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SIBLINGS' SOCIAL NETWORK AND LABOUR MARKET OUTCOMES IN NIGER: ARE THERE ANY SPILLOVER EFFECTS?

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In this study, based on Niger 2012 Labour force survey, we assess the importance of the effect of siblings' networks on Niger labour market integration and the potential heterogeneity of this effect. Our main result is that there is a spillover effect: for any given individual, having elder siblings in a given sector of activity increases his own probability of also integrating that sector. For those in particular whose siblings are in the fruitful public or private sectors, this means that they have additional chances to integrate these coveted sectors. We also show that siblings' network is gender sensitive: its effect is maximal when both siblings are of the same gender. Another important result which emerges from this study is that the siblings' network acts as a substitute in case of poor human capital or family background resources.

The analysis of the link between social network and labour market is giving rise to an increasing interest by researchers. The reason is that unlike the neoclassical theory, labour markets don't work in a perfect way. Particularly (but not only) in developing countries with weak institutions, they face problems of information circulation and reliability, failure of regulation tools: contracts enforcement, credit availability, etc. In this configuration, resorting on social network can help overcoming these constraints and imperfections. The social network can be understood as a set of links between individuals involving a certain degree of trust, identity, etc. among members. But it can also be a set of weak ties, in the sense of Granovetter. Whatever form it takes, what is important for a social network is its effectiveness in enabling individuals achieving their goals. Usually, studies on the effect of social network on labour market outcomes consider friendship network, professional network and community (clanic, ethnic, persons coming from the same locality or the same country, etc.) networks. Hence, a lot of studies have pointed out the role of community networks on labour market integration of their members. Concerning siblings' networks, studies are oriented toward competition for parental resources or mutual support and care giving in the framework family solidarity. But as labour market is concerned, very few studies have examined the role of siblings support in labour market achievement, at least in the framework of the network theory. On contrary, numerous studies have instead focused on the link between parents' characteristics and the socioeconomic performance of their children, including the issue of intergeneration mobility.

If this lake of studies is somewhat understandable in the context of developed countries where the average sibship size is less than 2 brothers and sisters, the situation is very different in the context of developing countries in the first stage of demographic transition, characterized by a reduction of mortality but with the maintain of high level of fertility. In addition, polygamy also contributes to the increase in the number of brothers and sisters. In this configuration, the sibling's size is far from being negligible (more than 5 persons in the case of Niger). So we can consider siblings like a community network of people brought up by the same parents. The ties between members are necessarily stronger than in any other form of community network (even tough in some cases rivalry can takes precedence over cooperation). How this special network is effective in helping its members (siblings) to access better position in the labour market is an important and opened question in the settings of Sub-Saharan Africa. This issue of labour market integration induced by brothers and sisters is also important since for the larger scale networks, some authors have shown that they can, in certain conditions, enhance intra-generation social mobility and hence reduce inequalities. If we can show that net of parents' characteristics, adult siblings can be the engine of each other labour market integration, it will shed light on a new mechanism of social mobility with important consequences on the evolution of inequalities. Another reason why this study is important is the fact that it concerns Niger, one of the poorest countries in World, whose labour market (like that of most Sub-Saharan Africa countries) performs very poorly: according to the population census of 2012, only 4,6% of the labour force are wage workers(2,8 in the public sector and 1,8 in the private one). Given this tiny share of formal jobs, one can imagine that competition will be fierce among workers. If this competition were perfect, the most "able" would be the winners. But given imperfections we mentioned above, individual network may play an important role, especially the sibling's network, since siblings may have strong concern about the achievement of each other.

Analyses show that having sibling in a given sector maximizes the probability to also have a job in that sector, after controlling for family background and individual's education level. So there is a sort siblings "same sector dependency". More specifically, having siblings in the public sector increases most the probability of also being in that sector (compared to any other), then the private and lastly the self-employed sector. In the same vein, having siblings in the private sector increases likelihood of entering into the private sector then the public sector, and decreases the probability of entering into the self-employed sector. Having siblings in the self-employed sector first increases the probability of entering into that sector, then the public sector and does not increase the probability of entering into the private. These results clearly establish the existence of a professional status matching between siblings. For those in particular whose siblings are in the fruitful public or private sectors, this means that they have additional chances to integrate these coveted sectors.

When disentangling models by gender, the comparison of the coefficients pattern shows that a man has more chance to integrate a given sector when he has an elder brother in that sector than when he has an elder sister there. Symmetrically, a woman has more chance to integrate a given sector when she has an elder sister in that sector than when she has an elder brother there. So there is a sort of same-gender preference reflecting, at least partially, competition between brothers and sisters.

We also question the heterogeneity of siblings' network effect according to other labour market competitive factors like family background or own educational level. It results from the analyses that the siblings' network acts as a substitute in case of poor human capital or poor family resources. More precisely, it effect is more important for siblings from disadvantaged background than for those wellborn. This result is very importance since it means that siblings' network can be considered as a "second chance" factor: those who didn't have the initial chance to be born in a privileged family can rely more on their siblings who, unlike these preliminary disadvantages, succeeded in integrating the most rewarding sectors of the labour market.

Two main policies recommendations can be drawn from this study. Firstly, given that siblings' network spillover effect is maximal for persons from low socioeconomic status, any policy aiming at increasing the productivity or the remuneration of poor people may generate, through siblings' network, a multiplicative effect. Secondly and in the same vein, gender inequalities are a warming issue in Niger labour market, since few women are active and fewer are in the most rewarding sectors. Yet women who work in these sectors exert, more than men, a pull effect on their sisters. Hence policies targeting women in the labour market would also benefit from the sisterhood's network multiplicative effect.

Data used in this study come from the Niger 2012 Labour force survey, with a special module on siblings' network. The analysis file includes 43960 siblings in working age group (20-59). Our main variable of interest is the professional status in the labour market, coded in four positions: public employment, private employment, self-employment and unemployment/agriculture. Our explanatory variable is the elder siblings' professional status, with exactly the same categories (public employment, private employment, self-employment and unemployment/agriculture) as for the dependent variable. The main control variables are professional status of parents and education levels of individuals, their siblings' and their parents'. We also take into account individual control variables as education level, age, birth order, gender and place of residence. As econometric method is concerned, we use a multinomial probit model and base our identification strategy on the fact that contrary to other forms of social networks, being part of a sibship is not an individual choice. We also prove that our results are not driven by a common intergenerational factor which could simultaneously push the individual, his parents and his siblings into a given status in the labour market.

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