

Job search methods and immigrant earnings: A longitudinal analysis of the role of bridging social capital

Ethnicities

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Abstract

This paper analyses how finding a new job affects the earnings of immigrants. I hypothesize that job changes are more successful for individuals who have access to bridging social capital. Using data from the German Socio-economic Panel (1996–2011), fixed-effects models show that finding a new job results in higher earnings only when immigrants have both native German friends and high levels of human capital. The effect is, however, not dependent on the search method: both formal (advertisement, employment agency), and informal search methods (referrals via friends) result in higher earnings. The presented evidence shows that bridging social capital can be activated and converted into a better position on the labour market. However, the effect of contact with natives is limited to those who are higher educated, or who have good German language proficiency, suggesting that only those individuals who are better off already profit from bridging social capital.

Keywords

Job search methods, bridging social capital, income, immigrants, longitudinal analysis

Introduction

Finding a job through contacts is one of the most important strategies to obtain work. In the US, 40–50% of all people use job contacts to find work (Granovetter, 1995; Mouw, 2003). For migrants this is no different. In Germany, migrants find almost 50% of their jobs through social networks (Drever and Hoffmeister, 2008). What matters is, however, not only whether job contacts help to find a job, but also

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whether contacts can help in finding a better job. Mouw (2003), for example, concludes that most of the effect of social capital reflects a tendency for similar people to become friends. This implies that migrants with relatively low-quality jobs have friends with similar occupations. Consequently, the chances for upward mobility through referrals are low.

Previous research indeed suggests that, for immigrants, referrals are not necessarily a good thing. For immigrants in the US, there is evidence that the use of contacts indeed results in lower-quality jobs (Stainback, 2008). Also, Petersen et al. (2000) conclude that the disadvantage that ethnic minorities have in the hiring process is due to the referral method. Sanders et al. (2002) conclude that reliance on social ties is most common for moves into jobs of low occupational prestige that have low human capital requirements. Conversely, the majority population seems to benefit from referrals: Smith (2000), for example, finds that white men are more likely to mobilise male and influential ties, which explains part of a wage gap when compared with Latinos.

On the other hand, there is ample evidence that contact with natives is beneficial for immigrants in making headway in the labour market, in terms of employment likelihood, income and occupational status (Aguilera, 2002; Aguilera and Massey, 2003; Kanas et al., 2009, 2011; Lancee, 2010, 2012a; Lancee and Hartung, 2012). However, most studies on immigrants' social capital do not measure activated social capital (such as job referrals). Rather, social capital is measured in terms of access to resources that are embedded in social relations (such as contacts with natives). Yet, access to resources is no guarantee that these resources can or will be used (Smith, 2005).

This leaves us with two questions. First, why do studies analysing immigrants' job referrals mostly find negative effects related to the use of job contacts, while studies analysing social capital as access to resources report dominantly positive effects? One possible answer is the quality of resources embedded within social relations (Lin, 1999). Negative effects of referrals on job quality could indicate social homophily in the sense that the resources available in those ties are similar to those of ego (McPherson et al., 2001). That is, contacts point to jobs, but they do not refer to better jobs (see also Mouw, 2003). With regard to immigrants' social capital, previous research finds that contact, especially with natives, provides access to valuable resources. However, previous work on immigrants' job contacts seldom differentiates between referrals that come from natives and those that do not. In this paper, I analyse whether referrals are more effective if people also have access to bridging social capital.

The second problem is that we do not know exactly what constitutes the positive effect of access to bridging social capital that has been reported in existing cross-sectional and longitudinal studies. It is not clear whether contact with natives indeed yields better referrals, or whether contacts help in other ways, such as support with writing an application, the preparation for a job interview, lobbying for a promotion, or dealing with host-country-specific institutions like employment agencies. Networks can be beneficial in different stages in the hiring process

(Fernandez and Fernandez-Mateo, 2006), but accessed measures of social capital cannot tell us more about which stages are effective.

This study seeks an answer to these questions by analysing if finding a new job is more successful for people who also have access to bridging social capital. Furthermore, I analyse whether the search method matters: is finding a job through contacts more successful than through formal applications? Put differently, I analyse which search method for immigrants is most likely to result in higher earnings. Answering these questions helps to better understand how social capital is beneficial for the labour market performance of immigrants in Germany. Relying on the German Socio-economic Panel survey (SOEP, 1996–2011), I estimate fixed-effects (FE) models.

Social capital and labour market outcomes

Within social capital research, there is a distinction between access to, and the actual use of, resources (see for a discussion, Lin, 2001). For example, Van der Gaag and Snijders (2004: 200) define social capital as access to resources: ‘the collection of resources owned by the members of an individual’s personal social network, which may become available to the individual as a result of the history of these relationships’. Lin (2008) includes both access and use and describes social capital as ‘resources that can be accessed or mobilised through ties in the network’. Smith (2005), however, finds that, for poor urban blacks in the US, having contacts does not necessarily mean that these also provide jobs, because the contacts themselves may be reluctant to refer. Smith (2005) points out that access is no guarantee that resources can also be used when necessary. She (2005: 44) concludes: ‘even when information is available and contacts can influence hire, they often do not.’ Also Petersen et al. (2000: 810) conclude that, ‘Ethnic minorities lack access to or utilize less well the social networks that lead to high success in getting hired.’ In other words, there is a difference between access to resources, and the ability to use them effectively in the labour market.

Job referrals

A job referral implies that a social contact points a person to a job and helps him in some way to get it. In other words: job referrals are activated social capital in the sense that the available resources are effectively used to make headway in the labour market.

Information about job opportunities is, however, unequally spread through society (Burt, 1992). Ethnic inequality in the hiring process is systematically putting ethnic minorities at disadvantage (Pager et al., 2009). Elliott (1999, 2001), for example, finds that insider referrals account for almost all ethnic variation in informal job matching. As McDonald et al. (2009) show, there is a white male advantage in the number of job leads received through routine conversations.

Similarly, white males are assumed to have access to high-quality jobs through 'old boys networks' (Simon and Warner, 1992).

A consequential question is whether ethnic inequality in networks results in lower-quality jobs for migrants. There is evidence – mostly for the US – that this is indeed the case. Green et al. (1999) (see also Falcon, 1995; Korenman and Turner, 1996) find that informal job networks are indeed harmful for the earnings of Hispanics in the US. Fernandez and Fernandez-Mateo (2006) even speak about the 'wrong' networks: ethnic minorities tend to use networks that lead to inferior jobs. Nee et al. (1994) studied job transitions of Asian immigrants in Los Angeles. They find that, over time, and with a succession of jobs, immigrants tend to move away from the informal ethnic economy, leading them to higher wages. Immigrants also use fewer ethnic ties to locate jobs, which suggests that 'bonding' referrals are associated with lower earnings. Smith (2000) finds that job contacts explain part of the wage differences between Latino and whites, but not between blacks and whites. Van Tubergen (2011) studied refugees in the Netherlands and found that both occupational status and functional level are lower for those who find their job through friends and family, compared to other search methods.

There is also some evidence for Germany. Drever and Hoffmeister (2008) – also using the SOEP data used in this paper – compared job-search strategies for immigrants in Germany. They concluded that jobs found through social networks are more likely to involve hard manual labour under difficult conditions. However, they did not find a difference in working conditions (like better duties, or responsibilities). Furthermore, for those who used networks to find a job and who have no close German friends, the improvement in working conditions is smaller. These findings suggest that referrals are more effective when they go together with access to bridging social capital. As a general hypothesis, one would expect that, for immigrants in Germany, if there is an effect of using job contacts, referrals result in better jobs only when migrants have contact with natives.

However, Drever and Hoffmeister (2008) did not differentiate between persons who find a job from unemployment, or from employment, which may have affected their findings. Furthermore, they looked only at subjective evaluation of the working conditions. For example, rather than predicting actual income, they used the item indicating whether the respondent believes s/he has better earnings. Also, Drever and Hoffmeister could not use the longitudinal structure of the data. For example, rather than comparing the conditions before and after the job change, Drever and Hoffmeister could only make comparisons between people, and only analysed those people who change jobs. Lastly, they carried out only a bivariate analysis, where unobserved heterogeneity is a big problem. With the data available now it is possible to analyse longitudinally which job change resulted in better income compared with a previous job.

Based on the findings of Drever and Hoffmeister (2008), it would be expected that referrals are more successful when they come from a native German. That is, whereas referrals in general might not lead to better jobs, once people can activate their bridging social capital, they are much more likely to get ahead.

Unfortunately, in the SOEP survey, there is no information as to whether the referral comes from a native German. Instead, it is possible to estimate the effect of finding a job through friends for people who have contact with natives and for those who do not. If there is a difference in earnings, this is likely to be caused by having access to bridging social capital. To prevent the possibility that effects are due to the ‘better-integrated’ having both more contact with natives and a better labour market position, I estimate FE models. In this way, only within-individual changes in income are analysed (see also the section measurement). The ‘bridging-referral’ hypothesis reads as follows:

H1: Finding a new job using informal job search methods, such as referrals through friends, results in higher earnings only when immigrants have access to bridging social capital.

Bridging social capital

Job referrals imply that social capital is activated. Often, however, social capital is conceptualised as access to social resources. Access to resources is mostly measured as friendships, ties with relatives, co-workers, etc. However, people mostly have contact with others similar to themselves: the homophily principle (McPherson et al., 2001). This translates into two types of social capital: ties with those who are ‘like you’ in some way (bonding social capital) and ties with those who are ‘unlike you’ in some meaningful way (bridging social capital) (Putnam, 2000).

Also in the case of immigrants’ social capital, this differentiation proves to be meaningful. Bridging social capital is referred to as the building of connections between heterogeneous groups (Schuller et al., 2000), like contacts between the minority and majority population. Bridging social capital, seen as bridging the ethnic divide, is beneficial to immigrants because it provides access to host-country-specific resources. According to Nederveen Pieterse (2003), inter-ethnic relations help immigrants to get access to helpful resources beyond their homogeneous ethnic networks. Earlier studies indeed find that contacts with natives help immigrants to make headway in the labour market with respect to employment and occupational status (see, for example, Aguilera and Massey, 2003; Kalter, 2006; Kanas et al., 2009, 2011; Lancee, 2010, 2012a; Lancee and Hartung, 2012).

Based on these findings, one would conclude that, for immigrants, contacts with natives contain valuable resources and hence result in better jobs. However, studies that measure bridging social capital as access to resources cannot tell us how resources are activated and converted into a better position in the labour market. As Fernandez and Fernandez-Mateo (2006) show, bridging networks operate at different stages in the process of job attainment and occupational upgrading. According to them, being stuck in the ‘wrong network’ is a black box that needs to be further specified. That is, access measures of social capital cannot tell us which

stages in the recruitment process are effective. Is it because natives refer to better jobs? Do people receive help from natives when writing an application? Or, does the positive effect of bridging social capital consist of obtaining information on how to negotiate for a promotion to a better position, or better remuneration? Are contacts with natives helpful when dealing with institutions like employment agencies?

If bridging social capital provides access to valuable resources, it can be expected that, for people with contact to natives, also other job search methods might be more successful. For example, Seibel and Van Tubergen (2013) found that when immigrants in the Netherlands had more contacts with native Dutch, they made more frequent use of formal rather than informal search methods. That is, bridging social capital is not only valuable through direct referrals, but also when finding a job through other channels, such as formal application. Contact with natives can be valuable when writing an application, or in the form of advice as to how to deal with an employment agency. By combining information on job search methods and contact with natives, it is possible to test this hypothesis.

H2: For immigrants who have access to bridging social capital, finding a new job through formal job search methods results in higher earnings.

Data and method

Sample

For the empirical analysis, I make use of the German SOEP, a panel study with a yearly questionnaire running since 1984 (Wagner et al., 1993). Because the measure for 'friends with Germans' is available only from 1996 onwards, the analytic sample is restricted to the years 1996–2011. The sample is restricted to men, because employment careers, as well as social networks differ substantially among (immigrant) men and women (Hagan, 1998; Livingston, 2006).

An advantage of using the SOEP is that it oversamples immigrants and contains four immigrant sub-samples¹ with extensive information on migration history and specific questionnaire items. The initial response rate for the immigrant sample varied from 64.7% for Italians, to 70% for Turks. Response rates for subsequent waves were considerably higher. The SOEP 'foreigner' sample is largely a guest worker sample in which the majority intends to stay for good. People are classified as migrants if they are born outside Germany, or if they are born in Germany but have a non-German nationality. The following ethnic groups are included: Turks, Italians, Ex-Yugoslavs, Greek, Spanish/Portuguese, Italian, Eastern European (EU10), Western European, or other non-European. In Table 1, the descriptive statistics for the ethnic groups are presented.²

As with all panels, the SOEP is subject to attrition, which could bias the results (Riphahn, 2004). The main sources of attrition were refusal and unsuccessful

Table 1. Descriptive statistics (N = 8020).

	Percentage		
Changing job	24.2		
Of which, job found through:			
Employment agency	9.6		
Friends	31.6		
Advertisement	12.8		
Other	46		
High education	31.9		
Good language proficiency	56		
German friends	55.7		
Co-ethnic spouse	68.3		
Native German spouse	12.7		
Unmarried	19		
Children in the household	71.9		
Active job search	17.5		
Self employed	7.1		
Irregular employment	0.3		
Ethnic origin			
Turkish	31.5		
(Ex)Yugoslav	15.7		
Greek	8.9		
Italian	16.2		
Spanish/Portuguese	5.6		
Eastern Europe (EU10)	12.2		
Western Europe	5.9		
Other Non-European	3.8		
Born in Germany	13.5		
	Mean	SD	Range
Weekly no. of working hours	42.82	8.43	6–80
Working experience in years	18.74	11.33	0–49
Years unemployment experience	0.83	1.74	0–18
Satisfaction with health	7.15	1.96	0–10
Language proficiency	3.78	0.99	0–5

Source: GSOEP 1996–2011.

follow-up; special measures were taken to reduce attrition, such as contacting respondents again each year until all members of the household refused for two consecutive years (Kroh and Spieß, 2008). The average attrition rate of the immigrant samples is 22% (Haisken-DeNew and Frick, 2005: 160). In the analytic sample, the attrition rate is 14%;³ attrition was not related to a specific ethnic group.

The analytic sample consists of full-time employed immigrant men, aged 20 to 65 (8020 observations, 1348 individuals). Similar to the method applied by Lancee and Radl (2014a), the data are organised in employment spells. Persons are part of the sample as long as they are employed, here also including (rare) job transitions to part-time employment and irregular employment. However, the first spell is always full-time employment. Constructing the spells in this way ensures a homogenous origin state (full-time employment), while accounting for all possible destination states when finding a new job (full-time, part-time and irregularly employed). Persons exiting the labour market (unemployment, inactive or retirement) are treated as censored. As such, it has to be noted, that the transition of interest is finding a new job for individuals who are already employed. Since for unemployed persons we do not observe earnings, it is not possible to analyse the transition from unemployment to employment or vice versa. While entering unemployment is an important labour market transition too, it is not the focus of the current study.

Method of estimation

A problem in cross-sectional research is potential bias due to unobserved heterogeneity: an effect can be due to enduring differences (such as unmeasured ability) between people, rather than because of having acquired social capital. Or, it could be that those migrants who are 'better integrated' in some unmeasured way are the ones who happen to possess social capital, rather than that social capital as such helps in finding better employment. Mouw (2003; but see also Halaby, 2004) reviewed the studies on social capital that aim at estimating a causal relationship, and is most favourable towards studies that apply FE models.

The FE model only draws on within-person variation and is specifically designed for analysing changes over time. Its advantage is that the FE estimator is unbiased and consistent, even when the assumption is violated that the unit effects are uncorrelated with the explanatory variable. Put differently, all time-constant, unobserved heterogeneity is eliminated because the FE estimator controls for all differences between individuals by cancelling out the idiosyncratic error term (Halaby, 2004).

The advantage of the FE model is that it provides an estimate of the within-individual difference in income before and after the job change. By relying only on within-person variance, all time-constant unobserved heterogeneity is eliminated. Besides eliminating time-constant unobserved heterogeneity, it is also possible to model causal ordering of the events correctly. By constructing the job change

variable as zero before the change, and as one once the job is changed, the coefficient refers to the average within-person change in income. Furthermore, by including year dummies, the difference in earnings before and after the job change is corrected for the population trend in income. That is, the coefficient of changing job indicates the change in income an individual experiences, corrected for changes in income that occur in the population. This modelling approach is equal to a difference-in-differences design.

All models are estimated with robust standard errors, and account for the clustering of observations within the individual (Wooldridge, 2003).

Measures

Dependent variable. Income is measured as the natural logarithm of the net labour market income, measured at constant price levels.

Occupational changes. Each year, respondents are asked if they changed employment in the past twelve months. Twenty-four percent of the sample reports at least one occupational change (Table 1). People who respond 'yes' are subsequently asked how they found out about their new job: through the employment office, through friends or relatives, through an advertisement, or in another way.⁴ Due to the longitudinal design of the data, it is possible to analyse which job changes result in a higher income. The dummies indicate the average change in earnings compared to that of the same individual before changing their job.

Bridging social capital. Bridging social capital is measured with a variable whether at least one of the three closest friends of the respondent is native German (available in 1996, 2001, 2006 and 2011). It has to be kept in mind that this indicator captures stronger ties, rather than weak ones. In that respect, weak ties in Granovetter's (1973) sense are not fully included. However, the item concurs with previous work on bridging social capital (Aguilera and Massey, 2003; Kanas et al., 2011; Lancee, 2012a). Since the item refers to strong ties, the within-individual variation of bridging social capital is not very high: 13% of the respondents report changes in their close friends during the period of observation. However, also with little within-individual variation, one can calculate the effect of occupational changes for individuals with and without bridging social capital.

Control variables. Since the FE estimator controls for all time-constant characteristics, only within-person variance is analysed. Therefore, one needs to only control for variables that change within people over time. I control for German language proficiency, measured as respondents' self-assessment of their spoken and written German. Furthermore, I control for the number of years of working experience, the number of years' unemployment experience and the number of hours worked per week. Since health is known to affect productivity (Becker, 2007), I also control for the respondents' self-rated health. I control for changes to self-employment,

and to irregular employment. Furthermore, I control for whether or not the job search was active, or just came up. Last, year dummies are added to control for a time trend. In Table 1, the descriptive statistics are presented.

Results

In Table 2, the multivariate results are presented. Model 1 shows that changing a job results in a higher income, but only for individuals who have native German friends. Immigrants who change job and have contact with native Germans, report on average about 6% ($\exp(0.059)$) higher earnings in their new position. This suggests that access to bridging social capital indeed has been activated. On the other hand, immigrants who change job and do not have German friends do not earn significantly more. Since the FE coefficients refer to within-individual changes, this is not a cross-sectional effect: the coefficient does not indicate that individuals who have contact to natives earn more compared to individuals without these contacts. Rather, it means that immigrants with contact to natives earn significantly (about 6%) more after they change jobs.

Whereas Model 1 is evidence for the positive effect of bridging social capital on earnings, it does not tell us how contacts with natives matter. In Model 2, we try to better understand this by specifying job search methods. Model 2 shows that when we differentiate by search method, none of the job changes results in higher earnings. This suggests that the success of changing job does not depend on the search method used. In contrast to previous research that found, for immigrants, informal job search methods result in lower earnings (Falcon, 1995; Green et al., 1999), Model 2 predicts that informal job search methods are no different from other methods. Rather, based on Model 2, it seems that those who change jobs do not earn significantly more than those who do not change occupation. In Model 3, however, we proceed by estimating the effect of changing job by search method for individuals with and without having native German friends. Model 3 shows that direct referrals from friends result in jobs with almost 8% higher earnings, but only in the case where immigrants also have access to bridging social capital (in line with H1). Without native German friends, finding a job through friends does not result in statistically significantly higher earnings. Referrals are therefore only successful for individuals who have access to bridging social capital. However, also finding a job through an employment agency and through advertisements results in a higher income (provided that one has German friends). This is in line with Fernandez and Fernandez-Mateo (2006), who find only scant evidence for the argument that referrals cut off minorities from finding (better) employment. In line with H2, for individuals who have access to bridging social capital, formal search methods result in higher earnings. This suggests that the effect of bridging social capital is not limited to referrals only.

It could be that the effect of finding a new job through formal channels for respondents with German friends predominantly reflects language help, rather than assistance with the specificities of the German job-application process. However, an interaction between the respondent's language proficiency and finding a job

Table 2. Fixed-effects regression predicting the effect of finding a new job on income (ln).

	Model 1		Model 2		Model 3	
	b	SE	b	SE	b	SE
Changing job, German friends	.059**	(.022)				
Changing job, no German friends	.010	(.028)				
Changing job and finding a job through:						
Employment agency			.028	(.038)		
Friends			.035	(.031)		
Advertisement			.073	(.039)		
Other			.028	(.025)		
German friends and finding job through:						
Employment agency					.076*	(.037)
Friends					.077*	(.031)
Advertisement					.089*	(.044)
Other					.036	(.029)
No German friends, and finding job through:						
Employment agency					-.046	(.056)
Friends					-.011	(.046)
Advertisement					.058	(.051)
Other					.022	(.034)
German friends	.013	(.012)	.027*	(.011)	.014	(.012)
Marital status						
Co-ethnic spouse	ref.		ref.		ref.	
Native German spouse	.035	(.051)	.040	(.051)	.038	(.051)
Unmarried	-.147***	(.032)	-.146***	(.032)	-.147***	(.032)
Number of children	.013	(.014)	.011	(.014)	.012	(.014)
Active job search	-.036***	(.008)	-.035***	(.009)	-.035***	(.009)
Weekly no. of working hours	.003***	(.001)	.003***	(.001)	.003***	(.001)
Working experience in years	-.000	(.024)	-.001	(.024)	.001	(.024)
Unemployment experience	-.060*	(.030)	-.061*	(.030)	-.059	(.030)
Self-employed	.147**	(.047)	.147**	(.048)	.151**	(.047)
Transition to irregular employment	-.848***	(.143)	-.851***	(.144)	-.850***	(.143)
Satisfaction with health	.008***	(.002)	.008***	(.002)	.008***	(.002)
German language proficiency	-.006	(.008)	-.006	(.008)	-.005	(.008)
Constant	6.927***	(.314)	6.932***	(.314)	6.907***	(.314)

(continued)

Table 2. Continued

	Model 1		Model 2		Model 3	
	b	SE	b	SE	b	SE
Number of observations	8020		8020		8020	
Number of individuals	1348		1348		1348	
Within R-squared	.343		.342		.344	

Source: GSOEP 1996–2011

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, two-tailed tests, robust standard errors.

Note: Models include year dummies.

through advertisements and the employment agency for respondents with German friends is not significant. This suggests that the help of German friends involves not only languages assistance, but also help with the job-application process itself.

Some scholars argue that bridging social capital is not distributed equally (Martinovic et al., 2009; Lancee and Seibel, 2014b). That is, certain migrants have more contact with natives than others. For example, Martinovic et al. (2009) found that, in particular, individuals with high levels of education and language proficiency establish contact with natives. If individuals who are predominantly highly educated, or who have high language proficiency have contact with natives, it could be that the effect of bridging social capital is limited to the ‘resource-rich’. Therefore, as a robustness check, in the next step we estimate the effect of finding a new job for these groups separately.

In Model 1 of Table 3, the effect of finding a new job is estimated separately for individuals with low (basic vocational and lower) and high education (intermediate general qualification and higher) levels. Only for individuals with higher levels of education does changing jobs result in higher earnings (about 9% higher earnings after changing job). In Model 2, we estimate the effect of finding a new job by level of education and having native German friends. Only when migrants are both highly educated and have contact with natives does changing job result in higher earnings. In Models 3 and 4, the same modelling strategy is followed for German language proficiency (above vs. below the mean). The results are similar: only individuals who have both good language proficiency and contact with natives earn more after changing jobs. This suggests that bridging social capital is beneficial only for individuals who have high levels of human capital. Conversely, for the highly educated, job changes are beneficial only when they have contact with natives. In other words, it seems that upward mobility is something for the resource-rich.

Conclusion

This paper analysed how changing job affects the earnings of male immigrants in Germany. Using longitudinal data, I examined whether searching for a new job is more successful when immigrants have access to bridging social capital.

Table 3. Fixed-effects regression predicting the effect of finding a new job on income (ln), by education and language proficiency.

	Model 1		Model 2		Model 3		Model 4	
	b	se	b	se	b	se	b	se
Changing job and:								
High education	.089**	(.031)						
Low education	.008	(.024)						
German friends and high education			.097***	(.031)				
German friends and low education			.035	(.027)				
No German friends and high education			.074	(.043)				
No German friends and low education			-.021	(.032)				
Good language proficiency					.052*	(.023)		
Bad language proficiency					.011	(.029)		
German friends and good language proficiency							.069***	(.024)
German friends and bad language proficiency							.034	(.035)
No German friends and good language proficiency							.023	(.031)
No German friends and bad language proficiency							-.009	(.038)
German friends	.025*	(.011)	.014	(.012)	.027*	(.011)	.015	(.012)
Marital status								
Co-ethnic spouse	ref.		ref.		ref.		ref.	
Native German spouse	.035	(.050)	.032	(.049)	.039	(.051)	.036	(.050)
Unmarried	-.145***	(.032)	-.145***	(.032)	-.145***	(.032)	-.146***	(.032)
Number of children	.012	(.014)	.013	(.014)	.011	(.014)	.012	(.014)
Active job search	-.035***	(.009)	-.035***	(.008)	-.036***	(.008)	-.036***	(.008)
Weekly no. of working hours	.003***	(.001)	.003***	(.001)	.003***	(.001)	.003***	(.001)

(continued)

Table 3. Continued

	Model 1		Model 2		Model 3		Model 4	
	b	se	b	se	b	se	b	se
Working experience in years	-.001	(.023)	-.000	(.023)	.000	(.024)	.001	(.024)
Unemployment experience	-.060*	(.030)	-.060*	(.030)	-.059	(.030)	-.059	(.030)
Self-employed	.140**	(.048)	.143**	(.047)	.145**	(.048)	.148**	(.047)
transition to irregular employment	-.854***	(.144)	-.849***	(.143)	-.852***	(.143)	-.848***	(.142)
Satisfaction with health	.008***	(.002)	.009***	(.002)	.008***	(.002)	.008***	(.002)
German language proficiency	-.006	(.008)	-.005	(.008)	-.009	(.008)	-.008	(.008)
Constant	6.932***	(.311)	6.924***	(.311)	6.934***	(.313)	6.927***	(.314)
Number of observations	8020		8020		8020		8020	
Number of individuals	1348		1348		1348		134	
Within R-squared	.344		.345		.343		.343	

Source: GSOEP 1996–2011

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$, two-tailed tests, robust standard errors.

Note: Models include year dummies.

The provided evidence suggests that referrals from friends are only beneficial for earnings if they go together with having access to bridging social capital, here measured by having native German friends. However, the findings also indicate that when individuals have German friends, finding a new job through formal search methods results in higher earnings.

This paper contributes to the literature by analysing in more detail and by using a longitudinal design, how different job-search strategies affect immigrants' earnings. Access measures of social capital, such as having contacts who are natives, cannot tell us how contacts help in finding better employment. By combining access measures with job-search strategies, the findings suggest that referrals are more beneficial in cases where they go together with having contact with native Germans. This suggests that bridging social capital can be activated and converted into jobs with higher earnings.

However, the positive effect of bridging social capital is not confined to providing valuable referrals. Rather, it seems that native friends can also be useful with formal search methods, such as writing an application, finding a vacancy, or dealing with employment agencies. Fernandez and Fernandez-Mateo (2006) conclude that there is little evidence that referrals cut off minorities from employment. Based on the evidence presented here, it indeed seems that, provided that one has access to bridging social capital, formal job-search methods can result in better jobs too. That is, access to host-country-specific resources, here in the form of bridging social capital, is essential for upward mobility in the labour market. Such host-country-specific information can come in many forms, be it referrals or otherwise. Those who do not have contact with natives risk being 'stuck' in the wrong networks, where information that is valuable on the labour market is hard to come by (Lancee, 2010; Royster, 2003).

Importantly, the results indicate that these findings hold only for individuals who are higher educated, or who have good German language proficiency. Only for individuals who are both highly educated (or have good language proficiency) and have native German friends, finding a new job results in higher earnings. An explanation for this finding could be that highly educated individuals and those with better language proficiency have higher-quality networks. For example, the networks of the highly educated may contain more high-status individuals who are more likely to be able to provide referrals, or valuable advice (Lin, 1999). This is in line with the findings of Mouw (2003), who concludes that most of the effect of social capital reflects the tendency of similar people to become friends. However, this does not imply that networks do not matter: only individuals with high levels of human capital and access to bridging social capital earn significantly more after changing jobs. 'Resource-rich' therefore refers to both human and social capital.

Several limitations of the present study should be acknowledged. First, although we know whether a job has been obtained through a referral, we do not know for sure whether the referrer is native or co-ethnic. Instead, we estimated the effect of finding a job through friends, for individuals with, and without, native German friends. This implies that, in the current analyses, it was not possible to estimate whether native

referrals are more beneficial than co-ethnic ones. Rather, the presented evidence suggests that referrals are more beneficial for individuals with access to bridging social capital. The explanation for this finding is twofold: first, it could indeed be that for individuals with bridging social capital, referrals predominantly come from natives. Second, this paper has argued that bridging social capital can be beneficial over and above referrals, for example in providing help with the application process. Although the current analysis is an improvement upon previous work, with the data at hand it was not possible to empirically separate these mechanisms.

A second limitation is that the current study only estimates the effect of search methods on earnings for individuals who are employed and who change their job. The population of interest is therefore employed individuals only. The findings might be different for other types of transition, such as from unemployment to employment, or from school to work. Furthermore, the current analysis did not analyse whether job changes occurred within the same occupational class, or between different occupations. While the advantage of the current design is that one observes income from employment before and after the job change, it has to be kept in mind that this is a specific job transition, which might not be generalizable to other labour market transitions.

Third, one cannot exclude the possibility that immigrants with bridging social capital are a select group. It could hence be that unobserved variables that correlate with bridging social capital explain the effect of having contact with natives on earnings. However, since the estimation uses person FE, this is only problematic insofar as time-variant unobserved variables correlate with bridging social capital. The question is then, what correlates with both bridging social capital and earnings that also changes over the course of people's lives? It has been suggested that the propensity to integrate is such a factor (Haug, 2008). However, Lancee (2012b) finds significant effects in having German friends on income and occupational status, while taking into account the propensity to integrate (measured as the intention to stay in Germany, and 'feeling German').

Keeping in mind these limitations, it seems that, for German immigrants in the upper segments of the labour market, bridging social capital can be used to find a new job with higher earnings. This effect is, however, not limited to direct referrals, but also holds for formal search methods.

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Notes

1. Immigrants are either included in the 'foreigner' sample (started in 1984, consisting of Turks, Yugoslavs, Greeks, Italians and Spanish), in the 'immigrant sample' (started in 1994/1995, consisting of households in which at least one member moved from abroad to Germany), or in the 'refreshment' sample (1998 and 2000).
2. Ethnic origin is not included in the multivariate analyses because it is time-constant. By including person FE, all time-constant heterogeneity is controlled for.
3. The attrition rate is most likely lower because only the employed population is included.
4. The other category consists of 'unspecified' and 'back to previous employer'. The category 'back to previous employers' has too few observations to include separately.

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