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**Household Charity in Pakistan:  
Magnitude, Determinants and  
Its Importance for the  
Well-being of Society**

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## ABSTRACT

This study examines the magnitude, patterns and determinants of household charity in Pakistan by using the 2010 Pakistan Panel Household Survey (PPHS). Previous studies have limited information on social and economic conditions of households; hence, little work has been carried out on the patterns and determinants of charitable giving, due to data limitations. This study estimated the size of individual giving as Rs 142 billion; adjusting for the value of time volunteered. Donation is increased with expenditure quintiles, whereas households belong to the poorest quintile are also very generous in participating in charitable giving. Double hurdle model is used to examine the determinants of donations. Results suggest that those households with high expenditure, older age, more children and more educated members give more to charity. Households that own the dwelling unit donate more to charity. The bigger the size of the housing unit (number of rooms), the more a household donates to charity.

The importance of household giving has also been viewed from the perspective of needy and poor households, which receive and accept the donations from other households/individuals. It has been shown that 75 percent of the sampled households helped others in 2010 through their *fitrana* money. It is assumed that the remaining 25 percent of households which have not given *fitrana* in 2010 were the needy and poor households eligible for receiving donations. If all donations made in 2010 by households were distributed equally among these needy households, the average annual receipts from private sources (households) turned out to be approximately Rs 14300 per household.

*JEL Classification:* D1, D6, I3

*Keywords:* Charitable Giving, Well-being of Society, Social Justice

## 1. INTRODUCTION

Pakistan has strong traditions of volunteering and giving, deeply rooted in the Islamic faith of its citizens. Charity is a central tenet of Islam, which lays great emphasis on supporting the needy and poor. Although philanthropy is preached and encouraged in other religions as well, Islam makes it obligatory in the form of *Zakat*—one of the five pillars of the faith.<sup>1</sup> The beneficiaries of *Zakat* are mentioned in the Quran - the poor, the needy, those employed to administer it, those whose hearts are made to incline (to truth), (to free) the captives, those in debt, and in the way of Allah and for the wayfarer. This list of beneficiaries binds Muslims to each other, and shows the notion of social responsibility and civic duty. Thus, charity in Islam is not only a form of worship, it also links humans to each other through their obligations to God. This study considers that charitable impulses in Pakistan are manifested in predominantly religious ways and are also linked to notions of social responsibility.

The generosity of Pakistani community in terms of charitable giving may also be viewed in the broader context of socio-economic development, poverty and public-sector initiatives to support the poor (e.g. safety net programmes). Pakistan is a low-middle-income country, having a moderate average GDP growth rate, which has fluctuated greatly during the last five decades, and a rising per capita income from US\$ 900 in 2005-06 to US\$ 1500 in 2014-15. The middle-class, which is considered as the backbone of an economy, has grown and strengthened overtime [Nayab (2011)]. Poverty, according to the official estimates, has also declined remarkably in the last decade, from more than 34 percent in 2001 to only 12 percent in 2010-11 [Pakistan (2013)]. However, despite this sharp decline in poverty, the information on poverty dynamics for the same period shows high levels of vulnerability in Pakistan. Based on three-wave micro-data (2001, 2004 and 2010), Arif and Farooq (2014) show that moving into and out of poverty is a common phenomenon; more than half of the sampled rural population (51 percent) have ever lived below the poverty between 2001 and 2010. Inequality, measured either through land ownership, income or consumption expenditure, remained high in the country. Pakistan has

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<sup>1</sup>The other four pillars are: declaration of belief in one God and the Prophet Muhammad (peace be upon him), daily five time prayers, fasting during the month of Ramadan and pilgrimage to Mecca.

the highest adult illiteracy in the region, with a vast gender disparity. Health indicators are weak and child and maternal mortality rates remained high. Thus, although the income (consumption) poverty level in Pakistan at present is lowest throughout its history, the proportion of vulnerable population is very high (50 percent), disparities remained high and social indicators present a dismal situation. Most of the vulnerable households are close to poverty line, any adverse shock may seriously affect their wellbeing level by pushing them below the poverty line.

The coverage of the well-known safety net programmes in the public sector—Benazir Income Support Programme (BISP), *Zakat* and Bait-ul-Mal—are not universal in nature and the amounts given to beneficiaries may not be sufficient to address their poverty and vulnerability. For example, the number of BISP beneficiaries has increased from less than 2 million in 2008-09, when the programme was started, to 4.62 million in 2013-14. The beneficiaries of other programmes, *Zakat* and Bait ul Mal are very small in number compared to the coverage of the BISP programme. If half of the population is considered vulnerable, because of its movement into and out of poverty, the coverage of safety net programmes remained very low. The amount given under the public-sector safety net programmes, such as Rs.1500 per month through BISP, may not be adequate to meet the basic needs of poor and vulnerable households.

There seems to be a wide gap between the needs of poor and vulnerable and the coverage as well as adequacy of public-sector safety net programmes. This gap is well known within the local communities, and it is, at least partially, filled by the better-off households and individuals by giving money or goods to the needy through their obligations to God and social responsibility. The growing per capita income, existence of a strong middle class and large inflows of foreign remittances show the capacity of many households and individuals to help the needy through charity. Pakistan's philanthropic contribution ranges from a low of 1 percent to a high of 5 percent of GDP [South Asia Investor (2012)]. These estimates are impressive and show that there is tremendous scope for widening the sphere of philanthropy in Pakistan to eradicate poverty, and other pressing social problems in country. In this way, the charitable giving in Pakistan makes relevance to augment government's initiative for reducing poverty and vulnerability and propel the country to the path of self-sustained development.

Research in philanthropy in Pakistan is a relatively new phenomenon. The work so far, however, has been limited in scope by focusing on the size of philanthropy. Because of data limitations, little work has been carried out on the patterns and determinants of charitable giving. The previous studies are primarily based on special surveys, which have limited information on social and economic conditions of households. The major objective of this study is to examine the magnitude, patterns and determinants of household charity in Pakistan by using the 2010 Pakistan Panel Household Survey, which is a rich

source for such information and it also has a module on income transferred by the sampled households to other households/individuals in the form of *Zakat*, *ushr*, *fitrana*, and *sadaqa* during the year preceding the survey.

## 2. WHY AND WHO GIVES TO CHARITABLE CAUSES?

### A REVIEW OF LITERATURE

The scholarly literature on philanthropy is enormous and spread over many different disciplines including (social) psychology, economics and, sociology [Bekkers and Wiepking (2011)]. However, the literature for Pakistan is severely lacking. There are two strand of research on philanthropy as classified by Bekkers and Wiepking (2010). The first strand of research focusses on ‘why do people give’? This sort of research has isolated eight major mechanisms that motivate charitable giving: (1) solicitation; (2) awareness of need; (3) altruism; (4) costs and benefits; (5) psychological benefits; (6) reputation; (7) efficacy; and (8) values. The second stand of research addresses the question ‘who gives to charity’? Charitable donation is an interesting form of human behaviour as it presents challenges for several theoretical standpoints. Altruism lies at the root of charitable behaviour. Throughout history charity is considered as virtue and as man’s natural duty. Besides religious and societal obligations, it is believed that human nature is infused with certain benevolences [Chömpff (2009)]. Adam Smith (1976 [1759]) and Auguste Comte (1973 [1851]), coined the questions of about altruism and generosity. Adam Smith calls; “how selfish so ever man be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it.”

However, later on the inception of modern science gave birth to the strict rationality, hence stated that selfish behaviour lies at the root of every act motivated by concern for someone else’s fortune [Chömpff (2009)]. Scholars across different disciplines agree that pure selfish behaviour never existed. More recently, the constituents of the egoistic model has been shacked by Hill (1984) while explaining certain observations. For example, heroism signifies the lack of conscious awareness of the deed e.g. jumping in front of a train to save a child’s life [Chömpff (2009)].

Investigating the empirics of who gives is useful for testing different theoretical perspectives or hypothesis on charitable giving. Generally, hypotheses imply arguments about the relationship between the characteristics of individuals or households and the mechanisms that drive charitable giving. The typical relationship between age and philanthropy is reported as positive [Alpizar, Carlsson, and Johansson-Stenman (2008); Bekkers and Wiepking (2011)]. Studies have tested for quadratic relationship in age and found that donations increase with age but decline at higher age [Lyons and Nivison-Smith (2006); Chömpff (2009); Bekkers and

Wiepking (2011)]. The second important correlate of charitable giving is education. Empirical studies have found positive relationship between education and philanthropy [Bekkers and De Graaf (2006); Brown and Ferris (2007); Feldman (2007); Wiepking and Maas (2009)]. The mechanism underlie this relationship include the awareness of need, solicitation (requests), values and costs. Educated people are more exposed to information about charitable causes and are more aware of others in need and their support to charitable causes is likely to be higher [Bekkers (2006b)]. Higher educated people have greater number of requests for donations. It is reported that higher education draws people into membership, which increases donations (Brown and Ferris, 2007); as membership increases solicitations [Bekkers and Wiepking (2011)]. Lastly, it has also been shown that more educated people sanction greater social responsibility values than those with lower education [Schuyt, *et al.* (2004); Bekkers and Wiepking (2011)].

The relevance of religion has also received enormous attention in philanthropic literature. Religion has been characterised by four specific characteristics in the literature; (1) religious membership (whether member of a religious group); (2) religious participation (to what extent of one's participation in a religious group); (3) religious preference, (to which group one belongs) and (4) religious belief (the content of one's religious views). Individuals brought up in religious households donate higher amounts [Simmons and Emanuele (2004)]. Bekkers (2005) also provide evidence for a religious socialisation effect. Religious upbringing, material circumstances, parental volunteering, parental education and youth membership are important socialisation characteristics, which are interconnected and are related to each other. Parental characteristics are also believed to affect children's giving behaviour. Parental income, education, and family stability affect many child outcomes, including education, income, religiosity and health and longevity. All these variables are believed to be important predictors of giving. Positive material conditions in the childhood increases the likelihood of giving in the adulthood. It is found that parental education positively affects charitable giving [Bekkers (2005)]. Bekkers (2005) reported that children of more educated parents, more religiously involved parents and of more volunteered parents give greater amounts as adults as these children are more likely to be associated with voluntary associations. Bandy and Wilhelm (2007) reported that low family stability and income in childhood was associated to lower donation in adulthood. People having membership of youth organisations endorse higher social responsibility and altruistic values. Parental encouragement builds social pressure on children to engage in philanthropy, either through reputational concerns or of pro social values, or psychological benefit (a sense of satisfaction) [Bekkers and Wiepking (2011)].

Undeniably, there are many factors, including income and wealth, that relate to the level of charity, but religious faith has stand the most important factor independent of economic status.

Islamic rulings to philanthropy have emphasised spiritual and temporal endeavours in the case of philanthropy. Since inception of Islamic Umma (faith-based community) in Madina donations were used for developmental, as well as, relief objectives of the wider community; including social services such as shelter, health and education [PCP (2000)].

Philanthropy ties humans to each other. A charitable act is, believed to be an act of faith; as well as, of community. The stress on charity in Islam emphasises on the idea of social justice. Islam expects frontrunners to heal the sick, feed the hungry and house the widow and orphan, and presumes all Muslims—be they poor or rich—to pay to such struggles [USAID (2005)].

Islam places boundless stress on supporting the impoverished. The Quran and Sunnah affirm in strong words that it is the duty of the well off to look after the destitute segments of society. Islam not only taught to do good to each other, but also emphasise to protect the environment and to treat animals well.

### 3. METHODOLOGY

#### 3.1. Concepts Clarification and Data Source

Distinction has been drawn between ‘traditional philanthropy, often in the form of direct giving in cash or kind to meet a recipient’s immediate needs, and modern philanthropy, with broader goals and managed by modern institutions [Fauzia (2010)]. The practice of philanthropy in much of the Muslim world remains traditional, although the phenomenon of modern philanthropy, particularly for social justice is growing [Fauzia (2010)]. The situation is not different in Pakistan, where traditional philanthropy dominates to help the poor and vulnerable through direct giving of money or goods. For this study, philanthropy or charity refers to private family (or household) practice of giving to non-family members for short term relief. It also includes money and goods giving by households to charitable organisations.

More specifically, in the 2010 Pakistan Panel Household Survey (PPHS), the main data source used for this study, each sampled household was asked: “did your household help others (individuals/households) during the year preceding the survey by giving them *Zakat*, *ushr*, *fitrana*, *sadaqat* and other assistance in cash or kind”? In the second question, the households that transferred out money or goods were asked to report the given amount or the value of assistance in kind. This set of two questions was also used in the same module of PPHS to get information on the household giving to institutions such as charity organisations, *madrissa*, hospital, etc. In Islam, *Zakat*, *ushr* and *fitrana* are obligatory for Muslim whereas *sadaqa* and any other assistance are

voluntary.<sup>2</sup> *Zakat* is the share or portion of wealth that is obligatory upon a Muslim to give to fixed categories of beneficiaries (see section 1), if the value of his assets is more than a specified limit. *Fitrana* is the charity which every Muslim, having a certain amount of wealth, pays at the end of the month of Ramadan. It is mandatory on every Muslim not only on his own behalf, but also on behalf of all the persons he is in charge of. *Sadaqa* not only means charity in the form of money or food, but includes every act done for the benefit of fellow men. The value of time volunteered, which has been made part of philanthropy or charity in other similar studies in Pakistan as well as elsewhere, was not covered in the 2010 PPHS.

The 2010 PPHS is a longitudinal survey carried out three times since 2001. The last wave (2010) covered both the rural and urban areas of the country while the earlier two waves of the survey carried out in 2001 and 2004 were confined only to rural households. All three rounds of the survey are carried out by Pakistan Institute of Development Economics (PIDE) with the financial help of the World Bank. The 2010 PPHS contains detailed information on income, consumption, household demographic events and household assets, which make the survey valuable for this study to examine the determinants of household charity. A sample of 4,142 households (2800 rural and 1342 urban) were collected in 2010. As noted above, the survey contains two types of charitable donations during the year preceding the survey: donations to other households and donation to charitable organisations. The unit of analysis for this study is household.

### **3.2. Method Used for the Estimation of Magnitude of Household Charity in Pakistan**

Based on the abovementioned questions asked in the 2010 PPHS, a four-step methodology is used for the estimation of the volume or size of individual giving in Pakistan. Since the PPHS was carried in both rural and urban areas, as the first step, total number of households were estimated separately for rural and urban areas by dividing their respective total population with the average household size. According to the Pakistan Economic Survey 2014-15, the total population of Pakistan in 2010, when the PPHS was conducted, was 173.51 million. It also provided the share of population in urban areas, as 36.94 percent in 2010. The Pakistan Socio-economic Living Standard Measuring (PSLM) 2010-11 survey shows the average rural household size as 6.49 persons while it was 6.19 persons in urban areas. By using the information on both rural-urban

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<sup>2</sup>Another kind of voluntary philanthropy, which is not included in this study is *Waqf*—the permanent dedication, by a Muslim, of any property for any purpose recognised by Islamic law as religious, pious and charitable. *Waqf* causes the transfer of ownership, of the thing dedicated, to God. But as God is above using or enjoying any property, its profits are reverted, devoted, or applied to the benefits of mankind.

population and the average household size, it is estimated that in 2010, the total number of households in the country were 27.20 million; 10.35 million in urban areas and 16.68 million in rural areas.

In the second step, the information gathered through the “transfers out to individuals/households/institutions” module of the PPHS was used, and the proportion of households in rural and urban areas which donated money or goods to other individuals/households or institutions was multiplied with the total number of estimated households (see first step) to get the total number of donor households by type of giving (*Zakat*, *ushr* etc.). About 14 percent of the households in urban as well as rural areas helped other households/individuals through their *Zakat* money, and approximately one-third of the households helped others through *sadaqat* (Table 1). Three-quarters of the sampled households gave *fitrana* money in 2010 to other individuals and households. The incidence of giving to institutions was very low.

Table 1

*Transfer Out to other Households/Individual*

Type of Giving/Transfer	Rural areas		Urban areas	
	Proportion of household (%) donated money and goods to others	Average amount during last 12 months	Proportion of household (%) donated money and goods to others	Average amount during last 12 months
<b>Households</b>				
<i>Zakat</i> to other households	14.5	5409	13.7	6342
<i>Ushr</i> to other households	8.8	4688	2.7	2186
<i>Fitrana</i> to other households	74.9	548	74.1	495
<i>Sadaqat</i> to other households	29.7	4263	32.7	2220
Other assistance in cash or kind	22.3	2208	19.4	2873
<b>Institutions (e.g. charity organisations, madrissa, hospital, etc)</b>				
<i>Zakat</i> to other households	1.8	4875	2.8	7091
<i>Ushr</i> to other households	0.6	2267	0.2	8000
<i>Fitrana</i> to other households	6.9	1093	5.3	776
<i>Sadaqat</i> to other households	1.9	6164	2.8	3994
Other assistance in cash or kind	8.5	1883	11.8	1722

Source: Computed by authors from the 2010 PPHS microdata.

In the third step, the reported average amount transferred by the PPHS sampled households to other individuals/household or institutions is multiplied with the number of donor households in each category of giving. Finally, since the 2010 PPHS provides information separately on five types (categories) of household giving: *Zakat*, *ushr*, *fitrana*, *sadaqat* and other assistance in cash or kind the amount given under each category of giving is summed up to get the total volume of household giving to other individual/households and institutions in 2010.

One major limitation of the PPHS 2010 approach or its module on “transfers out” is that it has not gathered information on time volunteered, which, according to earlier studies, is the major portion of individual philanthropy. So the magnitude of philanthropy, as presented in this paper, necessarily shows the transfer of only money and goods. However, an attempt has been made in later part of the study to estimate the value of time volunteered.

### 3.3. Model Specification

The 2010 PPHS micro-data shows that more than 80 percent of the sampled households donated some money or goods during the year preceding the survey. This greatly complicates the econometric modelling to analyse household expenditure data [Carroll, *et al.* (2005)]. Standard econometric technique, Ordinary Least Square (OLS) is biased even asymptotically when the dependent variable is unobserved or limited in some way [Kennedy (1998); Carroll, *et al.* (2005)]. It is not customary, to simply omit these zero observations as it creates bias and would throw away much more valuable information.

An exhaustive list of research in the area (charitable donations) has utilised the univariate tobit model [see Carroll, *et al.* (2005)]. The tobit model, is an econometric model concerning censored data, which assumes that the stochastic process is the same for both the discrete switch at zero, and the value of continuous observations on the dependent variable [Blundell and Meghir (1987); Carroll, *et al.* (2005)]. This assumption is viewed to be very restrictive. It is quite plausible to assume that factors which affect whether to give or not to charity are considerably different than those factors that affect how much to give to charity. The tobit model also assumes that all zero observations on the dependent variable are corner solutions that households are constrained by their incomes and relative prices and they spend nothing. This assumption is also considered to be very restrictive as it is expected that households may not give to charity as they do not consider it their responsibility to take care of the destitute in the society. Some households may not give to charity, simply because they consider that their donation may not make any real difference. Due to these reasons recent research in the area has used a bivariate double-hurdle model [Cragg (1971); Carroll, *et al.* (2005)]. Henceforth, we also employ the same model in our analysis.

The double hurdle model is a generalisation of the standard tobit model. An additional hurdle is introduced in the standard tobit model which must be passed on to observe positive observations. Assumption about the source of zero observations generalises the standard tobit model into two categories; ‘p-tobit’ or ‘infrequency of purchase model’ and ‘market participation model’. If the zero observations are expected to be due to misreporting or the survey is too short to

capture the expenditure then ‘p-tobit’ or ‘infrequency of purchase model’ is used. If the expectation is that zero observations are due to non-participation due to non-economic reasons then the ‘market participation model’ is used. In the market participation models, it is assumed that zero observations are either corner solutions or consumers who do not use the product (here the product refers to households who do not give to charity). The infrequency of purchase model assumes that, the zero observations either represent consumption out of storage or corner solutions [Blisard and Blaylock (1993); Carroll, *et al.* (2005)].

The market participation model has been known as ‘double-hurdle’ or ‘Cragg’ model. In the Cragg model, coefficients are allowed to differ in each hurdle. In the double hurdle model a change in a variable, which is presented in both hurdles, can differently affect the probability of participation than the way it affects expenditure [Carroll, *et al.* (2005)]. Expenditure represents amount given to charity in our case.

In the tobit model, household utility from consumption is represented by a latent variable  $y_{i2}^*$ . It is assumed that for positive values of  $y_{i2}^*$  observed expenditure equals desired expenditure but zero otherwise. In the Cragg model,  $y_{i1}^*$ , a second latent variable or hurdle is allowed to represent the decision to consume. Positive values of expenditure are realised or observed only if both hurdles are positive. More formally, the model is given as follows:

$$\begin{aligned}
 y_{i1}^* &= z_i' \alpha + v_i && \text{(Equation for Household's Participation)} \\
 y_{i2}^* &= x_i' \beta + u_i && \text{(Equation for Household's Expenditure)} \\
 y_i &= x_i' \beta + u_i && \text{if } y_{i1}^* > 0 \text{ and } y_{i2}^* > 0 \\
 y_i &= 0 && \text{otherwise} \\
 v_i &\sim N(0,1) \text{ and } u_i \sim N(0, \sigma^2)
 \end{aligned}$$

Where  $y_{i2}^*$  is the latent variable (unobserved) for the level of donations,  $y_i$  is observed or actual level of donations given to charity. Whereas  $y_{i1}^*$  is the latent variable representing the household's decision to give to charity,  $z_i$  pertains to the vector of explanatory variables affecting whether to donate to charity,  $x_i$  is also a vector of explanatory variables affecting explaining how much is given in donations, and  $u_i$  and  $v_i$  are the error terms. The two error terms are assumed to be independent of each other [Carroll, *et al.* (2005)].<sup>3</sup> The model is estimated by maximum likelihood estimation procedure.

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<sup>3</sup>Cragg's original model assumes independence. Carroll, *et al.* (2005) presents a review of published article who assumes independence as well as of those papers who modelled dependence. It is concluded that those who modelled dependence failed to improve over the independence model, except one paper of Gould (1992).

#### 4. MAGNITUDE AND PATTERNS OF HOUSEHOLD CHARITY

As noted earlier, for this study the philanthropy or household charity refers to the household's donation of money and goods to other households/individuals or institutions during last 12 months (it does not include the value of time volunteered). Based on the methodology outlined in previous section, the present study has estimated the total volume of household giving in 2010 as approximately Rs 100 billion (Rs 97.537); 66 percent of the total giving has been donated by rural households while the contribution of their urban counterparts in total giving is about 34 percent (Table 2). In monetary terms, the rural households made donations of Rs 64.97 billion in 2010 while the value of giving by urban households is Rs 32.5 billion. Again, these estimates of household giving do not include the value of volunteered time, which constituted 41.7 percent of the total giving in 1998, as estimated by Bonbright and Azfar (2000) in their pioneer study on Philanthropy in Pakistan. In the Punjab study carried out in 2009-10, the share of time volunteered in total giving is estimated as 34.7 percent whereas in the case of Sindh, according to recent estimates of the Pakistan Centre for Philanthropy, this share is as high as 62.1 percent. By adjusting the value of time volunteered, this study estimates the total household giving in 2010 as high as Rs 142 billion.<sup>4</sup>

Table 2

*Household Giving to other Individuals/Households and Organisations  
(Million Rs) by Type of Giving, 2010*

Type of Giving	Rural	Urban	Total	% Distribution
<i>Zakat</i>	15267.55	11051.66	26319.21	26.98
<i>Ushr</i>	7153.09	776.76	7929.85	8.13
<i>Fitrana</i>	8012.45	4223.55	12236.01	12.55
<i>Sadaqat</i>	23323.80	8632.77	31956.57	32.76
Other	11220.32	7874.66	19094.99	19.58
Total giving	64977.22	32559.41	97536.62	100.00
Total (%)	66.62	33.38	100.00	–

*Source:* Computed by authors from the 2010 PPHS microdata.

However, this estimate of Rs 142 billion as the household giving in 2010 could be at a lower side for two reasons. First, some donations of individuals are not reported in the household giving; the example includes money given to beggars by individual members of the sampled households. Second, the major urban cities are under-represented in the 2010 PPHS sample, which covered only two such cities, Faisalabad and Bahawalpur, out of the total 14 self-representing cities, including Karachi and Lahore, the two largest cities of the country. Although the 2010 PPHS shows no major difference between rural and

<sup>4</sup>For adjustment, the share of time volunteered in total household giving is assumed as 45 percent.

urban areas in both the incidence of giving and average amount given to others (see Table 1), these giving in some major cities such as Karachi and Lahore could be higher than in other urban areas.

One of the key features of the household giving in Pakistan is the dominance of non-mandatory giving in the form of *sadaqat* or other assistance in cash or in-kind. *Zakat*, *ushr* and *fitrana* are the three mandatory giving and constituted about 48 percent of the total giving in 2010, the rest of more than half of the total household giving is in the form of *sadaqat* and other assistance in cash or in-kind (Table 2). *Sadaqat* are at the top of list, followed by *Zakat*, other assistance in cash or in-kind and *ushr*. It shows a strong philanthropic behavior of Pakistanis to help other needy persons/households, beyond the mandatory payment of *Zakat* and *ushr*.

Table 3 compares the household giving, as estimated by the present study, with earlier studies by excluding the value of volunteered time which was not covered in the 2010 PPHS. The share of *Zakat*, according to the 2010 PPHS, in total household giving is 27 percent while the corresponding share in Punjab study is reported as 26 percent. The pioneer study on philanthropy by Bonbright and Azfar (2000) showed the *Zakat* share in total giving as 33 percent. So in terms of reporting the donations of *Zakat*, the PPHS information is close to other studies. However, the share of in-kind giving in total household donation based on the 2010 PPHS is much lower, only 20 percent, compared to other studies, 28 percent by Bonbright and Azfar (2000) and 31 percent by the Punjab study (Table 3).

Table 3  
*Earlier Estimates of Individual Giving*

Type of Giving	Total Giving (Rs Billion)	% Distribution	% Distribution Excluding the Value of Time
<b>1998-Pakistan</b>			
<i>Zakat</i>	13.781	19.5	33.5
Non- <i>Zakat</i>	16.016	22.8	39.0
In-kind	11.319	16.0	27.5
Time (Value)	29.422	41.7	–
All	70.538	100.0	100
<b>2009-10- Punjab</b>			
<i>Zakat</i>	17.75	17.1	26.2
Non- <i>Zakat</i>	29.16	28.1	43.1
In-kind	20.80	20.1	30.7
Time (Value)	35.97	34.7	–
All	103.68	100	100
<b>2013- Sindh</b>			
<i>Zakat</i>	3.7	5.4	14.3
Non- <i>Zakat</i>	17.4	25.6	67.4
In-kind	4.7	6.9	18.2
Time (Value)	42.2	62.1	–
All	68	100.0	100.0

Source: (a) Bonbright and Azfar (2000).

(b) PCP (2010). Individual philanthropy in the Punjab.

(c) PCP (2015). Individual indigenous philanthropy in Sindh 2014.

The two main contenders for receiving the donations from relatively better-off households are the needy and poor individuals/households and charity organisations (institutions). Table 4 shows that 86 percent of the total household giving was transferred to the needy households/individuals while the remaining 14 percent was donated to institutions, such as charity organisations, hospitals and *madrissa*, showing a clear preference of donor households for other needy and poor households/individuals while making their donations. It is according to our values and the teachings of Islam which motivate the rich to help the poor and needy relatives and neighbours. Overall there is no major difference between rural and urban households in the selection of a receiver for their donations, more than 80 percent of the giving directed to other needy and poor households in both areas. This behaviour of donors is similar while distributing *Zakat*, *sadaqat*, *ushr* and *fitrana*. However, a quarter of the donations under the 'other assistance in cash or in-kind' category was given to institutions (Table 4). Even in this case, three-quarters of the donations are directed to other households and individuals.

In the choice of a receiver or to where the donated money or goods was directed, the finding of this study differ from the other major studies. For example, Bonbright and Azfar (2000) show that 37 percent of the total cash and goods donation was directed to organisations and the Punjab study on Philanthropy shows the share of organisations as 34 percent. A close look to the statistics shows that the difference is largely in the case of *non-Zakat* and in-kind giving. For *Zakat*, Bonbright and Azfar (2000) show that 90 percent was given to individuals, and in the Punjab study, the corresponding figure was 76 percent. The difference in the distribution of *non-Zakat* giving to organisations or individuals/households between the present study and earlier work seems to be primarily due to the difference while getting information from the respondents.

Table 4

*Percentage Distribution of the Household Giving by Receivers (Households/ Individuals or Institutions), Type of Giving and Rural/Urban Areas*

Type of Giving	Rural Areas		Urban Areas		Total	
	To	To	To	To	To	To
	Households/ Individuals	Institutions	Households/ Individuals	Institutions	Households/ Individuals	Institutions
<i>Zakat</i>	86.60	13.40	81.40	18.60	84.42	15.58
<i>Ushr</i>	97.23	2.77	78.67	21.33	95.41	4.59
<i>Fitrana</i>	86.36	13.64	89.92	10.08	87.59	12.41
<i>Sadaqat</i>	91.51	8.49	87.07	12.93	90.31	9.69
Other assistance in cash or in-kind	73.98	26.02	73.28	26.72	73.69	26.31
All giving	87.33	12.67	81.98	18.02	85.54	14.46

Source: Computed by authors from the 2010 PPHS microdata.

The patterns of household charity are examined through two variables, incidence of giving and average donations, by quintile for all kinds of giving controlling for rural and urban areas (Tables 5, 6 and 7). The amount of donation is also increased with expenditure quintiles. Households belong to the top quintile donate more than the lowest (poorest) quintile (Tables 5, 6 and 7). This pattern is observed for both rural and urban areas as well as for all types of giving. However, in terms of participation, there is no major difference across the quintiles. The minimum participation rate is about 80 percent, suggesting that charity is a norm in Pakistani society, although the amount given depends on the economic status of giving households/individuals.

One noteworthy fact about Table 7 is that both participation rate and average donations to institutions are positively related to the economic status of the households; higher the status higher the participation as well as the amount donated. One obvious reason could be that the institutions approach the better-off households/individuals for charity and donations. The possibility is that some trusted institutions get the donations regularly from households/individuals.

Table 5

*Donations by Expenditure Quintiles to Households and Institutions*

Quintiles (expenditure)	Donations to other Households + Institutions				Total	
	Rural areas		Urban areas		Av.	Hhs +
	Av. Donations	Hhs + Intuitions (%)	Av. Donations	Hhs + Intuitions (%)	Donations	Intuitions (%)
Quintile						
one/poorest	848.41	80.42	1376.82	80.20	983.78	80.36
Two	1231.10	85.71	1413.16	83.08	1293.99	84.81
Three	1657.97	87.91	3376.15	89.56	2213.59	88.44
Four	3350.30	86.71	2940.51	87.25	3216.72	86.88
Five	9936.13	90.63	6783.37	88.08	9144.86	89.99
Total		86.26		85.73		86.10

Source: Computed by authors from the 2010 PPHS microdata.

Table 6

*Donations by Expenditure Quintiles to Households*

Quintiles (expenditure)	Donations to other Households + Institutions				Total	
	Rural areas		Urban areas		Av.	Hhs +
	Av. Donations	Hhs + Intuitions (%)	Av. Donations	Hhs + Intuitions (%)	Donations	Intuitions (%)
Quintile						
one/poorest	789.90	79.72	1294.08	79.19	919.06	79.58
Two	1074.14	83.13	1217.30	80.08	1123.59	82.08
Three	1469.47	82.15	3017.96	85.14	1970.22	83.12
Four	3038.45	80.92	2498.58	82.07	2862.47	81.30
Five	8515.77	83.33	4828.96	83.42	7590.47	83.36
Total		81.84		82.01		81.89

Source: Computed by authors from the 2010 PPHS microdata.

Table 7

*Donations by Expenditure Quintiles to Institutions*

Quintiles (expenditure)	Donations to Institutions				Total	
	Rural areas		Urban areas		Av. Donations	Intuitions (%)
	Av. Donations	Hhs + Intuitions (%)	Av. Donations	Hhs + Intuitions (%)		
Quintile						
one/poorest	58.51	6.47	82.74	13.71	64.72	8.32
Two	156.96	12.90	195.86	18.05	170.40	14.68
Three	188.49	19.77	358.19	20.08	243.37	19.87
Four	311.85	22.54	441.93	21.51	354.25	22.21
Five	1420.36	25.69	1954.40	22.28	1554.40	24.84
Total		17.46		19.20		17.98

Source: Computed by authors from the 2010 PPHS microdata.

## 5. DETERMINANTS OF HOUSEHOLD CHARITY: A MULTIVARIATE ANALYSIS

To our knowledge, only one study in Sindh (Pakistan) has examined the determinants of donations through a multivariate analysis [PCP (2015)]. However, several studies on other countries are available. Common findings include that education, income and age increases the likelihood and amount of donations. The effect of other factors (gender of the household head, marital status of the household head, children in the household, employment status) varies in the literature [Carrol, *et al.* (2005)]. The Sindh study has also found a positive relation between individual giving and altruism. We expect that variables explore and the results obtained in this study to be in line with previous research.

Five sets of explanatory variables were included in the participation and expenditure equations. The first set includes four variables representing the economic status of households: ownership of land, livestock and residential house and number of rooms. The second set included in equations is a single-variable set, log per capita household expenditure, a commonly use indicator to assess the wellbeing (poverty) status of a household. It is hypothesised that higher the per capita household expenditure higher the participation of households in charity as well as bigger the donation made. Characteristics of the head of household that are likely to affect his/her giving behaviour are parts of the third set which include gender of the head, age, education and occupation status. Household demographic situation is captured in the fourth set which has a single variable, the number of under 15 years children. The household's access to information is also included in the model. While almost two-third of the sampled households have a telephone (mostly mobile), only a small proportion have a computer at home (8 percent) and only 1 percent reported to have access to internet.

A summary of the variables included in the multivariate analysis is given in Table 8. The average land ownership is 3.2 acres, however, it is worth noting that more than half of the samples households are landless in the 2010 PPHS.<sup>5</sup>

<sup>5</sup>Other data sources such as the Pakistan Agricultural Census also show a similar percentage of landless households.

More than half of the sampled households own livestock while the ownership of a residential house is almost universal, 95 percent. On average, each dwelling unit has 2.3 rooms. The mean age of heads of household is approximately 48 years and 91 percent of them are married. Only 4 percent of the households are headed by female. The level of illiteracy is high 54 percent, but more than 12 percent of the head of household have secondary or high level of education. More than half of them are engaged in service/market/agricultural occupations and elementary and other occupations.

Table 8

*Summary Statistics of Variables Explored*

Variable	Obs	Mean	Std. Dev.	Min	Max
Household Annual Expenditure (Rs)	3848	247613.00	194480.50	12437.08	3446522.00
Expenditure Per Capita Annual (Eqv.)	3848	38325.79	27228.06	4056.79	441861.80
Household Annual Charity (Rs)	3848	3369.71	19211.90	0	980180
Participation (Yes)	3848	0.86	0.35	0	1
Household Annual Charity Mandatory (Rs)	3848	1589.40	6973.57	0	301500
Mandatory (yes)	3848	0.83	0.38	0	1
Household Annual Charity Voluntary (Rs)	3848	1780.31	17453.11	0	980000
Voluntary (yes)	3848	0.47	0.50	0	1
Age (years)	3848	47.82	14.79	15	105
Own House (yes)	3848	0.95	0.21	0	1
No. of Rooms	3848	2.29	1.30	0	9
Animal ownership	3848	0.55	0.50	0	1
Land in acres	3848	3.27	19.26	0	1010
Land ownership (yes)	3848	0.42	0.49	0	1
Internet (yes)	3848	0.01	0.11	0	1
Computer (yes)	3848	0.08	0.28	0	1
telephone(yes)	3848	0.64	0.48	0	1
Married (yes)	3848	0.91	0.29	0	1
Gender (Male)	3848	0.96	0.19	0	1
Children age 15 (No.)	3848	2.93	2.41	0	23
No education	3848	0.53	0.50	0	1
Primary	3848	0.17	0.38	0	1
Middle	3848	0.09	0.29	0	1
Secondary	3848	0.12	0.32	0	1
Higher Secondary	3848	0.05	0.21	0	1
Tertiary	3848	0.05	0.21	0	1
No-occupation	3848	0.18	0.38	0	1
Senior Officials/Professionals	3848	0.08	0.28	0	1
Service/market/agricultural workers	3848	0.38	0.48	0	1
Craft/trade workers/plant operators	3848	0.10	0.30	0	1
Elementary and other occupations	3848	0.26	0.44	0	1
Urban (yes)	3848	0.30	0.46	0	1

Source: Computed by authors from the 2010 PPHS microdata.

All set of variables were included in the participation and expenditure equation.<sup>6</sup> However, a distinction has also been made between mandatory and voluntary donations by estimating separate models for each type of donation. Main results are presented in Table 9.

<sup>6</sup>The double hurdle model was implemented while utilising individual written command `dblhurdle` in stata [Garcia (2013)].

Table 9

*Determinants of Household Donations*

	(1) Participation (Yes)	(2) Log (Household Annual Charity)	(3) Mandatory (Yes)	(4) Log (Household Annual Charity Mandatory)	(5) Voluntary (Yes)	(6) Log (Household Annual Charity Voluntary)
Log (Expenditure per capita Eqv.)	0.273*** (0.0506)	0.589*** (0.0542)	0.112* (0.0557)	0.302*** (0.0444)	0.293*** (0.0438)	0.612*** (0.0655)
Age in years	0.0137*** (0.00192)	0.0231*** (0.00206)	0.00938*** (0.00217)	0.0168*** (0.00166)	0.0118*** (0.00171)	0.0135*** (0.00260)
Own House (yes)	-0.0410 (0.146)	0.132 (0.110)	-0.0218 (0.119)	0.207* (0.0831)	-0.153 (0.101)	0.277* (0.128)
No. of Rooms	0.0384* (0.0187)	0.139*** (0.0209)	0.0167 (0.0219)	0.169*** (0.0177)	-0.00547 (0.0171)	0.127*** (0.0240)
Animal ownership	-0.0455 (0.0532)	0.156** (0.0557)	-0.0521 (0.0588)	0.254** (0.0416)	0.00468 (0.0489)	-0.0619 (0.0716)
Land acreage	0.00374 (0.00241)	0.00382* (0.00183)	0.00934 (0.00744)	0.00435* (0.00177)	-0.00296 (0.00208)	0.0190*** (0.00512)
Married (yes)	-0.0734 (0.0920)	-0.113 (0.0958)	-0.121 (0.104)	0.0863 (0.0817)	-0.187* (0.0855)	-0.0871 (0.115)
Children age 15 (No.)	-0.0137 (0.0103)	0.100*** (0.0109)	-0.0116 (0.0116)	0.103*** (0.00873)	0.0142 (0.00962)	0.0781*** (0.0144)
Gender (Male)	-0.0214 (0.146)	0.0848 (0.166)	0.100 (0.158)	0.0594 (0.134)	-0.0532 (0.136)	-0.0659 (0.198)
Primary	0.197** (0.0623)	0.350*** (0.0631)	0.197** (0.0695)	0.0285 (0.0483)	0.270*** (0.0573)	0.281*** (0.0840)
Middle	0.394*** (0.0921)	0.730*** (0.0860)	0.278** (0.0931)	0.311*** (0.0706)	0.527*** (0.0735)	0.669*** (0.100)
Secondary	0.259*** (0.0778)	0.661*** (0.0808)	0.168* (0.0850)	0.403*** (0.0685)	0.395*** (0.0689)	0.508*** (0.0926)
Higher Secondary	0.443*** (0.159)	0.970*** (0.126)	0.319* (0.139)	0.594*** (0.111)	0.545*** (0.104)	0.740*** (0.138)
Tertiary	0.217 (0.138)	0.809*** (0.146)	0.0720 (0.146)	0.547*** (0.130)	0.451*** (0.120)	0.685*** (0.159)
Senior	0.361** (0.125)	-0.0172 (0.125)	0.342* (0.134)	-0.0650 (0.107)	-0.148 (0.102)	-0.00467 (0.135)
Officials/Professionals	0.219** (0.0778)	-0.0431 (0.0807)	0.211* (0.0869)	-0.137* (0.0679)	-0.0152 (0.0684)	0.0244 (0.0956)
Service/market/agricult ural workers	0.238* (0.107)	0.159 (0.100)	0.214 (0.110)	0.0164 (0.0824)	0.197* (0.0891)	0.145 (0.115)
workers/plant operators	-0.00579 (0.0837)	-0.170* (0.0864)	-0.00689 (0.0892)	-0.103 (0.0707)	-0.0290 (0.0730)	-0.132 (0.0975)
Elementary and other occupations	-0.0752 (0.0555)	-0.0291 (0.0597)	-0.0720 (0.0624)	-0.0219 (0.0461)	-0.0171 (0.0522)	0.0601 (0.0713)
Urban (yes)	-2.514*** (0.573)	-1.511* (0.600)	-0.819 (0.604)	1.409** (0.490)	-3.508*** (0.490)	-1.706* (0.761)
_cons						
sigma						
_cons		1.406*** (0.0189)		1.053*** (0.0184)		1.354*** (0.0510)
covariance						
_cons		1.338*** (0.0232)		-0.291*** (0.0734)		1.132*** (0.0773)
N		3848		3848		3848

Standard errors in parentheses (robust)

\* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ 

In line with previous research the effect of consumption expenditure was found to be positive and significant, the higher level of consumption expenditure results in both high likelihood of donating and bigger donations. The effect of

age is according to the expectation. The likelihood and amount of charity increases with age of the head of the household. An older household head is more likely to be a donor. Evidently, the older the household head, the more it gives to charity. Older people understand better their social and religious responsibilities to help the needy and poor. Their knowledge about real needs of the poor is likely to be realistic.

Households that own the dwelling unit donate more to mandatory or voluntary charity as compared to households that rent in or live in someone else house. The bigger the size of the housing unit (number of rooms), the more a household donates to charity. The effect of livestock ownership is positive and significant on the size of donation while its relationship with the likelihood to donate is not significant. The likelihood of donating has no significant relationship with the farm size (acreage) but it has a significant and positive effect on the size of donation. It appears from the analysis that the effect of variables representing the wealth status of the households on charity is more pronounced for the size of donation than for participation, which is overall very high. Marital status has no effect on the probability and size of donation, except the probability of voluntary giving. Households with more children give more to charity but its effect on the likelihood of donating is insignificant. In addition, the gender of the household head has no effect on the likelihood or how much the household donates to charity.

All categories of the educational attainment of the head of the household have statistically significant effect on the size of donation, showing that households headed by persons with some education give more to charity as compared to households headed by illiterate persons. Similarly, households headed by economically active persons are more likely to donate as compared to households headed by non-active persons. However, households headed by those who are currently active donate less as compared to household heads who are inactive currently.

A similar observation was also reported by Carrol, *et al.* (2005) from Ireland that “*of interest is that the non-economically active were not among the donors who give the least .....charitable organisations can expect to find no difference in the donating patterns of households with different economic backgrounds*”.

Finally, the multivariate analysis suggest that it does not matter whether the household belongs to rural or urban areas of the country in terms of both its participation in charity and the amount given to charity.

## **6. IMPORTANCE OF HOUSEHOLD CHARITY FOR THE WELL-BEING OF SOCIETY**

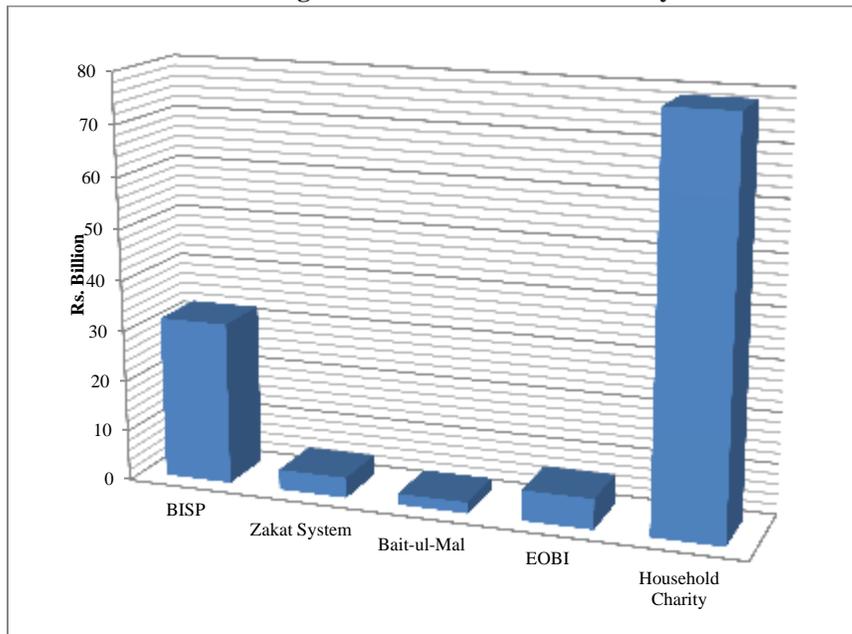
The importance of household charity for the well-being of Pakistan society is assessed in two single ways. Firstly, how it compares with the public sector cash transfer programmes, and, secondly, what is the value of household

giving for the needy and poor segment of the society? In the public sector, several cash transfer schemes targeting the poor have been operational for a long time such as *Zakat* and *Bait-ul-Mal* while the BISP, launched in 2008, is the new and largest programme. Figure 1 shows a comparative view of the disbursement of money through these programmes and the money donated by households to other needy persons. For comparison, the value of giving in kind is excluded. In 2009-10, the BISP transferred Rs 31.94 billion while under the *Zakat* system, only Rs 4 billion were given to the needy. The disbursement through *Bait-ul-Mal* is even lower, Rs 2.2 billion. Figure 1 also shows the disbursed amount of Rs 6 billion in 2009-10 through the Employees Old Age Benefits Institution (EOBI). The private transfers of money by households to other households/individuals and organisation as estimated by this study are approximately double the amount disbursed to the needy and eligible persons through the above-noted public sector programmes (excluding Rs 6 billion by EOBI). Recipients of the public-sector cash transfer programmes are usually well known in their communities. The donor households know the gaps in terms of the insufficiency of amount given through these programmes or exclusion of the needy from the list beneficiaries of public sector programmes. They fill the gaps through their donations.

Most recently Fayaz (2016) analysed the welfare effect of charity in terms of filling the income-expenditure gap of poor households in Pakistan, while using a nationally representative survey “Household Integrated Economic Survey” [HIES (2011-12)]. It is reported that the income-expenditure gap of charity recipient’s households is relatively less than non recipients. This shows that charity plays important role in enhancing the wellbeing of needy individuals in Pakistan.

The importance of household giving has also been viewed from the perspective of needy and poor households which receive and accept the donations from other households/individuals. It has been shown earlier that 75 percent of the sampled households helped others in 2010 through their *fitrana* money (see Table 1). It is assumed that the remaining 25 percent of households which have not given *fitrana* in 2010 were the needy and poor households eligible for receiving donations. If all donations made in 2010 by households were distributed equally among these needy households, the average annual receipts from private sources (households) turned out to be approximately Rs. 14300 per household, which is 80 percent of the annual per eligible person disbursement through the BISP cash transfer programme. However, it can be argued that giving *fitrana* may not be a good indicator to sort out the non-poor; many of them are in fact poor, and they have made this religious donation to purify their fasting practice during the month of Ramadhan. However, the giving of *fitrana* by 75 percent of the households has a significance to understand the well-being level of Pakistani households. It is argued that *fitrana* giver cannot accept donations, particularly *fitrana* and *Zakat* from others.

**Fig. 1. Comparative View of the Disbursement of Money Through Different Programmes and Household Charity**



Source: Computed by authors from the 2010 PPHS microdata and Pakistan Economic Survey.

## 7. CONCLUSION

The literature on charitable giving is almost lacking in Pakistan; focusing only on the size of philanthropy. The previous studies are primarily based on special surveys, which have limited information on social and economic conditions of households. Hence, little work has been carried out on the patterns and determinants of charitable giving, due to data limitations. The major objective of this study is to examine the magnitude, patterns and determinants of household charity in Pakistan by using the 2010 Pakistan Panel Household Survey (PPHS), which is a rich source for such information.

The present study has estimated the total volume of household giving in 2010 as approximately Rs 100 billion (Rs 97.537); the rural households made donations of Rs 64.97 billion in 2010 while the value of giving by urban households is Rs 32.5 billion. Again, these estimates of household giving do not include the value of volunteered time. By adjusting the value of time volunteered, this study estimates the total household giving in 2010 as high as Rs 142 billion.

The share of *Zakat*, according to the PPHS information is close to other studies. However, the share of *non-Zakat* and in-kind giving in total household donation based on the 2010 PPHS is much lower as compared to the studies

seems to be primarily due to the difference while getting information from the respondents.

The patterns of household charity are examined through two variables, incidence of giving and average donations, by quintile for all kinds of giving controlling for rural and urban areas. The amount of donation is increased with expenditure quintiles. Households belong to the top quintile donate more than the lowest (poorest) quintile. Households belong to the poorest quintile are also very generous in participating in charitable giving.

To our knowledge, only one study in Sindh (Pakistan) has examined the determinants of donations through a multivariate analysis [PCP (2015)]. However, several studies on other countries are available. The results shows that those households who have high expenditure, older age, with more children and are more educated gives more to charity. Households having its own house and have relative bigger size donate more to charity.

It is suggested that the number of donors could be increased while focussing marketing efforts on the significant variables in the participation equation while the size of donation could be increased by focussing on significant variables in the size (expenditure) equation.

The importance of household giving can be viewed from the perspective of needy and poor households, which receive and accept the donations from other households/individuals. It has been shown that 75 percent of the sampled households helped others in 2010 through their *fitrana* money. It is assumed that the remaining 25 percent of households which have not given *fitrana* in 2010 were the needy and poor households eligible for receiving donations. If all donations made in 2010 by households were distributed equally among these needy households, the average annual receipts from private sources (households) turned out to be approximately Rs 14300 per households. However, it can be argued that giving *fitrana* may not be a good indicator to sort out the non-poor; many of them are in fact poor, and they have made this religious donation to purify their fasting practice during the month of Ramadhan. However, the giving of *fitrana* by more than 80 percent of households has a significance to understand the well-being level of Pakistani households. A giver cannot accept donations, particularly *fitrana* and *Zakat* from others.

The disbursement of money through public sector programmes such as *Zakat*, *Bait-ul-Mal* and the BISP shows that approximately Rs 38 billion in 2009-10 is transferred to needy and eligible persons. The private transfers of money by households to other households/individuals and organisation as estimated by this study are approximately double the amount disbursed to the needy and eligible persons through the above-noted public sector programmes. Recipients of the public-sector cash transfer programmes are usually well known in their communities. The donor households know the gaps in helping the poor and they fill the gaps through their donations.

Appendix Table 1

*Household Charity by Land Ownership*

Land Ownership	Household Annual Charity (Rs)		
	Mean	Std. Dev.	Freq.
No	2352.36	8883.13	2222
Yes	4759.96	27615.10	1626
Total	3369.71	19211.90	3848

Source: Computed by authors from the 2010 PPHS microdata.

Appendix Table 2

*Household Charity by Level of Education*

Education Level	Household Annual Charity (Rs)		
	Mean	Std. Dev.	Freq.
No Education	2809.29	23049.43	2040
Primary	2635.34	9457.95	652
Middle	4908.22	18579.28	352
Secondary	3708.25	7445.90	444
Higher Secondary	6578.48	24998.95	183
Tertiary	5307.54	9083.66	177
Total	3369.71	19211.90	3848

Source: Computed by authors from the 2010 PPHS microdata.

Appendix Table 3

*Household Charity by Age (Years)*

Age (Groups)	Household Annual Charity (Rs)		
	Mean	Std. Dev.	Freq.
14-	1053.41	1952.50	482
31-	2701.92	10384.65	1390
46-	2988.37	5926.52	1238
61-	4584.49	13157.03	590
76-	16318.70	89086.59	139
91-	3386.11	3412.15	9
Total	3369.71	19211.90	3848

Source: Computed by authors from the 2010 PPHS microdata.

## REFERENCES

- Ali, Fayaz (2016) *The Welfare Effect of Charitable Giving: An Empirical Analysis*. M.Phil Dissertation, School of Economics, Quaid-i-Azam University, Islamabad.
- Alpizar, F., F. Carlsson, and O. Johansson-Stenman (2008) Anonymity, Reciprocity and Conformity: Evidence from Voluntary Contributions to a Natural Park in Costa Rica. *Journal of Public Economics* 92:5-6, 1047–1060.
- Anheier, H. K. and L. M. Salamon (2006) The Nonprofit Sector in Comparative Perspective. In W. E. Powell and R. Steinberg (Eds.) *The Nonprofit Sector: A Research Handbook* (Second Edition ed.). New Haven: Yale University Press.
- Arif, G. M. and S. Farooq (2014) Rural Poverty Dynamics in Pakistan: Evidence from Three Waves of the Panel Survey. *The Pakistan Development Review* 53:2, 71–98.
- Bandy, R. and M. O. Wilhelm (2007) Family Structure and Income During Childhood and Subsequent Pro Social Behaviour in Young Adulthood. Department of Economics, IUPUI and the center on Philanthropy at Indiana University. (Working Paper).
- Bekkers, R. (2005a) Charity Begins At Home: How Socialisation Experiences Influence Giving and Volunteering. Paper presented at the 34rd Annual ARNOVA-Conference, Washington, DC, USA. (Unpublished Manuscript).
- Bekkers, R. (2006b) Traditional and Health Related Philanthropy: The Role of Resources and Personality. *Social Psychology Quarterly* 68:4, 349–366.
- Bekkers, R. and N. D. De Graaf (2006) *Education and Prosocial Behaviour*.
- Bekkers, R. and P. Wiepking (2010) A Literature Review of Empirical Studies of Philanthropy: Eight Mechanisms that Drive Charitable Giving. *Nonprofit and Voluntary Sector Quarterly*.
- Bekkers, R. and P. Wiepking (2011) Who Gives? A Literature Review of Predictors of Charitable Giving Part One: Religion, Education, Age and Socialisation. *Voluntary Sector Review* 2:3, 337–365.
- Blisard, N. and J. Blaylock (1993) Distinguishing Between Market Participation and Infrequency of Purchase Models of Butter Demand. *American Journal of Agricultural Economics* 75, 314–320.
- Blundel, R. and C. Meghir (1987) Bivariate Alternatives to the Univariate Tobit Model. *Journal of Econometrics* 34, 179–200.
- Bonbright, D. and A. Azfar (2000) Philanthropy in Pakistan: A Report of the Initiative on Individual Philanthropy. <http://www.pcp.org.pk/webadmin/assets/publications/1433413742.pdf>. ((accessed October 18, 2015).)
- Brown, E. and J. M. Ferris (2007) Social Capital and Philanthropy: An Analysis of the Impact of Social Capital on Individual Giving and Volunteering. *Nonprofit and Voluntary Sector Quarterly* 36:1, 85–99.

- Carroll, J., S. McCarthy, and C. Newman (2005) An Econometric Analysis of Charitable Donations in the Republic of Ireland. *Economic and Social Review* 36:3, 229.
- Chomppf, W. (2009) *Charitable and Willing*.
- Comte, A. (1973) [1851] *System of Positive Polity, Volume 1: Containing the General View of Positivism & Introductory Principles* (J. H. Bridges, Trans.). New York: Burt Franklin.
- Cragg, J. (1971) Some Statistical Models for Limited Dependent Variables with Application to the Demand for Durable Goods. *Econometrica* 39, 829–844.
- Edmundson, B. (1986) Who Gives to Charity? *American Demographics*, Iss. 11, 45–49.
- Fauzia, A. (2010) Philanthropy, Social Justice and the Islamic Tradition. Alliance Magazine, 1 December, 2010, <http://www.alliancemagazine.org/>.
- Feldman, N. E. (2007) Time is Money: Choosing between Charitable Activities. Ben-Gurion University, Israel. Unpublished Manuscript. (Working Paper).
- Garcia, B. (2013) Implementation of a Double-hurdle Model. *Stata Journal* 13:4, 776–794.
- Gould, B. (1992) At-Home Consumption of Cheese: An Analysis Using an Infrequency of Purchase Model. *American Journal of Agricultural Economics* 74, 453–59.
- Hill, J. (1984) Human Altruism and Sociocultural Fitness. *Journal of Social and Structural Biology* 32:1, 1–22.
- Kaur, M. (2013) Canadian-punjabi Philanthropy and Its Impact on Punjab: A Sociological Study.
- Kennedy, P. (1998) *A Guide to Econometrics* (Fourth Ed). Oxford: Blackwell Publishers Ltd.
- Lieven, A. (2011) *Pakistan: A Hard Country*. Public Affairs.
- Lyons, M. and I. Nivison-Smith (2006) Religion and Giving in Australia. *Australian Journal of Social Issues* 41:4, 419–436.
- Nayab, Durr-e- (2011) Estimating the Middle Class in Pakistan. *The Pakistan Development Review* 50:1, 1–28.
- Pakistan, Government of (2013) *Pakistan Economic Survey*. Islamabad: Ministry of Finance.
- PCP (2010) Individual Philanthropy in the Punjab. Pakistan Centre for Philanthropy. (PCP), <http://www.pcp.org.pk/webadmin/assets/publications/1432767608.pdf>. ((accessed October 18, 2015).)
- PCP (2015) Individual Indigenous Philanthropy in Sindh 2014. Pakistan Centre for Philanthropy (PCP).
- Schuyt, T. N. M., J. Smit, and R. Bekkers (2004) Constructing a Philanthropy-scale: Social Responsibility and Philanthropy. Paper presented at the 33d Arnova Conference, Los Angeles.

- Simmons, W. O. and R. Emanuele (2004) Does Government Spending Crowd Out Donations of Time and Money? *Public Finance Review* 32:5, 498–511.
- South Asia Investor (2012, January 9) Pakistan Ranks High on Philanthropy. <http://southasiainvestor.blogspot.com/2012/01/pakistan-ranks-high-on-philanthropy.html>.((accessed January 15, 2016).)
- Taplin, S. and Associates (2002) Diaspora Philanthropy: Silicon Valley Indian Americans Care, Commit, Contribute. Funded by David and Lucile Packard Foundation and the Wallace Alexander Gerbode Foundation.
- USAID (2005) The Idea and Practice of Philanthropy in the Muslim World. The Muslim World Series, PN-ADD-444.
- Wiepking, P. and I. Maas (2009b) Resources that Make You Generous: Effects of Social and Human Resources on Charitable Giving. *Social Forces* 87:4, 1973–1996.