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Social Capital and Economic Incorporation.

The Case of Immigrants to Australia

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1. INTRODUCTION

What is the role of social networks in the job attainment of immigrants in the Australian skill selective context? Although recent work has offered insight into time to first post-migration job (Thapa and Gørgens 2006), immigrant occupational mobility (Chiswick et al. 2003, 2005) and the impact of job searching channels on job quality (Mahuteau and Junankar 2007), little is known about the role of social networks in initial post-migration employment and the associated occupational mobility. This research builds upon job search activities (of immigrants) literature in three ways. Differently from previous work, we are able to account for the search process of those employed, and we focus on social networks as a method of search among other alternatives. We assess their impact in terms of employability and its variation with education in this respect, while accounting for different components of social capital. On the premises of Montgomery's (1992) model we then investigate the network effect on initial occupational mobility. Our results are estimated using the first edition of the Longitudinal Survey of Immigrants to Australia (LSIA) which speaks to immigrants who entered Australia between 1993 and 1995.

We find that involving networks in job search increases the odds of entering employment in the three and a half years window after migration. Somewhat in line with the intentions behind a system which favors pre-arrangement employment and self-reliance among the highly skilled, we reveal lower employment returns to network involvement for those with specialized training compared to those with less than secondary training. As far as initial occupational mobility is concerned, once we consider Montgomery (1992) and Mouw (2003) theory-based criticism we uncover little evidence that networks might have an effect on the relative risk of experiencing downward mobility as opposed to no mobility. These results bring into question previous work in the area in as far as they raise the concern of thoroughly discussing the meaning and inherent relations between different network indicators.

2. SOCIAL CAPITAL AND LABOR MARKET OUTCOMES

2.1 Core work

As a construct, social capital can be operationalized in a number of ways. Bourdieu (1986:248) describes it as membership to a group, which entitles the members to credit, in the various senses of the word. Lin (2001b) defines it as "an investment and use of embedded resources in social relations for expected returns", while Van der Gaag and Snijeders (2004) as a collection of resources which are available to the individual as a result of the history of the relationships that produced them. A relatively concrete, and widely accepted, approach considers social capital to be encapsulated by personal social ties (i.e., social networks). In terms of resources, some argue that social capital can increase an individual's capacity for action by providing benefits, chiefly in the format of information, influence or control, and social solidarity (Sandefur and Laumann 1998: 493).

This work targets the point in the job-acquisition process at which social capital is first mustered, exploring the relationship between the flow of information provided by networks and the impact of this resource on the job search process. The intention is to assess initial employment and occupational mobility. The latter is defined as the increase or decrease in occupational prestige subsequent to migration.

The importance of social capital, defined by networks, has a strong tradition in the literature. The starting point is generally Granovetter's (1973, 1974) seminal work, which introduces a typology of the strength of network ties and, moreover, links the idea of information provided by personal contacts during job search to the act of job acquisition. Although not directly addressing mobility in terms of occupational prestige, Granovetter (1995: 13) points out that those who find their job via personal contacts are better off in terms of a number of monetarily (i.e., wages) and non-monetarily (i.e. job satisfaction and intention to quit).

The empirical evidence, as noted by Granovetter (1995:147), is mixed (see Green 1999, Mouw 2003, Marsden and Gorman 2001, Elliott 2001). Individuals in high-status jobs are found to have large social networks, but these networks do not clearly play a direct role in the acquisition of these jobs (Lin 1999). Mouw (2003: 874) attributes this association or lack of it, to unobserved individual characteristics and introduces the notion of "spurious" social capital defined as the non-random acquisition of social ties and the presence of unobserved ability in survey data. This concern is echoed by

Montgomery (1992) who points out that a focus on how a job was obtained disregards the types of jobs which were rejected during the search process and their effect on the assessment of subsequent offers. In other words, as the job-search process unfolds, the experience of the job-seeker increasingly plays a role in the assessment of subsequent offers.

The earlier work of Granovetter (1973, 1974) spawned a broader literature (see, Granovetter 1995, Mouw 2003, Voss 2007 for overviews) which offers two general insights. First, there is a lack of consensus with respect to network-based search's ability to facilitate better jobs. Second, it's unclear whether 'job networks' are pertinent only to the job search, acquisition of employment or both (Elliot 1999: 213).

2.2 Montgomery's model and empirical application

Montgomery's (1991, 1992) approach focuses on job search. While on the market, the seeker is presented, sequentially, with offers. The process involves accepting or rejecting an offer and continuing the search. This search, however, is a costly process. Theoretically, at some point one will accept a job of a certain status, given that he/she does not expect to find a better job that will justify the continuation of the search (Mortensen, 1986). The higher the status of a given job (or the expectation of the viability of the acquisition of a high-status job), the longer a search process can be pursued, as a reasonable match will provide sufficient compensation to justify the time and effort invested. In addition, the more offers one anticipates the higher his/her expectations and the higher the probability of finding a high-status job as a given rejection is of less importance. This job offer arrival rate is a function of a job-seeker's human and social capital.

The idea behind Montgomery (1992) model is that in addition to formal methods, social networks methods have a key role in the search process as they influence both the job arrival rate and the offers distribution. This role is systematized by Krug and Rebien's (2012), who distinguish between an indirect (i.e., arrival rate) and direct mechanism (i.e., offer distribution). There is no a priori knowledge of whether the two mechanics coincide and as a result researchers resort to assumptions. Mouw (2003: 870) defines the problem as being the result of "multiple methods of job search". In other words, one might search via both social networks and formal channels, but ultimately makes a singular choice. Herein lays the lack of precision in that comparing outcomes between job-finding techniques can be misleading in so far as one cannot pinpoint the relevant

mechanism – direct, indirect, or both (Montgomery 1992: 590). In order to grasp the relationship between social networks and job quality one's safest bet is to ultimately rely on the effect of job-searching techniques (Krug and Rebien 2012).

The main appeal of Montgomery's model is that it distinguishes between strong and weak ties, and in doing so directly speaks to the theoretical origin of this strand in the literature (Granovetter 1973, 1974). A reduced format of this comparison to network vs. formal channels was hinted upon by Montgomery (1992: 593) and formalized by Mouw (2003: Appendix A and B).

Recent work distinguishes two network search scenarios (Krug and Rebien's 2012: 319-321). In both scenarios the indirect mechanism reflects a higher job offer rate for networks compared to formal methods. The direct mechanism, however, might or might not reflect similar quality offers. In the first scenario (very similar to what Montgomery attributes to Lin (1982)) the offers from the network are of better quality than those from the formal channel as the network allows the seeker to gather better information on the availability and characteristics of a wider array of job. Researchers focusing exclusively on the job-finding method would then correctly identify the positive causal effect added by using networks as reflected both directly and indirectly. In the second scenario (corresponding to what Montgomery attributes to Granovetter (1974)) the offer distribution is similar in terms of quality. Under these conditions, a job seeker who simultaneously gets a formal and a network-derived offer will choose the formal offer only if it is of better quality. As Mouw (2002:513) notes lack of data on the job offers misleadingly conceals or reveals the size of the causal effect of networks.

Empirically, one cannot distinguish between the first and second scenario as one does not observe the search process in its entirety. A solution would be to try to be as explicit as possible about the assumptions made. When considering the non-monetary outcome of "job adequacy" Franzen and Hangarten (2006:355) presume that the distribution differs between channels in as much as networks have a better capacity to convey information to employers hence lead to better matches. Their reasoning is highly plausible, yet is does not remove the ambiguity resulting from not having direct observations. An intuitive fix would be to back assumptions with existing evidence of the direct and indirect effect of networks. Blau and Robinson (1990) for the US and Gregg and Wadsworth (1996) for the UK, found that friends and relatives generate the most offers and acceptances per contact, while having the highest acceptance rate per offer. From the work of De Graaf and Flap (1988) up to more recently, Obukhova's (2012), there is substantial support for the argument that the quality of job offers does not differ by

the channel used. Therefore, relying solely on job-findings methods in order to assess the benefits networks is difficult to justify.

One option is an indirect setup for testing the positive effect of networks (Mouw 2003). For networks to have a causal effect two conditions need be met: 1) the network structure indicator should be correlated with the probability of finding a job via the network, and 2) the same network structure should also be correlated with the outcome (i.e., acquiring a job). Passing this test will, however, be a necessary (yet not sufficient) condition for inferring a causal effect (Mouw 2003:891). To apply the test valid data on network structure is in order. If one lacks such information, research shows that personal contacts in the search process are a reasonable proxy (Krug and Rebien 2012:322). If the two conditions are met then any positive effect of social capital would then be confined to network users, and one would be analyzing the subgroup for which the issue of multiple search methods does not exist. In this way any positive difference corresponds to a positive network effect and the results are unambiguous under both scenarios.

Limitations do exist. The sample needs contain a sufficiently large number of individuals who use non-network channels. Those who use networks might be a selective group, resulting in positive bias in the estimates as a result of using networks only when considered helpful. Conversely, a negative bias might arise from individuals resorting to networks only after failing via formal channels. Given that network search is always cheaper this would be a contra-intuitive scenario and could be accounted for by taking into account the duration of the search.

3. POPULATION OF INTEREST AND HYPOTHESES

3.1 The who and the why

We focus exclusively on the labor market position of non-native Australians immediately after migration. The Australian context advantages this work in a number of ways. Firstly, it has one of the most open and transparent service markets in the world (Dockery 1999), which fosters the use of formal market processes corresponding to the formal processes of employment selection (Huang and Western 2011). In addition, Australia uses a point-based immigration policy that targets highly-trained immigrants with a good command of English who address specific skills shortages (Cobb-Clark 2000, 2003). Third This offers a tremendous advantage over contexts where formal job listings are less prevalent, providing necessary variation in the type of search used. Despite the clear

advantages the Australian context offers for understanding formal and informal job-search processes, a systematic assessment of the use of social resources in the job search in Australia is rare (Huang and Western 2012: 171).

The focus on the first job acquired has to do with observed occupational trajectories of immigrants in Australia. Specifically, a typical immigrant follows a "U-shaped pattern" of occupational mobility (Chiswick et al 2003, 2005) defined by a decline in job status upon arrival, the steepness of which can vary significantly depending on the characteristics of the individual. High-level professionals experience the deepest fall as their specialization can be initially difficult to translate into a new labor market. This is less relevant for immigrants coming from countries with comparable economic and institutional contexts (Chiswick et al 2005:335). Refugees and tied-movers experience a steeper decline than economic migrants as they have a different set of calculations/investments and a different pattern and degree of connectivity.

3.2 Applied empirical work and expectations

Human capital in its various conceptual incarnations is the dominant explanation for immigrant's economic integration (e.g., Bevelander and Veenman 2004; Sanders and Nee 1996) and occupational status (e.g., work on Australia by Forrest and Johnston 2000). Moreover, host-country specific human capital, accumulated before and after migration, has the most impact on labor market performance (Friedberg 2000). That said, available resources that could facilitate integration into a given labor market are not limited to human capital factors. Social capital, reflected in a stronger social network, can play an intermediary role in process of immigrant economic incorporation, reflecting an endogenous interplay between itself and human capital. Social capital is derived from (Boxman, de Graaf and Flap 1991), interacts with (Sanders and Nee 1996) and contributes to the accumulation of human capital (Boxman, de Graaf and Flap 1991; Coleman 1988).

When considering the economic mobility of immigrants, a large sociological literature emphasizing the compensatory role that social capital plays in helping members of disadvantaged groups (e.g., Massey et al 1987, Portes and Bach 1985, Portes and Jensen 1989, Zhou and Logan 1989). This is not the only narrative to emerge. Other work suggests networks may not be economically beneficial to a similar extent for all members of an immigrant group (Lin 2001; Portes 1995, 1998; Portes and Sensenbrenner 1993; Aguilera 2002). The latter perspective calls for a cautionary warning that one's social capital does not operate in a singular fashion

towards "more equality" with a certain reference group (i.e., non-immigrants). Instead, social capital could facilitate a number of trajectories, not all of which are positive.

For a variety of reasons (e.g., language proficiency, education and legal documentation) immigrant job seekers do not have potential information about all existing job vacancies (Nee et al. 1994, Aguilera and Massey 2003, Elliot 2001), and, moreover, about potential good matches. It is at this point that social capital can offer a relative advantage. The theoretical literature on job search (see Calvo-Armengol 2004, Calvo-Armengol and Jackson 2004, Calvo-Armengol and Zenou 2005) emphasizes the advantages of networks in so far as their ability to convey more reliable information in a timely and less costly manner. The empirical evidence on the job search behavior of the general population reveals that between 20 and 60 of individuals obtain their job after network search (Holzer 1988, Blau and Robins 1990, Bortnick and Ports 1992, Gregg and Wadsworth 1996, Addision and Portugal 2001, Kleit 2002, Mouw 2003, Rankin 2003). Research into the entirety of the job search activities of immigrants is, however, very limited and favors the UK context (Battu et al 2011, Fritjters et al 2005, Giuletti et al 2013). Nevertheless, the overall conclusion with respect to the relation between search strategy and human capital is congruent: networks are more often the main search strategy for people with a lower stock of human capital (Corcoran et al 1990, Elliot 1999, Bohemian and Taylor 2001, Marsden and Gorman 2001). Given the less costly nature of networks, our intent is to simultaneously consider the direct and indirect effect of networks on employment, i.e. as a strategy among many others. The understanding that involving social networks in the job search process is beneficial especially when other forms of capital, particularly human capital, are in shorter supply leads to the expectation that *higher levels of human capital weaken the positive relation between the inclusion of social networks in job search and likelihood of entering employment (H1).*

Acquiring employment is only one dimension of immigrant labor market integration. Although a necessary first step in the process of occupational mobility, it provides an incomplete picture in the absence of a closer look at the quality of the job. Huang and Western (2011) analysis on occupation attainment finds a negative effect of social networks on occupational status for the Australian population. They define networks in acquisitional terms. Piracha, Tani and Vaira-Lucero (2013:12) find per each unit increase in their social capital index a corresponding 11% increase in the odds of immigrant white-collar (i.e., high skill) employment in Australia. No significant effects are reported in the case of the blue collar (i.e., low skill) employment. Mahuteau and

Junankar's (2007) work with both a subjective, i.e. job satisfaction, and an objective, i.e. prestige wise host country job just as good as home country one, to indicates that in the case of immigrants formally found jobs are of better quality than ones found via networks. Despite mixed findings to guide our expectations, based on the assumption that even weak networks are stronger than formal job search methods, we expect that *network-based job searches reduce initial downward mobility (H2).*

4. DATA

The data come from the first edition of the Longitudinal Survey of Immigrants to Australia (LSIA 1), as provided by The Economic Analysis Unit of the Australian Department of Immigration and Citizenship. The sample for LSIA is drawn from Primary Applicants in the Department of Immigration and Multicultural and Indigenous Affairs' Settlement Database. It includes Primary Applicants who were at least 15 years of age, offshore visaed immigrants, did not have special eligibility visas, were not New Zealand Citizens and had an identifiable country of birth. The time of arrival of those included in LSIA 1 is between September 1993 and August 1995. Information is collected for everyone in the household. However, detailed information is collected from the Primary Applicant and from the spouse if the spouse is part of the migrating unit. There are three data collection waves. Wave 1 covers the period prior to arrival and (approximately) the first 6 months since migration. Wave 2 refers the period six to 18 months after migration. Wave 3 addresses the period 18 to 42 months after migration. Total initial sample size at wave 1 is 5,192 immigrants. In constructing the social capital measures, we use the additional information supplied via the migrating unit spouse data and the other persons in the household data, which is then merged with the Primary Applicant one. We also use information from the Community Profiles generated by the Australia Bureau of Statistics on the basis of the 1996 Australia Census, and from the Daft Logic- Google Maps Distance Calculator[1].

The final sample retains all those of age 18-65 who entered Australia without arranged employed and declared conducting unemployed search at some point since. Information for them is available at least at the first and last wave (i.e., there are some who were not in Australia at wave 2) – a total of 2,769 individuals out of which 449 did not manage to find employment. For the mobility part of the analysis, the sample is reduced to those individuals for whom there is also occupation information

[1] Online software calculating the straight line distance between two geographical points using Google Maps

referring to the pre-migration period and the job-finding technique they used: a total of 1,902 immigrants.

5. MEASUREMENT

5.1 Dependent variable

We define the first job held similarly to Chiswick et al. (2005). Specifically, if one only managed to hold only one job in Australia, we consider the job at interview or a job that terminated prior to the interview to be the respondent's first job. Where one has managed to hold more than one position, we consider for those not employed at the time of the interview the job in which they were employed for the longest period, while for the rest the job with the earliest start date.

We work with summary measures of occupational status based on the ANU3 status attainment scale, developed by Jones (1989) specifically for Australia. Though ANU3 is based on prestige ratings, it is not a prestige scale in a strict sense as it combines elements of a prestige scale with a measure of socioeconomic status. This offers a more intuitive interpretation as certain occupations (e.g., artistic professions) enjoy a higher position than their earnings profile would suggest and vice-versa. What the ANU3 measures is the relative difference in market power, occupational prestige, occupational requirements and occupational rewards, on a scale from 0 to 100. We define downward mobility as a negative difference between the score of the current position and that of the last position held in home country. Upward mobility stands for a positive difference and no mobility for lack of change.

5.2 Social capital measures

As Lancee (2012: 17-24) notes all existing definitions of social capital contain the distinction between its individual and collective nature, its structural and cognitive character, and its use and access to. When considering economic and occupational mobility, some researchers view social capital as a buddle of resources available for individual goal attainment, which ties social capital to a specific outcome (Bourdieu 1986, Lin 2001b). Others focus less on the individual and view social capital as a group resource, collectively produced and mutually beneficial (Coleman 1990, Putnam 1993). There are also some who prefer a multilevel approach (Poortinga 2006). Similar

to Lancee (2012), we focus on the individual-level to capture access to resources without disregarding the collective dimension understood as available resources on the basis of similarity.

The idea behind the structural dimension of social capital is institutional embeddedness of ties defined as a result of human interconnection (Lancee 2012: 18). If ties are embedded in institutions, there is a higher probably of a resource exchange (Putnam 1993). The cognitive dimension of social capital refers to the attitudes and values such as the perceptions of trust or solidarity, which contribute to the exchange of resources (Poortinga 2006). We solely account for the first dimension.

At the individual level, the clearest form of structural capital is the family. Nee and Sanders (2001:388) stress the fact that an immigrant's incorporation is highly dependent on the ability to use the resources provided by the family within and apart existing ethnic networks and institutions. They refer to family as both nuclear and extended as to reflect cultural variations in the connotation carried by this level of kinship. We capture the effect of a family network via a number of proxies.

The number of immediate relatives living in Australia at the time of arrival is accounted for in categorical format (i.e., none, less than 10 and more than 10 relatives). The number of immediate relatives living overseas at the same point in time is expressed in a similar fashion (i.e., less than 5, between 5 and 10, 10 or more relatives). For the availability of non-immigrant family networks at time of arrival, we include a measure of whether a respondent has an Australian partner, a non-Australian partner or no partner at all. At large, we also account for the number of co-residents (family members, but not only) older than 15, i.e. school-age, who might serve as connection points to the labor market.

At the collective level, structural capital could manifest in the form of all ties with co-ethnics (see Sanders 2002 for a review of studies on the link between social relations and ethnic network closure). However, Sanders and Nee (1996) stress the fact that solidarity at the level of ethnic ties is vulnerable on the enforceability front. Research suggested that ethnic network might represent the main source of information on jobs (Zhou 1992, Menjivar 2000) and catalyzes labor market performance (Portes and Sensenbrenner 1993; Portes 1995; Sanders et al 2002). In an "enclave" economy setting though employers might prefer to hire co-ethnics (Borjas 2000) which in turn might be detrimental to acquiring host country skills (Lazear 1999) and to the quality of job offerings. Phalet and Health (2010) consider ethnic social capital that which is produced by an ethnic community in a city. Their proxy for

measurement is "ethnical background". We follow this approach by opting for a measure of co-ethnical concentration, i.e. individuals sharing the same country of birth, with the minor refinement of only using those older than 15. The areas we used are narrowed down to the statistical subdivisions provided in the LSIA. Moreover, we construct a measure of distance between one's location at the time of the first interview and the capital city of the Australian State/Territory of residence. These cities are meant to embody the height of cosmopolitanism and multiculturalism, fact which appears to gradually extend to the suburbs (Turner 2008).

Lin (2001b) differentiates between access to social capital, an individual's collection of potentially mobilizable social resources, and use of social capital, actions and mobilization of the resources in order to create returns (e.g., upward occupational mobility). As stated, use of social capital in relation to one's employment and occupation is defined by two measures of mobilization of the available resources within the social network. The first one is concentrated on actions, specifically on the dynamics of job search strategies. Similar to see Krug and Rebien (2012), we construct an indicator which equals 1 if when performing unemployed job search the individual received help from his network: family, friends, and sponsor. It equals 0 if during the same period of time, e.g. until first time employment was found, the seeker received no such help. The indicator is timed to best reflect upon the outcome[2]. As the data allows it, dissimilar to previous research (see Elliot 1999, Battu et al 2011, Fritjters et al 2005, Giuletti et al 2013) in the case of the employed our indicator truly captures the search process, and not merely equates it to the channel the job was found through. The second measure is outcome oriented, precisely it accounts for the type of channel through which one found the job. We distinguish between network-based (friends, family, sponsor) and non-network-based securement (ethnic or Australian press, private agency, government, arranged).

5.3 Human capital and additional control variables

We define human capital in terms of education attainment and language proficiency. The measure of education is derived from the highest level completed at time of arrival, i.e. less than secondary, secondary and some tertiary, technical or trade, BA or higher.

[2] For individuals who got their first job by the second interview and who declared themselves unemployed at looking for work at the first interview and in the period between the first and second interview, the indicator describes their search strategy for the latter moment.

Forrest and Johnson (2000), Chiswick et al (2003) and Chiswick et al (2005) have all shown the positive impact of language skills on occupation status. The language "penalty" seems to vary by group (Forrest and Johnson 2000). In addition, there may be a negative effect of ethnic networks of language proficiency (Chiswick and Miller 1996). We account for whether English is an official language in the country or birth or not, and for the self-assessed level of speaking English at arrival, i.e. very well, well, not well.

We control for differences in visa track as Cobb-Clark (2000) previously pointed out that those on visa were significantly more likely to be employed than those in all other categories (family, humanitarian, independent). We operate a distinction between those who entered Australia on a preferential and those who entered on a concessional family track as their labor market participation rate varies substantially.

6. MODEL(S)

To test the first hypothesis, we assess whether one becomes employed (1) or not (0) subsequent to migration using a logistic regression defined by the equation:

$$L = \ln(o) = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X + \varepsilon \qquad (1)$$

where p is the proportion of successes, o is the odds of the event, L is the ln(odds of event), X is the independent variable, β_0 and β_1 are the Y-intercept and the slope, respectively, and ε is the random error.

To test the second hypothesis, we employ a multinomial logit defined by the equation.

$$mobile_{ij} = \log\frac{p_{ij}}{p_{iJ}} = \alpha_J + x_i\beta_j \qquad i=1,\ldots n \text{ and } j=1,2,\ J-1 \qquad (2)$$

where α_j is a constant and β_j is a vector including the independent variable, for j categories and i individuals. The J-1 equations contrast each of the categories 1, 2, J-1 with category J. The occupational trajectories are no mobility (1), downward (2) and upward (3). We contrast 1 with 2, and then 1 with 3.

To ensure unbiased treatment estimates we test this model on a balanced dataset generated by propensity matching. In the first instance we consider as treatment the channel through which the job was found, while in the second the search method used.

Within the framework of Rubin's Causal Model (Rubin 1974; Holland 1986) the average treatment effect on the treated (ATT) allows us to compare the outcome of those who received the treatment to the outcome of the same individuals had they not received it. The propensity score matching (PSM) estimator determines the ATT by matching those who did network-based search with those who did not but have an identical vector of pre-treatment covariates **x**, or, otherwise said, the same propensity score P(**x**) (Rosebaum and Rubin 1983, 1985; Heckman et al. 1998; Morgan and Harding, 2006).

The matching estimator is constructed as a weighted difference in means, where I_1 indicates those who used networks in their search, I_0 those who did not, and CS the region of common support in the propensity score distributions of each of the groups:

$$\hat{\delta} = \frac{1}{n_1} \sum_{i \in I_1 \cap CS} search_i^1 - \frac{1}{n_1} \sum_{i \in I_1 \cap CS} \sum_{i \in I_o \cap CS} w(i,j) search_j^0 \qquad (3)$$

where n_1 is the number of individuals using networks in the region of common support and *w (i,j)* is the weight given to observation *j* when matched to observation i. We use single-nearest neighbor (SNNM) without replacement. To avoid nearest neighbors matches which are far away from P ($\mathbf{x}_i$) a maximum level of distance (caliper) of 0.005 is set. As we are interested in the ATT, the control units outside the region of common support are discarded (Ho et al. 2011: 8). The estimates of matching without replacement are sensitive to the order in which observations are matched hence the treatment units are randomly matched to the control ones (Caliendo and Kopeinig 2005:9). We use Austin and Mamdani(2006) formula to assess the covariates' balance.

Caliendo and Kopeinig (2005:6) advises that a propensity score model should consists only in those variables unaffected by the treatment itself or its anticipation. Consequently, we use the same two blocks of covariates as for the employment model: human capital indicators as a manifestation of homophony in social network development (McPherson et al 2011) and the individual's stock of social capital. The final specification is most parsimonious as recommended by Bryson et al.(2002).

The problem of unobserved heterogeneity occurs if a certain influential variable cannot be included in the propensity score model. Nevertheless, using a method developed by Rosenbaum (2002) we are able to perform a sensitivity analysis to determine how strong the influence of such a confounder must be to cast doubt on our estimates (See Keele, 2010). This test cannot be applied to multinomial logit model

hence we perform it for a simple logit model where other forms of mobility represents the baseline when estimating the odds of downward, respectively upward mobility.

7. RESULTS

7.1 Overall Trends in Employment Status and Occupation Mobility

[Table 1 here]

Table 1 speaks to the profile of those who managed to enter the Australian labor market in the (approximately) 42th month window since migration. 83.8 % (2,314 individuals) of those for whom we have information managed to find employment at least once. These results depart from those obtain by Cobb-Clark (2001, 2003) and Richardson et al (2001), mainly as a result of strategy chosen in constructing the dependent variable. Namely, their work focuses on the percentage of those in employment eighteen month after arrival, while ours considers any act of employment by the 42nd month. Out of those who found employment 34.7% involved networks in their job search, compared to only 27.8% of those who did not found employment.

Downward occupational mobility is prevalent – 61.9% of those employed experienced it, with only 13.5% managing an upward mobile occupational status. As far as network-based job search is concerned, those characterized by downward mobility were more reliant on it (36.1%) than those who underwent no occupational change (28.72%) or who underwent a positive one (27.1%). A slightly larger difference is noted when it comes to network-based job finding – roughly half of those who experience downward mobility secured their job via networks (47.9%), compared to just 23.1% of those who experienced no change and 34.6% of those who experienced an upward surge.

No differences are noted in the average pre-immigration occupational prestige (43.4 vs. 43.7) between those who managed to get employed after migration and those who did not. As far occupational mobility is concerned, the average occupational drop is higher than the average occupational increase (27.8 vs. 12.6). The average pre-immigration occupational prestige among those who experience no occupational status change pointed towards the middle of scale – 45.3.

7.2 Employment Status: Multivariate Analysis

[Table 2 here]

Table 2 includes the labor market estimates. The simplest model (Model 1) includes the job search including networks and visa status indicators. The estimates show that one's odds of entering the labor market almost double if network help is provided while job hunting. Predictably, those who entered Australia as Independents, i.e. point-tested, have the highest odds of finding a job.

In the second stage (Model 2), we include the demographic and human capital measures. We find that the better one speaks English the higher the odds of employment, i.e. those who speak very well have 3.18 times as high odds of finding employment as those who do not speak well. Not surprisingly, specialized training materializes in higher odds of employment – twice as high for those with less than secondary education. Important to remark is that males have four times as high odds of employment as females, estimate which might be substantiated by the gender segregation in employment characterizing Australia (Harrison 2002).

Once we additionally control for the stock of social capital (Model 3), we note no differences in the direction or magnitude of the estimates for the use of networks in the job search process or for the levels of human capital. As far as the social capital stock is concerned, three things are worth remarking. First, being in a relationship with an Australian seems to be the most efficient path towards labor market insertion. Second, the more relatives one has overseas, the lower the odds of finding employment, while the more co-ethnics of working age in same statistical unit, the higher the odds. Third, though only marginally, distance from the state capital negatively impacts employment.

Model 4 and Model 5 directly address the first hypothesis. If we reduce the definition of human capital to education (Model 4) we note the following. The odds of entering employment are 3.12 times as high for the lowest educated if they involve networks in the job search as in the case of not doing so. Contrary, those with a BA and higher have almost twice -1.83- as high odds of employment as the lowest educated if they do not involve networks in the job search. To that, the odds of finding employment for those who involved networks in their job search, relative to those who do not, are lower – 1.34 (3.12 times 0.43)– among those BA educated. If we expand the human capital definition as to include linguistic skills (Model 5), we note that the

size and direction of the network and education-related terms is relatively stable. The effect of involving network in the search now indicates three times as high odds of employment for those who are lower educated, do not speak English well and are from a country where English is not the official language. Being from an English speaking country almost doubles, while speaking English very well almost triples the odds of employment, despite not involving networks in the job search. Lastly, we note that the odds of finding employment are only marginally higher for those who involved networks in their job search relative to those who did not, among those most linguistically able. However, the coefficients are not statistically significant largely because of small cell count. Overall, we have enough evidence as to accept our first hypothesis.

7.2.1 Sensitivity Analysis

It could be argued that since the network search measure accounts for the behavior characterizing the last search episode prior the event of interest, it disregards the possibly of an endogenous search. To this end we re-estimated our model by considering any network involvement occurring prior to the event of interest. The new estimates were consistent to the old one, yet predictably the size of the coefficients for networks search was larger.

7.3 Occupational Mobility

[Table 4 here]

Tables 4 contain the results of the standard testing (before matching) and the indirect causal testing (after matching) involved by the second hypothesis. Before discussing these results it is crucial to note a positive and significant correlation of 0.37 between the network involvement in the search and the job found through the network measures – one of the two requirements of Mouw's(2003) proposed indirect test.

The difference measured before controlling for any variation in the composition of job seekers indicates that for those who have found their job via social networks compared to those who have not, the relative risk of experiencing downward occupational mobility in their first job instead of no mobility increases by a factor of 3. This estimate could be interpreted as to support a detrimental effect of networks, yet also leave room for an indirect beneficial effect interpretation if we are willing to accept a scenario in which networks have a higher job offer arrival, yet the average quality

of job offers is no different than that of formal channels (see Krug and Rebien 2012: 320). The relative risk of experiencing upward occupational mobility instead of no mobility increases by a factor of 1.74. Shifting the focus on job search, we note a similar pattern at a lower magnitude. For those who involved networks in their search as opposed to those who have not, the relative risk of experiencing downward occupational mobility instead of no mobility increases by a factor of 1.52, while that of experiencing upward mobility by 1.28. This second estimate, however, unambiguously highlights the detrimental role of networks when it comes to downward mobility.

On the basis of these results, one would reject the second hypothesis by which we expected those who performed a network-based job search to have suffered less of a drop in occupational status. It is though up to the PSM results to confirm this preliminary conclusion as there are two possible interpretation of uncovered effect. This result might reflect the fact that networks are ineffective both via the direct and indirect mechanism. It could also be that it reflects a spurious relation which conceals a positive effect of networks. Precisely, that would be the case in which a non-network channel provides less job offers, without reducing downward mobility, i.e. jobs of the same or better quality as in the home country.

Table 3 reports the logistic regressions to predict the propensity score for the job-search and job-finding method, as well as the measure of matching quality. In both cases the model fit is stable to the use of a parsimonious specification (Model 2). The matching balances all covariates, leading to an overall balance improvement of 99.9% and a per covariate improvement between 45 and 99.9%. Moreover, the standardized mean difference is smaller than 0.01 in all cases.

The second block column in Table 4 repeats the occupation mobility results after matching (Model 2). As far as downward mobility is concerned, the direction of the coefficients remains unchanged, yet we note a fall in magnitude and significant results only with respect to the job-finding strategy. Our intuition is that this scenario might derive from the fact that we are in fact dealing with workers who are not necessarily interested in or, for some reason or another, able to find position similar to their professional profile. Consequently, they place little importance on the quality of their first job. We support this intuition with the results of the logistic model addressing mobility vs. no mobility, i.e. Table 4. The relative risk of upward mobility to no mobility seems to be invariant to network search. It is higher for network-secure job if lenient towards a 10% significance level, in the condition of a small sample.

7.3.1 Sensitivity Analysis

As noted in the methodological section by reducing the model to a series of logistic regressions we can perform a sensitivity analysis targeting the impact of unobserved confounders. Results are presented in Table 4, i.e. bottom part, second half of the table when looking left to right. We start by simulating a situation with no unobserved heterogeneity and proceed to assume different degrees of heterogeneity. The heterogeneity might result from personal or job characteristics we are unable to observe.

By assuming no unobserved heterogeneity we report that after matching network involvement in job search has no significant impact on the odds of experiencing downward mobility and not another form of mobility. The result is robust to the degree of influence we consider. Jobs secured via the network are conducive to downward mobility when we assume unobserved heterogeneity, yet a medium level of influence, i.e. OR=1.3, already affects any intended causal claims. Irrespective of the network measure used we find no significant difference in the odds upward mobility versus other forms of mobility. Most importantly, increasing the degree of assumed heterogeneity only substantiates this statement.

8. DISCUSSSION AND CONCLUSIONS

This work addresses the relationship between social capital, employment and downward occupational mobility for immigrants in a context of a highly selective immigration policy in place. Specifically, we assess the extent to which network-based job search positively impacts the odds of employment and reduces initial post-migration downward mobility (measured in terms of occupational prestige change), while accounting for different forms of social capital. We ensure that the estimates are unbiased by using a PSM based solution to Montgomery's (1992) critique regarding network jobs. This approach is extremely novel (see Krug and Rebien, 2012) and to the authors' knowledge has yet not been implement in the case of an immigrant population. To these ends we employ the Longitudinal Survey of Immigrants to Australia (1993-1995).

The employment analysis reflects some old truths, while bringing to light some notable facts for both the academic and policy arena. On the first end, we once more (Cobb-Clark and Chapman, 1999; Richardson et al, 2001; VandenHeuvel and Wooden 1999,

2000) demonstrate that there is a strong association between the screening processes one goes through, i.e. visa category, and his/hers position in the labor market. As in many other studies (Cobb-Clark and Chapman 1999; Cobb-Clark 2001, 2003; VandenHeuvel and Wooden 2000), a higher position on the education curve and good language skills translate best into employment. Moreover, the gendered nature of the Australian labor market transpire form the higher odds of employment among men (Harrison 2002).

On the second end, the employment analysis indicates that, at higher levels of education network-based search is less beneficial to one's odds of employment. We chiefly envisage a human capital explanation by which for the highly educated network support represents but a back-up plan or strategy among many others and as such is obsolete. Though not theoretically substantiated, there are two other possible scenarios worth considering. The first one is a search intensity and timing argument: less effort goes into formal search the moment networks get involved in the process. The second one is a selection argument: those who resort to networks do so either because their diploma was not recognized as such or because it is not an accurate representation of their level of skills. Irrespective which one at play, we are inclined to put forth the idea by which if highly skilled the safest bet is to enter Australia with a job offer or be willing to wait out the costs of formal search.

As far as the mobility analysis results are concerned, from a standard perspective, i.e. job-finding method, no PSM, we would have concluded a negative impact of networks. By taking Montgomery's (1992) critique into account in a PSM framework, this claim does not hold water. The two network measures are correlated, yet only the job-finding method indicator bares significance. We believe this result to characterize a certain worker profile, and as such we are lenient to conclude no network effect on the possibility of experiencing downward mobility when looking for the first post-migration job in Australia. In addition, we show that if one decides to consider a network-secured job a true indicator of network job-search, the robustness of the results ran issue of concern, i.e. it took just a medium size unobserved covariates influence to explain the higher proportion of individuals experiencing downward mobility. It is, however, with great caution that we put forth these conclusions given the particularities of the Australia labor market and immigration policy.

To sum up, our results revert back to the studies introduced in our literature review, indicating a growing need to more carefully address the problematic issue of the direct and indirect job-search mechanisms as pointed out by Montgomery(1992) or Mouw(2003). Whereas the concern over unobserved heterogenity is increasingly accounted

for, to our knowledge no work has challenged Montgomery's or Mouw's criticism in an immigration studies setup. By recognizing the problem and following Krug and Rebien's (2012) novel strategy, we hope to challenge the idea that future work not only needs to, but actually can tackle the issue.

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Table 1: Distribution of the Sample by Employment Status and Occupational Mobility. Categorical and Continuous Variables

	Unemployed (N.%/ avg.SE)	Employed (N.%/avg.SE)	Occupational Mobility		
			Downward (N.%/avg.SE)	None (N.%/avg.SE)	Upward (N.%/avg.SE)
Job Search -Networks					
Yes	125(27.8%)	803(34.7%)	425(36.1%)	127(27.1%)	83(32.3%)
No	324(72.2%)	1,511(65.3%)	752 (63.9%)	341(72.9%)	174(67.7%)
Job Found - Networks					
Yes	-	1,324*(58.0%)	564(47.9%)	108(23.1%)	89(34.6%)
No		962* (42.0%)	613 (52.1%)	360(76.9%)	168(65.4%)
Visa track					
Preferential Family	205(46.3%)	905(39.3%)	473(40.2%)	116(24.8%)	114(44.4%)
Concessional Family	56 (12.5%)	504(21.7%)	289(24.5%)	129(27.6%)	60(23.3%)
Independent	16 (3.6%)	524(22.6%)	233(19.8%)	207(44.2%)	57(22.2%)
Humanitarian	172(37.6%)	381(16.4%)	182(15.5%)	16 (3.4%)	269(10.1%)
Sex					
Female	279(62.1%)	806(34.8%)	399(33.9%)	135(28.8%)	99 (38.5%)
Male	170(37.9%)	1,508(65.2%)	778(66.1%)	333(71.2%)	158(61.5%)
Relationship status					
No relationship	110(24.5%)	603(26.1%)	154(13.0%)	127(27.1%)	52 (20.2%)
AUS. partner	33(7.3%)	319(13.8%)	154(13.0%)	57(12.2%)	55(21.4%)
non- AUS. Partner	306(68.2%)	1,392(60.1%)	741(63.0%)	284(60.7%)	150(58.4%)
Education					
Less than Secondary	131(29.2%)	277(12.0%)	120(10.2%)	32(6.8%)	30(11.7%)
Secdr./Some Tertiary	76(16.9%)	355(14.5%)	162(13.8%)	22(4.7%)	34(13.2%)
Trade/Technical	102(22.7%)	743(32.1%)	373(31.7%)	188(40.2%)	89(34.6%)
BA or Higher	140(31.2%)	959(41.4%)	522(44.3%)	226(48.3%)	104(40.5%)
COB English official					
Yes	56(12.5%)	636(27.5%)	311(26.4%)	167(35.7%)	74 (28.8%)
No	393(87.5%)	1,678(72.5%)	866(73.6%)	301(64.3%)	183(71.2%)
Spoken English					
Very well	61(13.6%)	873(37.7%)	400(34.0%)	269(57.5%)	115(44.7%)
Well	94(20.9%)	638(27.6%)	343(29.1%)	117(25.00%)	75(29.2%)
Not well	294(65.5%)	803(34.7%)	434(36.9%)	82 (17.5%)	67(26.1%)
No. relatives in AUS.					
None	125(27.8%)	812(35.1%)	405(34.4%)	176(37.6%)	93(36.2%)
Less than 10	260(57.9%)	1,178(50.9%)	608(51.7%)	232(49.6%)	130(50.6%)
More than 10	64(14.3%)	324(14.0%)	164(13.9%)	60(12.8%)	34 (13.2%)
No. immediate relatives overseas					
Less than 5	189(42.1%)	999(43.2%)	489(41.5%)	194(41.4%)	128(49.8%)
Between 5 and 10	181(40.3%)	973(42.0%)	507(43.1%)	209(44.7%)	94(36.6%)
More than 10	79 (17.6%)	342(14.8%)	181(15.4%)	65(13.9%)	35(13.6%)
%co-ethnics 15+ S.U.					
Less than 1%	174(38.7%)	964(41.7%)	500(42.5%)	204(43.6%)	97(37.7%)
Between 1 and 3 %	153(34.1%)	686(29.6 %)	354(30.0%)	132(28.2%)	81(31.5%)
Between 3 and 5%	27(6.0%)	219(9.5%)	116(9.9%)	34(7.2%)	25(9.7%)
Between 5 and 10%	83(18.5%)	322(13.9%)	154(13.1%)	57(12.2%)	40(15.6%)
More than 10%	12(2.7%)	123(5.3%)	53(4.5%)	41 (8.8%)	14(5.5%)
Age	36.71(12.16)	31.72(7.48)	32.44(7.62)	32.05(6.14)	31.84(7.10)
No. months 1st job	-	9.39(9.95)*	9.72(9.98)	5.75(7.59)	9.35(9.73)
No. ppl.15+ in HH†	3.24(1.69)	2.99(1.53)	3.03(1.56)	2.70(1.30)	2.74(1.40)
Dist. State Capital	18.26(15.17)	18.01(19.31)	18.36(19.86)	17.28(17.50)	19.28(24.75)
ANU3 pre-migration	43.4(23.5)*	43.7(21.5)*	46.5(21.4)	45.3(20.8)	28.6(17.8)
ANU3 post-migration	-	26.5(21.1)*	18.7(15.1)	45.3(20.8)	41.2(20.2)
N	**449(16.2%)**	**2,314(83.8%)**	**1,177 (61.9%)**	**468 (24.6%)**	**257 (13.5%)**
				1, 902	

Sources: main: *Longitudinal Survey of Immigrants to Australia 1(1993/1995)*
additional: *Community Profiles from the 1996 Census; Daft Logic-Google Maps Distance Calculator*

Note: *when I retain only those cases for which I actually have values – sample size smaller than that listed; † top coded at 7

Table 2: The odds of finding a post-migration job in Australia

	Model 1	Model 2	Model 3	Model 4	Model 5
Job Search involved Networks (ref. No)	1.71***	1.97***	1.96***	3.12***	3.01***
Visa track (ref. Humanitarian)					
Preferential Family	2.04***	1.74***	1.75***	1.77***	1.77***
Concessional Family	4.33***	2.22***	2.43***	2.42***	2.42***
Independent	16.41***	4.96***	5.65***	5.45***	5.47***
Sex (ref. Female)		3.72***	4.05***	4.11***	4.11***
Age		1.19***	1.20***	1.21***	1.21***
Age (quadratic term)		0.99***	0.99***	0.99***	0.99***
Human capital					
Education (ref. less than Secondary)					
Secondary / Some Tertiary		1.59**	1.56**	1.87***	1.89***
Specialized (Technical/Trade)		1.97***	1.83***	2.24***	2.27***
BA or Higher		1.50**	1.40*	1.83***	1.88***
COB English official (ref. No)		1.44***	1.60**	1.63***	1.58**
Spoken English (ref. Not well)					
Well		1.65***	1.64***	1.65***	1.54**
Very Well		3.19***	2.85***	2.80***	2.70***
Social Capital					
Relationship status (ref. No relationship)					
AUS. Partner			1.54*	1.52*	1.53*
non-AUS. partner			0.97	0.96	0.96
No. relatives in AUS. (ref. None)					
Less than 10			0.96	0.95	0.96
More than 10			0.78	0.76	0.76
No. immediate relatives overseas (ref. Less than 5)					
Between 5 and 10			0.77**	0.77*	0.77*
More than 10			0.61**	0.61***	0.61***
No. ppl in HH 15+			1.02	1.02	1.02
Dist. to State Capital			0.97***	0.97***	0.97***
Dist. to State Capital (quadratic term)			1.00***	1.00***	1.00
Percentage of co-ethnics 15+ S.U. (ref.Less than 1%)					
Between 1 and 3 %			1.02	1.01	1.00
Between 3 and 5%			2.24**	2.20***	2.21***
Between 5 and 10%			1.01	0.97	0.98
More than 10%			1.56	1.51	1.53
Interaction terms					
Network-based Search * Secdr./Secdr.+				0.63	0.59
Network-based Search * Trade/Technical				0.58*	0.56*
Network-based Search * BA or Higher				0.43**	0.38**
Network-based Search * Well					1.31
Network-based Search * Very Well					1.14
Network-based Search * English speaking COB					1.18
_ct	1.80**	0.06***	0.07***	0.06***	0.06***
Pseudo R^2	0.08	0.22	0.25	0.35	0.25
N			**2,763**		

Sources: main: *Longitudinal Survey of Immigrants to Australia 1(1993/1995)*
additional: *Community Profiles from the 1996 Census; Daft Logic- Google Maps Distance Calculator*

Note: *p<0.10, ** p<0.05, *** p<0.01

Table 3: Propensity Score Model – Extended and Reduced. Balance Improvement

	Treatment 1 – Search			Treatment 2 – Found		
	Model 1	**Model 2**	**% Balance Imprv.**	**Model 1**	**Model 2**	**% Balance Imprv.**
Visa track (ref. Humanitarian)						
Preferential Family	0.91	0.96	99.99	0.99	0.93	96.03
Concessional Family	0.99	0.97	91.46	0.76	0.74*	57.11
Independent	0.74	0.74*	68.87	0.63*	0.57***	99.90
Sex (ref. Female)	1.27	1.28**	98.18	0.90		
Age	0.98	0.98**	54.30	0.95		
Age (quadratic term)	0.99		88.56	1.00		
Human capital						
Education (ref. less than Secondary)						
Secondary / Some Tertiary	0.75	0.75	78.81	0.75	0.76	91.33
Specialized (Technical/Trade)	0.54***	0.55***	64.41	0.65*	0.64**	75.90
BA or Higher	0.52****	0.52***	98.37	0.53***	0.53***	93.22
COB English official (ref. No)	0.90			0.85		
Spoken English (ref. Not well)						
Well	0.65***	0.63***	44.85	0.45***	0.43***	64.60
Very Well	0.41****	0.38***	97.09	0.25***	0.23***	95.68
Social Capital						
Relationship status (ref. No relationship)						
AUS. Partner	1.29			0.82		
non-AUS. partner	1.13			0.96		
No. relatives in AUS.(ref. None)						
Less than 10	0.78**	0.79**	64.00	1.18		
More than 10	0.92	0.95	59.81	1.16		
No. immediate relatives overseas (ref. Less than 5)						
Between 5 and 10	1.03			1.01		
More than 10	0.94			1.11		
No. ppl in HH 15+	1.12***	1.12***	93.77	1.16***	1.16***	90.51
Dist. to State Capital	1.00			0.99		
Dist. to State Capital (quadratic term)	0.99			1.00		
Percentage of co-ethnics 15+ S.U. (ref. Less than 1%)						
Between 1 and 3 %	0.92			1.28**	1.27**	79.11
Between 3 and 5%	1.19			1.15	1.13	78.90
Between 5 and 10%	1.15			1.32*	1.30	94.90
More than 10%	1.10			1.33	1.28	84.75
_ct	1.48	1.67		3.31	1.65	
Pseudo R^2	0.07	0.07		0.13	0.13	
Distance			99.99			99.99
N	**1,902**					

Sources: main: *Longitudinal Survey of Immigrants to Australia 1(1993/1995)*
additional: *Community Profiles from the 1996 Census; Daft Logic- Google Maps Distance Calculator*

Note: *p<0.10, ** p<0.05, *** p<0.01; SNNM, no replacement, caliper 0.005 propensity score matching performed in R 3.1.1 using MatchIt 2.4-21(Ho et al 2007)

Table 4: Network-based Search vs. Network-based Job Finding effects – Bias Correction

	Before Matching (Model 1)			After Matching(Model 2)						
							P-values for the causal effect, assuming …			
	RRR//OR	Std. Error	Treated/ Controls	RRR//OR	Std. Error	Treated/ Controls	No Unobs. Heterogenity	A Low Level of (OR=1.1)	A Medium-Low Level of (OR=1.2)	A Medium Level of (OR=1.3)
Job Found-Networks			**761/1,141**			**482/482**				
Downward Mobility v. *No Mobility*	3.06***	0.38	564/613 v. *108/360*	2.13***	0.16	346/282v. 73/127				
Upward Mobility v. *No Mobility*	1.76***	0.30	89/168 v. *108/360*	1.5*	0.23	63/73 v. 73/127		---		
Downward Mobility v. *Other Forms of Mobility*	2.47***	0.25	564/613 v. *197/528*	1.8***	0.14	346/282v. 136/200	0.000	0.000	0.002	0.012
Upward Mobility v. *Other Forms of Mobility*	0.76*	0.11	89/168 v. *672/973*	0.84	0.19	63/73 v. 419/409	0.844	0.942	0.979	0.992
Mobility v. *No Mobility*	2.78***	0.34	653/781 v. *108/360*	2.00***	0.16	409/355v. 73/127	0.000	0.000	0.001	0.007
Job Search- Networks			**635/1,267**			**475/475**				
Downward Mobility v. *No Mobility*	1.52***	0.18	425/752 v. *127/341*	1.03	0.16	307/296v. 102/101				
Upward Mobility v. *No Mobility*	1.28	0.22	83/174 v. 127/*341*	0.84	0.22	66/78 v. 102/101		---		
Downward Mobility v. *Other Forms of Mobility*	1.39***	0.14	425/752 v. *210/515*	1.10	0.13	307/296 v.168/179	0.246	0.570	0.740	0.890
Upward Mobility v. *Other Forms of Mobility*	0.95	0.14	83/174 v. 552/*1,093*	0.82	0.18	66/78 v.409/397	0.878	0.955	0.985	0.995
Mobility v. *No Mobility*	1.47***	0.17	508/926 v. *127/341*	0.98	0.16	373/374 v. 102/101	0.562	0.777	0.905	0.965

Sources: main: *Longitudinal Survey of Immigrants to Australia 1(1993/1995)*
additional: *Community Profiles from the 1996 Census; Daft Logic- Google Maps Distance Calculator*

Note: *p<0.10, ** p<0.05, *** p<0.01; SNNM, no replacement, caliper 0.005;
propensity score matching and sensitivity analysis performed in R 3.1.1. using MatchIt 2.4-21 (Ho et al 2007), respectively rbounds 2.0 (Keele,2010)