variables that fulfill this assumption (Williams 2006). The coefficients have to be read in such a way that when they are positive this means that an increase in the independent variables increases the chance that the respondent has a higher outcome level than the one we look at, whereas when the coefficient is negative, the chance is higher for the respondent to remain at the actual level (Williams 2006: 63).

In order to compare results of the objective and subjective wage difference measure, which can best be done by distinguishing three outcome categories, we run multinomial logistic regression models. Results indicate the relative chance of experiencing one outcome as compared with the outcome of reference. And to show graphically what happens over time in unemployment in terms of this outcome we use competing risk models.

Finally, to compare the effect of the tie that led to a job on all wage measures over samples we run the same linear regression model on all dependent variables for the same sample size (and for the bigger sample size available for post-unemployment wages and for subjectively measured wage differences).

Our main variable of interest is the role of the job access channel that provided the first information on the job found. Therefore, we start all our multivariate analyses by a baseline model, which looks at the role of access channels. Only thereafter do we control for other characteristics, which we introduce stepwise. We start with socio-demographic characteristics (age, sex, nationality, education). Then, we consider the role of employment history. To know more on that subject, we control for previous unemployment, pre-unemployment occupational groups, pre-unemployment occupational class, (pre-unemployment wage), whether the last job was found through networks or formal means, and unemployment duration. Then, we check for the effect of network characteristics, and control for components of job search, which are activation and mobilization of former co-workers and other occupational contacts and more general job search patterns (number of applications and interviews, failure rate of interviews and test-wise the variety of job search channels).

In a last step, we explore if differences of wages are related to job characteristics (average number of hours worked weekly, size of firm, type of contract), and changes in social position (change in social position as compared with before unemployment⁵⁸). We are aware that these last controls are a component of wage calculations and job qualities, but – and this is important in order to understand why we added them to the models – wages are accepted in the knowledge of these factors, and, as we shall see, they can contribute to some but not all of the wage differences. To include this information could possibly mean controlling for a part in the causal pathway, which could result in unnecessary- or over-adjustment (for example Schisterman et al. 2009). Models are calculated and presented stepwise, which may allow to get an idea of potential problematic steps in model extensions. Our argument for including them in the models is to better understand to what degree wage differences are related to such observables. Additionally, to include change in social position adds in a subjective interpretation of the quality of the new job, which could be important for how the transition back into the labor market is experienced.

7.2 Post-Unemployment Wages

Compared with finding employment thanks to first job information from a work tie, we find having found employment via non-network means is negatively related with postunemployment wages, once we control for the pre-unemployment occupational group, and as long as we do not control for job characteristics (Table 6.2, model M2). The latter means jobs accessed via non-network means and work ties seem to go along with distinct job characteristics and wages. We see that the proportion of respondents finding employment via

⁵⁸ The question was whether the job found after unemployment as compared with the job before unemployment implied a higher, a similar, or a lower social position.

non-network means is higher among respondents from occupations where it makes a bigger difference for wages if a job is found via non-network means or via work ties. Additionally, different kinds of jobs seem to be accessed via the two access channels: descriptively, we see that among job seekers who have been working in the occupational groups sensitive to the job access channel, there is a higher proportion of work-tie job-finders who work more hours on average and have a permanent position as compared with job seekers who found employment through non-network means. This may thus help explain the wage differences.

Job Access Channels Serve Age Groups Differently

We find age has a small positive effect on post-unemployment wages, which is not surprising if we think of age as a proxy for work experience and skill accumulation in the occupational context. Once we consider the interaction between access channel and age group, we observe a positive relationship between non-network job access and post-unemployment wages (Table 7.2, Model M4). However, the advantages of non-network job access decrease statistically significantly with each year of age: post-unemployment wages decrease by 1 percent per year of age when finding employment via non-network means rather than work ties. No statistically significant differences are found between the main effects of finding employment via work ties and communal ties when accounting for the interaction of job-access channel with age.

	Post-unemployment wages (CHF)				
	M1	M2	M3	M4	
Job found via (Ref: work tie)					
Non-network means	-0.07	-0.07**	-0.04	0.28**	
	(-0.05)	(0.033)	(-0.03)	(0.120)	
Communal	-0.10	-0.01	-0.06	0.24	
	(-0.07)	(-0.08)	(-0.06)	(-0.28)	
Age	0.01***	0.00*	0.00**	0.01***	
	(0.003)	(0.003)	(0.002)	(0.002)	
Non-network means X Age				-0.01***	
				(0.003)	
Communal X Age					
				(-0.01)	
Model includes:					
Socio-demographic characteristics	yes	yes	yes	yes	
Occupational trajectory	no	yes	yes	yes	
Activation and mobilization of occupational social capital,	no	yes	yes	yes	
success rate of applications					
Job characteristics	no		yes	yes	
Change in social position	no		yes	yes	
N	407	407	407	407	

Table 7.2: The role of finding employment via job information from a work tie or a communal tie or via non-network channels for post-unemployment wages in CHF

Notes: complete models can be found in annex Table A7.1

No surprise - women have lower post-unemployment wages than men, which is related to differences in the average weekly number of working hours and employment history, more precisely the pre-unemployment wage. Education also affects post-unemployment wages in the expected direction: having only basic education reduces post-unemployment wages by about 12 percent compared with having upper-secondary education, whereas having tertiary education increases wages by about 13 percent.

Interestingly, network characteristics have no effect on post-unemployment wages. In contrast to these findings in terms of accessible social resources, we do find robust effects of activating occupational social capital on post-unemployment wages: talking to other occupational contacts rarely or from time to time instead of never goes along with higher post-unemployment wages (increase of 10 percent).

7.3 "Objective" Wage Changes: Absolute and Relative Wage Differences

Looking at wage differences, allows us to answer the question of whether a continuation of the previous trajectory takes place, or whether it was rather an improvement or a regress compared with the pre-unemployment situation. First, we first look at the role of job-access channel. Findings point in the same direction for both "objective" wage measures as they do for post-unemployment wages. Results from linear regression models are presented in Table 7.3.

Bivariatly, we find a negative, but statistically not significant relationship between wage differences and finding employment via communal ties or non-network means as compared to via work ties. Once we control for job characteristics, we see that finding a job via communal ties is negatively related to absolute wage differences compared with having had the first job information from a work tie. Thus, this implies more than having found a job with characteristics that put pressure on wages. It results in a wage penalty of more than 400 CHF (Model M2). These findings are consistent with our expectations and confirm the theoretical argument that work ties are better able to judge the fit between job seeker's characteristics and job characteristics, which should lead to higher productivity and therefore higher wages. Additionally, some of the work contacts may be able to control information to keep it more exclusively to the job seeker, or they may even be able to influence hiring decisions, as we have seen that having gotten the first job information from a work tie is related to higher chances of being hired by a network member.

In contrast, communal ties probably indicate a lower match (the difference in knowledge may increase as age and career advances), which results in bigger negative wage differences, and thus may come into play as the access channel of last resort only. The size of the difference decreases and becomes statistically insignificant once we control for change in social position as compared with before unemployment (Model M3). Thus, the wage difference may partly to be due to accepting a job with a lower social position than before unemployment when finding employment via communal ties, which enforces the argument of lower matching and communal ties being a job access channel of last resort.

However, at first sight, we do not find any effect of job access channel on relative wage differences (Models M5 to M6), which would suggest that the effect found for absolute wage differences, although it seems sizable, is less important relative to the whole wage or that it does not apply not for the whole distribution.⁵⁹

Our expectation was that advanced age has a positive effect on post-unemployment wages, but a negative effect on absolute and relative wage differences, which – at first sight - we find confirmed. When it comes to being older and finding a job after a period of unemployment, age seems to be disadvantageous: it has a statistically significantly negative effect on wage differences, with a decrease in the absolute wage difference per year of age of 23 to 25 CHF (Models M2 and M3), and of around 0.36 percent in the relative wage difference per year of age (M6). This indicates that overall, older job seekers lose most as compared with their pre-unemployment wage. This would be in line with findings from previous research and could be explained by a de facto or feared non-transferability of firm-specific skills to a new employer, which weighs particularly hard combined with long tenures often observed among older job seekers (Baumann 2015, Couch and Placzek 2010, Jacobson et al. 1993: 686, Daniel and Heywood 2007).

⁵⁹ The latter is confirmed when looking at wage losers and wage gainers separately. Among wage losers, finding employment via communal ties rather than work ties affects wage differences negatively.

Table 7.3 Results from linear regression analyses (using an mm-estimator for more robust results) for the role of the job-access channel, and its interaction with age for absolute and relative wage differences (objectively measured)

		Absolu	ute wage differen	nces (CHF)		Regression on	relative wage d	lifferences)
	M1	M2	M3	M4	M5	M6	M7	M8
Job found via								
(Ref: work tie)								
Non-network means	-52.66	-14.81	2.38	1,595**	0.87	0.31	26.33*	19.76
	(-151.70)	(-164.03)	(-172.37)	(632)	(-2.85)	(-4.56)	(14.092)	(-12.51)
Communal	-404.27	-445.26*	-336.76	855	-3.18	-3.74	21.02	19.44
	(-275.78)	(231.534)	(-219.28)	(-693)	(-8.35)	(-7.72)	(-19.52)	(-18.55)
Age		-24.77***	-22.77***	1.30		-0.34**	-0.01	-0.04
		(6.980)	(6.897)	(-9)		(0.152)	(-0.21)	(-0.19)
Non-Network means X Age				-44***			-0.72**	-0.54*
				(16)			(0.363)	(0.301)
Communal X Age				-34*			-0.67	-0.63
				(19)			(-0.52)	(-0.51)
Model includes:								
Socio-demographic characteristics	no	yes	yes	yes	no	yes	yes	yes
Occupational trajectory	no	yes	yes	yes	no	yes	yes	yes
Activation and mobilization of occupational social capital, success rate of applications	no	yes	yes	yes	no	yes	yes	yes
Job characteristics	no	yes	yes	yes	no	yes	yes	yes
Change in social position	no	no	yes	yes	no	yes	no	yes
N	395	395	395	395	355	355	355	355

Notes: * p < 0.1; ** p < 0.05; *** p < 0.01, full models can be found in table A6.2 and A6.3 in the Annex

In terms of wages, we expected that older job seekers find better jobs via social contacts, particularly via work ties, as compared with finding employment via non-network means, because they have built up more occupational social capital. In contrast, we expected younger job seekers find better jobs via non-network means, because their formal qualifications may be read as a sign for their productivity. Indeed, we find that the effect of access channels differs by age. After including the interaction between age and access channel into our models, we observe no statistically significant main effect of age - on absolute and relative wage differences. However, with increasing age, finding a job via non-network means is related to absolute and relative wage differences - to the disadvantage of older job seekers (Figure 7.4).

The main effect of finding employment via non-network means results per se in a statistically significant increase of post-unemployment wages, and absolute wage difference increases by almost 1600 CHF (Model M4). In relative terms these increases are sizable (at 26 percent, see Model M7), and may be related to a change in social position as compared to before unemployment (the effect is still sizable, but no longer statistically significant after controlling for it, see model M8). The advantage of finding employment via non-network means at labor-market entry goes along with a wage increase of around 1000 CHF for the below 20-year-old job seekers. But particularly this advantage fades out quickly and becomes a clear disadvantage with increasing age, and the job access via non-network means is associated with a wage loss of around 1000 francs from age 55 and above.



Figure 7.4 Interaction between access channel and age for wage difference measured in CHF (left) and in relative differences (right), fitted values of the predicted wage differences

Note: Based on linear regression models displayed in the Annex, Tables A7.2 and A7.3.

In contrast, older job seekers get positive or less negative outcomes in terms of wage differences only when finding employment via work ties. This underlines the importance of occupational social capital for positioning within the labor market in the case of advanced careers, and confirms our expectations. It shows that if older job seekers have built up enough occupational social capital before becoming unemployed and if they are able to activate and mobilize it, they have a chance to avoid major wage losses, with could be induced due to losses in skills and hierarchical position due to changing the employer, or due to discriminatory recruitment practices.

However, we find, but only for absolute wage difference outcomes, a statistically significant interaction effect: Here finding employment via communal ties goes along with a decrease in the absolute wage difference of 34 CHF per year of age as compared with finding employment via work ties (Table 6.2, Model M4). This confirms for unemployed job seekers of a broad variation of occupations with advanced age (and thus potentially advanced careers), what was observed for non-unemployed job search and for different kinds of samples – finding employment via communal ties has a negative effect on wage outcomes (Sylos-Labini 2004, Granovetter 1974, Bentolila et al. 2008).

Against our expectation, we do not find any effects or no robust effect of sex, education, nationality on wage differences. These findings suggest that these factors do not act so much intermittently on unemployed job-search outcomes, but rather stand for long-term labor-market effects. Segregation of the labor market by sex, nationality, and skill levels of jobs, and its structural constraints on wages, are invariable over time (of our study). Workers tend to continue working in nationality specific labor markets, they may remain in gender specific occupations, and in specific skill levels of their jobs (Light and Bhachu 1993, Marmaros et al. 2002). Also in contrast to our expectations, we find none of the other factors interacts with the access channel. Moreover, in contrast to the effect of belonging to one occupational group rather than to another on post-unemployment wages, we find no effects of them on wage differences. This suggests that most job seekers continue working in their occupational groups, which is also underlined by the fact that – unsurprisingly - higher pre-unemployment wage result in most cases in higher post-unemployment wages.

Network characteristics do not seem to play a role for wages and wage differences. Therefore, they were excluded from most of the models presented here. Also Marsden and Hurlbert (1988) found no net effect of social resources on job outcomes, because the jobseeker's characteristics are related to the characteristics of the accessible contacts. These results go in line with Mouw's critiques that effects of network characteristics on job-search outcomes may rather be due to homophily between job seekers and their contacts than to a causal effect of network characteristics on outcomes (Mouw 2003).

In contrast to these findings in terms of accessible social resources, we do find effects of activating occupational social capital on post-unemployment wages *and* on wage differences: Talking to former co-workers per se does not seem to play a role, neither for post-unemployment wages nor for absolute wage differences. This could be because often talking to former co-workers is related to job access via work ties, which we observed for low- *and* for high-skilled jobs (chapter 4). In contrast, talking often rather than "not often" to former co-workers influences the *relative* wage difference positively. Talking rarely or from time to time to other occupational social contacts instead of never increases absolute wage differences by more than 500 to 600 CHF, but is not related to relative wage differences.

The fact that activation of occupational social capital plays a role independently of controlling for the job access channel that provided the first job information to the job and also when looking at the wage differences, encourages the assumption that these contacts provide not only information on vacancies, but more general knowledge about employers, labor markets and wages. And as suggested by researchers in economics they may influence the offer rate and thereby wages. And this seems also the case when unemployed.

According to the latter argument, an increased weekly average number of interviews has a positive effect on absolute wage differences. A higher failure rate of applications in terms of getting interviews influences the relative wage difference negatively, but only as long as we do not control for a change in the social position. This implies that when low job-search success results in accepting a job, which implies a lower social position than before unemployment, this has a negative effect on the wage difference.

7.4 Subjective wage difference

Job access channel and subjective wage difference

One could argue that all that matters is how wage differences are perceived by the workers themselves and therefore focus on their response to the question on how their postunemployment wage differs from their pre-unemployment wage. We look at this measure as complementary to the other (objective) wage difference measures. In our multivariate models, we use all cases for which we have information on the dependent and independent variables, which means that we are able to include high wage respondents, too, as well as respondents who did not answer the questions about the exact amount of their income. This means we also have information on pre-unemployment high-wage earners, which we had to exclude from the analyses of the objective wage differences due top coding.

We find an increased chance of attaining major wage gains when finding employment via non-network means instead of via first job information from a work tie (Tables A7.6/7). Accordingly, we see that respondents who found employment via non-network means have with 15 percent the highest predicted probabilities of experiencing major wage gains (Figure 7.7). Having found employment via first job information from a work tie goes along with the highest predicted probability of experiencing minor wage gains (31 percent). Respondents who found employment via first job information from a communal tie have a smaller predicted probability of obtaining major wage gains (8 percent) and a higher predicted probability of experiencing major wage losses (23 percent).



Figure 7.5 Predicted probabilities subjective wage change by access channels (N=912)

Notes: based on model presented in table A7.4

Job access channel, age and subjective wage difference

In a next step, we look at the interaction between age and job access channel (Table A7.5). In contrast to what we saw in the sample considerable for the analyses of absolute and relative "objective" wage changes, the negative effect of finding employment via communal ties becomes statistically significant when we consider the interaction between access channel and age. Communal-tie job access has a constant negative effect on moving to a more advantageous level in terms of more advantageous wage change. However, this negative relationship decreases with increasing age, and thus the effect of finding employment via communal ties is found to vary less over age than what we see for the two other access channels. Accordingly, the predicted probability of experiencing *major wage losses* among communal-tie job-finders is already at a higher level in younger years: For the youngest age group, the average predicted probability is 18 percent (compared with 11 percent among young work-tie job-finders and to 8 percent among young non-network job-finders), and rises to an average of about 26 percent among the 55 years and older job seekers (comparable to that of work-tie job-finders, which is 29 percent for the oldest group of job seekers).

In contrast, *major wage gains* are least common among young communal-tie job-finders. The effect of communal-tie job access does not change much over age, whereas there are much stronger differences between age groups among respondents who found jobs via the other job access channels. Age seems most important for non-network job-finders, whereas respondents who found employment via a work tie seem to be in an intermediary position. Accordingly, in case of non-network job access the predicted probability of experiencing *wage gains* while young is highest, and then drops to a lower level as age increases. Looking at the subjective wage measure allows us to understand the role of communal ties and its interaction with age over the whole range of the dependent variable between major wage losses and major wage gains. This strengthens findings on the role of communal ties for the "objective" wage measures.

Unemployment Duration and Subjective Wage Change

When controlling for unemployment duration, the size and significance of the effects of access channels on the chance of experiencing wage losses changed. Therefore, we look at what happens over time by using event-history techniques. First, we describe the exits over time for workers who lose or gain in terms of wages or continue with the same wages as before. We find – unsurprisingly – that job seekers who had to accept wage losses have much

fewer and slower exits over time as compared with both workers who experienced continuity and workers who experienced wage gains (Figure 7.6).

Further, we distinguish the cumulative incidence of experiencing wage gains, continuity in wages or wage losses over time in unemployment by job access channels (Figure 7.7). As already pointed out, we see wage gains are most probable for job seekers who find employment via non-network means, followed by those who got first information on the new job via a work tie. Unchanged wages are most probable for in case of the job access via work ties, and wage losses most probable in case of the job access via communal ties. This suggests that work ties most probably are same hierarchy workers who have information on same hierarchy jobs, and it suggests that communal ties are the job access channel of last resort, which is paired with longer unemployment duration and lower matches between job's and job-seeker's characteristics.







Figure 7.7 Subjective wage gains, continuity, losses over time by job access channel

Note: in the case of wage losses the curves for finding employment via non-network means and via work ties are congruent.

7.5 Comparing the Different Wage Measures

In order to compare the outcome of the different wage measures we create a sample that includes only cases for which we have information on all wage measures, and we run the same linear regression models, including the same independent variables. Further, we compare if results are the same as if we use a broader sample (for post-unemployment wages, and for subjective wage differences). Table A7.6 presents results on job-access channel - and its interaction with age.

Once we additionally control for (un-) employment history, activation and mobilization of occupational social capital, and job characteristics, we consistently find a positive relationship between finding employment via non-network job access as compared to work-tie job access, and its interaction with age (negative relationship) for all wage difference measures.

Further, the negative effect of finding employment thanks to first job information from a communal tie instead of from a work tie gets visible, once we control for job characteristics. However, this finding is statistically significant only for the absolute wage change measure. In

contrast, the negative interaction between finding employment via a communal tie and age is statistically significant for all wage differences measures, when working with the restricted sample. From this comparison, we would conclude that the most stable result is that non-network job access rather than via work ties enhance wage gains for younger job seekers, but less so for older job seekers. In terms of communal tie job access results seem to vary with control variables and sample size, which could be partly due to their small number of observations.

To look at the extremes of wage loss and wage gains we use multinomial logistic regression models and distinguish between major wage gains, continuity in wages, and major wage losses. Continuity in wages includes minor wage gains and minor wage losses for the subjective measure and up to +/- 20 percent for the objective wage measure. These analyses confirm for "objective" and "subjective" wage measures that communal ties increase the chance of experiencing major wage losses.

7.6 Summary

In terms of wages, unemployment does not seem to be a huge obstacle for many job seekers; almost 50 percent of them experience wage gains when one compares pre- and post-unemployment wages. In absolute terms, finding employment via work tie seems to concern the most advantaged – they have the highest average and median post-unemployment wage, and they experienced the highest average absolute and relative wage differences (gains). Some more nuances are obtained by crossing job access channels with the categorical variable of subjective wage differences. Work ties are the ones that seem to protect best from major wage losses, whereas non-network means most often go along with major wage gains.

Multivariate analyses underline the importance of accounting for the distinctive usefulness of the three job access channels over age. Non-network means primarily have a positive effect on wage outcomes among young job seekers. The older job seekers, in contrast, are better off when finding employment thanks to first job information from a work tie in order not to experience wage losses. Finding employment via communal ties results in negative absolute wage differences, which, however, become less marked with increasing age. Only distinguishing between gains and losses allows us to see the advantages of work ties as compared with communal ties: they protect from experiencing wage losses. This suggests that the underlying mechanisms for wage gain and wage losses are not the same. Subjective wage differences are negatively affected in the case of finding employment via communal ties. We thus conclude communal ties increase the risk of major wage losses. This is line with the argument that communal ties are least able to judge whether job's and job-seeker's characteristics match, in case of a lower match the productivity of a worker is lower, what is punished with lower wages.

Further, also looking at the subjective measure allowed us to it allowed us to show which are the consistent results in a much bigger sample, to address these questions of relative wage changes in its distinction between losses and gains, and it allowed us to show that it is important to distinguish between work and communal ties. If we had only looked at job access via networks versus via non-network means, we would have missed a part of the story as the two components of job access via networks – work and communal ties – seem to have an opposite direction of effect also in the case of wage differences. Our results confirm what De Graaf and Flap (1988) pointed out: Finding employment via network does not necessarily lead to better jobs. In terms of the contrast between work ties and communal ties, we also show what has been found by previous research: studies that distinguished between work and non-work contacts found that the first led more advantageous wage outcomes than the latter (e.g. Sylos-Labini 2004, Simon and Warner 1992, Granovetter 1974). This difference also explains contrasting results of studies, which look only at one of the two. Further, these findings confirm the matching argument (e.g. McDonald 2011) and the mismatching argument (e.g. Bentolila et al. 2008). Contacts that are best able to judge job seekers' and jobs' characteristics lead to better matches, whereas contacts that are unrelated to the occupation of the job seekers are no experts in this respect and therefore lead to matches of lower quality. Moreover, we found that activation and mobilization of occupational social capital plays a role for wage differences, which can be interpreted, that job seekers the field logics as well as the value of their social resources as capitals are rewarded by better wages. Thus, we can conclude communal ties furnish job information to many job seekers in the case of poor labor-market prospects, rather as a job access channel of last resort, leading to less good matches and possibly cuts in wages. In these cases, unemployment is experienced as disruptive to the occupational trajectory.

Finding employment via first job information from work ties enhances a continuity in the occupational trajectory, going along with comparable wages, which is in most cases also related to a continuity in the social position a job provides. Findings on the "subjective" measure of wage change underline the importance of non-network job access channels in the case of unemployed job search, which seems to allow many job seekers even to even improve

their occupational trajectory by attaining wage gains. Results looking at the importance of different access channels over age, however, suggest that non-network job access benefits mostly young job seekers. Accordingly, also our comparison between different wage change measures show that the most stable result in this smaller sample in terms over different wage measures is that non-network means rather than work ties enhance wage gains for younger job seekers, but less so for older job seekers. This is consistent with our expectations formed by the following assumptions: (a) Occupational social capital depends on age (or more precisely work experience), (b) the importance of formal credentials decreases with increasing age, instead there are increasing on-the-job skills, which are usually less formalized.

Summary and Conclusions

This study analyzed how unemployed job seekers find a job via family, friends, acquaintances, former co-workers, and other occupational contacts. This study investigated, which kind of job seekers find their jobs via work ties and via non-work ties - so-called communal ties. It analyzed how long they take by finding employment via these different access channels, and whether job seekers experience continuity in wages as compared to their wages before unemployment.

Thanks to our two-point-in-time tailor-made survey, which we combined with register data on a large convenience inflow sample of Swiss unemployed job seekers, this study overcomes some constraints met by previous research: First, we work on a broad variety of occupations, second, we include all working ages and many nationality groups, male and female job seekers. Third, all job seekers are looking for a job at the same time and thus are all meeting similar macroconditions of the labor market. Fourth, we have information not only on network characteristics at the beginning of unemployment, but also on the job-search process including activation and mobilization of social capital, and detailed information on the specific contact who provided the crucial job information, which led to a job. Additionally, we know about the characteristics of the job found.

This set of information allows us to empirically follow Lin (2001) and Lai et al. (1998), a group of researchers specialized on social capital in job search, who in their theoretical considerations emphasize the importance of looking at job search as a process. They point to the distinction between potentially available network resources (network characteristics), mobilized resources (use of contacts and contact resources) and their effects on outcomes such as wages. We differentiated further into activated and mobilized resources, and the contact that led to the job. Our analyses focus on the role of occupational social capital, which means mainly on occupational network characteristics, on whether job seeker recognize social resources as capital and thus activate and mobilize them, and on finding employment via work ties. Our broader theoretical framework lies heavily on a capital approach, but also integrates some concepts related to a life course perspective.

Main Findings

We found that job seekers with lower general job access chances (such as job seekers with lower education) are more likely to find their job via network. However, a more detailed view of job access via network reveals that less advantaged job seekers are more likely to find a job through communal ties, and some job seekers more advantaged in terms of general job access chances are more likely to find a job through work ties. However, there are low-skilled occupations barely accessible without contacts, where work ties get important also for job seekers with lower education. Most network characteristics seem only to affect job access chances in general, but not job access via network in particular. We find individual agency plays a role for finding employment thanks to first job information from a work tie - talking to former co-workers about job search and receiving job information from them increases chances to find a job via work tie, and to find a job faster via work ties. This shows how – besides social capital endowment - knowing of labor market logics and recognizing social resource as capital is important for leaving unemployment.

The kind of tie that furnished the first information to the job found is related to unemployment duration and wages: First job information from a work tie lead to finding employment faster, whereas first job information from a communal tie goes along with taking longer to find employment. While work ties tend to allow continuity in wages, communal ties lead to wage losses. Moreover, the number of friends is related to the time it takes to find a job via work tie, but any of the network characteristics is related to post-unemployment wage (as compared to pre-unemployment wage), whereas activation of occupational social capital has a positive effect on the time needed to find a job via a work tie and on wage outcomes.

The added value of distinguishing between work ties and communal ties: sketching differential mechanisms reproducing advantages and disadvantages

Findings in the literature on job access via network are mixed, while some scholars find positive effects on job outcomes (e.g. Granovetter 1974, Kugler 2003, Pellizzari 2005), others find the contrary (Pellizzari 2005, Bentolila et al. 2008). This is not surprising if we think of the fact that they looked at very diverging groups of job seekers (such as only managers, professionals and

technicians, or only labor market entrants). Additionally, they considered different kinds of network members - some consider family members only, other work-related ties only, and some do not specify further. By disentangling different groups of unemployed job seekers and different kinds of ties that led to the job, we understand why some of these outcomes oppose each other.

Different scholars have questioned the widely-used categorization in strong and weak ties, when interested in job seekers with restricted labor market participation and access (e.g. Korpi 2001, Bridges and Villemez 1986). The unemployed have in common that they are out of the work context and therefore may have a harder time than employed job seekers to access labor-market information and information on vacancies. Therefore, work ties, in contrast to non-work ties, could be considered as a bridge into the work context. The distinction between work and communal ties proposed also in the earlier work of Granovetter (1974) has inspired some researchers who investigated unemployed job search (Larsen 2008, Pedersen et al. 2008, Sprengers et al. 1988). Our study follows them and relies on a broad understanding of work ties including former co-workers, other occupational acquaintances, and all kinds of other network members working in the same industry. In contrast, we consider network members who do not fall in the category of work ties as communal ties.

While Bourdieu proposes social capital to have a multiplier effect on other capitals, theory of cumulative inequality goes more into detail and emphasizes that accumulation of advantages and accumulation of disadvantages may be explained by different mechanisms. The distinction of network job access into job access via work ties and job access via communal ties allows us to understand these differential mechanisms leading to contrasting job outcomes, limited, of course, to a very specific part in the occupational trajectory.

As compared to communal ties, work ties can be assumed to be in a better position to evaluate if the characteristics of the job seeker relevant for work, and the characteristics of a specific job, firm and employer match (e.g. Simon and Warner 1992). This should make this kind of contact a more trustful intermediary for both sites of the recruitment process - employer and job seeker. If matches are better, the probability of recruitment rises, the time it takes decreases, and salaries increase. And this is what we find: Shorter unemployment durations and higher average wages when the first job information came from a work tie; Longer unemployment durations, and clearly lower average wages when the first job information came from a communal tie. This suggests that communal ties could be an access channel of last resort. Our results on the differences in unemployment duration by tie that provided the first job information confirm previous findings (Larsen 2008, Sprengers 1988).

We find that job seekers with lower general job access chances have higher chances to find a job via network members. In the same vein with other researchers from our group working on the same data - Bonoli and Turtschi (2015) - we interpret this finding in the sense that these job seekers depend more network job access than others, and some of these job seekers seem able to (partly) compensate their lower formal job access chances by finding a job through their network. Another set of studies suggests that network not only comes to the aid of the disadvantaged job seekers, but primarily serves the advantaged job seekers and re-enforces their position. The distinction of network job access into job access via work ties and job access via communal ties allows us to understand these differential mechanism, which results in informal job access serving "opposite" kind of job seekers. Accordingly, we find job seekers more advantaged in terms of general labor market prospects due to personal characteristics have higher chances to find employment via first job information from work ties, while less advantaged job seekers are more likely to find employment via information from communal ties. In line, we find having more friends increases the chance to find employment via work ties. At the same time more advantaged job seekers have more advantageous network characteristics, and the other way round (Turtschi 2015). This is not surprising if we think of the principle of homophily (McPherson et al. 2001). The latter says that similar people are more likely to be in contact with each other, which basically reflects that social resources as other resources are built up over time and in social context (Bourdieu 1987).

Life-course research underlines the importance of individual agency to deal with structural constraints and overcome critical life events (Heinz 2009b). Our research shows that individual agency in terms of talking to former co-workers about job search increases chances to find employment via work ties, and reduces the time needed until finding a job via work ties. Additionally, talking to former co-workers about job search has a positive effect on wages. These findings can also be interpreted as giving evidence for the matching argument. At the same time previous research has shown that job seeker's agency in terms of considering their network as job search strategy depends on the probability of success of this access channel and thus on the quality of the network (Holzer 1988). How much the latter is true depends on the knowledge of the job seeker about field logics and if he recognizes his occupational social resources as job

search channel. Our findings suggest that there are individual differences activation and mobilization of occupational social resources, also in a situation of comparable network characteristics. In contrast, network characteristics do not seem to influence actual wage outcomes in the situation of unemployment (wage differences). This finding confirms what has been suggested by previous research, a full catalogue of accessible resources may not explain very much of a specific outcome, whereas the analyses of the crucial contact that lead to the job is much more interesting (Van der Gaag 2005). Further, it suggests that a relationship between network characteristics and post-unemployment wages, not found for wage differences, may reflect long-term effects in the occupational trajectory, such as occupational social capital being a side-effect of successful long-term labor market participation (Bridges and Villemez 1986). Additionally, it points to unobserved characteristics, which play a role for both building up and maintaining social resources, and also to homophily between network members and job seekers (compare also Mouw 2003, Van der Gaag 2005).

Finally, we find that work ties not only serve job seekers that would be assumed to be more advantaged, but also serve as a strategy to compensate for potential disadvantages in job access. It is therefore worth to look in more detail at what resources are available and what constraints are met in the situation of unemployment. Until the point in time of becoming unemployed, individuals have accumulated an unequal amount of resources depending on where they are in their occupational trajectory and on what educational path way this is built on: Some have reached higher degrees of education, others lower, some have recent formal qualifications recognized by potential employers, others have formal credentials, but which have been acquired a long time ago or far away. Some have gained a lot of work experience, which is easily transferable to new employers, while other job seekers' skills are very firm specific and less valued by new employers. Some are advanced in their careers and have built up a lot of occupational social capital on the way, while others have not (yet) a network with many work ties. Some know how to make use of their resources, how to deal with constraints and how to take on with opportunities very well, others have less of these skills.

Going along with other studies emphasizing the importance of recruitment practices by occupational groups, skill requirements and industries (Rieucau and Salognon 2013), we observe two very efficient job allocation processes via work ties serving two different kinds of labor markets, and two different skill levels of jobs: On the one hand it is the potentially high-skilled

labor market of job seekers belonging to so-called expat communities (to be assumed giving access to internal labor markets of international firms and organizations). On the other hand, the low-skilled labor market of job seekers having Portuguese nationality to be assumed to give access to word-of-mouth recruitment typically used for example to fill vacancies in low-skilled construction jobs (Amaro Galhano 2016). Further, also workers finding employment via communal ties seem less homogenous than we had thought of at first sight, we observed finding a job via communal ties seems at least in terms of unemployment duration less harming to tertiary educated and to male job seekers.

Another pattern observed for all outcome dimensions reflects how strongly resources are connected to where somebody stands in the occupational trajectory: We find that the efficiency of different job access channels is strongly related to age. Young job seekers, whose formal credentials are recent, but who have less occupational social capital, have fastest job access via non-network means, which at the same time encourages major wage gains. While job access via work ties seems to be very efficient for job seekers at the peak of their occupational careers, where the amount of occupational social capital is potentially biggest (compare McDonald & Mair 2010), it also helps oldest job seekers, but gets rarer, at the cost of communal ties jumping in. Moreover, our differentiated analyses on activation and mobilization of occupation social capital underlined not only the importance of occupational social capital, but also of individual agency and knowing labor market logics and capital endowment: Older job seekers who activated and mobilized their occupational social capital and managed to find a job via work ties could reduce their unemployment durations, and we find no age penalty on finding employment via work ties in its effect on wages.

Limitations, outlook, and further implications

Further research was planned within the framework developed within this dissertation, such as a deeper analysis of the characteristics of the contact that provided first information on job found as compared with the job seeker's characteristics, and their influence on unemployment duration and wages - in particular, its function beyond sharing job information, which was in the center of this study as it was considered as first stepping stone for job access. We assume, the role of recommending job seekers in the case of finding employment via work ties and in the case of accessing a job via communal ties could have a differential effect on wages, and additionally

could differ by groups of job seekers according to their general labor market prospects.

While this study had a very strong focus on job access via network, and more precisely via work ties, it invites other scholars to look at job access via non-network means more profoundly by using the more detailed information from this data. It is to speculate that also more formalized job access strategies are not equal in their role for different kinds of job seekers and may depend on the position of a job seeker in the labor market and his or her capital endowment.

The data used for this study has its advantages in having access to register data, which allows better measures, to control for some characteristics of the occupational trajectory, and allows getting aware of non-response bias and selection bias. This study improved measures and made use of information on working history of the respondents, but is limited in the way of dealing with issues of non-response and selection bias only descriptively, which may render some of the results sample specifically, whereas others are more robust. Selectivity towards more successful job seekers answering our second questionnaire, could for example lead to an overestimation of the proportion of job seekers who find their jobs via work ties. However, there are also problems related with for example weighted analyses, such as introducing other biases.

Further, this research has its limits more, generally speaking, in being conducted in only one country, and only among unemployed job seekers. However, it can serve as an inspiration for future studies, also in other countries. Further, relaying of a Swiss specific definition of unemployment makes it more difficult to compare results with other studies who constructed their sample on behalf of the ILO definition of unemployment.

Still, we would expect the principles observed here to be observed also in other market economies with similar proportions of jobs found through network: Unequal social positions at the point in time when getting unemployed go along with different amount and kind of resources available to be activated and mobilized in order to find a way back into the labor market. This leads to diverging job search outcomes. Advantaged job seekers overcome unemployment by comparatively smooth transition and continuity or even gains in wages. In contrast, disadvantaged job seekers often have a hard time to find a job again, take longer to do so and depend on their communal ties as an access channel of last resort. They have to accept wage losses to do so. This makes unemployment a potentially (more) harming experience for job seekers at the bottom of the occupational hierarchy.

Our distinction of network access in general into work ties and communal ties allowed us to acknowledge these different mechanisms leading to a cumulative inequality, and, it exemplified how social inequalities are produced and re-produced. We could, in other words, distinguish processes enforcing existing inequalities, but also some individual (and collective) strategies to milder them, reaching from fully or partly compensating for potential disadvantage by referring to social capital - particularly via work ties. At the same time this research could be improved by integrating field logics into the analyses, by dealing with job seekers who approach specific labor market where for example there is no other access channel than via the current employees of the employer.

These findings can encourage job seekers to multi-channeled job search, which should not spare out job search via occupational social resources right from the start of unemployment. For counselors of the public employment services it gives empirically measured and quantified evidence to their practical experience of how important work ties and networking behavior of job seekers is, particularly for job seekers with advanced career. It could for example furnish them with arguments against reluctances to activate the network. Counselors have told us that they observed that many older job seekers are reluctant to ask help in job search from their network members, because they wish to be recognized for their experience and job skills rather than for their social skills and networking behavior. They interpret the latter as undermining what they have achieved in their occupational trajectory, and judge it to be a highly un-meritocratic way of finding a job.

Moreover, findings from this study may also be valuable to think of networking and network activation as a skill to be developed, which to our knowledge has not yet been very present in active labor market programs. Finally, findings on the fact that not all job seekers have occupational social resources at their disposal calls for (more) mentoring programs, providing the unemployed job seeker with a mentor from his or her industry, which could offer job seekers lacking social contacts the occupational social capital of a mentor.

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Table A2.1 Schematic overview of our expectations concerning different influence factors

Influence factors	Availability of social capital	Dependence on social capital	Mechanisms					
Work-tie use Non-network means Communal-tie use	↑ = ↓	↓ ↑	Network: Compensating for or reinforcing lower job access chances in general, reinforcing higher job access chances in general Work ties: better job match, potential for information control and influence, positive selection Communal ties: last resort, lower job match, negative selection					
Age (advanced age compared with young age)	Î	Î	Accumulation of social capital: increasing with age/time in the work context and leveling out or decreasing among the oldest Homophily: Workers with longer career paths have network members with longer career paths and thus potentially more job information through bigger occupational networks and through higher positions, information control and influence Skill depreciation: with increasing tenure and unemployment duration (both often among the older)					
Sex (female compared with male)	Ţ	=	Segregation of labor markets and social capital by sex: homophily, men may have more access to labor-market information and higher paying jobs through more men in their networks, more probable to be employed network members and more of them in higher positions					
Nationality (for overview non-Swiss compared with Swiss)	Ţ	Î	Risk of non-recognition of non-Swiss formal education or work experience Risk of less knowledge of the Swiss labor market and recruitment processes Risk of less Swiss occupational and non-occupational social capital Risk of language barriers Homophily Restrictions related to nationality less apply to "expatriates"					

Influence factors	Availability of social capital	Dependence on social capital	Mechanisms				
Education (higher compared with lower)	Ţ	Ţ	Higher educated may have more higher educated in their network and these contacts are more likely to be in position where they control information and potential influence on hiring decisions. Higher educated may depend less on network access, but use it when it re-enforces their advantaged position Lower educated may have more lower educated contacts in their network wi less possibilities to information control and influence, but who also are more likely to be integrated in labor markets where informal job access is "usus". Lower educated may depend more on network access due to less formalized qualifications despite having less well positioned network members they may (partly compensate for lacking formal skills. Formal job access: formal qualification recently acquired and strongly related to labor market demands (vocational training) enhances hiring through formal channels Network job access: Work ties or communal ties are useful when (1) no or not much formal qualifications are needed to do a job and recruitment processes have to be fa and cheap, (2) work ties are most useful when additionally to formal qualifications other skills and work experience are demanded and when mismatch gets expensive to the employer.				
Occupational Class (higher compared with lower)	Ť	Ţ	Homophily and Recruitment practices: Low skilled working class: fast and word of mouth hiring in low-skilled working class, less formal and more network access, same hierarchy contacts (work and communal ties possible as occupations are less specialized) Upper middle class: Additional to formally measured skills many jobs with managerial competences ask for not formalized skills, thus these specialized occupations ask for work ties as intermediaries, upper middle class job seekers have access to network members higher positioned in the occupational hierarchy (more control over information and in hiring processes)				
Previous unemployment (yes compared with no)	ţ	Î	Homophily, Loss or non-accumulation of occupational social capital and cultural capital while out of the labor market Potential stiematization and/or unobserved characteristics				
Network quality and quantity (higher compared with lower)	1	Ļ	Homophily, access to position in which information control or influence on hiring decisions, information non-redundancy, importance of occupational social capital				

Influence factors	Availability of social	Dependence on	Mechanisms
	capital	social capital	
Activation and mobilization of former	1	\downarrow	Depends on accessible occupational capital
co-Workers and other occupational			Occupational social capital: job matching, being better informed, getting more
contacts (more compared with less)			offers, potentially control and influence function

For a second sec	Year	Switzerland	Canton Vaud
Population			
Residents	2012	8,039,060	734,356
Residence density per km ²	2012	201.0	260.2
Foreigners in percent	2012	23.3	32.2
Distribution age groups in percent			
0-19 years old	2012	20.4	22.4
20-64 years old	2012	62.2	61.6
65 or more years old	2012	17.4	16.0
Urban population in percent	2012	73.7	74.5
Main language in percent			
German	2012	64.9	6.8
French	2012	22.6	83.8
Italian	2012	8.3	5.3
Romansh	2012	0.5	_
English	2012	4.6	7.4
Employment			
Net activity rate (15-64 years old) in percent	2012	80.2	78.0
Unemployment rate in percent (according to the SECO definition)	2013	3.16	5.01
Economy			
*GDP per resident in CHF	2011	73,947	67,159
Change in GDP in percent	2010-2011	1,8	2,6
Employed total	2011	4,847,365	406,788
1. Sector	2011	171,162	13,726
2. Sector	2011	1,082,549	70,802
3. Sector	2011	3,593,653	322,260
Firms/Employers total	2011	638,685	55,007
1. Sector	2011	59,272	4,198
2. Sector	2011	94,836	7,880
3. Sector	2011	484,577	42,929
Social Security			
Rate of welfare recipients	2012	3.1	5.1
Educational level (from age 25 on) in percent			
Without post-compulsory education	2012	22.0	25.7
Secondary (upper)	2012	46.6	38.6
Tertiary	2012	29.8	33.8

Table A3.1 Characteristics of population of Switzerland and of the Canton of Vaud

Source (7.3.2014): www.bfs.admin.ch/bfs/portal/de/index/regionen/kantone/vd/key.html

*Definition BFS: "The GDP quantifies the economic performance of the national economy. It is an estimate of the value of goods and services produced in a country as far as they are not used as input for the production of other goods or services, in other words it is the value added." (BFS) Source (9.7.2016):

http://www.bfs.admin.ch/bfs/portal/en/index/themen/04/02/01.html

									/	
Whole sample*	Ν	max	min	mean	p25	p50	p75	sd	skewness	kurtosis
Job found or not (dummy) Job found via network or	5010	1	0	0.552	0	1	1	0.497	-0.211	1.045
other means (dummy)*	1218	1	0	0.417	0	0	1	0.493	0.336	1.113
Age (metric)	5035	65	15	36.147	27	34	45	11.441	0.421	2.241
Nationality (3 categories)	5045	2	0		0	0	1	0.772	0.69	2.001
Education (3 categories)**	4606	3	1		1	2	2	0.726	0.058	1.899
(dummy)	5045	1	0	0.468	0	0	1	0.499	0.128	1.016
BN2000 (9 categories)**	4630	9	1		4	6	7	2.057	-0.399	2.253
Unemployment rates per		0.06	0.02		0.03	0.04	0.05			
district	4621	1	9	0.047	8	6	6	0.011	-0.111	1.695
*only in alla?										

Table A3.2 Overview of variables in whole sample (PLASTA and LAMDA)

*only in q2/q3 sample **only in LAMDA

Table A3.3 Overview of variables in Q1 sample

Q1 sample all										
variable	Ν	max	min	mean	p25	p50	p75	sd	skewness	kurtosis
Job found or not										
(dummy)	4584	1	0	0.56	0	1	1	0.496	-0.241	1.058
				36.12				11.44		
Age (metric)	4612	64	15	5	27	34	45	7	0.416	2.233
Nationality (3										
categories)	4612	2	0	-	0	0	1	0.766	0.733	2.069
Education (3 categories)	4606	3	1	-	1	2	2	0.726	0.058	1.899
Previous unemployment										
(dummy)	4612	1	0	0.467	0	0	1	0.499	0.13	1.017
BN2000 (9 categories)	4612	9	1	-	4	6	7	2.05	-0.404	2.252
Unemployment rates per										
district	4612	0.061	0.029	0.047	0.038	0.046	0.056	0.011	-0.11	1.696
Min. Number of friends	4432	44	0	16	7	14	23	11	0.617	2.708
Proportion of friends in										
permanent employment	4401	16	0	9	6	9	12	4.513	352	2.212
NO Friends among										
former co-workers	4260	1	0	0.138	0	0	0	0.345	2.099	5.405
Number of friends										
among former co-		_								
workers	4260	5	0	-	1	2	3	1.583	0.433	2.135
Proportion of network										
in higher hierarchical	41.55	2	0		0			0 7 (2	0.450	0 701
position	4155	3	0	-	0	1	1	0.763	0.453	2.781

Q1 acceptance sample										
variable	Ν	max	min	mean	p25	p50	p75	sd	skewness	kurtosis
Job found or not										
(Dummy)	3528	1	0	0.58	0	1	1	0.494	-0.325	1.106
Age (metric)	3546	64	15	36.049	27	34	45	11.464	0.413	2.238
Nationality (3										
categories)	3546	2	0	-	0	0	1	0.77	0.716	2.035
Education (3 categories)	3540	3	1	-	1	2	2	0.722	0.094	1.923
Previous unemployment										
(Dummy)	3546	1	0	0.457	0	0	1	0.498	0.173	1.03
BN2000 (9 categories)	3546	9	1		4	6	7	2.061	-0.387	2.22
Unemployment rates per										
district	3546	0.061	0.029	0.047	0.038	0.046	0.056	0.011	-0.1	1.72
Min. Number of friends	3412	44	0	16	7	14	24	11	.591	2.641
Proportion of friends in			â	0	,	0	10	4 400	2.50	
permanent employment	4401	16	0	9	6	9	12	4.499	359	2.224
NO Friends among										
(dummer co-workers	2270	1	0	122	0	0	0	220	2 1 6 0	5 704
(duminy) Number of friends	5270	1	0	.152	0	0	0	.339	2.109	3.704
among former co										
workers	3270	5	0		1	2	3	1 574	0.432	2 143
workers	5270	5	0			2	5	1.571	0.152	2.115
Proportion of network in										
higher hierarchical										
positions	3174	3	0	-	0	1	1	0.755	0.484	2.887

Table A3.4 Overview of variables in Q1 acceptance sample

Table A3.5 Overview of variables Q2/Q3 sample

	N	<u> </u>	unipie			- 50		- 4	-1	1
Q2/Q3 sample	IN	max	min	mean	p25	p50	p/5	sa	skewness	kurtosis
Job found or not (Dummy)	1855	1	0	0.654	0	1	1	0.476	-0.65	1.422
Age (metric)	1856	64	15	37.832	28	37	47	11.59	0.274	2.135
Nationality (3 categories)	1856	2	0	0.549	0	0	1	0.733	0.933	2.45
Education (3 categories)	1854	3	1	2.037	2	2	3	0.726	-0.056	1.901
Previous unemployment										
(dummy)	1856	1	0	0.41	0	0	1	0.492	0.366	1.134
BN2000 (9 categories)	1856	9	1	5.73	5	6	7	2.028	-0.531	2.355
Unemployment rates per										
district	1856	0.061	0.029	0.046	0.038	0.046	0.056	0.011	0.005	1.696
Min. Number of friends	1801	44	0	16	8	14	23	10.645	.615	2.712
Proportion of friends in										
permanent employment	1793	16	0	9	6	10	12	4.455	455	2.359
NO friends among former co-										
workers (dummy)	1744	1	0	.123	0	0	0	.328	2.299	6.289
Number of friends among										
former co-workers	1744	5	0	-	1	2	3	1.564	0.371	2.122
Proportion of network in higher	1/0/	2	0		0	1	1	0.752	0.427	2 004
Interarchical positions	1696	3	0	-	0	1	1	0.752	0.427	2.904
Having offen taked to former										
(dummer)	1590	1	0		0	0	1	0.444	1.026	2.074
(dummy) Having often received ich	1389	1	0	-	0	0	1	0.444	1.030	2.074
information from formar ao										
workers (dummy)	1572	1	0	0.074	0	0	0	0.262	3 242	11 516
Having often received job	1372	1	0	0.074	0	0	0	0.202	3.242	11.510
information from other										
occupational contacts (dummy)	1544	1	0	0.047	0	0	0	0.210	4 300	19 493
occupational contacts (duminy)	1,544	1	v	0.077	0	v	0	0.210	4.500	17.775

	C1	C2		C3	C4	C5	C6	C7
	Sample1-Sample2: Attendance of mandatory information session SICORP	Samula 2. Samula 3.	Responding to Q1	Sample3-Sample4: Not refusing combination of survey and registry data	Sample4 - Sample7: Responded to Q2 or Q3	Sample4- Sample8: Responded O2	Sample4 - Sample9: Responded Q3	Sample6 - Sample8: Among those who left unemployment services answered Q2
Nationality								
Swiss	0.016***	0.042***	:		0.113***	0.116***		0.123***
	(0.005)	(0.008)			(-0.017)	(0.016)		(0.019)
EU-15	-0.01	-0.018**		0.004	-0.084***	-0.083***	-0.001	-0.058***
	(0.006)	(0.009)		(-0.014)	(-0.019)	(0.019)	(-0.013)	(0.021)
Other	-0.014**	-0.045***	*	0.024	-0.157***	-0.166***	0.009	-0.135***
	(0.007)	(0.01)		(-0.017)	(-0.023)	(0.022)	-0.015	(0.025)
Age								
<30	0.001					-0.033*	-0.117***	-0.143***
	(0.006)					(0.017)	(-0.011)	(0.019)
30<50	-0.002	-0.002		-0.021	0.132***	0.046***	0.023**	0.097***
	(0.005)	(0.009)		(-0.014)	(-0.018)	(0.016)	(0.011)	(0.019)
>50	0.016**	0.003		-0.024	0.21***	-0.03	0.163***	0.094***
	(0.008)	(0.012)		(0.019)	(-0.025)	(0.023)	(0.015)	(0.029)
Gender (Male)				-0.009	0.107***	0.073***	0.034***	0.114***
				-0.012	(-0.017)	(0.016)	(-0.011)	(0.019)
Education								
Compulsory or				0.039***	0.21***	-0.133***	0.012	-0.15***
less				(-0.014)	(-0.025)	(0.018)	(0.012)	(0.021)
Upper-				0.011	0.083***	0.019	-0.025**	0.009
secondary				(-0.012)	-0.02	(0.016)	(0.011)	(0.019)
Tertiary				-0.059	0.201***	0.129***	0.022*	0.159***
				(-0.014)	(-0.023)	(0.019)	(0.013)	(0.022)
Ν	5031	4825		4601	3,538	3,538	3532	2773

Table A3.6 Factors for attending mandatory information session (C1), responding to our first questionnaire (C2), combination of survey and registry data (C3), responding to our second or third questionnaire (C4), responding to our second questionnaire (C5), responding to our third questionnaire (C6), responding to our second questionnaire among those who left employment services (C7)

· ·	Q1 sample		acceptance	e sample	Q2/Q3 sample	
Proportion of network members in higher hierarchical positions	Freq.	Percent	Freq.	Percent	Freq.	Percent
nobody or nearly nobody	1,210	29.12	927	29.21	431	25.38
a minority	2,064	49.68	1,609	50.69	891	52.47
a majority	769	18.51	552	17.39	325	19.14
everybody or nearly everybody	112	2.7	86	2.71	51	3

Table A3.7 Proportion of network members in higher hierarchical positions in different samples¹

¹ The proportion of people having nobody or nearly nobody in their network who has a higher hierarchical position is around 29 percent in the Q1 and the acceptance sample, but only 25 percent in the q2/q3 sample (Table A4.12). Having a minority of network members in higher hierarchical position was indicated by 50 to 52 percent (depending on sample). Around 19 percent (Q1 and Q2/Q3 sample), 17 percent (acceptance sample) respectively claimed to have a minority of their network members in higher position. This gives for the Q1 and acceptance sample a similar proportion of people with some of their network members in higher hierarchical position (around 68 percent), whereas those of the q2/q3 sample have more than 71 percent. For all samples it is only about 3 percent indicated having all or nearly all of their network members in higher hierarchical positions of having network members in higher hierarchical position for those who answered q2/q3 and those who did not differ significantly from one another.

	All	Job found	ob found or not? Via network?		?	Via		
	mean	no	yes	no	yes	Non-network means (1)	Work Tie (2)	Communal tie (3)
Frequency	1,836	618	1,218	705	507	705	364	140
Percent	100	34	66	58	42	58	30	12
		618	1,218	705	507	705	364	140
The role of socio-demograph	ic and other j	personal chara	acteristic					
Age (continuous)	37.8	40.6	36.4	36.2	36.5	36.2	36.7	35.9
SD	11.6	12.4	10.9	10.9	10.9	10.9	10.7	11.5
N	1856	641	1214	701	504			
р		0.000		0.666		(1 vs. 2) 0.4686	(2vs.3) 0.4423	(1vs.3) 0.7467
1st Quartile	28							
Median	37							
3rd Quartile	47							
Age groups (categorical) in %								
15 < 25	13	28	72	63	37	63	25	13
25 <35	31	27	73	56	44	56	33	11
35<45	26	34	66	58	42	58	29	13
45 < 55	20	40	60	61	39	61	33	6
55+	10	55	45	54	46	54	28	19
Ν	1856	641	1214	701	504	701	364	140
p(chi2)		0.000		0.438		0.051		
Sex								
Men (%)	47	35	65	56	44	56	32	12
Women (%)	53	34	66	60	40	60	29	11
N	1856	641	1214	701	504	701	364	140
p(chi2)			0.563		0.171	0.383		

Table A4.1 Finding employment, via first job information from a network member, a work tie or a communal tie or via non-network means (Q2/Q3)

		Job found or not? %		Via networ	rk? %	V1a (1n %)			
	All %	no	yes	no	yes	Non-network means	Work Tie	Communal tie	
Nationality									
Swiss	60	31	69	62	38	62	28	11	
EU-15	26	35	65	53	47	53	34	14	
Other	14	50	50	51	49	51	36	13	
Ν	1856	641	1214	701	504	701	364	140	
p(chi2)		0.000		0.005		0.031			
Swiss	60	31	69	62	38	62	28	11	
Portugal	10	32	68	52	48	52	34	14	
France	7	32	68	55	45	55	31	14	
Italy, Spain	6	38	62	54	46	54	30	16	
North-/Western Europe and					- 0				
North America	3	45	55	42	58	42	54	4	
Other	14	51	49	52	48	52	35	13	
Ν	1856	641	1214	701	504	701	364	140	
p(chi2)		0.000		0.005		0.031			
Education									
basic	25	43	57	49	51	49	33	18	
secondary	47	33	67	60	40	60	29	12	
tertiary	28	30	70	62	38	62	31	7	
N	1854	640	1213	700	504	700	364	140	
p(chi2)	1001	0.000	1210	0.002	201	0.000	501	110	
Social class		0.000		0.002		0.000			
Low-skilled workers	21	41	59	52	48	52	30	18	
Skilled workers	40	32	68	58	42	58	29	13	
Lower-middle class	19	35	65	58	42	58	34	7	
Higher-middle class	20	31	67	64	36	64	29	7	
N	1854	641	1213	701	504	700	364	140	
n(chi2)	100 .	0.007		0.097	20.	0.002	50.		

Table A4.1 Finding employment, via first job information form a network member, a work tie or a communal tie or via non-network means (Q2/Q3)

		Job found or	not? %	Via netv	vork? %	Via (in %)		
	All %	no	yes	no	yes	Non-network means	Work Tie	Communal tie
Employment history								
Previous unemployment								
No	59	33	67	58	42	58	33	9
Yes	41	36	64	59	41	59	26	15
N	1856	641	1214	701	504	701	364	140
p(chi2)		0.184		0.849		0.002		
Occupational group								
Agriculture, forestry, animal								
production	1	20	80	50	50	50	35	15
Production	10	38	62	54	46	54	31	15
Technicians, computer								
scientists	7	29	71	66	34	66	30	4
Construction	6	29	71	47	53	47	37	16
Sales and transport	17	38	62	54	46	54	29	17
Catering, tourism and								
personal services	14	38	62	53	47	53	31	16
Management, administration,								
banking, insurance, or legal								
services	26	35	65	65	35	65	26	9
Health, teaching, culture,								
research	14	32	68	56	44	56	36	7
Unidentified occupations	5	33	67	67	33	67	23	11
Ν	1856	641	1214	701	504	701	364	140
P(chi2)			0.243		0.014			0.005

Table A4.1 Finding employment, via first job information form a network member, a work tie or a communal tie or via non-network means (Q2/Q3)

	All	Job foun	d or not?	Via net	work ?	Via		
(00 (00)						Non-network	C C	Communal
Network characteristics (Q2/Q3)	mean	no	yes	no	yes	means (1)	Work Tie(2)	tie (3)
Number of friends (mean)	16.3	13.6	17.1	16.6	17.8	16.6	18.2	16.7
SD / SE	(10.6)	(10.2)	(10.8)	(10.3)	(11.5)	(0.4)	(0.6)	(1.0)
Ν	1803	621	1181	682	490	680	354	136
р		P=0.000		P=0.05	84	P (1 vs. 2)= 0.02 P(2 vs. 3) = 0.20
1st Quartil	8							
Median	14							
3rd Quartil	23							
Indicator share among them in permanent employment (mean)	9.5	8.7	9.9	9.8	9.9	9.5	9.7	8.6
SD or SE	(3.2)	(3.5)	(3.0)	(3.9)	(3.2)	(0.2)	(0.2)	(0.4)
Ν	1627	546	1080	629	443	679	349	136
р		P=0.0000		P=0.81	92	P (1 vs. 2) =	0.423 P (2 vs. 3	(3) = 0.017
1st Quartil	7.0							
Median	10.0							
3rd Quartil	12.0							
Network members in higher hierarchical position (in %)								
nobody or nearly nobody	25	33	21	22	21	21	21	20
a minority	52	45	56	55	57	56	59	52
a majority	19	17	20	21	19	21	17	24
everybody or nearly everybody	3	4	2	2.1	2.9	2.1	2.4	4.1
N	1698	577	1118	1111		1109		
p(chi2)		0.000		0.739		0.513		
Having friends among former co-workers?								
Yes	88	83	90	90	92	90	93	87
No	12	17	10	10	8	10	7	13
Ν	1744	1743	-	1138	-	1138		-
p(chi2)		Pr = 0.00	0	Pr = 0.27	0	Pr = 0.05	9	
L / . /								

Table A4.1 Finding employment, via first job information form a network member, a work tie or a communal tie or via non-network means

Table A4.1 Finding employment, via first job information form a network member, a work tie or a communal tie or via non-network means

Job search patterns (Q2/Q3)	All Job found mea no	l or not? yes	Via netv no	Via network? no yes		ork Work Tie (2)	Communal tie (3)	
Average number of applications per week								
Mean	4.7 5.3	4.4	4.7	4.0	4.7	3.8	4.4	
SD	(9.8) (12.8)	(8.0)	(9.4)	(6.0)	(9.4)	(5.6)	(6.6)	
N	1514488	1026	551	468	551		128	
P (Ha: diff != 0)	P=0.084	6	P=0.142	21	P (1 vs. 2)	=0.1102 P(2 vs. 3)=0.3264	
1st Quartile	1.4 1.4	1.4	1.5	1.2	1.5	1.2	1.5	
Median	2.4 2.3	2.5	2.6	2.5	2.6	2.4	2.6	
3rd Quartile	4.2 3.9	4.5	4.5	4.5	4.5	4.4	4.6	
Average number of interviews per week								
Mean	0.38 0.30	0.41	0.43	0.40	0.43	0.38	0.44	
SD	(1.1)(1.27)	(0.97)	(0.97)	(0.10)	(0.97)	(0.92)	(1.08)	
N	1553499	1054	561	486	561	354	132	
P (Ha: diff != 0)	P=0.052	5	P=0.6223		P (1 vs. 2)=0.4388 P(2 vs. 3))=0.5428	
1st Quartile	0.05 0.01	0.08	0.10	0.08	0.10	0.08	0.05	
Median	0.14 0.07	0.19	0.21	0.16	0.21	0.16	0.15	
3rd Quartile	0.32 0.18	0.38	0.41	0.35	0.41	0.35	0.36	
Ratio number of applications / number of interviews								
Mean SD	26.8 39.24 (40. (48.73)	22 (35.1)	22.1 (32.3)	22.0 (38.4)	22.1 (32.3)	18.42 (25.33)	31.42 (60.14)	
N	1321364	957	527	423	527	308	115	
P (Ha: diff != 0)	P=0.000	0	P=0.938	86	P (1 vs. 2)	=0.0868 P(2 vs. 3)=0.0019	
1st Quartile	6.3 10	5	6	5	6	5	5	
Median	14 20	12	12.5	12	12.5	11	13	
3rd Quartile	30 50	25	25	25	25	20	33	

	All (%)	Job found or not? Via network?		Via.	Via		Job fou	nd or not? Via network?
Having often talked to former co-workers?								
yes	73	79	70	74	65	74	60	79
no	27	21	30	26	35	26	40	21
Ν	1589	1589		1048		1,048		
		Pr=0.000		Pr=0.0	Pr=0.001 Pr=0.0		00	
Having often talked to other occupational contacts?								
yes	79	81	79	81	76	81	73	83
no	21	19	21	19	24	19	27	17
N	1568	1568		1034		1034		
p(chi2)		0.04		0.04		0.005		
Having often received job information from for	ormer co-work	ers?						
yes	93	96	91	93	89	93	86	97
no	7	4	9	7	11	7	14	3
Ν	1572	1572		1040		1040		
p(chi2)		0		0.02		0		
Having often received job information from o	ther occupation	nal contacts?						
yes	95	97	94	96	93	96	92	95
no	5	3	6	4	7	4	8	5
Ν	1544	1544		1022		1022		
p(chi2)		0.02		0.011		0.011		

Table A4.2: Average marginal effects for finding a job

	M1(age)	M1(sex)	M1(nat3)	M1(nat6)	M1(edu)	M2 (nat3)	M2 (nat6)
Age (Ref: 25 to 34)							
<25	-0.038					-0.045*	-0.041
	(0.025)					(0.026)	(0.026)
35 to 44	-0.044*					-0.040*	-0.034
	(0.022)					(0.023)	(0.023)
45 to 54	-0.090***					-0.109***	-0.105***
	(0.025)					(0.025)	(0.025)
55+	-0.260***					-0.290***	-0.284***
	(0.035)					(0.036)	(0.036)
Women (Ref: Men)		0.011				-0.002	-0.003
		(0.017)				(0.017)	(0.017)
Nationality 3 Categories (Ref: Swiss)							
EU-15			-0.026			-0.018	
			(0.020)			(0.021)	
Other			-0.212***			-0.215***	
			(0.023)			(0.024)	
Nationality 6 Categories							
(Ref: Swiss)							
Portugal				-0.000			0.038
				(0.027)			(0.030)
France				0.008			-0.020
				(0.033)			(0.034)
Italy, Spain				-0.073**			-0.049
				(0.035)			(0.036)
Northern EU, Northern				-0.115**			-0.148***
America				(0.050)			(0.052)
0.1				(0.052)			(0.053)
Other				-			-0.213***
				0.215***			(0.025)
Education (Bafehasia)				(0.023)			(0.025)
Education (Ref. basic)					0 107***	0.060***	0.091***
upper secondary					(0.010)	(0.009^{-1})	(0.031)
tertiary					0.160***	0.112***	0.135***
tertiary					(0.023)	(0.025)	(0.027)
Observations	3 522	3 522	3 522	3 522	3 522	3 522	3 522
Pseudo R2	0.0133	0.0001	0.0190	0.0209	0.0110	0.0414	0.0441
1 50000 112	0.0100	0.0001	0.0170	0.0207	0.0110	0.0111	0.0111

	M1 (previous	M1 (occupational	M3(nat3)	M3(nat6)
A_{re} (Paf: 25 to 34)	unemployment)	Group)		
<25			-0 044	-0.040
			(0.027)	(0.027)
35 to 44			-0.042*	-0.037
			(0.023)	(0.023)
45 to 54			-0.113***	-0.109***
551			(0.025)	(0.026)
55+			-0.301^{+++}	-0.296^{+++}
Waman (Baf: Man)			(0.030)	(0.030)
women (Kei. Men)			(0.021)	(0.018)
Nationality 3 Categories (Ref: Swiss)			(0.017)	(0.01))
EU-15			-0.024	
			(0.021)	
Other			-0.213***	
			(0.025)	
Nationality 6 Categories (Ref: Swiss)				0.029
Pollugal				(0.028)
France				-0.020
				(0.034)
Italy, Spain				-0.049
				(0.036)
Northern EU, Northern America				-0.155***
04				(0.054)
Other				-0.209^{+++}
Education (Ref. basic)				(0.023)
upper secondary			0.072***	0.082***
11 2			(0.022)	(0.022)
tertiary			0.115***	0.132***
			(0.028)	(0.029)
previous unemployment? (Ref: No)	-0.063***		-0.063***	-0.063***
Occupational Group (Raf: Management	(0.017)		(0.018)	(0.018)
administration banking insurance or legal services)				
administration, banking, insurance, or regar services)				
Agriculture, forestry, animal production		0.062	0.113	0.099
		(0.072)	(0.075)	(0.075)
Production		-0.080***	-0.003	-0.009
		(0.030)	(0.032)	(0.033)
l echnicians, computer scientists		(0.021)	(0.037)	(0.033)
Construction		0.001	(0.040)	(0.040) 0.087**
Constituction		(0.035)	(0.039)	(0.040)
Sales and transport		-0.059**	-0.027	-0.030
-		(0.027)	(0.028)	(0.028)
Catering and personal services		-0.101***	-0.029	-0.037
		(0.027)	(0.030)	(0.030)
Health, teaching, culture, research		-0.00/	-0.012	-0.017
Unidentified occupations		(0.031) -0.107**	(0.032) _0.112**	(0.032) -0.115***
omachanica occupations		(0.042)	(0.044)	(0.045)
Constant	0.107***	0.119***	0.149***	0.142***
	(0.011)	(0.018)	(0.035)	(0.035)
Observations	3.522	3.522	3.522	3.522
Pseudo R2	0.0029	0.0063	0.0487	0.0510

Table A4.2 (continued): Average marginal effects for *finding a job*

	M1	M1	M1	M1	M1	M2(nat3)	M2(nat6)
Age (Ref: 25 to 34)							
<25	-0.070					-0.075	-0.078*
	(0.045)					(0.047)	(0.047)
35 to 44	-0.027					-0.045	-0.049
	(0.037)					(0.038)	(0.038)
45 to 54	-0.049					-0.057	-0.065
	(0.041)					(0.042)	(0.042)
55+	0.018					0.014	0.010
	(0.060)					(0.061)	(0.061)
Women (Ref: men)	· · · ·	-0.038				-0.035	-0.035
		(0.028)				(0.029)	(0.029)
Nationality 3 categories		. ,				. ,	. ,
(Ref: Swiss)							
EU15			0.089***				
			(0.033)				
Other			0.104**				
			(0.046)				
Nationality 6 categories (R	Ref: Swiss)						
Portugal				0 093**			0.018
l'oltugui				(0.099)			(0.053)
France				0.068			0.057
Truitee				(0.054)			(0.055)
Italy and Spain				0.080			0.054
Tury und Spuin				(0.061)			(0.063)
N-EU US CA				0 191*			0 226**
11 20, 05, 011				(0.098)			(0.101)
Other				0.100**			0.059
				(0.046)			(0.049)
Education (Ref: basic)				()			
upper secondary					-0.111***	-0.084**	-0.097**
11 2					(0.037)	(0.039)	(0.041)
tertiary					-0.133***	-0.120***	-0.145***
2					(0.040)	(0.043)	(0.047)
Constant	-0.055**	-0.060***	-0.115***	-0.115***	. /	0.024	0.043
	(0.024)	(0.020)	(0.017)	(0.017)		(0.048)	(0.050)
Observations	1,204	1204	1204	1,204	1204	1,204	1,204
Pseudo R2	0.0023	0.0011	0.0063	0.0071	0.0077		0.0161

Table A4.3 Average marginal effects for finding employment thanks to first job information from a network member

Notes:

	M1	M1	M3(nat3)	M3 (nat6)
Age (Ref: 25 to 34)				
<25			-0.072	-0.076
			(0.047)	(0.048)
35 to 44			-0.041	-0.045
55 10 11			(0.038)	(0.038)
15 to 51			(0.038)	(0.038)
43 10 34			-0.031	-0.039
			(0.042)	(0.043)
55+			-0.001	-0.007
			(0.062)	(0.062)
Women (Ref: men)			-0.035	-0.034
			(0.032)	(0.032)
Nationality 3 categories (Ref: Swiss)				
EU15			0.049	
			(0.036)	
Other			0.061	
			(0.050)	
Nationality 6 categories (Ref: Swiss)			· · · ·	
Portugal				-0.006
i ormêni				(0.055)
France				0.058
Tance				(0.058)
Italy and Spain				(0.030)
itary and Spain				0.048
				(0.064)
Northern Europe and Northern America				0.232**
				(0.101)
Other				0.044
				(0.051)
Education (Ref: basic)				
upper secondary			-0.068*	-0.084**
			(0.040)	(0.042)
tertiary			-0.090*	-0.120**
			(0.046)	(0.049)
previous unemployment (Ref. no)	-0.008		-0.017	-0.016
previous unemproyment (ref. no)	(0.029)		(0.030)	(0.030)
Occupational group (Ref: Management	(0.02))		(0.050)	(0.050)
Administration Insurances Local Services)				
Administration, insurances, Legal Services)		0.155	0.12(0 127
Agriculture, forestry, animal production		0.155	0.126	0.137
		(0.113)	(0.115)	(0.115)
Production		0.115**	0.074	0.077
		(0.055)	(0.058)	(0.058)
Technicians, computer scientists		-0.002	-0.033	-0.032
· •		(0.060)	(0.063)	(0.063)
Construction		0.187***	0.106	0.125*
		(0.063)	(0.070)	(0.071)
Sales and transport		0 115**	0.085*	0.088*
		(0.045)	(0.047)	(0.047)
Catering and personal services		0 127***	0.065	0.073
Cutoring and personal services		(0.048)	(0.052)	(0.053)
Health teaching culture research		0.002**	(0.032)	0.088*
fleatin, teaching, culture, research		$(0.093)^{-1}$	(0.044)	(0.048)
		(0.047)	(0.048)	(0.048)
Unidentified occupations		-0.014	-0.031	-0.030
	· · · · · ·	(0.074)	(0.076)	(0.077)
Constant	-0.077***	-0.155***	-0.032	-0.013
	(0.018)	(0.028)	(0.061)	(0.062)
Observations	1204	1204	1,204	1,204
Pseudo R2	0.0000	0.0119	0.0200	0.0228

Table A4.3 (continued) Average marginal effects finding employment thanks to first job information from a network member

M1 (nationality 3 categories) M1 (nationality 6 categories) M1 (age 5 categories) M1 (sex) M1 (education 3 categories) other other work comm. work work comm. other other work other comm. comm. comm wor Age (15-24) <25 0.03 (0.47) 0.07 -0.08** (0.04) (0.04) 35 to 44 0.03 -0.04 0.03 (0.04) (0.04) (0.68) 45 to 54 0.05 0.00 0.02** (-2.29) 0.05 (0.04) (0.04) 55+ -0.02 -0.05 (0.06) (0.06) (1.57) Women 0.03 -0.02 -0.01 (0.03) (0.03) (0.02) -0.09*** (0.03) -0.11** EU15 (CH) 0.06* 0.031 (0.03) 0.08* (0.022) 0.022 Other (CH) (0.05) (0.05) (0.031) Portugal(CH -0.09** 0.06 0.03 (0.05) -0.07 (0.06) -0.08 (0.03) 0.03 (0.05)France 0.03 (0.05) 0.03 (0.04) Italy, Spain 0.05 (0.06) (0.06) (0.05) N-EU, CA, -0.07* (0.04) 0.03 -0.19** 0.26*** US (0.10) 0.08* (0.10) -0.10** Other (0.05) (0.05) (0.03) Education (basic) upper 0.11*** -0.05 -0.07** secondary (0.03) -0.11*** (0.04) (0.04) tertiary 0.14*** -0.02 (0.04) (0.04) (0.03) 1204 0.010 1204 1204 1204 0.0072 0.001 0.005

Table A4.4: Average marginal effects for finding employment via first job information from a work tie, a communal tie, or non-network means,

	M2 with na	tionality in 3	categories	M2 nationality with nationality in 6				
	Non-	Work	Communal	categories Non-	work	communa		
	network		Communia	network	wonn	•••••••••••••••••••••••••••••••••••••••		
Age (15-24)								
<25	0.075*	-0.071*	-0.005	0.078*	-0.073*	-0.006		
	(0.045)	(0.042)	(0.030)	(0.045)	(0.042)	(0.030)		
35 to 44	0.045	-0.049	0.004	0.048	-0.051	0.002		
	(0.037)	(0.034)	(0.025)	(0.037)	(0.035)	(0.025)		
45 to 54	0.056	0.006	-0.062***	0.064	-0.002	-0.062		
	(0.041)	(0.039)	(0.023)	(0.041)	(0.040)	(0.024)		
55+	-0.011	-0.042	0.053	-0.006	-0.043	0.049		
	(0.061)	(0.057)	(0.046)	(0.062)	(0.057)	(0.045)		
Women (Men)	0.034	-0.021	-0.012	0.035	-0.023	-0.012		
	(0.028)	(0.027)	(0.018)	(0.028)	(0.027)	(0.018)		
Nationality (CH)		× /		. ,	`	. ,		
EU15	-0.056	0.048	0.007					
	(0.035)	(0.033)	(0.023)					
Other	-0.070	0.073	-0.003					
	(0.049)	(0.047)	(0.030)					
Nationality (CH)	× ,	· /						
Portugal				-0.021	0.038	-0.017		
				(0.052)	(0.049)	(0.029)		
France				-0.057	0.024	0.033		
				(0.055)	(0.051)	(0.040)		
Italy, Spain				-0.052	0.021	0.031		
				(0.063)	(0.059)	(0.043)		
N-EU, CA, US				-0.205**	0.253**	-0.048		
, ,				(0.099)	(0.102)	(0.065)		
Other				-0.058	0.063	-0.005		
				(0.050)	(0.047)	(0.030)		
Education (basic)								
upper secondary	0.079**	-0.029	-0.051**	0.091**	-0.033	-0.058		
*	(0.038)	(0.036)	(0.023)	(0.040)	(0.037)	(0.023)		
tertiary	0.120***	-0.013	-0.107***	0.142***	-0.029	-0.114		
	(0.042)	(0.039)	(0.028)	(0.045)	(0.042)	(0.030)		
Observations	1204			1204				
Pseudo R2	0.0200			0.0228				

Table A4.4 (continued) Average marginal effects for finding employment via first job information from a work tie, a communal tie, or non-network means, Models M2

	M3 national	lity in 3 categor	ries	M3 national	ity in 6 cateorie	es
	Non-	1		Non-		
(05 - 04)	network	work	communal	network	work	communal
Age (25 to 34)	0.070	0.044	0.007	0.077*	0.070	0.000
<25	0.073	-0.066	-0.007	0.0//*	-0.068	-0.009
	(0.045)	(0.042)	(0.029)	(0.045)	(0.042)	(0.030)
35 to 44	0.039	-0.045	0.006	0.043	-0.047	0.004
	(0.037)	(0.034)	(0.025)	(0.037)	(0.035)	(0.025)
45 to 54	0.050	0.011	-0.061**	0.058	0.003	-0.061**
	(0.041)	(0.040)	(0.023)	(0.042)	(0.040)	(0.024)
55+	0.004	-0.048	0.044	0.011	-0.049	0.038
	(0.061)	(0.056)	(0.044)	(0.061)	(0.056)	(0.043)
Women (Men)	0.033	-0.023	-0.011	0.032	-0.024	-0.008
	(0.031)	(0.029)	(0.020)	(0.031)	(0.029)	(0.020)
Nationality (CH)						
EU15	-0.048	0.043	0.005			
	(0.036)	(0.034)	(0.023)			
Other	-0.059	0.072 ⁽	-0.014			
-	(0.050)	(0.047)	(0.029)			
Portugal	()	(,	()	0.002	0.021	-0.024
				(0.053)	(0, 050)	(0.029)
France				(0.055)	0.025	(0.02))
Tanee				(0.055)	(0.025)	(0.031)
Italy Spain				(0.033)	(0.031)	(0.040)
laly, Spall				-0.049	(0.014)	(0.033)
NELL CALLO				(0.003)	(0.038)	(0.044)
N-EU, CA, US				-0.208**	0.259**	-0.051
0.1				(0.097)	(0.102)	(0.065)
Other				-0.043	0.060	-0.017
				(0.050)	(0.048)	(0.029)
Education (basic)						
upper secondary	0.064	-0.016	-0.047**	0.078*	-0.022	-0.056**
	(0.039)	(0.037)	(0.023)	(0.041)	(0.038)	(0.024)
ertiary	0.089**	-0.012	-0.077**	0 115**	-0.031	-0.084***
lor that y	(0.00)	(0.042)	(0.030)	(0.048)	(0.044)	(0.031)
revious	(0.045)	(0.042)	(0.050)	(0.040)	(0.044)	(0.051)
inemployment (no)	0.017	0.064**	0.047**	0.016	0.064**	0.048**
inemployment (110)	(0.017)	(0.027)	$(0.04)^{10}$	(0.010)	(0.027)	$(0.048)^{\circ}$
Desumational Crown ((0.029)	(0.027)	(0.019)	(0.029)	(0.027)	(0.019)
Jecupational Group (()	0.070	0.046	0.126	0.092	0.054
I	-0.125	0.079	0.046	-0.136	0.082	0.054
-	(0.112)	(0.103)	(0.066)	(0.111)	(0.102)	(0.066)
2	-0.071	0.037	0.034	-0.073	0.039	0.035
	(0.056)	(0.053)	(0.035)	(0.056)	(0.053)	(0.035)
3	0.050	0.031	-0.081	0.049	0.031	-0.080
	(0.064)	(0.057)	(0.056)	(0.064)	(0.057)	(0.056)
4	-0.105	0.085	0.020	-0.122*	0.093	0.029
	(0.068)	(0.063)	(0.042)	(0.069)	(0.064)	(0.042)
5	-0.080*	0.032	0.048*	-0.082*	0.031	0.050*
	(0.045)	(0.043)	(0.029)	(0.045)	(0.043)	(0.029)
5	-0.063	0.024	0.039	-0.070	0.029	0.040
	(0.051)	(0.048)	(0.032)	(0.051)	(0.048)	(0.032)
2	-0.074	0 100**	-0.027	-0.078*	0 103**	-0.025
	(0.047)	(0.0/3)	(0.027)	(0.047)	(0.043)	(0.025)
)	(0.0+7)	0.043)	0.033)	(0.0+7)	(0.043)	0.033
7	(0.030)	-0.048	(0.018)	0.029	-0.04/	0.018
T	(0.074)	(0.0/2)	(0.049)	(0.074)	(0.0/2)	(0.049)
N D ²	1204			1204		
R*	0.0328			0.0362		

Table A4.4 (continued) Average marginal effects for finding employment via first job information from a work tie, a communal tie, or non-network means, Models M3

Notes: To save space occupational group are indicated by numbers within the table: 1 Agriculture, forestry, animal production, 2 Production, 3 Technicians, computer scientists, 4 Construction, 5 Sales and transport, 6 Catering and personal services, 7 Reference Group Management, Administration, Insurances, Legal Services, 8 Health, teaching, culture, research, 9 Unidentified occupations

Table A6.1 The role of personal characteristics for finding a job (M1), for finding it via network (M2), for finding it via work tie (M3) or via communal tie (M4) over time in unemployment, Results are based on Cox regression models (Hazard ratios HR) and Competing risk regression models (Sub-hazard ratios SHR)

	Job found		Network	/	Work tie		Communal tie	
Age	1.092	***	1.115	***	1.016	*	1.006	-
	(0.005)		(0.008)		(0.008)		(0.014)	
Age X Duration	0.996	***	0.995	***	0.999		0.999 **	
-	(0.000)		(0.005)		(0.000)		(0.000)	
Nationality (Ref: Swiss)								
EU-15	2.039	***	2.323	***	1.761	**	0.763	
	(0.287)		(0.469)		(0.436)		(0.308)	
Other	1.404		2.067	***	2.390	**	0.138 *	
	(0.318)		(0.664)		(0.871)		(0.160)	
EU-15 X duration	0.97	***	0.967	***	0.987	*	1.009	
	(0.004)		(0.006)		(0.007)		(0.009)	
Other X duration	0.98	***	0.972	***	0.976	**	1.029	
	(0.006)		(0.009)		(0.010)		(0.021)	
Previous unemployment	1.93	***	1.698	***	0.769		1.180	
	(0.237)		(0.307)		(0.170)		(0.411)	
Previous unemployment X duration	0.973	***	0.972	***	1.001		1.002	
	(0.003)		(0.005)		(0.006)		(0.009)	
Education (ref: upper secondary)								
basic	1.307		1.712	**	2.023	**	1.621	
	(0.227)		(0.403)		(0.620)		(0.718)	
tertiary	2.159	***	2.051	***	1.045		0.996	
	(0.305)		(0.439)		(0.243)		(0.450)	
basic X duration	0.988	**	0.987	***	0.980	**	0.999	
	(0.005)		(0.007)		(0.009)		(0.010)	
tertiary X duration	0.978	***	0.978	***	1.001		0.990	
	(0.004)		(0.006)		(0.006)		(0.011)	
Female (Male)	2.102	***	1.871	***	1.009		0.530 *	
	(-0.268)		(-0.347)		(0.211)		(0.186)	
Gender X Duration	0.974	***	0.973	***	1.000		1.015	
	(-0.003)		(0.0059)		(0.005)		(0.008)	
N (observations)	1374		1374		1374		1374	
N(failures)	921		416		307		109	
N(competing)					608		806	
N(censored)					459		459	

Notes: All models control for occupational group, number of friends, share of friends in permanent employment, having (no) friends among former co-workers, share of network members in higher hierarchical position, having

(not) often talked to former co-workers about job search, having (not) often received job information from former co-workers or other occupational acquaintances.

Table A6.2 Hazard for finding a job via network over time, stepwise introduction in blocks of network characteristic (M1), of activation and mobilization (M2), of job search intensity (M3)

	MI		M2		M2	
	HR		HR		HR	
Number of friends	1.050	***	1.048	***	1.048	***
	(0.010)		(0.010)		(0.010)	
Number of friends X duration	0.999	***	0.999	***	0.999	***
	(0.000)		(0.000)		(0.000)	
Share of employed friends	1.260	***	1.258	***	1.242	***
	(0.036)		(0.035)		(0.036)	
Share of employed friends X unemployment duration	0.992	***	0.992	***	0.992	***
	(0.001)		(0.001)		(0.001)	
Having NO friends among former co-workers	3.367	***	3.546	***	2.377	*
	(1.489)		(1.588)		(1.096)	
Having NO friends among former co-workers X duration	0.952	***	0.951	***	0.962	***
	(0.013)		(0.013)		(0.013)	
Having NO network members in higher hierarchical positon	2.077	***	2.071	***	1.800	**
	(0.518)		(0.519)		(0.456)	
Having NO network members in higher hierarchical positon X duration	0.971	***	0.972	***	0.975	***
	(0.008)		(0.008)		(0.008)	
Talking often to former co-workers about job search			1.489	***	1.542	***
			(0.179)		(0.186)	
Receiving often job information from other occupational contacts			0.637	ns	0.378	**
			(0.242)		(0.151)	
Receiving often job information from other occupational contacts X duration			1.023	**	1.042	***
			(0.011)		(0.011)	
Average number of applications per week					0.950	***
					(0.012)	
Table A6.2 Hazard for finding a job via network over time, stepwise introduction in blocks of network characteristic (M1), of activation and mobilization (M2), of job search intensity (M3)

	M1	M2	M3	
	HR	HR	HR	
Average number of interviews per week			1.693	***
			(0.140)	
Average number of interviews per week X duration			0.981	**
			(0.007)	
Proportion between number of Applications and number of interviews			1.018	***
			(0.004)	
Proportion between number of Applications and number of interviews X duration			0.999	***
			(0.000)	

Notes: N=1151, All models control for: age, sex, nationality, education, previous unemployment and their interactions with duration, further for previous occupation, number of friends, share among them in permanent employment, having friends among former co-workers, share of higher position contacts, talking often to former co-workers about job search and receiving job information from former co-workers and from other occupational contacts

	M1]	M2	
Number of friends	1.017	***	1.017	**
	(0.006)		(0.007)	
Share of employed friends	1.014		1.006	
	(0.018)		(0.020)	
Having NO friends among former co-workers	0.749		0.636	
	(0.198)		(0.205)	
Having network members in higher hierarchical position?	(Ref; No one or	almost no on	e)	
a minority	1.096		1.077	
	(0.182)		(0.190)	
a majority	0.819		0.797	
	(0.171)		(0.177)	
all or almost all	1.195		1.177	
	(0.461)		(0.479)	
Activating often former co-workers	1.689	***	1.749	***
	(0.236)		(0.256)	
Receiving often job information from former co-workers	1.423	*	1.518	**
	(0.290)		(0.309)	
Receiving often job information from other occupational	1 4 4 1		1 429	
contacts	1.441		1.428	
Average number of applications per week	(0.370)		(0.370)	ماد ماد
Average number of applications per week			0.962	* *
Average number of interviewa per week			(0.015)	
Average number of interviews per week			0.928	
	C'	<i>.</i> .	(0.130)	
Proportion between number of Applications and number of	i interviews X d	uration	0.999	
			(0.003)	
N (observations)	1374		1148	
N (competing)	608		558	
N (failure)	307		267	
N (censored)	459		327	

Table A6.3 Sub-hazard of finding a job via work tie – the role of network characteristics, activation and mobilization, without (M1) and with job search intensity (M2) in the model

Notes : controlled for age, nationality, education, previous unemployment and their interactions with duration, further for sex, previous occupation

Table A6.4 Sub-hazard of finding a job via *communal ties*, full model including interaction with age

	M1	M2	M3	
Age	0.997	0.998	1.037	*
	(0.012)	(0.012)	(0.021)	
Age X Duration	1.000	* 1.000	** 1.000	*
	(0.000)	(0.000)	(0.000)	
Share of employed friends	0.987	0.986	1.163	**
	(0.022)	(0.022)	(0.082)	
Share of employed friends X Age			0.996	**

		(0.002)	
Average Number of Applications per Week	0.980	0.914	**
	(0.019)	(0.040)	
Average Number of Applications per Week X Age		1.002	*
		(0.001)	
Average number of interviews per week	1.197	1.251	**
	(0.153)	(0.134)	
Proportion Number of Applications and Number of Interviews	1.004	1.013	***
	(0.002)	(0.005)	
Proportion Number of Applications and Number of Interviews X Age		1.000	*
		(0.000)	

Notes: N_{observations}=1276, N_{failed}=112, N_{competing}=805, N_{censored}=359, Models control for: sex (no effect), nationality (no effect), education (basic education significantly enhances communal tie use over time), previous unemployment (significantly enhances communal tie use over time in unemployment). We checked for other the influence of other network characteristics and activation and mobilization and did not find any effect of none of them for the use of communal ties. Also occupational group is left out because we found no effect.

Age	1.117	· ***	
	(0.011)		
Age X Duration	0.996	***	
	(0.000)		
Activation of former co-workers	3.840	***	
	(1.660)		
Age X Activation of former co-workers	0.977	/ **	
	(0.011)	1	

Table A6.5 Hazard of job access *via network* and the interaction of age with activation of former co-workers

Notes : N(observations)=1148, N(failures)=361, controlled for : sex, nationality, education, previous unemployment, number of friends share among them in permanent, share of higher position contacts and receiving job information from former co-workers and from other occupational contacts, and the interactions with duration, further for job search intensity and occupational group

Table A6.6 Sub-Hazard for finding a job via work tie and the interaction between nationality and activation of former co-workers

Nationality (Ref: Swiss)		
Portugal	4.745	***
	(2.817)	
France	1.447	
	(0.703)	
Italy, Spain	1.055	
	(0.539)	
Northwester EU, North America	1.689	
	(1.107)	
Other	2.777	**
	(1.335)	
Portugal X duration	0.959	**
	(0.019)	
France X duration	1.000	
	(0.014)	
Italy, Spain X duration	0.998	
	(0.012)	
Northwester EU, North America X duration	0.993	
	(0.015)	
Other X duration	0.961	***
	(0.011)	
Portugal X activation	0.584	
	(0.365)	
France X activation	0.554	
	(0.244)	
Italy, Spain X activation	0.710	
	(0.433)	
Northwester EU, North America X activation	2.496	
	(1.460)	
Other X activation	2.655	**
	(1.136)	

Activating often former co-workers	1.741	***
	(0.306)	
N(observations)	1148	
N(failures)	267	

Notes: controlled for age, sex, education, previous unemployment and their interactions with duration, further for previous occupation, number of friends, share among them in permanent employment, share of higher position contacts, talking often to former co-workers about job search and receiving job information from former co-workers and from other occupational contacts, job search intensity (average number of applications and interviews per week and its proportion)

	Hazard for finding a job via	a network
Woman (Ref: Man)	4.245	***
	(1.862)	
Gender X Duration	0.966	***
	(0.006)	
Share of employed friends	1.281	***
	(0.043)	
Share of employed friends X Duration	0.993	***
	(0.001)	
Share of employed friends X Gender	0.936	**
	(0.030)	

Table A6.9 Cox regression model for finding a job via network, the role of being a men or a women, and its interaction with the share of employed network members

Note: N=1151, N(failures)=361, controlled for: age, nationality, education, previous unemployment, number of friends, share of higher position contacts, talking to former co-workers about job search, and receiving job information from former co-workers and from other occupational contacts, and the interactions with duration, further for job search intensity and occupational group

	M1	M2	M3	M4
Job found via (Ref: work ties)				
non-network means	-0.074	-0.069**	-0.042	0.279**
	(-0.045)	(0.033)	(-0.032)	(0.120)
communal	-0.102	-0.014	-0.057	0.244
	(-0.066)	(-0.077)	(-0.057)	(-0.284)
Age	0.008^{***}	-0.004*	0.004^{**}	0.008^{***}
Non network means Y Age	(0.003)	(0.003)	(0.002)	(0.002)
Non-network means X Age				(0.003)
Communal X Age				-0.009
				(-0.009)
Female (Ref: Male)	-0.201***	-0.114***	-0.006	0
,	(0.048)	(0.033)	(-0.039)	(-0.038)
Nationality (Ref: Swiss)	. ,	. ,		· · · ·
EU-15	0.104**	0.077*	0.039	0.036
	(0.048)	(0.041)	(-0.036)	(-0.041)
Other countries	-0.095	0.052	-0.092	-0.095
	(-0.093)	(-0.068)	(-0.075)	(-0.063)
Education (Ref. upper-secondary)	0.01.7444	0.007	0.10544	0.000
basic	-0.21/***	-0.037	-0.107**	-0.093
	(0.061)	(-0.058)	(0.054)	(-0.061)
tertiary	0.265***	0.143***	0.189***	0.1/6***
	(0.049)	(0.042)	(0.035)	(0.032)
Pre-unemployment wages		0***	0***	0***
		(0.000)	(0.000)	(0.000)
Occupational Group (Ref: Administration, B	anking, Insura	nce, Legal Serv	vices)	
Agriculture, Forestry, Animal	Ċ,		, , , , , , , , , , , , , , , , , , , ,	
Production		-0.263***	-0.148	-0.187
		(0, 102)	(-0.169)	(-0.121)
Droduction		0.116**	0.087	0.083
Floduction		-0.110	-0.087	-0.085
		(0.051)	(-0.058)	(-0.058)
Technicians and computer scientists		-0.013	0.043	0.048
		(-0.055)	(-0.055)	(-0.06)
Construction		-0.227***	-0.04	-0.055
		(0.079)	(-0.076)	(-0.067)
Sales and Transport		-0 14**	-0.048	-0.051
		(0.055)	(-0.05)	(-0.056)
Tourism and Catarina		(0.055)	(-0.03)	0.109***
Tourism and Catering		-0.23+++	-0.223****	-0.198***
		(0.056)	(0.056)	(0.070)
Health, Teaching, Culture, Research		-0.161**	-0.113**	-0.118***
		(0.063)	(0.050)	(0.044)
Undefined occupations		0.065	0.01	0.025
-		(-0.078)	(-0.069)	(-0.069)
		(((
job search (Ref: never)				
rarely		0.069	0.068	0.071
		(-0.053)	(-0.042)	(-0.044)
from times to time		0.002*	(-0.0+2)	(-0.0-++) 0.10 0 **
nom ume to ume		0.085*	0.081**	0.102**
		(0.043)	(0.038)	(0.043)
often		0.071	0.035	0.061
		(-0.049)	(-0.044)	(-0.047)

Table A7.1 MM-estimator based linear regression models for post-unemployment wages

	M1	M2	M3	M4
Receiving often job information from former co-workers			-0.082	-0.088*
			(-0.051	(0.051)
Average weekly working hours			0.023***	0.022***
			(0.003)	(0.002)
Type of contract (Ref: permanent position)				
Fixed-term contract			0.02	0.006
			(-0.033)	(-0.035)
Via temporary-work agency			0.227***	0.127
			(0.079)	(-0.136)
On call			-0.01	-0.035
			(-0.125)	(-0.135)
Other			-1.184***	-1.192***
			(0.442)	(0.230)
Current social position as compared with previous job's social position (Ref: higher)				
Similar			-0.058*	-0.055*
			(0.034)	(0.032)
Worse			-0.152***	-0.163***
			(0.058)	(0.057)
Never worked before			-0.003	0.01
			(-0.072)	(-0.059)
Constant	8.318***	8.234***	7.114***	6.973***
	(0.102)	(0.089)	(0.152)	(0.120)
N	407	407	407	407

Table A7.1 MM-estimator based linear regression models for post-unemployment wages

Notes: We controlled for failure rate which did not have an impact. Test-wise we checked for the number of different job search strategies used, Using a higher number of different job search channels goes along with lower post-unemployment wages. We run all models restricted to the full sample size. We check for differences in M1 to M3 when not restricting sample size and find only one: in M1 with N=737 we do not find any statistically significant positive effect of EU-15 rather than Swiss nationality, however, we find being in the other nationality group than those two rather than Swiss nationality has a significantly negative effect on post-unemployment wages. MM-Estimator based regression models give no R², running the same models with a regular regression command on the same sample we find M1 (R2=13.37%) M2 (R2=34.69), M3(R2=41.78%), M4 (R2=42.29 %), Test-wise we control for the number of job search channels, which gives interesting results but does not affect the relationship of the other variables with the outcome.

	M1	M2	M3	M4	M5	M6	M7
Job found via	(Ref: work ties))					
non-network	-52.663	2.62	-36.701	-1.017	-14.811	2.378	1,595.081**
means	(-151.702)	(-169.034)	(-176.057)	(-162.795)	(-164.029)	(-172.365)	(631.737)
communal	-404.273	-334.495	-380.98	-397.586	-445.259*	-336.757	855.446
	(-275.777)	(-295.005)	(-299.713)	(-253.099)	(231.534)	(-219.281)	(-692.558)
		`					
Age		-23.998***	-24.006***	-24.94***	-24.774***	-22.766***	1.295
		(7.796)	(7.777)	(7.316)	(6.980)	(6.897)	(-9.455)
Non-network							_11 257***
means X Age							-++.237
C							(15.737)
Communal X A	٥e						-33 758*
Communar X X	50						(18.834)
Female (Ref: M	ale)	177.971	182.063	160.302	140.858	187.793	163.958
	,	(-157.989)	(-164.476)	(-153.12)	(-149.69)	(-148.525)	(-148.166
Nationality (Ref	f: Swiss)						
EU-15		56.06	7 80.666	-1.452	-92.781	-93.72	-82.158
		(-166.772) (-174.383)	(-167.221)	(-166.268)	(-164.405)	(-164.254)
Other countrie	es	-128.572	2 -143.373	-192.679	-225.283	-182.161	-255.304
		(-238.601) (-250.446)	(-229.603)	(-203.018)	(-206.628)	(-206.478)
Education (Ref:	upper-secondar	y)					
basic		2.329	30.343	195.184	281.918	219.656	209.762
		(-164.265) (-174.163)	(-189.532)	(-182.586)	(-178.264)	(-176.487)
tertiary		149.0	181.389	175.83	246.423	226.397	156.431
		(-250.612) (-262.355)	(-247.839)	(-258.583)	(-259.373)	(-285.335)
Previous unemp	loyment		137.343	37.714	29.18	-27.037	-49.019
~ ~ ~ ~ ~			(-173.345)	(-163.615)	(-152.73)	(-150.542)	(-149.578)
Class (Ref: low-	-skilled working	class)	142 620	252 62	296 576*	200 000*	202 720*
Skilled woi	rking class		(191.557)	233.03	286.576*	298.808*	283.739*
Lower mid	dla alaga		(-161.557)	(-1/3.47) -1/9 5/7	(102.033)	(104.709)	(104.008)
Lower-IIIId	ule class		(-261 423)	(-267, 108)	(-257.986)	(-258, 384)	(-270, 237)
Upper-mid	dle class		319.288	359.888	330.27	289.117	331.987
opper ma			(-278.569)	(-261.535)	(-250.747)	(-270.283)	(-291.371)
Talking to other	occupational co	ontacts		``´´	× /	× ,	
rarely	(Ref. lievel)			217.203	195.242	223.262	220.86
				(-228.346)	(-224.582)	(-247.669)	(-270.062)
from time				522.803***	557.668***	549.086***	551.224***
				(189.167)	(182.349)	(193.616)	(194.787)
often				573.142**	592.807**	586.623**	649.957**
				(256.700)	(253.968)	(252.956)	(275.269)
often receiving j	job information	from		-276.61	-338.391	-222.65	-143.116
former co-work	ers			(204.00)	(206.702)	(210.752)	(209.615)
				(-304.09)	(-296.702)	(-319.753)	(-298.615)

Table A72	MM Estimator	bagad linear	rogragion	n abcaluta	waa difformaa
Table $A/.2$	IVIIVI-ESUIIIator	Dased Inteal	regression o		wage unificiences

	M1	M2	M3	M4	M5	M6	M7
Average week	kly number of in	terviews		147.064*	164.226*	128.015**	114.604**
				(84.074)	(88.195)	(51.172)	(52.901)
Type of contr	act (Ref: permar	nent position)					
Fixed-ter	m contract				140.806	123.497	53.635
					(-195.769)	(-186.94)	(-205.138)
Via temp	orary-work				712.527**	695.268**	633.274**
					(277.664)	(327.614)	(298.745)
On call					-568.912**	-618.159**	-502.225
					(283.446)	(288.199)	(-355.692)
Other					-649.598***	-733.532***	-598.175**
					(219.836)	(245.767)	(262.754)
Current socia previous job'	l position as con s social position.	npared with ? (Ref: higher)					
Similar						-214.279	-248.752
						(-174.247)	(-175.67)
Worse						-763.841***	-823.638***
						(246.479)	(290.959)
Never we	orked before					1,354.178*	1,078.006
						(763.216)	(-841.482)
Constant	-72.144	603.813**	451.462	68.142	61.567	216.679	-575.127
	-104.599	(288.685)	-304.467	-316.731	-322.782	-337.306	-385.758
Ν	395	395	395	395	395	395	395

Table A7.2 MM-Estimator based linear regression on absolute wage differences

Notes: When not holding the sample constant to the full model sample, we find a few differences: Already in M4 (N=426) being skilled working class members enhances absolute wage differences statistically significantly positively. Already in M4 (N=426) and in M5 (N=423) being a member of upper-middle class enhances statistically significant positive wage differences as compared with being a member of the lower-skilled working class. Test-wise we controlled for the number of different access channel, but did not find this to have an effect on relative wage differences.

Table $\Lambda 7.3 \text{ MM}_{-}\text{E}$	stimator Reares	sion on relativ	ve wage difference	. all
TADIE A/.5 IVIIVI-E	sumator Regres	sion on relativ	e wage unterence	, an

	M1	M2	M3	M4	M5
Job access channel (Ref: work ties)					
non-network means	-2.351	25.827**	25.289**	23.369*	24.286
	-2.56	(11.068)	(12.449)	(13.970)	(-14.796)
communal	-4.599	20.053	17.444	15.793	17.945
	-5.283	(-20.101)	(-16.89)	(-15.667)	(-15.522)
Age		-0.011	-0.108	0.015	0.07
		(-0.193)	(-0.228)	(-0.238)	(-0.238)
non-network means X age		-0.73***	-0.624*	-0.63*	-0.644*
		(0.278)	(0.323)	(0.351)	(0.366)
communal X age		-0.616	-0.452	-0.514	-0.59
		(-0.496)	(-0.437)	(-0.43)	(-0.404)
Sex (Ref: Male)		-2.068	-1.722	2.012	4.418
		(-2.729)	(-2.74)	(-4.151)	(-3.124)
Nationality (Ref: Swiss)					
EU15		1.286	0.817	0.032	-0.032

	M1	M2	M3	M4	M5
		(-3.227)	(-3.303)	(-3.129)	(-3.109)
Other		-2.289	-0.694	-1.931	-2.174
		(-3.758)	(-5.105)	(-4.328)	(-4.969)
Education (Ref: upper-secondary)					
basic		-1.95	-2.565	-2.915	-3.765
		(-3.541)	(-3.897)	(-3.393)	(-3.533)
tertiary		2.849	-0.64	-2.679	-4.423
		(-3.262)	(-3.752)	(-3.535)	(-3.589)
Talking to former co-workers about job					
search (Ref: not often)			5 720*	()7)**	E 007*
onen			5.729^{*}	$0.2/3^{**}$	5.883*
			(3.241)	(3.097)	(3.075)
Failing rate			-0.159***	-0.116**	-0.065
			(0.058)	(0.055)	(-0.049)
Average number weekly working hours				0.996*	1.289***
Eirm size (Pof: 1, 10, amployees)				(0.340)	(0.410)
Firm size (Ref. 1-10 employees)				2 509	2 100
11 a 50				2.598	3.186
-1 \ 100				(-3.483)	(-3.155)
51 a 100				0.128	1.862
				(-5.949)	(-6.845)
101 à 250				14.351***	11.263**
				(5.472)	(5.376)
251 à 1000				9.42**	8.739**
				(3.913)	(4.148)
More than1000				-2.983	-1.272
				(-4.721)	(-3.805)
Post-unemployment social position					
compared with pre-unemployment					
similar					-5.237
					(-3.657)
worse					-16.898***
					(4.192)
Never worked before longer than 6					46.794***
months in a row					
					(16.601)
Constant	-3.178*	-2.551	1.334	-45.318*	-55.263**
	(1.830)	-7.498	-8.504	(26.558)	(22.737)
N	453	453	402	393	391

Notes: Restricting all models to the full model sample size, we find no differences in M1 to M3 when restricting the analyses to the sample of the full model. Test-wise we controlled for the number of different access channel, but did not find this to have an effect on relative wage differences.

Table 117.4 Subjective wage anterenees	M1	M2	M3	<u>551011</u> M4
Much lower wages (compared with not much lower y		1912	IVIJ	14
In access channel (Ref: work tie)	wages)			
	0.151	0.1((0.020	0.010
non-network means	-0.151	-0.166	-0.020	-0.018
	(-0.191)	(-0.194)	(-0.184)	(-0.185)
communal tie	-0.001***	$-0./12^{***}$	-0.269	-0.293
A go	(-0.238)	(-0.203)	(-0.203)	(-0.203)
Age		-0.0734°	-0.037	-0.038
Age squared		0.000	(-0.042)	0.000
		(-0.001)	(-0.001)) (-0.001)
Sex (Ref ⁻ Male)		0 201*	0.203*	0.206*
		(0.120)	(0.121)	(0.122)
Nationality (Ref: Swiss)		(-0.120)	(-0.121)	(-0.122)
EU-15		0.059	0.046	0.038
		(-0.147)	(-0.149)	(-0.149)
Other		-0.263	-0.173	-0.148
		(-0.212)	(-0.217)	(-0.217)
Education (Ref: upper-secondary)				
basic		0.235	0.327*	0.311*
		(-0 174)	(-0.182)	(-0.184)
tertiary		0.347**	0.423***	0.401**
-		(-0.139)	(-0.161)	(-0.162)
Class (Ref: low-skilled working class)				
Skilled working class			0.191	0.175
			(-0.185)	(-0.186)
Lower-middle class			-0.026	-0.025
			(-0.222)	(-0.223)
Upper-middle class			-0.126	-0.119)
			(-0.277)	(-0.279)
Previous unemployment			-0.213	-0.220
			(-0.178)	(-0.179)
Unemployment duration in weeks			-0.0128***	0.0132***
			(-0.003)	(-0.003)
Talking to other occupational contact (Ref: never)				
rarely				-0.047
				(-0.195)
from time to time				0.309*
				(-0.179)
often				0.310
Receiving often job information from former co-w	orkers (Ref: 1	never)		(-0.206)
rarely		,		-0.054

Table A7.4 Subjective wage differences – Generalized ordinal logistic regression

		M1	M2	M3	M4
					(-0.162)
from time to time					-0.149
					(-0.159)
often					-0.446*
					(-0.236)
Little lower wages or much lower wages	s (compared wit	h equa	l or higher wរ	nges)	
Job access channel (Ref: work tie)				
non-network means	-0.262*		-0.295*	-0.206	-0.201
1.4	(-0.147)		(-0.152)	(-0.149)	(-0.151)
communal tie	-0.469**		-0.501**	-0.269	-0.293
	(-0.219)		(-0.225)	(-0.203)	(-0.205)
Age			-0.0734*	-0.057	-0.058
			(-0.041)	(-0.042)	(-0.042)
Age squared			0.000	0.000	0.000
			(-0.001)	(-0.001)	(-0.001)
Sex (Ref: Male)			0.201*	0.203*	0.206*
			(-0.120)	(-0.121)	(-0.122)
Nationality (Re: Swiss)					
EU-15			0.059	0.046	0.038
			(-0.147)	(-0.149)	(-0.149)
Other			-0.263	-0.173	-0.148
			(-0.212)	(-0.217)	(-0.217)
Education (Ref: upper-secondary))				
basic			0.235	0.327*	0.311*
			(-0.174)	(-0.182)	(-0.184)
tertiary			0.347**	0.423***	0.401**
			(-0.139)	(-0.161)	(-0.162)
Class (Ref: low-skilled working c	lass)				
Skilled working class				0.191	0.175
				(-0.185)	(-0.186)
Lower-middle class				-0.026	-0.025
				(-0.222)	(-0.223)
Upper-middle class				-0.053	-0.041
				(-0.246)	(-0.249)
Previous unemployment				0.162	0.156
				(-0.143)	(-0.145)
Unemployment duration in weeks	3			-0.0128***	- 0.0132***
				(-0.003)	(-0.003)
Talking to other occupational con	tact (Ref: never)			. ,	. ,
rarely	. ,				-0.047
-					(-0.195)
					· · · · · · · · · · · · · · · · · · ·

T-11. A7 4 C	1. 1	1:00	C		- : - 4 :	· · · · · · ·
I able A / 4 SI	ublective wage	anterences –	Generalized	ordinal lo	gistic reg	ression
1401011111			0	01411141 10	8-200 - 20	

	M1	M2	M3	M4
from time to time				0.309*
				(-0.179)
often				0.310
				(-0.206)
Receiving often job information from form	ner co-workers (Re	f: never)		
rarely				-0.054
				(-0.162)
from time to time				-0.149
				(-0.159)
often				-0.446*
				(-0.236)
aual wages or lower wages (compared with his	ther wages)			
Job access channel (Ref: work tie)	Juer (ruges)			
non-network means	0.018	-0.014	-0.096	-0.088
	(-0.147)	(-0.152)	(-0.149)	-) 0.151)
communal tie	(-0.026	-0.032	-0.269	-0.293
		(0.000)		(-
	(-0.223)	(-0.229)	(-0.203)	0.205)
Age		-0.0/34*	-0.057	-0.058
		(-0.041)	(-0.042)	0.042)
Age squared		0.000	0.000	0.000
		(-0.001)	(-0.001)	-) (-
Sex (Male)		0.201*	0.203*	0.206*
				(-
Nationality (Re: Swiss)		(-0.120)	(-0.121)	0.122)
EU-15		0.059	0.046	0.038
		0.009	0.010	(-
		(-0.147)	(-0.149)	0.149)
Other		-0.263	-0.173	-0.148
		(-0.212)	(-0.217)	0.217)
Education (Ref: upper-secondary)				
basic		0.235	0.327*	0.311*
		(-0.174)	(-0.182)	(-0.184)
tertiary		0.347**	0.423***	0.401**
		(-0.139)	(-0.161)	(-0.162)
Class (Ref: low-skilled working class)			<u></u>	o <i>i</i> = -
Skilled working class			0.191	0.175
			(-0.185)	(-0.186)
Lower-middle class			-0.026	-0.025
			(-0.222)	(-0.223)
Upper-middle class			0.416*	0.429*

	0.1.	1.00	C 1' 1	1. 1	1	•
I able Δ / Δ	Subjective was	e differences _	. (. eneralized	ordinal	LOGISTIC.	regreggion
	Subjective wag	c uniterences –	Ocheranzea	orumai	logistic	regression

ible A7.4 Subjective wage differen	ices – Generaliz	leu orainar	logistic legi	ession
	M1	M2	M3	M4
			(-0.246)	(-0.248)
Previous unemployment			0.307**	0.297**
			(-0.144)	(-0.1459
Unemployment duration in weeks			-0.0128***	0.0132***
			(-0.003)	(-0.003)
Talking to other occupational contact (F	Ref: never)			
rarely				-0.047
				(-0.195)
from time to time				0.309*
				(-0.179)
often				0.310
Receiving often job information from for	ormer co-workers ((Ref never)		(-0.206)
rarely		()		-0 054
Turory				(-0.162)
from time to time				(0.102)
from time to time				(-0.149)
often				(-0.139)
onen				-0.440*
Little higher equal or lower wages (a	mnaued with my	ah highan wa	(acc)	(-0.236)
Lab agages abannal (Daf: work tia)	Simpared with mu	ch nigher wa	iges)	
non notwork moons	0.450**	0.414*	0.200*	0.204*
non-network means	0.430***	0.414^{+}	0.389*	0.394*
	(-0.223)	(-0.226)	(-0.215)	(-0.217)
communal tie	-0.279	-0.288	-0.269	-0.293
	(-0.392)	(-0.395)	(-0.203)	(-0.205)
Age		-0.0734*	-0.057	-0.058
		(-0.041)	(-0.042)	(-0.042)
Age squared		0.000	0.000	0.000
		(-0.001)	(-0.001)	(-0.001)
Sex (Ref: Male)		0.201*	0.203*	0.206*
		(-0.120)	(-0.121)	(-0.122)
Nationality (Re: Swiss)				
EU-15		0.059	0.046	0.038
		(-0.147)	(-0.149)	(-0.149)
Other		-0.263	-0.173	-0.148
		(-0.212)	(-0.217)	(-0.217)
Education (Ref: upper-secondary)				
basic		0.235	0.327*	0.311*
		(-0.174)	(-0.182)	(-0.184)
tertiary		0.347**	0.423***	0.401**
		(-0.139)	(-0.161)	(-0.162)

Table A7.4 Subjective wage differences – Generalized ordinal logistic regression

Class (Ref: low-skilled working class)

Table A7.4 Subjective wage uniere	lices – Generali	zeu orumai	logistic legi	ession
	M1	M2	M3	M4
Skilled working class			0.191	0.175
			(-0.185)	(-0.186)
Lower-middle class			-0.026	-0.025
			(-0.222)	(-0.223)
Upper-middle class			0.565**	0.571**
			(-0.288)	(-0.290)
Previous unemployment			0.257	0.236
			(-0.208)	(-0.2109
Unemployment duration in weeks			-0 0128***	- 0.0132***
Chemployment duration in weeks			(-0.003)	(-0.003)
Talking to other occupational contact (Ref [.] never)		(0.000)	(0.000)
rarely				-0.047
				-0.195
from time to time				0.309*
				-0.179
often				0.310
				-0.206
Receiving job information from former	r co-workers (Ref:	never)		
rarely				-0.054
				-0.162
from time to time				-0.149
				-0.159
often				-0.446*
				-0.236
much lower wages (compared with not much lower wages)				
Constant	1.646***	3.516***	3.383***	3.401***
	(-0.149)	(-0.743)	(-0.774)	(-0.782)
little lower wages or much lower wages	0 5/0***	2 376***	2 112***	2 12/1***
Constant	(-0.113)	2.570	2.115	(-0.775)
equal wages or lower wages (compared	(-0.115)	(-0.750)	(-0.707)	(-0.775)
with higher wages)	-0.438***	1.354*	1.065	1.068
Constant	(-0.112)	(-0.734)	(-0.764)	(-0.772)
a little higher	-2.177***	-0.453	-0.845	-0.850
Constant	(-0.181)	(-0.745)	(-0.775)	(-0.783)
Observations	912	912	912	912
LR Chi-Square	21.94	84.18	120.9	130
d.f.	8	15	23	29

Table A7.4 Subjective wage differences – Generalized ordinal logistic regression

Note: stepwise introduction of controls: M1: job access channel only, M2: socio-demographics, M3: (Un-) employment history. We left out occupational group as it did not explain much and let to empty or very small cell size quickly, M4: activation and mobilization of occupational social capital and general job search patterns. We found no effect of talking to former co-workers and receiving job information from other occupational contacts and we found no effect of more general job-search patterns and thus left these controls out of the model. Due to too small cell sizes we could not control for job characteristics and change in social position in these models. We use the autofit option in order to relieve constraints concerning the assumption of parallel lines in the ordered logit model for where it is not fulfilled, which is not the case for

many of our variables: job access via non-network means means (P Value=0.03851), for upper-middle class (P Value=0.00069), for previous unemployment (P Value=0.03943). Test-wise we checked for the number of different job search channels used, but do not find it to affect any of the levels except for the first: The more job search channels were used, the lower the chances to prevent major wage losses.

Table A7.5 Subjective wage differences (in 5 categories) – Generalized ordinal logistic regression models – Interaction Access Channel - Age Much lower wages (compared with not much lower wages) Little lower wages or much lower wages (compared with equal or higher wages)

	Much lower v	vages (compar	ed with not much lower wages)	Little lower wa	ges of much lower	wages (compared with equal of higher wages)
Job access channel (Ref: work tie)	M1	M2	M3	M1	M2	M3
non-network means	-0.151	-0.018	-0.685	-0.262*	-0.201	-0.685
	-0.191	-0.185	-0.471	-0.147	-0.151	-0.471
communal tie	-0.661**	-0.293	-1.809***	-0.469**	-0.293	-1.809***
	-0.258	-0.205	-0.639	-0.219	-0.205	-0.639
age			-0.0527***			-0.0527***
			-0.009			-0.009
non-network means X age			0.02			0.02
			-0.012			-0.012
communal X age			0.0424**			0.0424**
			-0.017			-0.017
	Equal wages of	or lower wages	s (compared with higher wages)	Little higher, equal or lower wages (compared with much higher wages)		
	M1	M2	M3	M1	M2	M3
non-network means	0.018	-0.088	-0.685	0.450**	0.394*	-0.685
	-0.147	-0.151	-0.471	-0.223	-0.217	-0.471
communal tie	-0.026	-0.293	-1.809***	-0.279	-0.293	-1.809***
	-0.223	-0.205	-0.639	-0.392	-0.205	-0.639
age			-0.0527***			-0.0527***
U			-0.0527			0.0527
0			-0.009			-0.009
non-network means X age			-0.009 0.02			-0.009 0.02
non-network means X age			-0.009 0.02 -0.012			-0.009 0.02 -0.012
non-network means X age			-0.009 0.02 -0.012 0.0424**			-0.009 0.02 -0.012 0.0424**

Note: Full models according to models presented in Table A7.6 Model 1 (N=912) controls for nothing, Model 2 (N=912) controls for socio-demographics, unemployment history, activation and mobilization, Model 3 (N=910) controls for socio-demographics, unemployment history, activation and mobilization.

Post-unemployment		Wage difference				
	Wages LOC	Ĵ	Relative	Absolute	Subjective	
M1 Socio-demographics						
Job found via (Ref: work tie)						
non-network means	0.010	0.001	22 220**	1 774 610***	1 /17**	0.671*
non-network means	(0.141)	(0.116)	(10.261)	(500, 562)	(0.648)	(0.205)
a a manufacture a la tria	(-0.141)	(-0.110)	(10.501)	(390.302)	(0.048)	(0.393)
communal tie	(0.093)	(0.095)	(20.055)	940.107	-0.135	-1.130
4 32	(-0.131)	(-0.100)	(-20.933)	-001./03	-0.92	-0.///
Age	0.000**	0.01	0.013	/.040	-0.001	-0.028
	(0.003)	(0.003)	(-0.194)	-10.646	-0.012	(0.008)
non-network X age	-0.002	-0.001	-0.648**	-50.336***	-0.042**	-0.02*
	(-0.004)	(-0.004)	(0.263)	(15.729)	(0.017)	(0.010)
communal X age	-0.005	-0.005	-0.659	-31.801	-0.004	0.023
	(-0.004)	(-0.005)	(-0.519)	(-22.292)	(-0.024)	(-0.019)
Ν	432	737	432	432	432	1,061
M2 Additionally (Un-) employment history, activation and mobilization of occupational social capital Job found via (Ref.						
work tie)						
non-network means	-0.137	-0.075	16.566	1,459.044**	1.297*	0.548
	(-0.118)	(-0.107)	(-11.266)	(640.460)	(0.725)	(-0.428)
communal tie	-0.029	0.058	22.214	868.585	-0.482	-1.073
	(-0.141)	(-0.158)	(-19.243)	(-860.326)	(-0.88)	(-0.677)
Age	0.003	0.007***	-0.117	-0.051	-0.01	-0.029***
0	(-0.003)	(0.002)	(-0.217)	(-11.436)	(-0.014)	(0.008)
non-network X age	0.003	0.001	-0.473	-42 164**	-0.035*	-0.017
non network it uge	(-0.003)	(-0.003)	(-0.287)	(16734)	(0.020)	(-0.011)
communal X age	0	-0.002	-0.732	-35 287	0.008	0.023
eominana A age	(-0,004)	(-0.002)	(-0.507)	(-26, 027)	(-0.028)	(-0.016)
N	407	691	407	407	407	911
M3 additionally: job	107	071	107	107	107	711
Job found via (Ref: work tie)						
Non-network means	-0.051	-0.032	19.7*	1.767.521**	1.567*	0.85*
	(-0.095)	(-0.079)	(11.759)	(738,785)	(0.851)	(0.473)
communal tie	0.058	0.128	24 384	1 161 527*	-0.127	-0 428
	(-0.117)	(-0.121)	(-15.828)	(700.787)	(-0.875)	(-0.84)
Age	0.009***	0.011***	0.152	7.315	-0.004	-0.026***
8-	(0.002)	(0.002)	(-0.213)	(-12.84)	(-0.014)	(0,009)
Non-network X age	0	-0.001	-0.606**	-51.414***	-0.044**	-0.022*
	(-0.003)	(-0.002)	(0.298)	(19.056)	(0.021)	(0.012)
communal X age	-0.004	-0.005	-0.846**	-40.904*	0.001	0.013
0-	(-0.003)	(-0.003)	(0.422)	(21.700)	(-0.027)	(-0.023)
N	398	675	398	398	398	784

Tables 7.6 MM Regression models on different wage measures

Tables 7.6 MM	Tables 7.	6 MM	Tables 7.6 MM Regression models on different			
	Post-unemployment Wage difference					
	Wages LOG		Relative	Absolute	Subjective	
M4 additionally: change in social position						
Job found via (Ref: work tie)						
non-network means	-0.04	-0.016	25.915**	2,031.753***	1.438***	0.765**
	(-0.091)	(-0.077)	(11.960)	(625.317)	(0.462)	(0.384)
communal tie	0.122	0.184	24.434*	1,252.453**	0.749	0.355
	(-0.119)	(-0.128)	(13.996)	(628.290)	-0.593	-0.502
age	0.009***	0.012***	0.176	8.905	-0.001	-0.011
	(0.002)	(0.002)	(-0.188)	-10.472	-0.008	-0.007
non-network X age	0	-0.001	-0.726**	-56.321***	-0.034***	-0.02**
C	(-0.003)	(-0.002)	(0.297)	(16.178)	(0.012)	(0.009)
communal X age	-0.006*	-0.007*	-0.835**	-43.298**	-0.014	-0.004
c	(0.003)	(0.004)	(0.350)	(17.916)	-0.014	-0.012
Ν	395	670	395	395	395	778

Notes: M1 socio-demographics are: age, sex, nationality, education, M2 additionally: previous unemployment, unemployment duration, class, often talking to former co-workers about job search, often receiving job information from former co-workers, often receiving job information from other occupational contacts, M3 additionally: weekly average number of working hours, size of firm, M4 additionally: change in social position. Complete models results are available from the author upon request. (note that we did not control in these models for occupational group and failure rate).

Questionnaire 1



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LES RÉSEAUX SOCIAUX Et l'accès à l'emploi

Ce questionnaire a pour but d'étudier l'impact des réseaux sociaux (famille, amis, etc.) sur la recherche d'emploi. Il s'agit d'une étude menée par l'Université de Lausanne et l'IDHEAP.

Les réponses que vous apporterez à ce questionnaire sont cruciales pour l'avancée de ce projet. Seuls les chercheurs universitaires responsables de la recherche auront accès à ces données et celles-ci seront traitées de manière confidentielle. Le questionnaire est anonyme et rien de ce que vous pourrez répondre n'aura d'impact sur votre chômage.

La plupart de ces questions nécessitent que vous y répondiez par une croix. Normalement, la plupart des questions n'acceptent qu'une seule réponse. Nous avons précisé lorsque plusieurs réponses étaient possibles. Si vous ne parvenez pas à répondre à une question, passez simplement à la suivante.

La première page comporte votre nom ainsi que votre numéro PLASTA, ou numéro AS si vous vous trouvez à l'ORP de Lausanne. Vous pourrez recopier ce numéro à la question A1. Par la suite, cette première page sera détruite afin de préserver la confidentialité.

Enfin, si vous ne parvenez pas à terminer le questionnaire dans le temps imparti, remettez-le quand même au conseiller ORP. Nous serons heureux de pouvoir analyser vos réponses même si le questionnaire est incomplet.

Pour des questions sur l'étude, veuillez prendre contact à l'adresse suivante : Nicolas.Turtschi@idheap.unil.ch

Merci beaucoup de votre participation et meilleures salutations,

Giuliano Bonoli Rafael Lalive Daniel Oesch Patrick Arni Nicolas Turtschi Anna Von Ow

Section A - Questions démographiques			
A1.	Afin de préserver la confidentialité, pouvez-vous s'il vous plaît indiquer dans la case ci-dessous votre N° Plasta/AS (numéro qui figure sur la page de garde) ?		
A2.	Quelle est votre date de naissance? Ecrire en un seul bloc, par exemple 11.09.1965 = 11091965		
A3.	De quel sexe êtes-vous? Un homme Une femme		
A4.	Êtes-vous né en Suisse? Oui Non Oui		
A5.	Dans le but de raccourcir ce questionnaire, nous aimerions compléter les informations récoltées avec des données de l'assurance chômage. Pour ce faire, nous avons besoin de votre accord. Vous pouvez signaler votre désaccord en cochant la case ci-dessous. De notre côté, nous nous engageons à ce que toutes ces informations soient traitées de manière totalement confidentielle et ne soient utilisées qu'à des fins scientifiques.		
J	e ne veux pas que mes réponses au questionnaire soient complétées par des données de l'assurance- chômage		

Section B - Associations

Les gens appartiennent parfois à différentes sortes d'associations ou de groupements. Pour chacun des types d'association ci-dessous, nous aimerions que vous nous indiquiez votre participation dans les 12 derniers mois.

B1. Quelle est votre participation pour chacune de ces associations?



Section C - Réseaux informatiques

C1. Avez-vous un profil sur Facebook, LinkedIn, Xing, ou un autre réseau informatique ? Plusieurs réponses possibles.



C2.	Si vous êtes membre d'un réseau informatique, à quelle fréquence le mettez-vous à jour (publication d'informations, changement d'images, etc.) ?
	Tous les jours
	Plusieurs fois par semaine
	Plusieurs fois par mois
	Au moins une fois par année
	Jamais
C3.	Pensez-vous que les réseaux informatiques aident à trouver un emploi ?
	Oui Non Je ne
C4.	Êtes-vous inscrit sur un site pour trouver un emploi, comme Johun ou autre ?
	Oui Non
Se	ction D - Famille
Nou Nou Iesq	s aimerions maintenant vous poser quelques questions à propos de votre famille. s nous intéressons seulement aux personnes de plus de 18 ans vivant en Suisse avec uelles vous avez au moins un contact par an.
D1.	Combien avez-vous de frères et sœurs adultes vivant en Suisse ?
D2.	Combien d'entre eux ont un emploi fixe ?
	Aucun 1 2 3 4 5 6 ou plus Je ne sais pas
D3.	Combien avez-vous d'enfants de 18 ans ou plus vivant en Suisse?
D4.	Combien d'entre eux ont un emploi fixe ?
	Aucun123456 ou plusJe ne sais pas

D5.	Si votre père vit en Suisse, que fait-il ? Plusieurs réponses possibles.				
	Il a un poste fixe/il est indépendant				
	Il travaille de façon irrégulière				
	Il ne travaille pas/il touche une rente				
	Il n'est plus en vie				
	Il ne vit pas en Suisse				
	Je ne suis pas au courant de sa situation professionnelle				
D6.	Si votre mère vit en Suisse, que fait-elle ? Plusieurs réponses possibles.				
	Elle a un poste fixe/elle est indépendante				
	Elle travaille de façon irrégulière				
	Elle ne travaille pas/elle touche une rente				
	Elle n'est plus en vie				
	Elle ne vit pas en Suisse				
	Je ne suis pas au courant de sa situation professionnelle				
D7.	Si vous êtes en couple et que votre conjoint/e vit en suisse, que fait- il/elle? Plusieurs réponses possibles.				
	Il/elle a un poste fixe ou est indépendant/e				
	Il/elle travaille de façon irrégulière				
	Il/elle ne travaille pas ou/et touche une rente				
	Il/elle ne vit pas en Suisse				
	Je n'ai pas de conjoint/e				
D8.	Combien de vos parents habitent en Suisse (adultes uniquement)?				
	0 1-2 3-4 5-6 7-8 9 ou plus				
	Oncle/tante				
	Beaux-parents				
	Belle-soeur/beau-frère				
	Nièce/neveu				

Section E - Amis								
Nous voudrions maintenant vous poser quelques questions à propos de gens que vous connaissez en dehors de votre famille.								
E1.	Dans votre quartier, combien avez-	-vous d'	'amis ?					
		Aucun	1-2	3-4	5-6	7-10	11 ou plus	
E2.	Parmi eux, combien ont un emploi	fixe ?						
		Tous	Presque	Plusieurs	Presque	Aucun	Je ne sais pas	
E3.	Combien de vos anciens camarade sont toujours vos amis ?	s d'écol	e ou d'a	pprentiss	age			
		Aucun	1-2	3-4	5-6	7-10	11 ou plus	
E4.	Parmi ceux-ci, combien ont un emp	ploi fixe	2					
		Tous	Presque	Plusieurs	Presque	Aucun	Je ne	
			· · · · -					
E5.	Combien de vos anciens collègues o amis 2	de trava	ail sont t	oujours v	/ 0 S			
		Aucun	1-2	3-4	5-6	7-10	11 ou plus	
								
Е6.	Combien d'entre eux ont un emplo	i fixe ?						
	r	Tous	Presque	Plusieurs	Presque	Aucun	Je ne	
			tous		aucun		sais pas	
							1	
E7.	Combien d'autres amis avez-vous, mentionner ?	à part o	ceux que	e vous vei	nez de			
		Aucun	1-2	3-4	5-6	7-10	11 ou plus	
		· · · · ·						
E8.	Combien d'entre eux ont un emplo	i fixe ?						
		Tous	Presque tous	Plusieurs	Presque aucun	Aucun	Je ne sais pas	

E9.	Supposez que vous ayez besoin d'emprunter une importante somme d'argent (CHF 1'000). À qui demandez-vous en premier? Les conjoints sont considérés comme des parents. Une seule réponse possible
	Un parent
	Un ami
	Une banque ou un organisme de crédit
	Un service public ou social (chômage, aide sociale, etc.)
	Quelqu'un d'autre
	Personne
	Je ne sais pas
E10.	Parmi les personnes que vous connaissez (amis, parents,
	Connaissances, etc.), complen savent que vous etes au chomage :
	presque tous majorité minorité ou presque
	personne
F11.	Darmi las parsonnas que vous connaissez (amis narents
EII.	connaissances, etc.), combien travaillent dans le même secteur ou
	Dift id meme procession que vous: Personne Une Une Tous ou
	ou presque minorité majorité presque tous
E12.	Parmi vos amis, membres de la famille ou connaissances, combien
	ont des responsabilités hiérarchiques dans leur travail (gestion d'équine_chef d'entreprise_directeur)
	Personne Une Une Tous ou
	ou presque minorité majorité presque tous
E13.	Parmi les quatre propositions suivantes, quelle est celle qui vous correspond le mieux? Une seule réponse possible.
	Presque tous mes amis se connaissent
	La plupart de mes amis se connaissent
	Certains de mes amis se connaissent
	Presque aucun de mes amis ne se connait
1	Ne sait pas

Section F - Travail

Nous allons nous intéresser à présent à la manière dont vous avez trouvé votre activité professionnelle antérieure.

F1.	Comment avez-vous eu la première information sur votre dernier emploi de plus de six mois? Une seule réponse possible.
	Je n'ai jamais travaillé plus de six mois d'affilée
	Par l'employeur
	Par Internet
	Par l'ORP
	Par une annonce dans la presse
	Par un ancien collègue de travail
	Par un parent
	Par un ami proche
	Par une connaissance
	Par une agence de placement privée
	Par offre spontanée écrite (lettre)
	En me présentant en personne à l'entreprise
	Autre
F2.	Avez-vous déjà reçu l'aide d'un ami, d'une connaissance ou d'un parent pour trouver du travail ?

Je n'ai pas eu d'autre job
Jamais 📙
Une à deux fois
Trois à quatre fois
Cinq fois ou plus

Section G - Situation actuelle

Le chômage est un passage important et souvent difficile. Nous aimerions essayer de comprendre comment vous vivez cette étape de votre vie.

G1.	Pouvez-vous nous dire pourquoi vous avez quitté votre dernier emploi ? Plusieurs réponses possibles.
	J'ai déménagé
	Mon contrat était à durée déterminée (CDD)
	Je n'ai jamais travaillé
	Mon entreprise a fait faillite
	J'ai démissionné car mon ancien travail ne me convenait plus
	J'ai démissionné pour changer d'orientation professionnelle
	J'ai démissionné pour d'autres raisons
	J'ai été licencié pour raisons économiques
	J'ai été licencié pour d'autres raisons
	Ne veut pas répondre
G2.	Sur une échelle de 0 à 10, pensez-vous que le chômage va vous
0 = Je n'ai pas besoin d "récupére	1 2 3 4 5 6 7 8 9 10 = Le chômage va me permettre de
G3.	Sur une échelle de 0 à 10, qu'est-ce que cela vous fait d'être au
0 = Je n supporte pas d'êtr au chôma	1 2 3 4 5 6 7 8 9 10 = Je n'ai aucun problème a être au à à être au à

G4.	Au cours des sept derniers jours, comment avez-vous cherché du travail ? Plusieurs réponses possibles.	
	J'ai consulté les offres d'emploi dans la presse	
	J'ai répondu à des annonces parues dans la presse	
	J'ai publié une/des annonce/s dans la presse	
	J'ai envoyé des offres spontanées à des employeurs	
	Je me suis présenté en personne auprès d'employeurs	
	J'ai fait des recherches sur Internet	
	Je me suis inscrit dans une agence de placement privée	
	J'ai contacté des parents, des amis, des collègues, etc.	
	J'ai mis mon CV sur un site pour entreprises	
	Autre	
G5.	Avec qui avez-vous parlé de vos recherches d'emploi au cours des sept derniers jours ? Plusieurs réponses possibles.	
	Avec des anciens collègues	—
	Avec des connaissances	
	Avec des amis proches	
	Avec des parents	
	Avec quelqu'un d'autre	
	Avec personne	
G6.	Globalement, combien de temps avez-vous cherché du travail au cours des sept derniers jours ? Une seule réponse possible.	
	Moins d'une heure par jour	_
	Environ une heure par jour en moyenne	
	Environ deux heures par jour en moyenne	
	Trois heures par jour ou davantage	

G7.	Quand pensez-vous que vous trouverez un emploi? Cochez la réponse la plus probable si vous ne le savez pas.
	Dans le mois suivant
	Dans les trois mois
	Dans les six mois
	Dans les douze mois
	Dans plus d'une année
G8.	Quel salaire mensuel brut avant déductions sociales et impôt à la source voudriez-vous au moins pour un emploi aujourd'hui, à 100% ?
G9.	À présent, imaginez que votre allocation chômage soit supprimée si vous n'acceptez pas l'emploi qu'on vous propose. Jusqu'à quel salaire mensuel brut êtes-vous prêt à descendre dans ces conditions, toujours à 100% ?
G10.	À votre avis, quelle est l'utilité des moyens de recherche suivants:
	Très utile Utile Peu utile Pas utile
	Offre spontanée écrite (lettre)
	Presentation spontanee a l'entreprise
	Famille proche (parents, frère, soeur)
	Famille éloignée (cousins, oncle, belle-famille)
	Amis proches
	Connaissances
	Anciens collègues de travail
	Internet
	Offres dans la presse



G11. À votre avis, êtes-vous bien préparé pour chercher du travail avec			
Succes: Jugez votre capacite pour les activites suivaites. Très bien Plutôt bien Peu préparé Mal préparé			
préparé préparé Écrire une bonne lettre de candidature et un bon CV			
Contacter mes amis et mes connaissances pour découvrir des offres d'emploi intéressantes			
Cibler les entreprises auxquelles postuler afin d'avoir plus de chances d'obtenir un entretien			
Faire une bonne impression et être convaincant lors d'un entretien d'embauche			
G12. Dans votre profession (industrie, bâtiment, restauration, etc.), comment trouve-t-on du travail, le plus souvent? Plusieurs réponses possibles.			
Par des offres d'emploi officielles (journaux, Internet, etc.)			
Par le bouche à oreille			
Par des relations			
Par offre spontanée écrite (lettre)			
En se présentant en personne à l'entreprise			
Je ne sais pas			
Section H - Bien-être et vie quotidienne			
H1. En ce moment, devez-vous réduire vos dépenses pour vos boissons, repas ou sorties?			
Oui Non			
H2. Sur une échelle de 0 à 10, pensez-vous que c'est la chance ou le travail personnel qui font qu'une personne réussisse dans la vie ?			
0 = Travail 1 2 3 4 5 6 7 8 9 10 = Avoir personnel			
H3. Diriez-vous, sur une échelle de 0 à 10, que c'est vous qui dirigez			
ce qui se passe dans votre vie ou plutôt que vous n'avez aucun contrôle sur ce qui s'y passe ?			
0 = Je ne 1 2 3 4 5 6 7 8 9 10 = Je			
H4. Avez-vous une voiture ?			
Oui Non			

H5.	5. Disposez-vous d'un accès Internet à votre domicile?		
	Oui	Non	
Н6.	Sur une échelle de 0 à 10, diriez-vous que vous êtes satisfait de votre vie ces jours-ci ?		
0 = Pas o tout satisf	du 1 2 3 4 5 6 7 8 9 sfait T	10 = otalement satisfait	
H7.	H7. Quelle formation avez-vous suivie? Indiquez seulement votre niveau le plus élevé.		
	Aucune formation/école obligatoire incomplète	Ţ	
	Ecole obligatoire		
	CFC/Apprentissage	–	
	Maturité professionnelle	–	
	Maturité fédérale		
	Formation professionnelle supérieure		
	Titre Universitaire/HES		
	Autre		

Questionnaire 2





Les réseaux sociaux et l'accès à l'emploi Questionnaire

FNSNE

Fonds NATIONAL SUISSE DE LA RECHERCHE SCIENTIFIQUE




Possibilité de remplir ce questionnaire en ligne : www.socialsurvey.ch. Veuillez cliquer sur le titre du projet « Les réseaux sociaux et l'accès à l'emploi » et indiquer le numéro que vous trouvez sur l'étiquette en haut de cette page.

Temps: Répondre à ce questionnaire vous prendra environ 20 minutes .

Confidentialité : Toutes les données seront traitées de manière confidentielle et exclusivement à des fins scientifiques .

Rédaction égalitaire : Toutes les formulations masculines se réfèrent aussi bien aux personnes de sexe féminin qu'aux personnes de sexe masculin.

Instructions importantes pour répondre à ce questionnaire :

• Veuillez utiliser un stylo foncé et bien lisible.

Cochez la réponse sélectionnée avec une croix dans la case correspondante : X

En cas d'erreur, veuillez colorier toute la case cochée et faire une nouvelle croix dans la case qui correspond à la bonne réponse :

Aux endroits où vous trouvez une flèche, nous vous prions de passer directement à la question indiquée (p.ex. aller à B1)

• S'il n'y a pas d'autre indication, vous devez choisir *une seule réponse*. Veuillez bien respecter cette règle, s'il vous plaît. Par contre, il y a quelques questions où la possibilité de cocher plusieurs réponses est indiquée explicitement.

• Pour les questions où vous êtes prié de noter un chiffre comme réponse, veuillez indiquer un chiffre approximatif, si vous ne vous rappelez pas le chiffre exact.

Section A - Questions démographiques	
A1. Quelle est votre date de naissance? Veuillez écrire en un seul bloc dans l'ordre suivant: jour, mois, année. Par exemple: 11.09.1965 = 11091965	
A2. Depuis combien de temps habitez-vous en Suisse Romande?	
Nombre d'années complètes	
A3. Quelle est votre situation professionnelle actuelle? Plusieurs réponses possibles.	
Au chômage ou en dispense de recherche d'emploi	
Salarié d'une entreprise privée, d'une ONG ou d'une autre association	
Salarié d'une entreprise publique (secteur public)	
Indépendant	
En formation	
En retraite ou en retraite anticipée	
Au bénéfice d'une rente (maladie, invalidité, etc.)	
Au foyer (tâches domestiques, enfants)	
Autre (congé non payé, etc.)	
A4. Avez-vous des enfants ?	
Oui	
Non K	Aller à
A5. Si vous avez des enfants, quel âge a votre plus jeune enfant?	
Nombre d'années complètes	

Section B - Vos recherches d'emploi

Nous nous intéressons à la période de temps qu'il vous a fallu pour trouver votre nouveau poste. Si vous n'avez pas d'emploi, nous nous intéressons à toute la période durant laquelle vous en avez cherché un.

B1.	Quand avez-vous commencé vos recherches de travail? - Il y a
	moins d' un mois
	plus d'un mois, mais moins de 4 mois
	plus de 4 mois, mais moins de 6 mois
	plus de 6 mois, mais moins de 12 mois
	plus de 12 mois
B2.	Avez-vous utilisé les moyens de recherche suivants?
	Oui Non

Je me suis inscrit dans une agence de placement privée (p.ex. Manpower)		
J'ai participé à une séance avec un coach professionnel (hors des cours de l'ORP)	<u></u>	
J'ai mis mon CV sur un site internet pour entreprises (p.ex. JobUp, LinkedIn)		
Je me suis abonné à une newsletter en ligne		

B3. À quelle fréquence avez-vous utilisé les méthodes de recherche d'emploi suivantes?

	Jamais	Moins d'une fois par mois	Environ une fois par mois	Environ une fois par semaine	Presque tous les jours
J'ai parlé à mon entourage (p.ex. amis, famille, collègues, etc.) de mes recherches d'emploi	<u> </u>				
J'ai fait des recherches dans la presse					
J'ai publié moi-même une ou plusieurs annonces dans la presse	<u> </u>				
J'ai envoyé des offres spontanées à des employeurs	<u> </u>				
Je me suis présenté spontanément en personne ou par téléphone auprès d'employeurs	<u></u>				
J'ai fait des recherches sur internet					
J'ai publié sur internet, dans un réseau social non-professionnel (comme p.ex. facebook), que je cherchais du travail	<u> </u>				

B4. À quelle fréquence avez-vous discuté avec votre entourage de vos recherches d'emplois?

Pour les groupes de personnes énumérés ci-dessous qui ne font pas partie de votre entourage, veuillez cocher 'jamais'. Iamais Rarement De temps Souvent

Jamais Ratement De temps Souvent
en temps
(Anciens) collègues de travail
Collègues d'études ou d'apprentissage, etc.
Membres d'une association (p.ex. sportive, professionnelle)
Autres connaissances professionnelles
D'autres chômeurs que j'ai connus pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)
Amis proches
Voisins
Membres de ma famille proche (parents, frères et soeurs, enfants, conjoint)
Membres de ma famille plus éloignée (cousin, oncle ou tante, belle- famille)
Autres connaissances

B5. Quelle est pour vous l'utilité des moyens de recherche suivants pour trouver un emploi?

1	Pas utile	Peu utile	Utile	Très utile
Offre spontanée écrite (lettre)				
Présentation spontanée à l'entreprise (en personne ou par téléphone)				
Conseiller ORP				
Agence de placement privée				
Famille proche (parents, frères et soeurs)	<u> </u>			
Famille éloignée (cousins, oncle ou tante, belle-famille)				
Amis proches				
Connaissances				
Anciens collègues de travail				
Internet				
Offres dans la presse	<u> </u>			

B6. De manière générale, à quel point vous sentez-vous capable de bien faire les tâches suivantes?

1 = Je ne 2	3 4 :	= Je me
me sens pas	sei	ns tout à
capable de	fait	capable
bien le faire	d	e bien
	l	e faire
Choisir les entreprises auxquelles faire des offres spontanées		
Choisir les offres d'emploi auxquelles répondre		
Ecrire une bonne lettre de candidature et un bon CV		
Faire une bonne impression et être convaincant lors d'un entretien d'embauche		·

B7.	Pendant vos recherches d'emploi, avez-vous reçu de l'aide de votre entourage d'une des manières suivantes?
Nous mais	s ne nous intéressons pas à l'aide de professionnels (conseiller ORP, agence privée, etc.) seulement à votre entourage.
	Oui Non
	Quelqu'un m'a informé concrétement sur des stratégies pour retrouver un emploi
	Quelqu'un m'a aidé à préparer mon dossier (formuler une lettre de motivation, mon CV)
	Quelqu'un m'a aidé à préparer un entretien d'embauche
B8.	Pendant que vous étiez inscrit à l'ORP et/ou jusqu'à ce que vous trouviez votre poste actuel, combien de fois avez-vous postulé pour un emploi (offres spontanées, réponses à des annonces, etc.)?
Si vo nomi	us avez déjà trouvé un nouvel emploi, veuillez inclure la candidature pour ce poste dans le bre total des candidatures.
	Nombre de candidatures
B9. Si vo dans	Pendant que vous étiez inscrit à l'ORP et/ou jusqu'à ce que vous trouviez votre nouveau poste, combien de fois avez-vous été invité à des entretiens d'embauche? sus avez déjà trouvé un nouvel emploi, veuillez inclure l'entretien d'embauche pour celui-ci le nombre total d'entretiens d'embauche.
	Nombre d'entretiens d'embauche
B10.	À la fin de votre période au chômage, quel salaire MENSUEL
Sala	orut mmmai auriez-vous accepte pour un emploi à 100%.
Jaidi	
	Salaire MENSUEL brut (en CHF)

Section C - Les personnes de votre entourage qui vous ont informé sur des

postes ou employeurs potentiels

Nous nous intéressons à votre entourage qui comprend vos amis, votre famille, vos collègues de travail et d'études, vos voisins ainsi que les membres des associations auxquelles vous appartenez.

C1. Parmi les groupes de personnes suivants, combien travaillent dans la même branche que vous?

Pour les groupes de personnes énumérés ci-dessous qui ne font pas partie de votre entourage, veuillez cocher 'aucune personne'.

Aucune Une Deux à cinq Plus de cinq
personne personnes personnes
(Anciens) collègues de travail
Collègues d'études, d'apprentissage, etc.
Membres d'une association (p.ex. sportive, professionnelle)
D'autres chômeurs que j'ai connus pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)
Amis proches
Voisins
Membres de ma famille proche (parents, frères et soeurs, enfants, conjoint)
Membres de ma famille plus éloignée (cousin, oncle ou tante, belle-
famille)

C2. À quelle fréquence les personnes de votre entourage vous ont-elles informé sur des postes vacants ou sur des employeurs potentiels?

Pour les groupes de personnes énumérés ci-dessous qui ne font pas partie de votre entourage, veuillez cocher 'jamais'.

	Jamais	Rarement	De temps	Souvent
			en temps	
(Anciens) collègues de travail				
Collègues d'études, d'apprentissage, etc.				·
Membres d'une association (p.ex. sportive, professionnelle)	····-			
Autres connaissances professionnelles	····-			
D'autres chômeurs que j'ai connus pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)				
Amis proches	<u></u>			
Voisins	<u> </u>			
Membres de ma famille proche (parents, frères et soeurs, enfants, conjoint)	<u></u>			
Membres de ma famille plus éloignée (cousin, oncle ou tante, belle- famille)				
Autres connaissances	<u></u>			

C3. Parmi les personnes de votre entourage qui vous ont informé sur des postes vacants ou sur des employeurs potentiels, combien étaient des femmes et combien étaient des hommes?	
Si vous ne vous rappelez pas le chiffre exact, veuillez indiquer un chiffre approximatif.	ļ
Femmes	
Hommes	
C4. Parmi les personnes de votre entourage qui vous ont informé sur des postes vacants ou sur des employeurs potentiels, combien avaient les nationalités suivantes?	
Si vous ne vous rappelez pas le chiffre exact, veuillez indiquer un chiffre approximatif.	
Suisse	
Portugaise	
Française	
Italienne	
Espagnole	
Ex-Yougoslave (BIH, HR, MK, MNE, SLO, SRB, RKS) ou Albanie	
Turque	
Nationalité d'Amérique latine	
Nationalité africaine	
Autre nationalité européenne	
Autre nationalité	
Section D - Votre situation actuelle	
D1. D'une manière générale, dans quelle mesure êtes-vous satisfait de votre vie aujourd'hui?	
0 = Pas du 1 2 3 4 5 6 7 8 9 tout satisfait	10 = Totalement satisfait

D2.	Trouvez-vous que la durée de votre chômage	
	était beaucoup plus courte que ce que vous pensiez	
	était un peu plus courte que ce que vous pensiez	
	correspondait à ce que vous pensiez	
	était un peu plus longue que ce que vous pensiez	
	était beaucoup plus longue que ce que vous pensiez	
D3.	Avez-vous trouvé un poste de travail?	
	Oui	
	Non	Aller à G16
Sa	ction E Commont avoz vous trouvé votro posto do travail actur	210
50	CION L - Comment avez-vous trouve votre poste de travair actue	JI (
D 1		
EI.	Par quel moyen avez-vous eu la toute première information sur le fait que votre nouvel employeur cherchait quelqu'un? Par l'intermédiaire de :	
	une annonce dans la presse	
	une annonce sur Internet ou dans une newsletter en ligne	
	en réponse à ma candidature spontanée par courrier (lettre écrite)	
	ma visite spontanée en personne ou mon appel téléphonique à l'entreprise	
	l'Office Régional de Placement (ORP)	
	une agence de placement privée (p.ex. Manpower)	
	en réponse à mon CV publié sur internet (Job-Up, LinkedIn)	
	un réseau social sur internet (p.ex. facebook)	
	un contact direct par l'employeur	
	information par une autre personne	
	autre	

Oui, elle faisait partie de mon entourage (amis, famille, collègues, connaissances) Oui, mais elle ne faisait pas partie de mon entourage (par exemple votre conseiller ORP ou un coach professionnel) Non, je ne la connaissais pas avant Aller à G1	E2.	Si vous avez reçu votre première information sur votre nouveau poste par le biais d'une personne, est-ce que vous connaissiez cette personne avant qu'elle ne vous ait donné cette information?
	(Oui, elle faisait partie de mon entourage (amis, famille, collègues, connaissances) Oui, mais elle ne faisait pas partie de mon entourage (par exemple votre conseiller ORP ou un coach professionnel) Non, je ne la connaissais pas avant Aller à G1

Section F - La personne clé pour votre nouvel emploi

Les questions de cette section portent sur la personne de votre entourage (famille, collègues, amis, voisins, etc.) qui vous a donné la première information sur votre nouvel emploi. Les professionnels comme les conseillers ORP, agences privées, etc., ne sont pas concernés par cette section.

F1.	Qui est-ce qui vous a donné la première information sur votre nouveau poste de travail ou sur votre nouvel employeur?	
	(Ancien) collègue de travail	
	Collègue d'études, d'apprentissage, etc.	
	Membre d'une association (p.ex. sportive, professionnelle)	
	Autre connaissance professionnelle	
Un autre	e chômeur que j'ai connu pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)	
	Ami proche	
	Voisin	
	Membre de ma famille proche (parents, frères et soeurs, enfants, conjoint)	
	Membre de ma famille éloignée (cousin, oncle ou tante, belle-famille)	
	Autre connaissance	
F2.	La personne qui vous a donné la première information sur votre nouveau poste était-elle une femme ou un homme?	

Une femme

Un homme

F3.	De quelle nationalité est la personne qui vous a donné la première information sur votre nouveau poste de travail?	
er ia j		
	Suisse	
	Portugaise	
	Française	
	Italienne	
	Espagnole	
	Ex-Yougoslave (BIH, HR, MK, MNE, SLO, SRB, RKS) ou Albanie	
	Turque	
	Nationalité d'Amérique latine	
	Nationalité africaine	
	Autre nationalité européenne	
	Autre nationalité	
F4.	Quelle était la situation professionnelle de la personne qui vous a donné la première information sur votre nouveau poste?	
	Elle était au chômage	Ļ
	Elle ne travaillait pas (ménage, enfants, rente, retraite, formation,)	
	Elle travaillait, mais elle n'avait pas d'emploi fixe	
	Elle avait un emploi fixe sans fonction de cadre	
	Elle avait un emploi fixe en tant que cadre	
	Je ne sais pas	
F5.	La personne qui vous a donné la première information sur votre nouveau poste a-t-elle travaillé dans la même branche que vous?	
	Oui, elle travaille ou a travaillé dans la même branche	\Box
	Non, elle n'a jamais travaillé dans la même branche	
	Je ne sais pas	

F6.	Quel est le niveau de formation de la personne qui vous a donné la première information sur votre nouveau poste, comparé à votre niveau de formation?	
	Elle a un niveau de formation plus élevé que moi	_
	Elle a plus ou moins le même niveau de formation que moi	<u> </u>
	Elle a un niveau de formation moins élevé que moi	
	Je ne sais pas	
F7.	Pendant que vous cherchiez du travail, à quelle fréquence étiez- vous en contact avec la personne qui vous a donné la première information sur votre nouveau poste?	
Veuil le tél	llez considérer ici différentes formes de contacts, comme par exemple rencontrer la personr éphone, le courriel, etc.	1 0 ,
	Plus d'une fois par semaine	Ţ
	Entre une fois par semaine et une fois par mois	
	Moins d'une fois par mois, mais plus d'une fois tous les six mois	
	Moins d'une fois tous les six mois	
F8.	Savez-vous d'où cette personne a eu l'information sur votre nouveau poste ? Elle avait l'information	
	d'une annonce dans la presse ou sur internet	Ţ
	directement de mon employeur actuel	
	d'un de ses collègues de travail, d'étude ou d'apprentissage, etc.	
	d'un de ses collègues d'une association (p.ex. sportive, professionnelle)	
	d'un de ses amis	
	d'un de ses voisins	
	de quelqu'un de sa famille	
	d'une autre personne	
	Je ne sais pas	

F9. La personne qui vous a donné la première information sur votre nouveau poste vous a-t-elle fourni une aide supplémentaire?	
Plusieurs réponses possible.	
Oui, c'est elle qui m'a engagé	,
Oui, elle m'a recommandé auprès de mon nouvel employeur	
Oui, elle m'a donné des conseils utiles sur l'entreprise et/ou le poste en question	
Oui, elle m'a aidé à préparer mon dossier (formuler mon CV ou une lettre de motivation)	
Oui, elle m'a aidé à préparer un entretien d'embauche	
Oui, elle m'a informé sur des stratégies pour retrouver un emploi	
Non, elle m'a seulement passé l'information	
F10. Est-ce que quelqu'un d'autre de votre entourage vous a aidé d'une des manières suivantes à obtenir votre nouvel emploi?	
Oui, quelqu'un m'a donné des conseils utiles sur l'entreprise et/ou le poste en question	
Qui quelqu'un m'a recommandé auprès de mon nouvel employeur	
Oui, quelqu'un que je connaissais m'a engagé	
Non	
Section G - Caractéristiques de votre poste actuel	
G1. À quelle date avez-vous commencé votre nouveau travail? Si vous n'avez pas encore commencé, à quelle date votre premier jour de travail est-il prévu ?	
Veuillez écrire en un seul bloc dans l'ordre suivant: jour, mois, année. Par exemple: 15.3.2012 = 15032012	
G2. Dans quelle branche économique se trouve votre nouveau travail?	
Veuillez indiquer le plus précisément possible la branche économique dans laquelle vous êtes actif (par exemple « horlogerie », et pas uniquement « industrie »).	

G3.	Après votre période de chômage, quel est ou quel sera votre métier?
<i>:</i> Veuillez indiquer le plus précisément possible votre métier (par exemple « employé technique qualifié », et non pas seulement « employé »).	
G4.	Combien d'employés travaillent dans votre nouvelle entreprise ?
	1 à 10 employés
	11 à 50 employés
	51 à 100 employés
	101 à 250 employés
	251 à 1000 employés
	Plus de 1000 employés
G5.	Combien d'heures devez-vous travailler en moyenne par semaine (sans heures supplémentaires)?
	Heures par semaine
G6.	Quel type de contrat de travail avez-vous actuellement?
	Contrat de durée indéterminée
	Contrat de durée déterminée (sans contrat de travail intérimaire)
	Contrat de travail intérimaire (par l'intermédiaire d'une agence de travail temporaire)
	Contrat de travail sur appel
	Autre
G7.	Si votre contrat de travail est de durée déterminée, quelle est sa durée?
	Moins de 6 mois
	Entre 6 et 12 mois
	Plus de 12 mois, mais moins de 24 mois
	24 mois ou plus

4	
G8 .	Êtes-vous toujours à la recherche d'un emploi?
	Oui, je cherche un nouveau poste de travail pour remplacer celui que je viens de trouver
1	Oui, je cherche un poste de travail complémentaire à celui que je viens de trouver
	Non
G9.	Dans quelle mesure êtes-vous satisfait de votre emploi aujourd'hui?
0 = pas d tout satisf	auguru nur. u 1 2 3 4 5 6 7 8 9 $10 =$ ait Totalement satisfait
-	
G10.	Votre nombre d'heures de travail actuel correspond-il au nombre d'heures que vous cherchiez?
	Oui
	Non, j'aurais voulu travailler plus d'heures
	Non, j'aurais voulu travailler moins d'heures
G11.	Pour effectuer votre travail, faut-il en règle générale un niveau de formation plus élevé, équivalent ou plus bas que le vôtre?
	Il faut un niveau de formation plus élevé que le mien
	Il faut un niveau de formation équivalent au mien
	Il faut un niveau de formation plus bas que le mien
G12.	En comparaison avec l'emploi que vous aviez avant votre chômage, votre nouvel emploi signifie-t-il plutôt ?
	une meilleure position sociale
	une position sociale similaire
	une moins bonne position sociale
	Je n'ai jamais travaillé avant

G13. Si vous comparez le salaire de votre travail actuel avec celui de votre emploi avant le chômage: Le montant de votre salaire actuel est
beaucoup plus élevé
un peu plus élevé
identique
un peu moins élevé
beaucoup moins élevé
Je n'ai jamais travaillé avant
G14. Quel est le montant de votre salaire MENSUEL brut actuel
(salaire avant deductions sociales ou impor a la source):
montant exact, nous vous prions de l'estimer le plus précisément possible. Si vous avez plusieurs emplois, merci d' indiquer seulement le montant de votre activité principale.
Salaire brut par MOIS (en CHF)
Salaire brut par heure (en CHF)
G15. Si vous avez plusieurs emplois, pouvez-vous indiquer le total brut MENSUEL de tous vos salaires cumulés?
Salaires cumulés par MOIS (en CHF)
G16. Souhaitez-vous ajouter des commentaires?
G17. Si vous souhaitez être informé des résultats de cette enquête.
veuillez indiquer une adresse mail à laquelle nous pourrons vous envoyer un résumé du rapport final:
Merci beaucoup pour votre participation à cette enquête!

Questionnaire 3





Les réseaux sociaux et l'accès à l'emploi Questionnaire

FNSNE

Fonds NATIONAL SUISSE DE LA RECHERCHE SCIENTIFIQUE



Section A: Questions démographiques		
A1.	Quelle est votre date de naissance? Ecrire en un seul bloc, par exemple 11.09.1965 = 11091965	
A2.	Quelle est votre situation professionnelle actuelle? Plusieurs réponses possibles.	
	Salarié d'une entreprise privée, d'une ONG ou d'une autre association	
	Salarié d'une entreprise publique (secteur public)	
	Indépendant	
	Au chômage ou en dispense de recherche d'emploi	
	En formation	
	En retraite ou en retraite anticipée	
	Au bénéfice d'une rente (maladie, invalidité, etc.)	
	Au foyer (tâches domestiques, enfants)	
	Autre (congé non payé, etc.)	

Section B: Associations

B1. Quelle est votre participation pour chacune de ces associations?

	Je suis Je suis membre membre et je mais ne participe pax participe pas aux activités aux activités membre
Club sportif	
Syndicat	
Organisation religieuse	
Parti politique	
Association ou cercle d'immigrants	
Groupe de voisins	
Association caritative	
Fanfare, clique ou groupe de musique	
Autre association	
Section C: Réseaux informatiques	
C1. Avez-vous un profil sur Facebook, LinkedIn, Xing, ou un a informatique ? Plusieurs réponses possibles.	utre réseau
	Xing
	LinkedIn
	Facebook
	Un autre réseau

Je ne suis membre d'aucun réseau informatique

C2.	Si vous êtes membre d'un réseau informatique, à quelle fréquence le mettez-vous à jour (publication d'information, changement d'images, etc.) ?	
	Tous les jours	
	Plusieurs fois par semaine	
	Plusieurs fois par mois	
	Au moins une fois par année	
	Jamais	
C3.	Pensez-vous que les réseaux informatiques aident à trouver un emploi ?	
	Je ne sais Oui Non pas	
C4.	Êtes-vous inscrit sur un site pour trouver un emploi, comme Jobup ou autre ?	
	Oui Non	
Secti Nous voi	on D: Amis adrions maintenant vous poser quelques questions à propos de gens que vous connaissez en dehors de votre famille.	
D1.	Dans votre quartier, combien avez-vous d'amis ?	
	Aucun 1-2 3-4 5-6 7-10 11 ou plus	
D2.	Parmi eux, combien ont un emploi fixe ?	
	Presque Presque Je ne sais Tous tous Plusieurs aucun Aucun pas	
D3.	Combien de vos anciens camarades d'école ou d'apprentissage sont toujours vos amis ?	
	Aucun 1-2 3-4 5-6 7-10 11 ou plus	
D4.	Parmi ceux-ci, combien ont un emploi fixe ?	
	Presque Presque Je ne sais Tous tous Plusieurs aucun Aucun pas	

I

D5.	Combien de vos anciens collègues de travail sont toujours vos amis ?	
	Aucun 1-2 3-4 5-6 7-10 11 ou plus	
D6.	Combien d'entre eux ont un emploi fixe ?	
	Presque Presque Je ne sais Tous tous Plusieurs aucun Aucun pas	
D7.	Combien d'autres amis avez-vous, à part ceux que vous venez de mentionner ?	
	Ansum 1.2 3.4 5.6 7.10 11 on plus	
D8.	Combien d'entre eux ont un emploi fixe ?	
	Presque Presque Je ne sais	
D9.	Si vous êtes en couple et que votre conjoint/e vit en suisse, que	
	Il/elle a un poste fixe ou est indépendant/e	
	Il/elle travaille de façon irrégulière	
	Il/elle ne travaille pas ou/et touche une rente	
	Il/elle ne vit pas en Suisse	
	Je n'ai pas de conjoint/e	
D10.	Supposez que vous ayez besoin d'emprunter une importante somme	
	d'argent (CHF 1'000). A qui demandez-vous en premier? Les conjoints sont considérés comme des parents. Une seule réponse possible.	
	Un parent	
	Un ami	
	Une banque ou un organisme de crédit	
	Un service public ou social (chômage, aide sociale, etc.)	
	Quelqu'un d'autre	
	Personne	
	Je ne sais pas	



E4.	Sur une échelle de 0 à 10, diriez-vous que vous êtes satisfait de votre vie ces jours-ci ?
E5.	Sur une échelle de 0 à 10, diriez-vous que c'est vous qui dirigez ce qui se passe dans votre vie ou plutôt que vous n'avez aucun contrôle sur elle?
Е6.	Quel salaire mensuel brut avant déductions sociales et impôt à la
57	source voudriez-vous au moins pour un emploi aujourd'hui, à 100% ?
E7.	A présent, imaginez que votre allocation chômage soit supprimée si vous n'acceptez pas l'emploi qu'on vous propose. Jusqu'à quel salaire mensuel brut êtes-vous prêt à descendre dans ces conditions, toujours à 100% ?
E8.	En ce moment, devez-vous réduire vos dépenses pour vos boissons, repas ou sorties?
E9.	Avez-vous une voiture ? Oui Non

E10. Dans votre dernier emploi, dans quelle mesure les aspects suivants étaient importants pour vous et votre bien-être général?

	Pas du tout important	Peu important	Important	Très important
Le contact avec les gens	·····			
Un emploi du temps structuré et régulier	·····			
Contribuer à des activités qui ont une utilité collective				
Le statut social (la reconnaissance sociale)	····			
La possibilité d'avoir une indépendance économique vis-à-vis d'autrui (partenaire, État, etc.)	·····			
Le sentiment de contrôle sur ma vie (pouvoir planifier ma vie et mon avenir)	····			

E11. Depuis que vous êtes au chômage, de quelle manière les aspects suivants ont-ils été affectés?

	Plutôt Très négati- Plutôt Très vement vement Neutre positivement positivement		
Le contact avec les gens			
Un emploi du temps structuré et régulier			
Contribuer à des activités qui ont une utilité collective			
Le statut social (la reconnaissance sociale)			
La possibilité d'avoir une indépendance économique vis-à-vis d'autrui (partenaire, État, etc.)			
Le sentiment de contrôle sur ma vie (pouvoir planifier ma vie et mon avenir)			
E12. De manière générale, depuis que vous êtes au chômage, quel aspect a			

affecté le plus négativement votre bien-être?

Indiquez brièvement l'aspect principal

E13. De manière générale, depuis que vous êtes au chômage, quel aspect a affecté le plus positivement votre bien-être?

Indiquez brièvement l'aspect principal

Section F: Vos recherches d'emploi

F1. À quelle fréquence avez-vous utilisé les méthodes de recherche d'emploi suivantes?

	Moins Environ _{Environ} Presque d'une fois une fois une fois par tous les Jamais par mois par mois semaine jours
J'ai parlé à mon entourage (p.ex. amis, famille, collègues, etc.) de mes recherches d'emploi	
J'ai fait des recherches dans la presse	
J'ai publié moi-même une ou plusieurs annonces dans la presse	
J'ai envoyé des offres spontanées à des employeurs	
Je me suis présenté spontanément en personne ou par téléphone auprès d'employeurs	
J'ai fait des recherches sur internet	
J'ai publié sur internet, dans un réseau social non-professionnel (comme p.ex. Facebook), que je cherchais du travail	
F2. Quelle est pour vous l'utilité des moyens de re trouver un emploi?	cherche suivants pour
	Pas utile Peu utile Utile Très utile
Offre spontanée écrite	e (lettre)
Présentation spontanée à l'entreprise (en personne ou par télé	(phone)

Présentation spontanée à l'entreprise (en personne ou par téléphone)
Conseiller ORP
Agence de placement privée
Famille proche (parents, frères et soeurs)
Famille éloignée (cousins, oncle ou tante, belle-famille)
Amis proches
Connaissances
 Anciens collègues de travail
 Internet
 Offres dans la presse

F3.	De manière générale, à quel point vous sentez-vous of faire les tâches suivantes?	capable de bien
	faire les taches survantes.	1 = Je ne me 4 = Je me sens pas sens tout à fait capable de capable de bien le faire 2 3 bien le faire
	Choisir les entreprises auxquelles faire des offres spontanées	
	Choisir les offres d'emploi auxquelles répondre	
	Ecrire une bonne lettre de candidature et un bon CV	
	Faire une bonne impression et être convaincant lors d'un entretien d'embauche	
F4.	À quelle fréquence avez-vous discuté avec votre ente recherches d'emplois? Pour les groupes de personne ci-dessous qui ne font pas partie de votre entourage, 'jamais'.	ourage de vos es énumérés , veuillez cocher
		De temps Jamais Rarement en temps Souvent
	(Anciens) collègues de travail	
	Collègues d'études ou d'apprentissage, etc.	
	Membres d'une association (p.ex. sportive, professionnelle)	
	Autres connaissances professionnelles	
D'a	utres chômeurs que j'ai connus pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)	
	Amis proches	
	Voisins	
Membre	s de ma famille proche (parents, frères et soeurs, enfants, conjoint)	
Membres	de ma famille plus éloignée (cousin, oncle ou tante, belle-famille)	
	Autres connaissances	

F5. Pendant vos recherches d'emploi, avez-vous reçu de entourage d'une des manières suivantes? Nous ne no à l'aide de professionnels (conseiller ORP, agence pr seulement à votre entourage.	l'aide de votre ous intéressons pas ivée, etc.) mais
	Oui Non
Quelqu'un m'a informé concrètement sur des stratégies pour ret	trouver un emploi
Quelqu'un m'a aidé à préparer mon dossier (formuler une lettre de mot	ivation, mon CV)
Quelqu'un m'a aidé à préparer un entr	etien d'embauche
F6. Parmi les groupes de personnes suivants, combien tr même branche que vous? Pour les groupes de person ci-dessous qui ne font pas partie de votre entourage, 'aucune personne'.	availlent dans la mes énumérés veuillez cocher
	Aucune Une Deux à cinq Plus de cinq personne personne personnes personnes
(Anciens) collègues de travail	
Collègues d'études, d'apprentissage, etc.	
Membres d'une association (p.ex. sportive, professionnelle)	
D'autres chômeurs que j'ai connus pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)	
Amis proches	
Voisins	
Membres de ma famille proche (parents, frères et soeurs, enfants, conjoint)	
Membres de ma famille plus éloignée (cousin, oncle ou tante, belle-famille)	

F7. A quelle fréquence les personnes de votre entourage vous ont-elles informé sur des postes vacants ou sur des employeurs potentiels? Pour les groupes de personnes énumérés ci-dessous qui ne font pas partie de votre entourage, veuillez cocher 'jamais'.

(Anciens) collègues de travail	De temps Jamais _{Rarement} en temps Souvent	
Collègues d'études, d'apprentissage, etc.		
Membres d'une association (p.ex. sportive, professionnelle)		
Autres connaissances professionnelles		
D'autres chômeurs que j'ai connus pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)		
Amis proches		
Voisins		
Membres de ma famille proche (parents, frères et soeurs, enfants, conjoint)		
Membres de ma famille plus éloignée (cousin, oncle ou tante, belle-famille)		
Autres connaissances		
F8. Parmi les personnes de votre entourage qui vous ont informé sur des postes vacants ou sur des employeurs potentiels, combien étaient des femmes et combien étaient des hommes? Si vous ne vous rappelez pas le chiffre exact, veuillez indiquer un chiffre approximatif.		
	Femmes	
	Hommes	

F9.	Parmi les personnes de votre entourage qui vous ont informé sur des postes vacants ou sur des employeurs potentiels, combien avaient les nationalités suivantes? Si vous ne vous rappelez pas le chiffre exact, veuillez indiquer un chiffre approximatif.	
	Suisse	
	Portugaise	
	Française	
	Italienne	
	Espagnole	
	Ex-Yougoslave (BIH, HR, MK, MNE, SLO, SRB, RKS) ou Albanie	
	Turque	
	Nationalité d'Amérique latine	
	Nationalité africaine	
	Autre nationalité européenne	
	Autre nationalité	
F10.	Pendant ou depuis que vous êtes inscrit à l'ORP, combien de fois avez-vous postulé pour un emploi (offres spontanées, réponses à des annonces, etc.)? Si vous avez déjà trouvé un nouvel emploi, veuillez inclure la candidature pour ce poste dans le nombre total des candidatures.	
F11.	Pendant ou depuis que vous êtes inscrit à l'ORP, combien de fois avez-vous été invité à des entretiens d'embauche? Si vous avez déjà trouvé un nouvel emploi, veuillez inclure l'entretien d'embauche pour celui-ci dans le nombre total d'entretiens d'embauche. Nombre d'entretiens d'embauche	
F12.	Avez-vous trouvé un emploi? Oui Non]

Section G: Votre poste retrouvé

Si vous n'avez pas encore trouvé de travail depuis le début de votre période de chômage au printemps 2012, vous pouvez ignorer les questions qui suivent. Merci de bien vouloir nous le renvoyer avec l'enveloppe réponse qui vous a été fournie. Nous vous remercions sincèrement de votre participation.

- G1. Après votre période de chômage, quel est ou quel sera votre métier? Veuillez indiquer le plus précisément possible votre métier (par exemple «employé technique qualifié», et non pas seulement «employé»)
- G2. Dans quelle mesure êtes-vous satisfait de votre emploi ? 10 = Tot 0 = pas du tout alem satisfait 1 2 3 4 5 6 7 8 9 satisfait
- G3. Si vous comparez le salaire de votre travail actuel avec celui de votre emploi avant le chômage: Le montant de votre salaire actuel est...

beaucoup plus élevé
un peu plus élevé
identique
un peu moins élevé
beaucoup moins élevé
Je n'ai jamais travaillé avant

G4.	Par quel moyen avez-vous eu la toute première information sur le fait
	que votre nouvel employeur cherchait quelqu'un? Par l'intermédiaire
	de :

G5.

une annonce dans la presse	
une annonce sur internet ou dans une newsletter en ligne	
en réponse à ma candidature spontanée par courrier (lettre écrite)	
ma visite spontanée en personne ou mon appel téléphonique à l'entreprise	
l'Office Régional de Placement (ORP)	
une agence de placement privée (p.ex. Manpower)	
en réponse à mon CV publié sur internet (Job-Up, LinkedIn)	
un réseau social sur Internet (p.ex. Facebook)	
un contact direct par l'employeur	
information par une autre personne	
autre	
Qui est-ce qui vous a donné la première information sur votre nouveau poste de travail ou sur votre nouvel employeur?	

(Ancien) collègue de travail	Ļ
Collègue d'études, d'apprentissage, etc.	
Membre d'une association (p.ex. sportive, professionnelle)	
Autre connaissance professionnelle	
Un autre chômeur que j'ai connu pendant des mesures du marché de travail (p.ex. formations, programmes d'occupation)	
Ami proche	
Voisin	
Membre de ma famille proche (parents, frères et soeurs, enfants, conjoint)	
Membre de ma famille éloignée (cousin, oncle ou tante, belle-famille)	
Autre connaissance	

G6.	Quelle était la situation professionnelle de la personne qui vous a donné la première information sur votre nouveau poste?	
	Elle était au chômage	
	Elle ne travaillait pas (ménage, enfants, rente, retraite, formation,)	
	Elle travaillait, mais elle n'avait pas d'emploi fixe	
	Elle avait un emploi fixe sans fonction de cadre	
	Elle avait un emploi fixe en tant que cadre	
	Je ne sais pas	
G7.	La personne qui vous a donné la première information sur votre nouveau poste a-t-elle travaillé dans la même branche que vous?	
	Oui, elle travaille ou a travaillé dans la même branche	
	Non, elle n'a jamais travaillé dans la même branche	
	Je ne sais pas	
G8.	Souhaitez-vous ajouter des commentaires?	
G9.	Si vous souhaitez être informé des résultats de cette enquête, veuillez	
	indiquer une adresse mail à laquelle nous pourrons vous envoyer un résumé du rapport final:	

Merci beaucoup pour votre participation à cette enquête!

Follow-Up Questionnaire

LES RÉSEAUX SOCIAUX ET L'ACCÈS À L'EMPLOI Questionnaire final

Toutes les données seront traitées de manière confidentielle et exclusivement à des fins scientifiques.

Cochez la réponse sélectionnée avec une croix dans la case correspondante. En cas d'erreur, veuillez colorier toute la case cochée et faire une nouvelle croix dans la case qui correspond à la bonne réponse.

Merci de renvoyer ce questionnaire avec l'enveloppe de retour.

Quell	e est votre date de naissance ?						
Quelle est votre situation professionelle actuelle ? Plusieurs réponses possibles.							
	Au chômage ou en dispense de recherche d'emploi						
	Salarié d'une entreprise privée, d'une ONG, ou d'une autre association						
	Salarié d'une entreprise publique (secteur public)						
	Indépendant						
	En formation						
	En retraite ou en retraite anticipée						
	Au bénéfice d'une rente (maladie, invalidité etc.)						
	Au foyer (tâches domestiques, enfants)						
	Autre (congé non payé, etc.)						
Avez-vous trouvé un poste de travail ? OUI 🔲 NON 📃							

Si vous n'avez pas encore trouvé de travail depuis le début de votre période de chômage au printemps 2012, vous pouvez ignorer les questions qui suivent et nous renvoyer directement le questionnaire. Merci.

Après votre période de chômage, quel est ou quel sera votre métier ? Veuillez indiquer le plus précisément possible votre métier (par exemple «employé technique qualifié» et non pas seulement «employé»).

Dans quelle mesure êtes-vous satisfait de votre emploi aujourd'hui?

	-	-	-	-		-	-			-
0	1	2	3	4	5	6	7	8	9	10

0 = pas du tout satisfait 10 = totalement satisfait

Si vous comparez le salaire de votre travail actuel et celui de votre emploi avant le chômage: le montant de votre salaire actuel est...

beaucoup plus élevé

un peu plus élevé

identique

un peu moins élevé

beaucoup moins élevé

Je n'ai jamais travaillé avant

Par quel moyen avez-vous eu l<mark>a toute p</mark>remière information sur le fait que votre nouvel employeur cherchait quelqu'un ? Par l'intermédiaire de :

une annonce dans la presse
une annonce sur internet ou dans une newsletter en ligne
en réponse à ma candidature spontannée par courrier (lettre écrite)
ma visite spontanée en personne ou mon appel téléphonique à l'entreprise
l'Office régional de placement (ORP)
une agence de placement privée (p.ex. Manpower)
en réponse à mon CV publié sur internet (Job-Up, LinkedIn)
un réseaux social sur internet (p.ex. facebook)
un contact direct par l'employeur
information par une autre personne
autre

Si vous avez trouvé votre travail grâce à quelqu'un de votre entourage, merci de bien vouloir répondre aux questions suivantes. Dans le cas contraire, vous avez terminé le questionnaire et pouvez nous le renvoyer. Merci.

Qui est-ce qui vous a donné la première information sur votre nouveau poste de travail ou sur votre nouvel employeur ?

- Collègue d'études, d'apprentissage, etc.
- Membre d'une association (p.ex. sportive, professionnelle)
- Autre connaissance professionnelle
- Un autre chômeur que j'ai connu pendant des mesures du marché de travail
 - (p.ex. formations, programme d'occupation)
- Ami proche
- Voisin
- Membre de ma famille proche (parents, frère et sœurs, enfants, conjoint)
- Membre de ma famille éloignée (cousin, oncle, ou tante, belle-famille)
 - Autre connaissance

Quelle était la situation professionnelle de la personne qui vous a donné la première information sur votre nouveau poste ?

- Elle était au chômage
- Elle ne travaillait pas (ménage, enfants, rente, retraite, formation, ...)
- Elle travaillait, mais elle n'avait pas d'emploi fixe
- Elle avait un emploi fixe sans fonction de cadre
- Elle avait un emploi fixe en tant que cadre

Idhead

Je ne sais pas

La personne qui vous a donné la première information sur votre nouveau poste a-t-elle travaillé dans la même branche que vous ?

- FNSNE LIVES

- Oui, elle travaille ou a travaillé dans la même branche
- Non, elle n'a jamais travaillé dans la même branche
 - Je ne sais pas

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