

# EconomEtica

Centro interuniversitario per l'etica economica  
e la responsabilità sociale di impresa  
promosso dalla Fondazione Italiana Accenture

N.14 October 2009

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Getting a Job through  
Voluntary Associations:  
the Role of Network and  
Human Capital Creation

Working papers



**Getting a Job through Voluntary Associations:  
the Role of Network and Human Capital Creation**

Giacomo Degli Antoni\*

**Abstract**

The present paper draws on an original dataset collected by the author to investigate if:

- 1) the relational network and the human capital developed by unemployed volunteers through their associational membership are useful in finding a job;
- 2) the likelihood to get a job is higher for volunteers who take part in activities capable of increasing social networks and human capital.

Data show that a considerable percentage of volunteers (24%) who were out of work when they joined their association obtained a job thanks to their associational participation. In particular, personal declarations of unemployed respondents reveal that 12% of them found a job thanks to the skills developed by working in the association, 10% thanks to information received by people met through the association and 2% for other reasons concerning the associational membership. Moreover, the econometric analysis shows that some activities related to the creation of social network (the frequency of participation in informal meetings and work groups) and human capital (the attendance at training courses) positively and significantly affect the probability to get a job if unemployed.

***JEL Classification:* L31; A14; J64; D85; J24.**

***Keywords:* Voluntary Associations; Job Opportunities; Social Network; Human Capital**

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## 1. Introduction

Volunteers in the civil society sector represent a considerable percentage of the economically active population in many developed and developing countries. They are 1.5% in Italy, Spain and Tanzania, 1.9% in Argentina and Australia, 3.5% in the United State, 3.6% in UK, 3.7% in France and 5.1% in Sweden and Netherlands (Salamon, L., et. al. 2004 - reference years 1995-2000).

Various effects of participation in voluntary associations have been shown. At a micro level, voluntary participation affects generalized trust (Brehm and Rahn, 1997, Stolle and Rochon, 1998, Claibourn and Martin, 2000, Mayer, 2003, Wollebæck and Selle, 2003), civiness (Mayer, 2003, Wollebæck and Selle, 2003), trust in public institutions (Brehm and Rahn, 1997, Stolle and Rochon, 1998, Mayer, 2003, Wollebæck and Selle, 2003), indicators of tolerance, free riding and optimism (Stolle and Rochon, 1998) and network creation (Wollebæck and Selle, 2002, Prouteau and Wolff, 2004, Degli Antoni, 2009).

The present paper analyzes the effect of voluntary participation from an original point of view. It draws on an original dataset collected by the author and studies if: a) unemployed volunteers succeed in finding a job thanks to their voluntary participation; b) there are experiences carried out in the associations which increase the probability to obtain a job if unemployed.

Two are the theoretical hypotheses of the paper. First, the relational network and the human capital developed by volunteers through their associational membership are useful in finding a job. Second, the likelihood to get a job is higher for volunteers who take part in activities capable of increasing social networks and human capital.

The Database does not allow us to verify if volunteers are more likely to obtain a job than non volunteers. However, since motivations to volunteer are frequently independent of job search,<sup>1</sup> the role of associational membership in finding a job and the analysis of the specific activities carried out in the associations which promote occupation, seem to be interesting in themselves.

### ***Unemployment and network***

In his 1974 seminal contribution, Granovetter focused on the role of “personal contacts” in obtaining a job. A personal contact was defined as an “individual known personally to the respondent,<sup>2</sup> with whom he originally became acquainted in some context unrelated to a search for job information, from whom he has found out about his new job, or, who recommended to

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<sup>1</sup> The motivations to volunteer usually considered include the desire to increase the social network (Prouteau and Wolff, 2004, Meier and Stutzer, 2008) and the desire to improve human capital (Menchik and Weisbrod, 1987) which could be related with job search. However, many other motivations are completely exogenous with respect to job search: the desire to increase the social recognition (Schiff, 1990, Meier and Stutzer, 2008), the intrinsic work enjoyment (Meier and Stutzer, 2008), the desire to feel useful for others (Meier and Stutzer, 2008 and Degli Antoni 2009), the enjoyment of helping others (Meier and Stutzer, 2008) and ideal motivations (Degli Antoni 2009).

<sup>2</sup> Respondents were professional, technical and managerial workers who had found a job in the last five years (author's note).

someone who then contacted him” (Granovetter, 1974, p.11). Granovetter showed that personal contacts are the main channel through which the unemployed gets a job. After Granovetter’s study, numerous contributions (e.g. Montgomery, 1991; Calvó-Armengol and Jackson, 2004; Franzen and Hangartner, 2006), have examined the role of social networks in favoring employment. Stylized facts established by the empirical work about such role of networks are (Ioannides and Datcher Loury, 2004): 1) friends, relatives and acquaintances are widespread used to search for jobs; 2) location (e.g. the size of the city in the county where the household lives) and demographic characteristics (e.g. gender, age, race etc.) significantly affect the use of informal networks to search for jobs; 3) the use of social networks in searching for jobs is more productive than the use of alternative sources; 4) the variation in the productivity of job search by demographic groups is partly explained simply by taking into account differences in the use of various methods to get a job; 5) differences in usage do not completely account for differences in productivity of job search by demographic characteristics; 6) internet seems to have an increasing role for the purpose of job search ; 7) important differences across countries seem to characterize the use of personal contacts by both workers and firms.

The present paper contributes to this strand of literature by verifying if voluntary associations and some specific activities carried out inside the association allow people to create personal contacts useful in finding a job.

### ***Unemployment and Human capital***

Theoretical labor search models (see Rogerson, Shimer, and Wright, 2005 for a survey of this strand of literature) indicate essentially two possible effects of human capital on unemployment. From one side, human capital increases the rate of job offers, from the other side it increases agent’s reservation wage. As a consequence, the total effect of human capital on unemployment duration depends on what of these effects prevails (Evans and Koch, 2007). Empirical literature presents controversial evidence, Kiefer (1985) and Meyer (1990) showing a positive effect of human capital, in terms of education, on the duration of unemployment (i.e. human capital increases the duration of unemployment) and Evans and Koch (2007) a negative one.

This paper focuses on the role of human capital developed by unemployed volunteers in the voluntary associations and of specific experiences associated with the creation of human capital in stopping the unemployment spell.

The empirical analysis shows that a considerable percentage of volunteers (24%) who were out of work when they joined their association obtained a job thanks to their participation. More specifically, 12% declared that the job was obtained thanks to the skills developed by working in the association. 10% declared that the job opportunity was due to information received by people met through the association. 2% referred to other reasons related to associational membership.

Moreover, it is shown that some activities which may be associated with the creation of human capital (i.e. attending training courses) and relational network (i.e. participation in group works and informal meetings) affect the probability that a volunteer gets a job through the association.

Section 2 presents the database and the dependent variables considered in the analysis. Section 3 illustrates empirical evidence. Section 4 concludes.

## 2. Data and Dependent Variables

The database used in this paper was collected at the end of 2007 by means of anonymous structured questionnaires. They were completed by 290 volunteers of 45 voluntary associations<sup>3</sup> operating in Parma, which is the ninth Italian province in terms of number of voluntary associations per inhabitants whit 7.3 voluntary associations per 10,000 persons. The sample of associations was a stratified random sample representing 10% of associations operating in the province. The strata referred to the association's activity<sup>4</sup> and to the district in which it operated.<sup>5</sup> The number of volunteers per association was 6.4 on average (minimum 2, maximum 11 and standard deviation 2.4). The volunteers were randomly selected among the associations' members. Questionnaires consisted of 64 questions relative to their experiences as volunteers. Compilation lasted on average 45 minutes.<sup>6</sup>

49 out of 290 volunteers were out of work when they joined their association. They belong to 24 associations and, they are (with respect to this subsample of associations) 2.0 per association on average (minimum 1, maximum, 4 and standard deviation 1.2). The present analysis takes into consideration these 49 volunteers (hereafter also called *unemployed*) and focuses on the following filter question:

"To answer only if unemployed when you joined the association:

After having joined the association, have you got a job:

- 1) No
- 2) Yes, thanks to the information received by people met through the association
- 3) Yes, thanks to the skills developed by working in the association which allowed me to get a job
- 4) Yes, for other reasons related to my associational membership
- 5) Yes, for other reasons do not related to my associational membership

The empirical analysis focused on three dummy variables taking the value of one if subjects checked: a) the box number 2 (variable named *job through association/information*); b) the box

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<sup>3</sup> Voluntary associations in Italy were regulated in 1991 by law no. 266. According to the law, in order to benefit from tax relief and to access public grants, voluntary associations have to be characterized by solidarity aims and a democratic structure. Moreover, their members must be for the most part volunteer workers. Our sample concerns only associations which respect these criteria.

<sup>4</sup> Activities are: Assistance, Health, Environmental and animal conservation, Recreation and culture, Civil defence, Education, Civil rights promotion and preservation.

<sup>5</sup> Parma province is divided into four administrative districts which are very different in terms of population density. The sample is stratified according to the four districts in order to have all the districts represented.

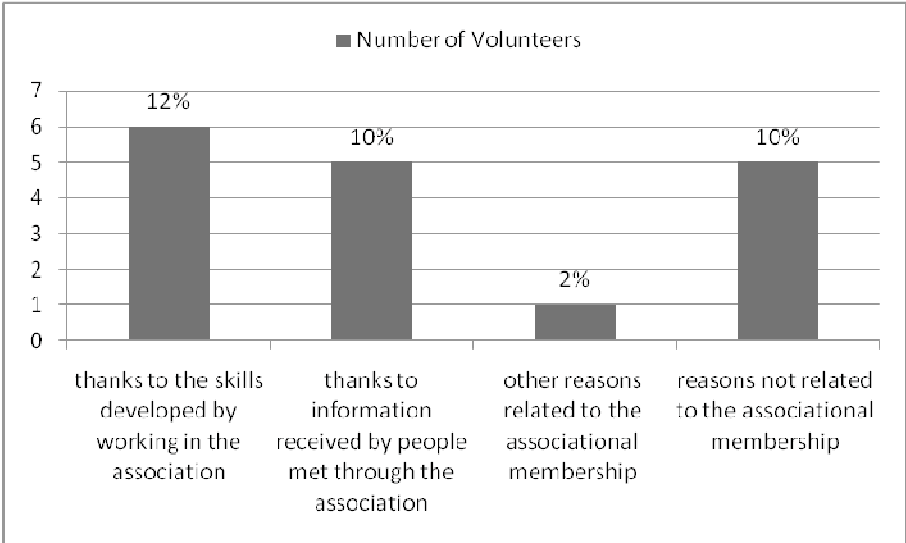
<sup>6</sup> Information on various association's characteristics, such as their size, year of foundation etc., were also collected by asking a specific set of questions to a member of the association with a detailed knowledge of these aspects. These information have not been used in this analysis which focuses on the data related to the single volunteers.

number 3 (*job through association/human capital*); c) one of the boxes 2, 3 or 4 (*job through association*: this last variable identifies all the *unemployed* who found a job through the association).

**3. Empirical Evidence**

As a whole, 24% of *unemployed* (12 out of 49) obtained a job thanks to their participation in the associations. 12% (6 out of 49) declared that the job was obtained thanks to the skills developed by working in the association. 10% (5 out of 49) declared that the job opportunity was due to information received by people met through the association. Only one respondent referred to other reasons related to his associational membership and it is the reason why we did not consider this answer in our analysis separately. It is interesting to note that only 5 *unemployed* found a job for reasons not related to the associational membership (i.e. less than half of *unemployed* who got a job through the association) (Figure 1).

Figure 1  
How Do Unemployed Volunteers Obtain a Job?



Descriptive statistics support the idea that networks and human capital developed through the association are useful for volunteers to find a job. In the next sections, the effect of various experiences made by volunteers on the probability to obtain a job through the association is investigated by using both econometric tools and nonparametric tests (in consideration of the sample size).

**3.1. The Effect of Experiences Related to the Creation of Volunteers’ Social Network**

We took into account two experiences which should affect the probability of finding a job through the creation of volunteers’ social network. Two variables were constructed by using the following questions:

- 1) "How often do you participate in informal meetings organized by the association to discuss the association's activity, from 1 (never) to 5 (always)."
- 2) "In your activity as a volunteer, how often do you realize group works with other volunteers?"
 

Never	<input type="checkbox"/>
A few times a year (less than 6)	<input type="checkbox"/>
About once every two months	<input type="checkbox"/>
A few times a month (less than 4)	<input type="checkbox"/>
Every week	<input type="checkbox"/>

From the first question a variable named *informal meetings* was created, from the second question a variable named *group works*.

The average of the answer to the first question is equal to 4.250 for *unemployed* who obtained a job thanks to the associations while the average for the other *unemployed* is 3.162. The difference in the answers' distribution between the two groups is statistically significant (Wilcoxon rank-sum (Mann-Whitney) test  $z = -2.626$  Prob >  $|z| = 0.0086$ ) (descriptive statistics with 95% Confidence Interval of all the independent variables of interest divided for subsamples are in the appendix).

The average of the answer to the second question (where: Never = 1 and Every week = 5) is equal to 3.917 for *unemployed* who found a job through the association and it is equal to 3.135 for the other *unemployed*. Moreover, when the former are considered, the distribution of the answers to this question has significantly higher values (Wilcoxon rank-sum (Mann-Whitney) test  $z = -2.055$  Prob >  $|z| = 0.0399$ ).

The differences of the average of the answers to both the previous questions are not statistically significant if we compare the subsample of *unemployed* who declared to have got a job thanks to the information received by people met through the association and the rest of *unemployed*. However, we will see that the effect of these two variables prove to be significant in the econometric analysis.<sup>7</sup>

To study econometrically the effect of participation in informal meetings and work groups on the likelihood of finding a job through the association logit estimates were used. In all the regressions (both in this section and in the next one) we clustered standard errors by considering to which associations the volunteers belonged. We assumed that the observations were independent across groups, but not necessarily between groups (volunteers belonging to the same association).

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<sup>7</sup> We did not find a significant correlation between the obtainment of a job through the association and three indices of cooperative network elaborated from the following questions (which do not affect the likelihood to find a job) and used in Degli Antoni (2009) to study the effect of motivations to volunteer on social capital creation: 1) "As a whole, how many people met since joining the association are now your friends?"; 2) "How many people met through the association would you: a) talk to about family problems? b) trust to look after your relatives (children/elderly persons)? c) ask to take care of your home when you are on holiday? d) give/ask for help in activities such as shopping, taking a child or elderly persons to do different activities, etc.?"; 3) "With how many people met through the association have you started the following cooperative relations: a) phone calls to ask for information or advice? b) doing not very demanding errands? c) asking for information about job opportunities?" (see Degli Antoni 2009 for a better description of these indices).

Table 1 presents the estimations where the dependent variables are: *job through association*, *job through association/information* and *job through association/human capital*. The independent variables of interest are: *informal meetings* and *group works*. These variables are singularly included in the regressions since multicollinearity (correlation between *group works* and *informal meetings* is 0.594, significant at 1%) prevents us from evaluating the relative contribution of one variable *vis à vis* to the other. Control variables at the individual level are: *age*, *sex*; *education* (from 1 - no school - to 7 - postgraduate degree), the number of hours per week devoted to the association (*hours per week*) and the length of the period the volunteer has worked for the association (*time in association*). The last two variables allowed us to consider the issue concerning time spent in association by the unemployed. In particular, we can imagine that the probability to obtain a job through the association may be connected with the time, both in terms of hours per week devoted to the association and in terms of the length of the period the volunteer has worked for the association. We also took into consideration control variables at the level of association: dummies which take account of the association's activity. However, given the high number of failures (dependent variable=0) and successes (dependent variable=1) completely determined, t-statistics of the variables of interest are always 0 when these control variables are included, except in one case when t-statistic of *job through association/information* is 0.019 (when these control variables are included in the equation 3, table 1) and in one case when the coefficient of *job through association/information* is not significant but it was not significant also without these control variables (equation 3, table 3). We decided not to report these estimations which are available from the author upon request.

**Table 1 Creation of Volunteers' Social Network and Employment**

Equation	1 (Logit)	2 (Logit)	3 (Logit)	4 (Logit)	5 (Logit)	6 (Logit)
Dependent Variable						
	<i>job through association</i>		<i>job through association/information</i>		<i>job through association/human capital</i>	
<i>informal meetings</i>	1.314 (0.008)***		0.846 (0.027)**		1.233 (0.182)	
<i>group works</i>		2.040 (0.008)***		2.824 (0.055)*		1.837 (0.013)**
<i>age</i>	0.008 (0.792)	0.006 (0.858)	0.059 (0.091)*	0.105 (0.014)**	-0.055 (0.277)	-0.093 (0.033)**
<i>sex</i>	0.248 (0.785)	1.016 (0.297)	-0.836 (0.322)	-0.878 (0.401)	1.067 (0.323)	2.417 (0.052)*
<i>education</i>	0.307 (0.541)	0.540 (0.271)	0.129 (0.849)	0.116 (0.865)	0.369 (0.511)	0.560 (0.262)
<i>hours per week</i>	-0.043 (0.228)	-0.124 (0.043)**	-0.104 (0.071)*	-0.241 (0.003)***	-0.001 (0.981)	-0.079 (0.140)
<i>time in association</i>	0.021 (0.032)**	0.031 (0.057)*	0.007 (0.449)	0.021 (0.099)*	0.024 (0.026)**	0.040 (0.008)***
Constant	-9.195 (0.005)***	-12.906 (0.010)**	-7.771 (0.048)**	-16.907 (0.024)**	-8.900 (0.095)*	-11.700 (0.011)**
Pseudo R <sup>2</sup>	0.263	0.310	0.247	0.401	0.308	0.334
Prob > $\chi^2$	0.001	0.151	0.007	0.017	0.021	0.092
Number of obs.	40	40	40	40	40	40

t-statistics in brackets. \* Significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.



Equation 1 and 2 show that both the participation in informal meetings organized to discuss the association's activity and the participation in group works with other volunteers positively and significantly affect the probability of finding a job for unemployed volunteers. The positive effect of participation in informal meetings (significant at 5%) and group works (significant at 10%) is confirmed when the dependent variable is the dummy taking the value of 1 if *unemployed* found a job thanks to information received by people met through the associations. When the dependent variable is the dummy which considers the volunteers who declared to have found a job thanks to the skills developed through the association, only the role of group works remains statistically significant.

From a quantitative point of view, marginal effects calculated at the mean of the variables *informal meetings* and *group works* tell us that a 1 unit increase in the variable *informal meetings* leads to a 0.151 average increase in the probability of obtaining a job through association holding all else constant (equation 1) and a 0.204 increase in the same probability is generated when *group works* increases by 1 unit (equation 2). With this respect, it must be stressed that marginal effects are higher when they are computed at higher values of the variables *informal meetings* and *group works* (table 2). It means that the effect of an increase of participation both in informal meetings and in group works on the probability of finding a job increases with the initial level of participation.

**Table 2 Marginal Effects of Participation in Informal Meetings and Group Works on the Probability of Finding a Job through the Association**

Marginal effect of <i>informal meetings</i> and <i>group works</i> computed at	<i>informal meetings</i>	<i>group works</i>
1	0.008	0.002
2	0.029	0.019
3	0.094	0.128
4	0.239	0.469

The other variables which affect the probability to find a job are the age (equation 3,4 and 6) and the time spent in association both in terms of number of hours per week devoted to the association (equations 2,3 and 4) and in terms of the length of the period the volunteer has worked for the association (equations 1,2,4,5 and 6)

### 3.2. The Effect of Experiences Related to the Creation of Volunteers' Human Capital

In order to test the role of activities connected with the creation of human capital, we considered an experience strictly related to the probability to develop new skills. It is the attendance at training courses connected to the association's activity. *Unemployed* were asked:

“Did you attend training courses after having joined the association?”<sup>8</sup>

- 1) No
- 2) Yes, shorter than 40 hours
- 3) Yes, longer than 40 hours

83% of *unemployed* who found a job through the association had attended at training courses (50% attended at short courses and 33% at long courses) while only 30% of *unemployed* who did not get a job through the association had attended training courses (17% short courses and 13% long courses).

We created a dummy named *training courses* taking the value of 1 if respondents declared to have attended at least a short or long training course.

Fisher’s exact test suggests that there is a statistically significant relationship ( $p=0.008$ ) between the attendance at training courses and the obtaining of a job through the association. Moreover, all the *unemployed* who declared to have got a job thanks to the skills developed by working in the association had attended at a training course after having joined the association (Fisher’s exact test for this subsample:  $p=0.010$ ).

Logistic regressions were used by considering the same control variables included in table 1. The dependent variables are: *job through association*, *job through association/human capital* and *job through association/information*. The independent variable of interest is *training courses* (Table 3).

The attendance at training courses has a positive and significant role in increasing the probability to get a job if unemployed. The probability of a volunteer who attended a training course finding a job through the association is 41.01% higher than those who did not. Moreover, all the *unemployed* who declared to have got a job thanks to the skills developed by working in the association had attended a training course after having joined the association. Because of that the variable *training course* predicts failure (dependent variable=0) perfectly when the dependent variable is *job through association/human capital*. When the dependent variable is *job through association/information* the attendance of a training course is not significant.

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<sup>8</sup> The following question in the questionnaire asked to specify the object of the course. The option were: administrative aspects; relation with users management; vocational training on the services produced by the association; economic and financial aspects; human resources management; mission of the association; other. No specific correlation exists between the argument of the training course and the probability to find a job.

**Table 3 Creation of Volunteers' Human Capital and Employment**

<i>Equation</i>	<i>1 (Logit)</i>	<i>2(Logit)</i>	<i>3(Logit)</i>
<b>Dependent Variable</b>			
	<i>job through association</i>	<i>job through association/human capital</i>	<i>job through association/information</i>
		Training course predicts failure (dependent variable=0) perfectly	
<i>training courses</i>	3.384 (0.005)***		1.403 (0.141)
<i>Age</i>	0.020 (0.634)	-0.072 (0.132)	0.060 (0.105)
<i>Sex</i>	0.231 (0.823)	0.909 (0.482)	-0.454 (0.616)
<i>education</i>	0.036 (0.945)	-0.208 (0.721)	0.069 (0.919)
<i>hours per week</i>	0.033 (0.322)	0.051 (0.396)	-0.041 (0.449)
<i>time in association</i>	0.024 (0.022)**	0.033 (0.005)***	0.011 (0.317)
constant	-6.317 (0.060)**	-0.464 (0.898)	-6.130 (0.209)
Pseudo R <sup>2</sup>	0.338	0.227	0.227
Prob > $\chi^2$	0.036	0.017	0.001
Number of obs.	40	19 (Training course dropped and 21 obs. not used)	40

t-statistics in brackets. \* Significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%.

#### 4. Conclusion

The present paper focused on the role of participation in voluntary associations in favoring occupation of unemployed volunteers. The empirical analysis aimed at studying if: 1) the relational network and the human capital developed by volunteers through their associational membership are useful in finding a job; 2) the likelihood to get a job is higher for volunteers who take part in activities capable of increasing social networks and human capital.

Data show that associations are a channel through which volunteers find a job if unemployed. Personal declarations of unemployed respondents reveal that 24% of them found a job through the association: 12% thanks to the skills developed by working in the association, 10% thanks to information received by people met through the association and 2% for other reasons related to the associational membership.

Moreover, the econometric analysis and nonparametric tests show that some activities carried out as a volunteer are significantly and positively associated with obtaining a job through the

association. In particular, the attendance at training courses, the frequency of participation in informal meetings organized by the association to discuss the association's activity and the frequency of participation in work groups with other volunteers seem to positively affect the probability of getting a job if unemployed.

It implies suggestions for associations' management: promoting informal meetings, group works and training courses may help the unemployed who join associations to obtain a job.

This paper cannot conclude that participation in voluntary association reduces the unemployment spell with respect to non participation. However, since unemployed people join voluntary associations do exist (because of disparate motivations frequently independent of their occupational condition), it seems to be particularly interesting knowing the activities which may foster their probability to get a job through the association.

A compared analysis (capable of taking into account self-selection biases) on a sample of unemployed who join voluntary associations and those who do not, would complete the present analysis improving the understanding of the role of membership in promoting occupation.

#### Appendix - Descriptive statistics

##### Frequency of group work with other volunteers ("In your activity as a volunteer, how often do you realize group works with other volunteers? from 1 (never) to 5 (every week)")

	<i>Obs.</i>	<i>Mean</i>	<i>Std. deviation</i>	<i>[95% Conf. Interval]</i>	
Total sample of unemployed	49	3.327	0.158	3.009	3.644
Unemployed who did not find a job through the association	37	3.135	0.182	2.765	3.505
All the unemployed who found a job through the association	12	3.917	0.260	3.345	4.489
Unemployed who found a job thanks to the information received by people met through the association	5	3.600	0.400	2.489	4.711
Unemployed who found a job thanks to the skills developed by working in the association	6	4.000	0.365	3.061	4.939

**Frequency of participation in informal meetings organized by the association (“How often do you participate in informal meetings organized by the association to discuss the association’s activity, from 1 (never) to 5 (always)”)**

	<i>Obs.</i>	<i>Mean</i>	<i>Std. deviation</i>	<i>[95% Conf. Interval]</i>	
Total sample of unemployed	49	3.429	0.177	3.072	3.785
Unemployed who did not find a job through the association	37	3.162	0.211	2.735	3.589
All the unemployed who found a job through the association	12	4.250	0.179	3.855	4.645
Unemployed who found a job thanks to the information received by people met through the association	5	4.000	0.000	4.000	4.000
Unemployed who found a job thanks to the skills developed by working in the association	6	4.000	0.365	3.061	4.939

**Attendance at training courses (dummy variable taking the value of 1 if respondents declared to have attended at least a short or long training course)**

	<i>Obs.</i>	<i>Mean</i>	<i>Std. deviation</i>	<i>[95% Conf. Interval]</i>	
Total sample of unemployed	49.000	0.490	0.072	0.345	0.635
Unemployed who did not find a job through the association	37.000	0.378	0.081	0.214	0.542
All the unemployed who found a job through the association	12.000	0.833	0.112	0.586	1.081
Unemployed who found a job thanks to the information received by people met through the association	5.000	0.600	0.245	-0.080	1.280
Unemployed who found a job thanks to the skills developed by working in the association	6.000	1.000	0.000	1.000	1.000

**References**

- Brehm, John and Wendy Rahn (1997) Individual-Level Evidence for the Causes and Consequences of Social Capital, *American Journal of Political Science*. 41(3): 999-1023.
- Calvo-Armengol, A. and M.O. Jackson (2004), “The Effects of Social Networks on Employment and Inequality”, *The American Economic Review*, 94(3): 426-454.
- Claibourn, Michel P. and Paul S. Martin. (2000). Trusting and Joining? An Empirical Test of the Reciprocal Nature of Social Capital, *Political Behavior*. 22(4): 267-291.
- Degli Antoni, Giacomo (2009), “Intrinsic vs. Extrinsic Motivations to Volunteer and Social Capital Formation”, *Kyklos*, 62(3): 359-370.
- Evans, R.W. and T.G. Koch (2007), “Human Capital, Unemployment Duration and Individual Heterogeneity”, <http://econ.byu.edu/Faculty/Evans/Papers/Uiben.pdf>.

- Franzen, A. and D. Hangartner (2006), "Social Networks and Labour Market Outcomes: The Non-Monetary Benefits of Social Capital", *European Sociological Review*, 22(4): 353-368.
- Granovetter, M.S. (1974), *Getting a Job: A Study of Contacts and Careers*, University of Chicago Press.
- Ioannides, Y.M. and L. Datcher Loury (2004), "Job information networks, neighborhood effects and inequality" *Journal of Economic Literature*, 42:1056–1093.
- Kiefer, N. (1985), "Evidence on the Role of Education in Labor Turnover", *Journal of Human Resources*, 20(3): 445–452.
- Mayer, Nonna (2003). Democracy in France: Do Associations Matter?, in Marc Hooghe and Dietlind Stolle (eds) *Generating Social Capital Civil Society and Institutions in Comparative Perspective*, Palgrave Macmillan.
- Meyer, B.D. (1990), "Unemployment Insurance and Unemployment Spells", *Econometrica*, 58(4): 757–782.
- Meier, Stephan and Alois Stutzer (2008). Is Volunteering Rewarding in Itself?, *Economica*. 75: 39-59.
- Montgomery, J.D. (1991), "Social Networks and Labor-Market Outcomes; Toward an Economic Analysis", *The American Economic Review*, 81(5): 1408-1418.
- Prouteau, Lionel and Francois-Charles Wolff (2004). Relational Goods and Associational Participation, *Annals of Public & Cooperative Economics*. 75(3): 431-463.
- Rogerson, R., R. Shimer, and R. Wright (2005), "Search-Theoretic Models of the Labor Market: A Survey", *Journal of Economic Literature*, 63(4): 959–988.
- Salamon, Lester M. et. al. (2004). *Global Civil Society: Dimensions of the Nonprofit Sector*, Volume II. Bloomfield, CT: Kumarian Press
- Stolle, Dietlind and Thomas R. Rochon (1998). Are all Associations Alike?: Member Diversity, Associational Type and Creation of Social Capital, *American Behavioral Scientist*. 42: 47-65.
- Wollebæk, Dag and Per Selle (2002). Does Participation in Voluntary Associations Contribute to Social Capital? The Impact of Intensity, Scope, and Type, *Nonprofit and Voluntary Sector Quarterly*. 31(1): 32-61.
- Wollebæk Dag and Per Selle (2003). The Importance of Passive Membership for Social Capital Formation, in Marc Hooghe and Dietlind Stolle (eds), *Generating Social Capital Civil Society and Institutions in Comparative Perspective*. Palgrave Macmillan.