

## ESTIMATING THE INDIVIDUAL-SPECIFIC PREDICTORS OF VOLUNTEERS IN SOUTH AFRICA

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### Abstract

Volunteerism is topical in applied economics in developed economies, especially in assisting to understand its contributions to the economy. However, even though the contribution of volunteerism to the economy may be remarkable and is receiving more attention in many countries, little research has been done on this topic in developing countries. This paper uses a Logit regression with volunteer work being an independent variable to examine the correlates of volunteerism. Explanatory variables are gender, age group, population group, highest education level, own business, work status, and income category. The results show that all estimated coefficients have expected signs. Females are more likely to do volunteer work more than males, older people are more likely to participate in voluntary activities than middle age and younger ones. Results also reveal that the higher the level of education, the more likely for the person to do volunteer work. This is the same with income, the higher the income individuals earn, and the more likely they are to do volunteer work.

**Keywords:** Volunteers, Volunteerism, Individual-Specific Predictors, South Africa

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### 1 Introduction

Classical economic theory highlights that individuals will not supply goods and services without being compensated (Katz & Rosenberg, 2005). But, large numbers of individuals volunteer their work to contribute to the economy without pay. The economic literature is rich with discussions of fundraising and monetary contributions to non-profit organizations. It contains, only a limited discussion of volunteering, or contributions of time (Govekar & Govekar, 2002). According to Winniford, Carpenter and Grider (1997) the literature on the characteristic of volunteering for non-profit organizations is highly complex and no conceptual model has received general support.

Many economists have studied labour force participation extensively, expending a great deal of effort to discover the determinants of market work. Traditional economic theory assumes that the individual chooses between work and leisure. This simplifying assumption is close enough to reality to produce valuable insights into labour force participation (Mueller, 1975). In other words, what was really being analysed was paid labour force participation. According to Mueller (1975: 326) volunteer work remains one significant area of work almost totally ignored by economists. However, one of the most significant contemporary developments in the market sector of the economy is that the boundaries of the theory and subject matter have broadened to include unpaid work. There are a number of questions which need to be asked. Why would a utility-maximizing economic worker find it rational to volunteer? What are the characteristics of such a particular individual? What types of voluntary activities are there and how do they contribute to private enterprise or public service provision? What role can volunteers play to enhance economic performance and society's wellbeing?

One cannot proceed to the analysis or examine the determinants, role of importance of volunteerism without defining it and clarifying its surround concepts. The definition of 'volunteer' and related concepts such as volunteerism or voluntarism and volunteering is controversial (Brudney, 2005). Although the term volunteer has been always used across a wide range of settings to denote unpaid and uncoerced

service, many authors such as Cnaan and Amroffell (1994) and Cnaan, Hendry and Wadsworth (1996) argue that it still lack a clear and consistent definition. In this study, in attempting to understand the meaning of the term volunteer, the most frequently cited definitions are used. Smith (1982: 25) defines a volunteer as:

*“An individual engaging in behaviour that is not bio-socially determined (e. g., eating, sleeping), nor economically necessitated (e. g., paid work, housework, home repair), nor socio-politically compelled (e. g., paying one’s taxes, clothing oneself before appearing in public), but rather that is essentially (primarily) motivated by the expectation of psychic benefit of some kind as a results of activities that have a market value greater than any remuneration received for such activities.”*

Wilson and Musick (1999:141) define a ‘volunteer’ as someone “*who contributes time to helping others with no expectation of pay or other material benefit to herself.*” In other words, volunteer activity is work performed without monetary recompense (Freeman, 1997). Similarly, Ellis and Noyes (1990: 4) define volunteering narrowly as follows: “*to volunteer is to choose to act in recognition of a need, with an attitude of social responsibility without concern for monetary profit, going beyond one’s basic obligations*”.

Likewise, volunteering means any activity in which time is given freely to benefit another person, group or cause (Wilson, 2000: 216). It is generally considered as an altruistic activity, intended to promote good or improve the quality of life. Volunteerism may have different meaning to different people. According to Ascoli and Cnaan (1997: 299) volunteerism is defined as “*a social phenomenal of unpaid care and citizen participation in society and is highly regarded in all parts of the world.*” According to Penner (2004: 645) “*volunteerism is one form of civic participation which includes long-term, planned, and non-obligatory prosocial activities that benefit another person, cause or group*”. Wilson (2000) confirms that volunteerism is typically proactive rather than reactive and entails some commitments of time and efforts.

This study is based on the theory that volunteer work is a productive activity. According to Wilson and Musick (1997) it means that much like any other work (paid or nonpaid), rather than a simple act of consumption, or leisure time pursuit with purely expressive goals. It should be kept in mind that volunteers may eventually become paid employees (Jones, 1995). Therefore, a market exists for volunteer labour, much like the market for paid labour.

Many volunteers may be unaware that their activities are considered to be volunteering. For instance, a family member who provides care to an elderly person, or someone who assist high school students for them to pass their final exam, may not consider themselves as ‘volunteers’. Hence, as said above, volunteering itself can mean different things to different people. As shown by many authors, there are many types of volunteer work such as those who work at hospitals (Handy and Srinivasan, 2005), firefighters (Thomson III and Bono, 1993), those who volunteer their time to church, charities, cultural organization and colleges (Freeman, 1997). Many volunteers spend their time also volunteering in their communities to help alleviate poverty and provide services for people with HIV/AIDS.

According to Brudney (1990) and Duncombe (1985) volunteerism is not associated with non-profit organizations only, but also with public and for-profit organizations. Furthermore, many educational programs in the United States of America teach elementary, middle, and high school students to view voluntarism as worthy and desired work (Mizenko & Smith, 1991). Many universities and other high education institutions do give academic credit to compensate volunteer work by students (Bojar, 1989; Cooley, Singer & Irvin, 1989; Redfering and Biasco, 1982). All this describes how important the volunteerism is for the economy and the society. However, according to Ironmonger (2008) the national accounts most of time make visible only part of the valuable economic activities – the productive activities that we pay for through the market economy. While unpaid non-market activities that are just as valuable are omitted from the national accounts. Thus, unpaid household and volunteer work are invisible and consequently tend to be ignored from national objectives and from indicators of the national performance (Ironmonger, 2008).

Volunteerism has a big impact on the economy of the country. According to Handy and Srinivasan (2005) in 2000, gifts of money and time amounting to \$4.9 billion and 1.1 billion hours, respectively, were given in private donations to non-profit in Canada. Brudney and Duncombe (1992) found that in USA 70 percent or more of local governments do involve volunteers in the delivery of services. Brudney (1993)

discovered that help from volunteers are often promoted as an answer to contemporary problems facing governments, such as eroding fiscal capacity. Thus, volunteers are reputed to enhance government productivity by reducing labour costs while simultaneously expanding the scope and even the quality of public services. Hence, this paper empirically analyses the predictors of volunteers in South Africa.

The act of volunteering is not a new phenomenon; millions of people around the globe have been giving some of their time, energy and knowledge to make difference in the lives of fellow men through volunteer work (Gaston & Alexander, 2001). The activities that volunteers engage in are as varied as the volunteers themselves, and the value that they contribute to the society, as a whole, remains immeasurable. There has been very little research attention in the South African context on volunteer characteristics and motivations (Surujlal, 2010). The purpose of this paper is to characterise, analyse and interpret the results of the analysis, particularly volunteers for both September 2006 and March 2007 labour force surveys (LFS)s.

The data used in this study are from two LFS, September 2006 and March 2007, collected by Statistics South Africa, with a sample size of 72469 and 74591 participants, respectively. This study describes both data sets and shows some characteristics of South Africans who do volunteer work. The data allows for the estimation of a limited dependent variable regression model of the probability of volunteering as a function of individual-specific predictors. Statistical analyses are performed using SPSS (Version 20).

## **2 Demographic background**

This sub-section presents the demographic characteristics of the individuals in the data set used in the study. It describes the sample size, gender, age groups and provinces, which respondents come from. Furthermore, it shows other information regarding population groups, education level, whether people are working or not, and if they are, the type of economic activities that they are involved in. There is also information about their income category, if they are registered as a tax payer, and lastly, if they do volunteer work or not. If they do, which type of volunteer work they do.

### **2.1 Gender**

Descriptive shows that more females (54.3%) formed part of both the September 2006 and March 2007 surveys, compared to males (45.7%). An equal percentage for both surveys will help to compare the result about who takes on volunteer work. Formal volunteering includes such heterogeneous activities that both females and males are equally likely to be involved in volunteering activities. However, Argyle (1991) posits that women may be more engaged due to their helping behaviour. Another argument is that this variable depends on other factors such as education and age (Vaillancourt, 1994). Hence, it is expected that there may be slight gender differences in volunteering work.

### **2.2 Distribution by province**

In terms of provinces, the sample is dominated by KwaZulu Natal (26.1%), followed by Eastern Cape (12.6%) and Western Cape (11.8% and 11.3%) with both surveys. One might expect volunteering to differ between provinces, depending on the development challenges that they face. The province with lowest number of participants in both surveys was Northern Cape (6.7% and 6.6%). The expectation from this distribution is dependent on which province may need more community involvement. At the same time, this may cause the question of which type of volunteering is needed. For example, in a province where education is facing many challenges the expectation is that more people will be involved in volunteer activities at schools, than in other provinces. According to Weisbrod (1975), the homogeneity of the population of the region may also affect the amount of volunteer activity carried out.

### **2.3 Age group**

The age group is divided in three groups: Young (from 15 to 29 years), middle age (30 to 59 years) and senior people (60 to 85 and more). It shows that the most respondents (45.3%) fall in the range of 30 to 59 years of age. Respondents in the category of young 15 to 29 years (42.3%) follow it for the March 2007 survey. Clearly, senior people participated in the labour force survey less than young and middle age people, since many people retire at the age of 60 or 65. According to Wilson and Musick (1997) the obligation to participate in volunteer work tends to peak in the middle years when both "one's children

and one's parents are likely to make demands." This is expected to be confirmed in the following section. For Deller (2004) "parents of young children, for example, are likely to be involved with school or youth-related groups. Older persons, many of whom are in their early years of retirement, are more likely to volunteer than young adults." In addition, in the United States of America students often participate in volunteer work to fulfil community services requirements. However, Amato (1993) and Gallegher (1994) find a negative relationship between volunteer work and age. This may or may not be the case for South Africa.

## **2.4 Population group**

For population groups, the majority of the participants are from the Black group, with around (77%) in both surveys. The Coloured group, with more than (13%), follows this, while the White group was around (7%), and Indian group (2.1%), in both September 2006 and March 2007 surveys. It should be mentioned that this distribution is slightly different from the South Africa population distribution, where according to South Africa Info (2012) Whites are in second place in terms of the numbers, after Blacks, followed by Coloured and Indian. It is difficult to predict what may be the outcome in terms of the relationship between volunteer work and population group (race). According to Wilson and Musick (1997), economic exigencies make informal helping more important among different population groups. It is expected that there may be a difference in volunteering activity among South Africans in terms of race.

## **2.5 Level of education**

Respondents have different qualifications. 10.6 percent of respondents do not have formal education. The respondents with primary school qualifications were 25.6 percent, and those with secondary school qualifications were 61.6 percent. The secondary school qualifications include those with NTC. Respondents with higher education were only 1.9 percent; this includes those with diplomas, bachelor degrees, honour degrees, and master and doctorate degrees. It is important to note that education increases participation in volunteering activity with different motives. The impact of this variable is complex for two reasons, 1) higher educated individuals have a higher wage rate, which increase the opportunity cost of volunteering, and 2) higher educated individuals access employment opportunities because volunteer work may help their career by bringing experience (Vaillancourt, 1994). Deller (2004) finds that education is one of the strongest predictors of volunteerism. Soldo and Hill (1993) argue that education levels should have less impact on volunteering activity because neither skills nor knowledge gained from schooling are necessarily of benefit. Therefore, the net impact of this variable cannot be predicted at this stage, only empirical results would provide an answer.

## **2.6 Field of study**

It is possible to examine the field of study of respondents with higher educational qualification further. 93.28 percent of the respondents did not specialise in any field of study because the majority of them do not have higher education qualifications. However, amongst those who have a higher educational qualification, most of them did training and development (32%). This is followed by those who studied in the field of business, commerce and management studies (20.8%), health science and social service (11.7%), manufacturing, engineering and technology (10.9%), physics, maths, computer and life science (7.3%), law, military science and security (4.7%), agriculture and nature conservation (3.8%), human and social sciences (3.6%), communication studies and language (2.2%), culture and art (2.21%), and those who did physical planning and construction (0.8%).

## **2.7 Income category**

The results show that the majority of participants (64.5%) answered the question about their income category as not applicable to them. Respondents are often reluctant to answer questions about income. It may also be that they are students or unemployed, or simply are still looking for jobs during the time when survey was conducted. For those who revealed their income, 27.1 percent earn less than R3500 per month, followed by those who earn R3500 to R8000 (5.6%), those who earn R8001 to R16000 (2.1%), while (0.6%) earn between R16 001 to R30 000 and more. Income has a positive relationship with education and work status; hence, the impact of it on volunteer work is uncertain.

## **2.8 Work status**

Individuals who are employed permanently are about 20 percent for both surveys; while 70 percent answered that the question was not applicable to them. About 4.3 percent, 2.5 percent and 1.7 percent are those who were employed on a temporary basis, on casual basis, and fixed-period contract workers, respectively. A minor percentage of them 0.5 percent and 0.6 percent were seasonal workers. According to Vaillancourt (1994), people who work less have more time for volunteering activities. Therefore, it is expected that those who are not permanently employed participate in volunteer work more than others do.

## **2.9 Type of volunteer activities**

Like in any other countries, there are different types of volunteering work one could be part of in South Africa. The type of volunteer work in both surveys is also discussed. Help the sick has 21.7 percent for the LFS of 2006, and 24.8 percent for the LFS of 2007. The assumption is that this dominant activity of volunteers is done for neighbours. Organising cultural events is done at 22.8 percent and 20 percent for both the LFS of 2006 and 2007, consecutively. Volunteers who offer medical care are 17.8 percent while collecting money is about 15.1 percent. In addition, around 10.9 percent and 14.1 percent of volunteers do maintenance of community resources, while about 9.1 percent and 11.6 percent offer their time to volunteer in law and order for both of the LFSs. A total of 16.2 percent and 15.6 percent participate in something else for both surveys; those who volunteer by providing training are 11.4 percent and 9.8 percent, while volunteers who are involved in fundraising are about 8.2 percent and 8.7 percent respectively. From the above frequencies, it is very important to conclude that there is a slight difference between the two surveys. For next following sections in this study, it was decided to use only one of them (LFS14).

## **3 Relationships of a volunteer's predictors**

This paper uses categorical data and cross tabulation is applied to analyse the relationships between volunteer's predictors. This section examines the characteristics of the volunteers in labour force survey 14. The question may be how do the people who volunteer and those that do not, differ; however, this study is only focusing on those who volunteer.

### **3.1 Age group and volunteer work**

In terms of age group, theoretically, if the characteristics of a volunteer need to be examined, the focus should be on the motives of the particular individual who may be involved in voluntary work. According to Wilson (2000:226), "the rate of volunteering tends to fall during the transition from adolescence to young adulthood, when the structure of school-related activities gives way to the social freedoms of the single and childless life." For Menchik and Weisbrod (1987) individuals tend to volunteer more when they are in their middle years. Carlin (2001) confirms this and concludes with empirical findings, that people do more volunteer work between the age of 24 to 34 years, compared to other age groups. (23.6%) of volunteers are young people but only 2.7 percent of young people volunteer. Approximately (62.4%) of volunteers in South Africa are in the middle-age group, and only 6.7 percent of this age group volunteer. In addition, it was revealed that 14 percent of volunteers in South Africa are 60 years and older and only 5.6 percent of this senior group do volunteer work. There may be reasons for this, such as these individuals being parents of children who are likely to benefit the most from the outcome of volunteer work.

### **3.2 Response to volunteer or not by population group**

Population groups have not received much attention in the literature in explaining volunteer work. For example, in USA Hodgkinson and Weitzman (1996) found that Whites do volunteer more than African Americans (51.9% of Whites and 35.3% of African Americans). According to Cutler and Danigelis (1993), the human capital theory explains the difference of why Whites may volunteer more than African/Blacks. For example, lower levels of education, employment status and income among African/Blacks will make an individual less likely to volunteer at a certain level. About 18.8 percent of volunteers in South Africa are Whites and 13.3 percent of Whites do volunteer work. Indians/Asians who do volunteer work are 7.3 percent. About 65.9 percent of the volunteers are Africans, but only 4.2 percent of Africans volunteer, while 12.2 percent of volunteers are Coloured, and only 4.3 percent are involved in

doing volunteer work. Hence, one may conclude that in South Africa Whites do volunteer proportionally more, followed by Indians, Coloureds and Blacks in that order.

### **3.3 Gender and volunteer work**

Many researchers discovered that the relationship between gender and volunteer work varies from country to country. For example in North America, as found by Wilson (2000), women are slightly more likely to volunteer than men, but in Europe this is not the case, as confirmed by Hodgkinson & Weitzman (1996), by posing that there is no overall gender difference in giving and volunteering. In South Africa 41.6 percent of volunteers are male and 58.4 percent are female. The percentages are very small, only 5.3 percent of female answered that they do volunteering, while 4.7 percent of the males said yes to the question of doing volunteer work. Females volunteer proportionally more than males.

### **3.4 Volunteers by province**

In terms of volunteers by province, the one with highest percentage (11.4%) of people who do volunteer work is Eastern Cape Province. Western Cape province lies in the second spot (6.8%) followed by Northern Cape (5.5%), Free State (4.9%), and Gauteng and Limpopo (both 3.6%). The next province is North West (3.3%) followed by KwaZulu Natal (2.9%) and Mpumalanga (2.7%), in that order. It may be concluded that a province might have more or less people participating in volunteering because of different reason such as homogeneity of the population of a province (Weisbrod, 1975). It can also be due to a particular province being in need of more public participation in some of the activities than the other provinces. Again, it could be added that it may also be influenced by the awareness of the importance of volunteering, and by how it is managed in that particular province, and this could be recommended for further studies.

### **3.5 Level of education and volunteering**

This section discusses the distributions of those who do volunteer work according to their level of education. Approximately 6.5 percent of volunteers are people with no formal education and 3 percent of them do volunteer work. About 21.5 percent of volunteers are those with a primary school education, and only 4.1 percent do volunteer work. Approximately 63.6 percent of volunteers are those with secondary school education, and only 5.1 percent of them do volunteer work. Lastly, among volunteers in South Africa 8.3 percent are those with higher education, and a good number (21.9%) of them do volunteer work, compared to other levels of education. From this, it could be concluded that people with a higher education volunteer proportionally more than those with lower educational levels. Hence, the more educated, the more likely a person is to volunteer.

### **3.6 Study field and voluntary work**

After linking volunteering and education level, it is important to show how the fields of study are distributed with volunteer work. Note that the numbers are small but the results confirm that 37.1 percent of volunteers in this group did education, training and development as a field of study, and 18.4 percent participate in volunteer works. Among volunteers, 16.5 percent studied business, commerce and management studies, and 12.6 percent of them participate in volunteering activities. Again, in considering the study field, among these volunteers, those who did health sciences and social services are 13.8 percent and 18.8 percent do volunteer work. Those who studied manufacturing, engineering and technology are 7.8 percent of the volunteers and 11.3 percent of them do volunteer activities. About 7.1 percent of these volunteers studied human and social studies and 30.9 percent of this group do unpaid work. Among volunteers in the group 5.1 percent of them studied agriculture and nature conservation, 4.8 percent physical, mathematical, computer and life sciences; 3.9 percent law, military science and security services, 1.4 percent communication studies and language, 0.3 percent and physical planning and construction respectively. At same time, findings 1.16 reveals that the following values, 21.3 percent, 16.7 percent, 10.4 percent, 13.5 percent, 10.2 percent, and 5.9 percent represent those who do volunteer work among graduates from agriculture and nature conservation, culture and art, physical, mathematical, computer and life sciences, law, military science and security services, communication studies and language, and physical planning and construction, respectively. Thus, what can be learnt from this result of the field of study and volunteering work is that those who studied human and social sciences volunteer more than others. This is followed by those in agriculture and nature conservation, health sciences and

social services, education, training and development field, culture and art, business, commerce and management studies, law, military science and security services, manufacturing, engineering and technology, physical, mathematical, computer and life sciences, communication studies and language, and physical planning and construction in that order.

### 3.7 Income categories of respondents and volunteer work

Income level is one of possible determinant of volunteer work. It emerged that the income of the respondents ranges between zero to R30000 and more per month. This range is divided into four main groups, those who earn <R3500, R3501-R8000; R8001-R16000 and R16001-R30000 and more. Approximately 59.5 percent of volunteers earn <R3500 and only 5.4 percent of those who are in this income range do volunteer work.

The second range is R3501-R8000 and only 9.9 percent of people within that income range do volunteer works. But, 22.5 percent of people who volunteer are within that income range. Around 12.9 percent of volunteers earn between R8001 and R16000 and 15.1 percent of them do volunteering, while 5.1 percent of volunteers fall under the highest paid group and 20.5 percent of them do volunteer work. From the results above, it is shown that those who earn more, participate in volunteering activities, compared to those who earn less. These results are in line with those found by Krugell (2010:188) that, “greater proportions of people from high-income groups work as volunteers.” One may ask the question of why those who earn less are the ones who volunteer less, compared to those who earn a higher income. This question was answered in study by Niyimbanira and Krugell (2014) where income and substitution effects was examined.

### 3.8 Other characteristics of volunteers

Respondents, who confirm that they volunteer for work, and who have a paying work are discussed under this sub-section. In other words, 31.6 percent of volunteers are employed, and 68.4 percent of volunteers are unemployed. Again, 6.1 percent of employed and 4.5 percent of unemployed do volunteer work. Those who own their own business and who still go out there and do volunteer work are 11 percent. Those who are registered for income taxes and who volunteer were 5.7 percent and 8.7 percent are not registered for income tax, but they volunteer work. This section cannot be complete without mentioning that 35.3 percent of those who are in the formal sector participate in volunteer work.

## 4 Empirical results with usage of the Logit regression

After analysing all possible demographics and characteristics of volunteers, this section uses a Logit regression with volunteer work being an independent variable to examine the correlates of volunteerism. Explanatory variables are gender, age group, population group, highest education level, own business, work status, and income category. The Logit regression model can be explained through the following equation:

$$Y_i = f(X_{1i}, X_{2i}, \dots, X_{ki}) \quad (1)$$

Where  $Y_i$  is the dependent variable representing the individual’s choice between volunteering or not and  $X_s$  are the various explanatory variables, as mentioned above, that predict the probability of whether the individuals do volunteer work. On the supposition that the response variable  $y^*$  captures a true status of the individual who either is doing volunteer work or not, the regression equation can be estimated as follows:

$$y_i^* = \sum_j^k \beta_j X_{ij} + \varepsilon_i \quad (2)$$

$y^*$  is not observable and is a latent variable.  $y$  is observed as a dummy variable that takes the value one if  $y^* > 0$  and takes the value zero otherwise. The  $\beta$  is the vector of parameters and error terms are denoted with  $\varepsilon$ . The error terms entail the common assumption of zero mean but the underlying distribution is different. The Logit model assumes that the underlying distribution of the error terms is Logit while probit assumes the distribution to be normal.

Let  $P_i$  denote the probability that the  $i$ th individual would do volunteer and the distribution depends on the vector of predictors  $X$ , so that

$$P_i(X) = \frac{e^{\beta x}}{1 + e^{\beta x}} \tag{3}$$

Where  $\beta$  is a row vector. The logit function to be estimated is then written as

$$\ln \frac{P_i}{1 - P_i} = \sum_{j=1}^k \beta_j X_{ij} \tag{4}$$

Is the natural log of the odds in favour of doing the volunteer work, whereas  $\beta_j$  is the measure of change in the logarithm of the odds ratio of the chance of doing or not doing volunteer work and can also be written as

$$\frac{\partial \log(oddratio)}{\partial X_j} = -\beta_j \tag{5}$$

The results of the Logit regression on the predictors of doing volunteer work are shown in Tables 1 and 2. The chi-square of 177.89 indicates that the model as a whole fits significantly better than an empty model, and was able to distinguish between those who do volunteer work and those who do not. The model as a whole explained 5.6 percent (Cox & Snell R Squared) and 9.3% (Nagelkerke R Square) of the variance in volunteering status, and correctly classified 90.7 percent of all cases. The overall percentage of 83.3 percent gives the percent of cases for which the dependent variable was correctly predicted, given the model.

**Table 1.** Omnibus tests of model coefficients

		chi-square	df	Sig.	
Step 1	Step	177.886	22	.000	
	Block	177.886	22	.000	
	Model	177.886	22	.000	
<b>Model Summary</b>					
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square		
1	2636.009 <sup>a</sup>	<b>.056</b>	<b>.093</b>		
a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.					
<b>Classification Table<sup>a</sup></b>					
<b>Observed</b>		<b>Predicted</b>			
		<b>To volunteer or Not</b>		<b>Percentage correct</b>	
		<b>Yes</b>	<b>No</b>		
Step 1	To volunteer or not	Yes	16	506	3.1
		No	14	2573	99.5
Overall percentage					<b>83.3</b>
a. The cut value is .500					

Source: Author's own calculations

With categorical variables, one of each has been chosen to be regarded as a comparator category. The following are comparator categories, female for gender, old age for age categories, higher education (those with honours, master's and doctorate degrees) for education level, income range of R16001-R30000+ is used to compare with others while owning own business is compared with not owning own business. From the results in Table 1, the estimated coefficient of male (gender (1) is negative and statistically significant. This implies that the probability of a male volunteering is less than for a female, as expected. This is in line with what Vaillancourt (1994:818) who found and suggested the cause, which



might be the “difference between men and women in tastes or in the intra-family allocation of non-market work or leisure time.” In same way, Wilson (2000) confirmed this by stating that females are slightly more likely to volunteer than males. However, it should be noted that this is not always the case because other studies in Europe show that there is no gender difference in some countries (Hodgkinson & Weitzman, 1996; Gaskin & Smith, 1997; Hall, Lasby, Gumulka, & Tryon, 2006). According to Kendall and Knapp (1991) and Gallegher (1994b), human capital plays a big role in volunteer work. Hence, women would volunteer even more if they acquired the same human capital as men.

The estimated coefficients for young and middle age are negative and statistically significant. Therefore, it can be concluded that both young and middle age people are less likely to volunteer than old people are. According to Janoski and Wilson (1995), people move from self-activism and focusing on their careers activism to engage in more community activities when they are in transition from young to middle age. In the exchange theory, Fischer *et al.* (1991) and Midlarsky and Kahana (1994) found that when one retires, s/he will seek for something to occupy her/him, and volunteer work would be a good choice to replace psychic and social benefits formally derived from paid work. Furthermore, it could be assumed that once retired a person could have more time than before; hence, enough time for doing volunteer work. However, in his article on volunteerism and community development in USA, Deller (2004) argues that people aged between 35 and 54 years do more volunteer work than younger and older people.

Regarding education level, the results in Table 2 show that all estimated coefficients are negative. This implies that those with no formal education, primary school, secondary school and those with first degrees volunteer for work less than those with honours, masters and doctorates. In other words, education increases participation in volunteer activities. This is in line with Vaillancourt (1994) who indicated that for higher educated people, career and human capital benefits are greater than the wages they may receive if spent their time doing paid work. Another reason given by Brady *et al.* (1999) is that higher educated people may be asked to volunteer by providing more civic skills and other professional activities such as legal, medical services, auditing and board representation. Thus, they mostly belong to more organisations. Therefore, as confirmed by Deller (2004), it could be argued and concluded that education is one of the strongest predictors of volunteering.

Results show that estimated coefficients regarding income categories are all negative, implying that those who earn a lower income are more likely to do volunteer work than those who earn a higher income. This result is similar to the one by Menchik and Weisbrod (1987) who discover that volunteer work has a positive relationship with income. In other words, the higher the income, the more volunteer work an individual will do. However, Freeman (1997) gave a different view by saying that there is a negative relationship between income and volunteer work. Even though there are this mixed views, the results in Table 2 show that in South African people with a higher income are more likely to volunteer more than those with a lower income. The last part of the results presented in Table 2 shows that when comparing individuals who have their own business and those who do not, the estimated coefficient is positive and significant. This implies that those with their own businesses are more likely to do volunteer work than those who do not have their own business.

## 5 Summary and conclusion

In this paper, an attempt has been made to explore the characteristics of volunteers in South Africa. The main aim was to report on what determines who these volunteers are, using the labour force survey by Statistics South Africa. Initially two surveys (September 2006 and March 2007) were used, after finding out that they do give similar results, the decision was taken to continue the analysis with one survey (September 2006). The sample size for the survey was 72469 respondents. The characteristics focused upon were as follows, gender, age group, population group, education level, field of study, income group, work status, and paying tax. The results show that in the survey, females (54.3%) were more than males, the middle age (45.3%) were more than other age groups, African were more than other population groups (77%), secondary education (61.6%) were more than others, and many people who participated in the survey were from KwaZulu Natal province (26.1%). All the categories have a certain percentage that does volunteer work.

The results from logit regression show that all estimated coefficients have expected signs. Females are more likely to do volunteer work more than males, older people are more likely to participate in volunteer activities than middle age and younger ones. Results also reveal that the higher the level of education, the

more likely for the person to do volunteer work. This is the same with income, the higher the income individuals earn, and the more likely they are to do volunteer work. The analysis presented in this paper enables policy makers and others who are interested to see the characteristics of volunteers in South African context clearly. Moreover, this paper provides the factors, which are related strongly to a volunteer. Strategies aimed to improve volunteerism can be directed by the findings of this study.

**Table 2.** Logit model results

Variables in the equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
<b>Gender (female)</b>						
Male	-.391***	.059	43.949	1	.000	.676
<b>Age categories</b>						
Young (15-29)	-.805***	.131	37.612	1	.000	.447
Middle (30-59)	-.420***	.110	14.612	1	.000	.657
<b>Education level</b>						
No formal education	-1.453***	.213	46.408	1	.000	.234
Primary school	-1.321***	.193	46.915	1	.000	.267
Secondary school	-.954***	.181	27.745	1	.000	.385
First degree	-.211	.193	1.201	1	.273	.810
<b>Income ranges</b>						
<R3500	-1.201***	.265	20.586	1	.000	.301
R3501-R8000	-.740***	.265	7.797	1	.005	.477
R8001-R16000	-.487*	.268	3.305	1	.069	.614
R16000-R30000 and more	-.162	.308	.278	1	.598	.850
<b>Owning business or not</b>						
Own your Business	.471***	.071	44.229	1	.000	1.601
Constant	.018	.310	.003	1	.954	1.018
a. Variable(s) entered on step 1: Gender, AgeCat, Ed.Level, Incomeranges, Q21aOwnB.						

\*\*\*  $p < .001$ , \*\*  $p < .01$  and \*  $p < .05$

Source: Author's own calculations

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