Household Poverty with Elderly and Children: Logistic Regression Estimation of Economies of Scale and Adult Equivalence Scales in Consumption

T. Lakshmanasamy[*]

*Formerly Professor, Department of Econometrics, University of Madras, Chennai.
E-mail: tlsamy1960@gmail.com; tlsamy@yahoo.co.in*

Abstract: *This paper analyses the incidence of poverty in households with dependent elderly and children and the sensitivity of household poverty to age and size composition in the household with and without adjustments for household economies of scale and equivalence scales in rural and urban areas of India. Using the 2011-12 NSSO 68th round data on monthly per capita consumption expenditure of households, the logistic regression method is applied in the estimation of household poverty. The empirical results show that poverty rates vary with the age and size composition of households. With adjustments in consumption expenditure for size and composition, the probability of households being poor reduces significantly. The vulnerability of households being poor is high in rural areas than in urban areas. In rural India, elders living alone or with other elders are the most deprived relative to the elders staying with non-elders. The chances of being in poverty are greater when households depend on casual labour in agriculture. With more dependent children, households are more susceptible to poverty. Education is an important predictor of poverty of households with children and the elderly. Along with social security and employment, providing education should be the top priority to prevent vulnerability to poverty of households with dependent elderly and children.*

Keywords: *Household poverty, elderly, children, equivalence scale, economies of scale, logistic regression*

INTRODUCTION

Young as natural dependents and elderly out of work are dependent on a bread-winner in a household. A child is protected by the family. When there is a greater number of children in the family, expenditures tend to be more. The aged are looked upon as a burden in barely sustainable households in which every member contributes to the family earnings. Living in poverty is distressing for a household, particularly when a family has to care for young children or elderly parents or grandparents. A household tend to remain in poverty due to the presence of dependent

people i.e. one bread-winner may have to feed many people, and the options for escaping poverty are limited. The elderly have fewer employment opportunities and they are further restricted by health issues. The dependency burden within the households affects the living standards of a family comprising of children and elders. Therefore, households support the elderly becomes very difficult among poor households.

The share of elders out of the total population in India has been increasing, from 7.4 percent in 2001 to 8.5 percent in 2011. In 2004-05, 18 million elderly in India were living below the poverty line. The fundamental source of support for the elderly in India has been the family. With almost nil or a weak pension system, the elderly usually live in large extended households sharing a budget with a large number of children. However, over the years, changes such as higher life expectancy, greater involvement of younger women, who have been the chief caretakers of the elderly, in economic activities outside the home, physical separation of parents and adult children due to urbanization and age, selective rural to urban area migration, the spread of western culture and lifestyle, and growing individualism, among other factors, have had their impact on the traditional family system. The Indian society is gradually moving towards the nuclear family system and the elderly are left alone. These changes impact the elderly adversely, sometimes raising elderly poverty levels.

The poverty measures, however measured, are sensitive to the measurement of individual poverty and the distribution of resources across household members. In the developed countries like the US, an individual is said to be poor if he or she lives in a family whose total income falls below a poverty line, where poverty line depends on the size and age structure of the households. Using the adjustment suggested by the OECD in 1982, in the poverty rates in the west, adult counts as unity, other adults as 0.7 and children as 0.5. In the US, the cost of a child relative to adults are measured and when child costs are lowered poverty rates of elderly rise. Whereas in developing countries like India, a person is said to be in poverty if the per capita consumption level of the person's household is below a poverty line. In India, poverty lines do not vary across households of different size or age structure although rural and urban areas have different poverty lines.

In this context, it is pertinent to understand how far the household survey data to measure the welfare of individuals based on consumption expenditure of the household in which the individual resides. People live in households (or families) of different size and composition. The requirements of a child, adult and elderly are not the same. The consumption

expenditure of households with elderly increases mostly due to the rise in healthcare expenditure of older people. The consumption of private goods and adult goods of households vary with economies of scale in the household. For instance, expenditure on food decreases with family size i.e. larger the family the less food each member needs. Due to the varying number and age of people in a family, the same level of income/expenditure or standard of living of different households does not make them comparable. Hence, the consumption expenditure of households is to be adjusted for the age and size of a family. It is important to adjust for economies of scale and adult equivalence to compare the living conditions of households of different size and composition. This impacts the living standards of the households as well as individuals living together in the household, especially the elderly.

This study analyses the incidence of poverty in households with dependent elderly as well as children. An elderly household is one in which at least one member aged 60 years and above resides. Poverty among households comprising of children is also examined since children are dependent on the family. Households which have at least one child is considered for computing child poverty. The sensitivity of household poverty to age and household size composition is examined as the consumption levels of children and the elderly varies. In this process, whether there is a significant variation of poverty among households with and without an elderly is also studied. In this study, the data on monthly per capita consumption expenditure of households from the NSSO 68th round (2011-2012) are used to analyse the poverty among elderly households. Empirically, the logistic regression method is used in the estimation, both with and without adjustments for household economies of scale and equivalence scales separately for elderly households, a household with dependent children and for households with both dependent elderly and children, in rural and urban areas of India.

REVIEW OF LITERATURE

The literature on the relationship between old age and poverty use either income or consumption expenditure levels to analyse poverty levels among the elderly. Deaton and Paxson (1997) study poverty among children and elderly in developing countries, focusing on South Africa and also Ghana, Pakistan, Thailand, Taiwan and Ukraine. It said that household resources need to be allocated as per the requirements of adult and children. Using a parametric form that assumes a child costs a fraction of an adult cost, the paper observes that poverty rates are highest among children followed by elderly and lowest among non-elderly. Further, the study finds a life-cycle

shape to the probability of being poor - high in childhood, lower in adulthood and higher again in old age.

Deaton and Paxson (1998) examine the sensitivity of poverty to age in the US and in six large Indian states. This paper discusses the sensitivity of poverty measures both in US and India using economies of scale in households. The two problems raised in measuring poverty are the measurement of individual poverty and the distribution of resources across household members as the size and age structure of households affect the welfare levels of the members use of the household. Also, the study discusses how fat the survey data to measure the welfare of individuals based on consumption expenditure of the household in which the individual resides. This issue is of less relevance in the US since a large fraction of elderly live alone or with other elders, but in India larger proportion of households are a joint family and mostly the elderly live with their siblings. Based on the 1993 Current Population Survey, the study observes that poverty rates for children are higher than that of elders in the US. In India, using the 1987 NSSO data, the study finds that in the 6 states the poverty rates for elderly are less than that of non-elderly people and the poverty rates are higher in rural areas.

In India, Dreze and Srinivasan (1997) examine the relationship between widowhood and poverty in rural India, using the average per-capita consumption expenditure (APCE) for different household types based on NSSO data on consumption expenditure. The paper studies the living arrangements of widows and adjusts for household size and adult-child ratio using equivalence scales assigning different weights to household members in different age and sex groups. Estimating the vulnerability of households falling below the poverty line by probit method, the study ûnds that female-headed households are poorer than male-headed households and that poverty comparisons are sensitive to economies of scale.

Meenakshi and Ray (2002) study the impact of household size and family composition on poverty in rural India using microdata on consumption, family composition and land ownership of nearly 70,000 rural Indian households. The estimates of behavioural parameters show simultaneous presence signiûcant consumption economies of household size and non-identical consumption needs between adults and children in states of India. Using state speciûc consumption economies of household size and adult/child relativities equivalence scale as the expenditure deûator, the study observes a sharp fall in headcount poverty rates in most states. The study further finds that female-headed households in scheduled caste, scheduled tribe and in certain states face higher poverty rates than the rest of the rural

population in the presence of size economies and adult/child relativities. Therefore, poverty estimates should adjust for household size and its composition. The results challenge the conventional use of unadjusted household size as the expenditure or income deûator in the poverty calculations.

Most literature suggests that poverty among elderly household is higher compared to that of a non-elderly household. Opposed to these results are two studies by Pal and Palacios (2006; 2011). Pal and Palacios (2006) investigate the extent and nature of living standards and incidence of poverty among the elderly in 16 major states in India using the 52nd round NSSO data. Examining the sensitivity of poverty indices to different equivalence scales and size economies in consumption, the study finds that households with elderly members are less poor than others. They suggest that this result could be partly due to a possible survivorship bias arising from a positive correlation between household incomes and life expectancy and partly due to differences in the demographic composition of households. Fewer individuals survive to old age among the lower-income groups and hence do not figure in the data.

Pal and Palacios (2011), analysing the implication of social pension policy to elderly poor in rural India, also find that there is no evidence that households with elderly members are more likely to be poor than non-elderly households. Again, they find that the observed relative poverty differences between households with and without elderly members are because the poor elderly are missing due to their higher mortality rates. The results of these studies demonstrate that life expectancy as an important stand while measuring poverty among the elderly.

Srivastava and Mohanty (2012) analyse the poverty among the elderly in India using the 61st round NSSO 2004-05 consumption expenditure data. Adjusting consumption expenditure for household size and composition, the study estimates the size of the elderly poor and tests whether households with elderly are poor compared to households without the elderly. Further, the study also tests elderly living alone or with other elderly members are poor compared to any other type of household. The logistic regression estimation on economic deprivation of the elderly is used separately for rural and urban areas. It is observed that poverty increases with an increase in the number of elderly in households in rural areas but less in urban areas. ln rural areas, households with three or more elderly are more likely to be poor. While elderly women living alone is the poorest, elderly with education up to graduation are less likely to be poor. Further, the study observes a U-shaped relationship between age and poverty. Less poverty

in households with elderly compared to non-elderly households is attributed to the survival bias i.e. the positive correlation between household income and life expectancy. The results of this study suggest that in analysing poverty among the elderly, the type of household should be an important consideration.

DATA AND METHODOLOGY

This study uses the 68th round National Sample Survey (2011-2012) on household consumption expenditure data to analyse the poverty in households with elderly in 14 major states in India. The states are Andhra Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orrisa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal. The NSSO conducts the consumer expenditure survey (CES) along with employment and unemployment survey at quinquennial intervals (i.e. 5 years interval) and each round is of one-year duration. The 2011-12 is the ninth quinquennial survey, after the 66th round (2009-2010). The NSSO survey covers the whole of the Indian Union The schedule 1.0 of the survey, collects information on quantity and value of household consumption in two different schedules, Type 1 being canvassed in 101662 households and Type 2 used in 101651 households. Schedule Type l uses 'last 30 days' and the 'last 365 days' reference period for certain categories of relatively infrequently purchased items including clothing and consumer durables, and a '30-days' (uniform) reference period for other categories, including all food and fuel and consumer services. Schedule Type 2 uses 'last 365 days' (only) for the infrequently purchased categories, 'last 7 days' for some categories of food items, and 'last 30 days' for other food items, fuel, and the rest (modiûed mixed reference period).

The household poverty is based on the monthly per capita consumption expenditure (MPCE) of the household, which is calculated using 3 different reference periods: (i) Uniform Reference Period MPCE (URP-MPCE): The measure of MPCE obtained by the NSS consumer expenditure survey (CES) when household consumer expenditure on each item is recorded for a reference period of 'last 30 days'. (ii) Mixed Reference Period MPCE (MRP-MPCE): The measure of MPCE obtained by the CES when household consumer expenditure on items of clothing and bedding, footwear, education, institutional medical care, and durable goods is recorded for a reference period of 'last 365 days', and expenditure on all other items is recorded with a reference period of 'last 30 days'. (iii) Modiûed Mixed Reference Period MPCE (MMRP-MPCE): The measure of MPCE obtained by the CES when household consumer expenditure on edible oil, egg, ûsh

and meat, vegetables, fruits, spices, beverages, refreshments, processed food, pan, tobacco and intoxicants is recorded for a reference period of 'last 7 days', and for all other items, the reference periods used are the same as in case of MRP MPCE. For long the poverty estimates in India are being based on the NSSO data, whatever the definition and methodology of the poverty line. The Planning Commission of India had been using the URP-MPCE, the Lakdawala Committee method, to estimate the proportion of people below the poverty line for a long time. In recent years, the MRP-MPCE, the Tendulkar Committee method, to ûx the poverty line is used.

This study examines household poverty estimates in households with elderly and children from the monthly per capita consumption expenditure (MPCE) based on the mixed reference period (MRP). Since this data is available in Type 1 schedule, this uses the Type 1 database, and as such the data is a cross-section type. In 2011-2012, the national level poverty line was ûxed at a monthly cut off of Rs.816 and Rs.1000 per person in rural and urban India respectively (Planning Commission,2011-12). The state speciûc cut-off point of poverty based on MRP is used separately for rural and urban for state-wise comparisons. This study covers 14 Indian states, consisting of an overall of 1, 01,662 households. The number of elderly households is 29,090 and number of non-elderly households is 72,572. There are 62,865 households with at least one child. Since, as has been demonstrated frequently, expenditure is a better proxy for welfare than income, this study also uses the monthly per capita consumption expenditure to analyse poverty of households.

The commonly used poverty estimate based on MPCE of a household is usually unadjusted since it does not take into account the differences of age and household size. The received poverty literature clearly shows that poverty rates vary by size and age structure of households. However, the data do not have separate data on elderly or child consumption. Therefore, the MPCE has to be adjusted for equivalence scales in household consumption. But there are no generally accepted methods for calculating equivalence scales either for the relative costs of children or for economies of scale. Generally, the equivalence scales are derived (i) relying on behavioural analysis to estimate equivalence scales, (ii) using direct questions to obtain subjective estimates, and (iii) simply setting scales in some reasonable way, albeit arbitrarily.

Deaton and Zaidi (2002) suggest such one arbitrary measure of equivalence scale as $AE = (A + \alpha K)^{\theta}$, $0 < \alpha, \theta < 1$, where A is the number of adults, K is the number of children, α is the cost of a child relative to that of an adult, and θ is the extent of economies of scale in the household. It is

assumed that a child costs a fraction α of an adult cost and the elasticity of costs with respect to household size is a constant θ. Since the elasticity of adult equivalents with respect to "effective" size, $(A + \alpha K)$ is θ, $(1 - \theta)$ is a measure of economies of scale. When both α and θ are unity, the number of adult equivalents is simply household size. For poor economies, Deaton and Zaidi (2002) recommend setting lower θ and higher θ, perhaps 0.25 or 0.33 and 0.9 respectively in calculating equivalence scales.

Gasparini *et al.* (2007) suggest an adjustment in the equivalence scale for different age groups of children. The living standard of an individual i living in household h is given by:

$$LS_i^h = \frac{x^h}{(\alpha_1 n_1 + \alpha_2 n_2 + A)^\theta} \tag{1}$$

where x is household income, A is the number of adults, n_1 the number of children under 5 years old, and n_2 the number of children between 6 and 14, parameters α allow for different weights for adults and kids, while θ regulates the degree of household economies of scale. When $\theta = 1$, there are no economies of scale, while in the other extreme when $\theta = 0$, there are full economies of scale, meaning that all goods in the household could be shared completely i.e. they are all public goods. with no rivalry in consumption.

This paper uses three alternative estimates of poverty using the same cut off point of poverty, to enable comparison, by applying the ofûcial cut-off point of the poverty line to household consumption expenditure: (i) unadjusted, (ii) adjusted to household size, and (iii) adjusted to household composition. The adjustment in household consumption expenditure for household size is given by:

$$y^h = \left[\frac{x^h}{A^\theta} \right] \tag{2}$$

where y is the MPCE of a household adjusted for economies of scale, x is total household consumption expenditure, A is household size, and θ $(0 \le \theta \le 1)$ is the degree of household economies of scale. The adjusted MPCE for both adult equivalence and economies of scale is given by:

$$y_i^h = \frac{x^h}{(\alpha_1 n_1 + \alpha_2 n_2 + \alpha_3 A)^\theta} \tag{3}$$

where y_i is the MPCE of an individual i living in household h, x is the total consumption expenditure of the household, n_1 is the number of children aged up to 5 years, n_2 is the number of children in age group 6-l4 years, A is the number of adults i.e. above 14 years. Following Deaton and Zaidi (2002), the parametric values are assigned as: $\alpha_1 = 0.5$, $\alpha_2 = 0.7$ and $\alpha_3 = 1$. The parameters allow for different weights for adults and kids, whereas the parameter θ regulates the degree of household economies of scale. When θ = l, there are no economies of scale, while at the other extreme when θ = 0, there are full economies of scale, implying that all goods in the household could be shared completely.

LOGISTIC REGRESSION

Since the dependent variable is qualitative in nature, this study uses the logistic regression model to analyse the economic deprivation of the elderly. The regressand is a binary or dichotomous variable taking value 1 if a household with the elderly poor and 0 if the elderly household is not poor. The fundamental difference in a model where the dependent variable is quantitative and qualitative is that in the case of former the objective is to estimate its expected or mean value while in the case of latter the objective is to estimate the probability of the elderly household being poor. The basic regression equation is specified as:

$$y_i = \beta_0 + \beta_1 x_i + u_i \tag{4}$$

The conditional expectation of y, assuming that $E(u_i) = 0$, is obtained as:

$$E(y_i \mid x_i) = \beta_0 + \beta_1 x_i \tag{5}$$

The conditional expectation is, in fact, is the conditional probability. If P_1 is the probability that $y_i = l$ and $(1-P_1)$ is the probability that $y_i = 0$, then the conditional probability that $y_i = 1$ i.e. $Pr(Y_i = 1 \mid x_i)$, as $E(y_i \mid x_i) = P_1$. The conditional probability is specified as logistic distribution:

$$P_i = E(y_i = 1 \mid x_i) = \frac{1}{1+e^{-(\beta_0+\beta_1 x_i)}} = \frac{1}{1+e^{-z_i}} = \frac{e^z}{1+e^z} \tag{6}$$

$$1 - P_i = E(y_i = 0 \mid x_i) = \frac{1}{1+e^{(\beta_0+\beta_1 x_i)}} = \frac{1}{1+e^{z_i}} \tag{7}$$

$$\frac{P_i}{1-P_i} = \frac{1+e^{z_i}}{1+e^{-z_i}} = e^{z_i} \tag{8}$$

where $-\infty < z < \infty$, $0 < P_i < 1$, and the ratio of probabilities is the odds ratio.

Since P is non-linear not only in variables but also in parameters, estimation is not straight forward. Taking the log of odds ratio gives the logit model:

$$L_i = \ln\left[\frac{P_i}{1 - P_i}\right] = \ln e^{z_i} = z_i = \beta_0 + \beta_1 x_i \tag{9}$$

The log of odds ratio is not only linear in x, but also in β. If the logit is positive, the odds that $y_i = 1$ increases as the value of regressor increases, and the odds decreases with an increase in the value of an independent variable if L is negative. Taking antilog of L, the odds ratio is obtained and the odds ratio ranges from 0 to ∞. From the odds ratio, the likelihood that $y_i = 1$ i.e. the probability that the elderly household being poor is calculated as:

$$OR = \frac{P}{1 - P} = OR(1 - P) = P \Rightarrow OR - OR(P) = P$$

$$OR = P + OR(P) = P(1 + OR) \Rightarrow P = \frac{OR}{(1 + OR)} \tag{10}$$

The odds ratio is estimated by the logistic regression method.

EMPIRICAL ANALYSIS

The elderly living arrangement is an important indicator that can assess the well-being of not only the elderly person but also the household. Table 1 and Figure 1 present the distribution of elderly households by the living arrangement of the elderly. The number of households where the elderly live with non-elderly is the maximum. Also, the number of elderly households is more in rural areas than in urban areas.

Table 1: Distribution of Households by Elderly Living Arrangements

Living Arrangement	Rural	Urban	Total
Elderly reside alone	808	589	1397
Elderly reside with another elder	963	706	1669
Elderly reside with non-elderly	16028	9996	26024
Number of elderly households	17799	11291	29090
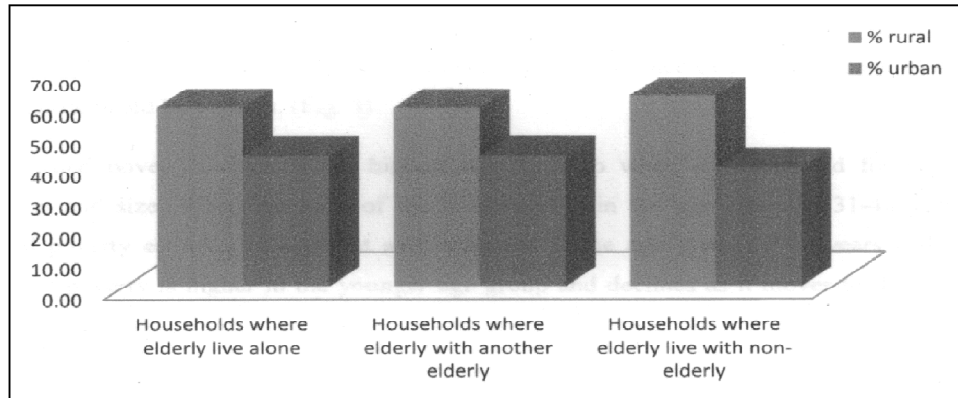
Figure l: Distribution of Households by Living Arrangements of Elderly

Figure 2 shows the distribution of households by the number of children. In India, more than 60 percent of households have more than three children. In a household with more children and a sole bread-winner, poverty is likely and may be severe also. Similarly, as Figure 3 shows the prevalence of poverty is higher among larger households, 52 percent households with 5 to 7 members are most likely to be poor compared to 7 percent of households having 1 or 2 members with a low incidence of poverty.

Figure 4 presents the incidence of poverty by age of head of household. The unadjusted poverty estimates are the highest compared to adjustment to household composition and size. When the head of the household is in the age group of 31-40 years, the unadjusted poverty households is 4 percent
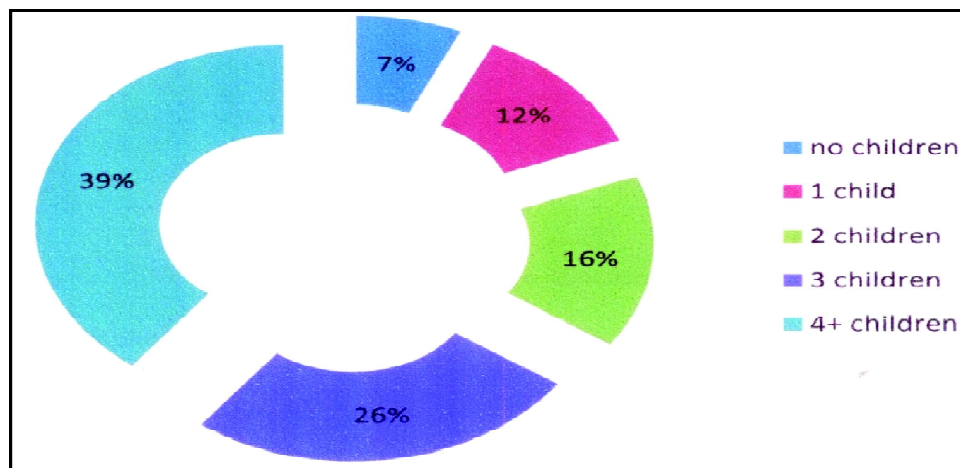
Figure 2: Distribution of Households by Number of Children
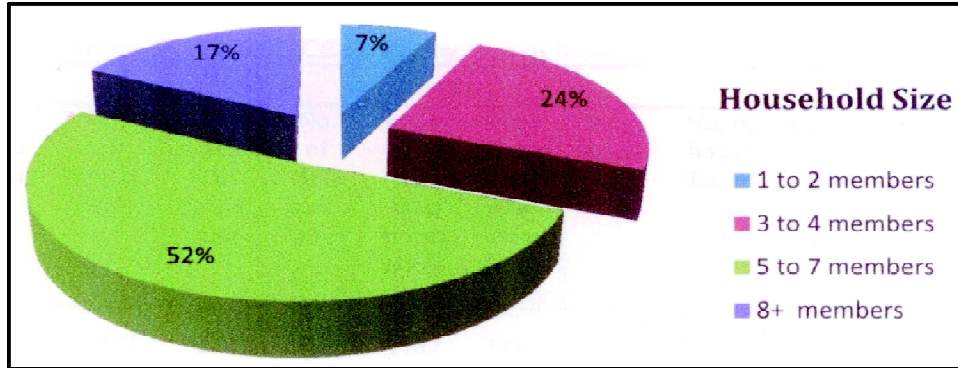
Figure 3: Distribution of Households Below Poverty by Household Size

and is lowest in the age group of 71+. Incidence of poverty is high among younger age households and declines moving to an older age. When the household consumption expenditure is adjusted equivalence scales for age and size composition by assigning a weight of l to adult (l5 years and above), 0.75 for children aged 6 to l4 years and 0.5 for children under 5 years, and 0.9 for household size, the overall poverty households are reduced and is higher in the age group of 4l-50 years and lowest in the age group of 7l and above. The incidence of poverty varies in a narrow range in all age groups except in the age group 71 and above. The relatively low poverty rate in the age group of 7l+ may be due to the survival bias (Pal and Palacios, 2008). If an elderly person is poor, his survival chances are lesser, and hence the data may not show poor elderly households.

**Figure 4: Distribution of Households Living Below Poverty by
Age of Household Head**

Table 2 presents the mean MPCE of elderly and non-elderly households across I7 major states in India. In 2012, 30 percent rural households and 27 percent of urban households in India had at least one elderly member. In rural Kerala, the MPCE of Rs.3616 of elderly households and Rs.3842 of non-elderly households is highest. In West Bengal, both in rural and urban areas, the MPCE of elderly households is greater than MPCE of non-elderly households. In urban areas, the maximum percentage o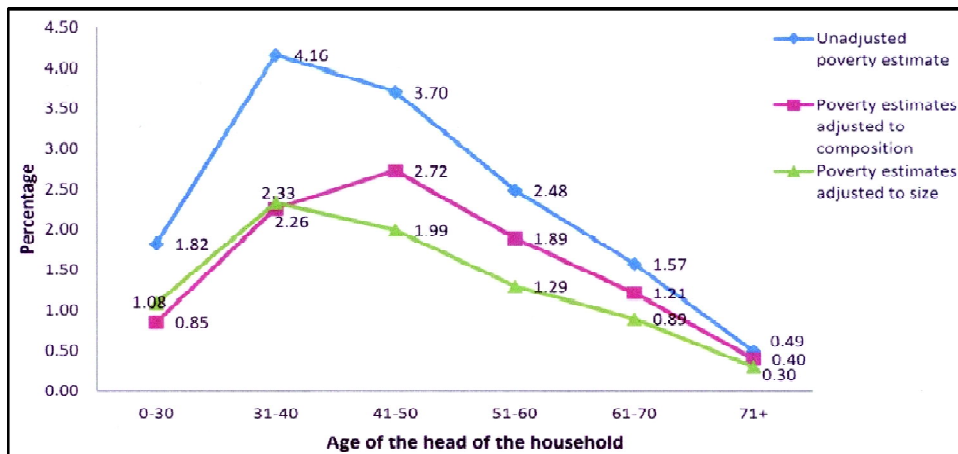f elderly households is in the state of Orissa whereas in rural areas the maximum percentage of elderly households is in the state of Haryana. In the rural area, the states where MPCE is higher in elderly households are Bihar, Chhattisgarh, Gujarat, Madhya Pradesh and West Bengal. In urban areas, MPCE among elderly households is higher than non-elderly households in the states of Maharashtra, Odisha, Uttar Pradesh. and West Bengal. In general, the state-level pattern of MPCE among elderly and non-elderly households are mixed.

To understand the effect of the sensitivity of consumption expenditure to household size and composition, different values for economies of scale (θ) and adult equivalents (α) are assigned. Table 3 presents the percentage of the population living below the poverty line in rural and urban areas for the three types of households - elderly living alone or with another elderly, elderly living with non-elderly and non-elderly households - with adjustments in MPCE for household size and composition. The average household size varies largely, from 1.6 in households where the elderly lives alone or with other elderly members, 5.7 in households where the elderly live with non-elderly members and to 4.3 among non-elderly households. As the value of $\theta \rightarrow 1$, there are no economies of scale and when the value of $\theta \rightarrow 0$, the adjusted MPCE increases, indicating that there are full economies of scale. In rural areas, the unadjusted mean MPCE is Rs.1983 among the households where elderly living alone or with other elderly members, Rs.1639 among the households where elderly live with non-elderly members and Rs.1646 among the non-elderly households. On assigning a value of $\theta = 0.8$, the mean MPCE for households with the elderly living alone or with other elderly members is Rs.2159 compared to Rs.2262 for elderly living with other members and Rs.2148 for non-elderly households in rural areas. A similar pattern is observed in urban areas also.

Similarly, the adult equivalent scales under two scenarios have been derived for both elderly and non-elderly households. In the ûrst scenario, a weight of l is assigned to an adult, 0.6 for children of 6-14 years of age and of 0.4 for children <5 years of age. ln the second scenario, a weight of l is assigned to adults, 0.75 to children in the age group 6-14 years, and 0.5 for

Table 2: Average Household Size and Mean MPCE by Household Type

State	Rural						Urban					
			Elderly households						Elderly households			
	No. of House-holds	Average house-hold size	No.	Percent	Mean MPCE	Mean MPCE of non-elderly households	No. of house-holds	Average household size	No.	Percent	Mean MPCE of	Mean MPCE of non-elderly house-holds
AP	3927	3.9	1108	28	1737	1833	2972	3.6	652	22	2620	2827
Assam	2608	5	676	26	1261	1279	832	4.2	209	25	1910	2260
Bihar	3312	5.3	856	26	1261	1163	1270	5	330	26	1402	1655
Chhattisgargh	1435	5	352	25	1272	1219	734	4.5	156	21	2050	2159
Gujarat	1712	5	499	29	1803	1762	1714	4.3	476	28	2602	2748
Haryana	1424	5.3	477	34	2102	2147	1167	4.5	313	27	3301	3504
Jharkhand	1757	5	447	25	1069	1102	983	4.4	210	21	1976	2088
Karnataka	2048	4.7	602	29	2351	3066	2046	4.2	711	35	1633	1724
Kerala	2640	4.1	820	31	3616	3842	1855	3.9	1163	63	3038	3305
MP	2736	4.8	713	26	1333	1209	1981	4.5	479	24	1739	2071
Maharashtra	4032	4.7	1150	29	3119	3326	4011	4.5	1412	35	1754	1676
Odisha	2973	4.3	274	9	1684	2140	1053	3.9	952	90	1119	1063
Punjab	1552	4.9	416	27	2934	3005	1566	4.4	578	37	2420	2504
Rajasthan	2579	5	403	16	2294	2583	1544	4.7	747	48	1658	1690
TN	3319	3.8	993	30	2392	2793	3328	3.5	1114	33	1879	1940
UP	5916	5.7	818	14	1934	2107	3099	5.1	1883	61	1299	1237
WB	3568	4.3	915	26	3215	2684	2747	3.8	972	35	1454	1419
India	59659	4.8	17799	30	1673	1646	41967	4.2	11291	27	2563	2726

Note: MPCE figures in Rs.

Table 3: Unadjusted and Adjusted MPCE and Households Living Below Poverty

Adjustment for Economies of scale and adult equivalence scale adjustment	Rural			Urban		
	Elderly living alone or with other elderly	*Elderly live with non-elderly*	*Non-elderly households*	*Elderly living alone or with other elderly*	*Elderly live with non-elderly*	*Non-elderly households*
Unadjusted mean MPCE	1983	1639	1646	1821	2400	2727
Average household size	1.6	5.8	4.5	1.5	5.5	4.0
Adjusted for household economies of scale						
$\theta=0.2$	2868	6238	5024	5563	8441	7119
$\theta=0.5$	2476	3723	3255	4788	5193	4856
$\theta=0.9$	2068	1923	1878	3987	2790	3040
Adjusted for adult equivalence scales						
$\alpha_1=0.4,\ \alpha2=0.6,\ A=1$	1983	1806	1884	3821	2595	3019
Adjusted for adult equivalence scales and economies of scale						
$\alpha_1=0.5,\ \alpha2=0.75,\ A=1,\ \theta=1$	1983	1754	1803	3821	2534	2919
$\alpha_1=0.5,\ \alpha2=0.75,\ A=1,\ \theta=0.9$	2068	2047	2041	1295	2933	3238
Percent of households living below official poverty line[*]	45.5	14.5	15.0	12.5	16.6	12.4
Percent of households living below official poverty line adjusted for household size[$]	10.2	7.1	8.0	11.6	9.4	7.2
Percent of households living below official poverty line adjusted for household composition[#]	45.5	10.1	8.9	12.5	12.8	8.2
Percent of households living below official poverty line adjusted for household size and composition[&]	10.2	4.9	4.5	11.6	6.5	4.3

Note: * MPCE not adjusted for household size and composition, $ MPCE adjusted for economies of scale ($\theta=0.9$), # MPCE adjusted for equivalence scales ($\alpha=1$ for adults, $\alpha=0.75$ for children 6-14 years and $\alpha=5$ for children <5 years), & MPCE adjusted for household size and composition.

children <5 years. Adjusting for household composition has only a little difference in the MPCE of households. The mean MPCE among households where the elderly live alone or with other elderly remains the same as Rs.1983, while that of the elderly living with non-elderly is Rs.1754. On the other hand, the mean MPCE among non-elderly households is Rs.1803. To understand the combined effects of both size and composition on household consumption expenditure, the values of è=0.9) and á=0.5, 0.75 and l for age groups 0-5, 6-14 and 15+ are assigned. The adjusted mean MPCE shows that the elderly households living in rural areas are the poorest compared to other groups, mean MPCE of Rs,2068 among elderly living alone or with non-elderly, Rs.2047 among the elderly living with non-elderly members and Rs.2041 among non-elderly households. Applying the ofûcial poverty line cut-off to the unadjusted estimates of MPCE shows that 12 percent households where elderly live alone or with other elderly are below the poverty line, compared to l5 percent households where elderly co-reside with non-elderly and 13 percent among non-elderly households. On adjusting for both household size and composition, the differentials in poverty estimates reduce substantially. Thus, adjusting for economies of scale and adult equivalents, the economic condition of non-elderly households is better than elderly households.

Table 4 presents the estimated number of elderly households living below the poverty line in India states using the state speciûc poverty line for rural and urban areas (Planning Commission, Government of India 2011-2012). The percentage of elderly households living below the poverty line in rural areas varies from 6.4 percent in Punjab to 29.5 percent in Jharkhand. In the urban area, Bihar followed by Assam accounts for the highest percentage of elderly household below the poverty line. The sensitivity of poverty estimates to household size and composition in states in India shows that the mean MPCE of the household increases when consumption expenditure is adjusted for either household size or household composition. Thus, applying the official poverty cut-off point to adjusted MPCE yields lower estimates of poverty. On adjusting the consumption expenditure for household composition, the differentials in poverty estimates among elderly and non-elderly households narrowed down in many of the states of India. ln 13 of the 17 states of India, the poverty among elderly households in rural areas is higher than that of non-elderly households. ln urban areas, in all 17 states, elderly households are poorer compared to non-elderly households when adjusted for household composition. This confirms that adjusting consumption expenditure for household size and composition does matter for poverty estimates in India.

Table 4: Estimates of Poor Elderly Households in States of India

| State | Unadjusted poverty cut off | | Unadjusted consumption expenditure | | | | Consumption expenditure adjusted for household composition | | | | Consumption expenditure adjusted for household size | | | |
| | | | Percent of elderly households living below poverty | | Percent of non-elderly households living below poverty | | Percent of elderly households living below poverty | | Percent of non-elderly households living below poverty | | Percent of elderly households living below poverty | | Percent of non-elderly households living below poverty | |
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
AP	860	1069	9.12	13.93	6.39	7.11	5.78	9.97	3.33	3.15	3.97	7.98	2.73	2.93
Assam	828	1008	26.04	30.14	21.69	5.17	18.20	25.84	12.53	13.96	11.83	18.66	9.37	11.56
Bihar	778	923	19.98	32.42	20.81	27.13	14.37	26.06	10.22	10.32	9.81	21.52	9.57	8.62
Chhattisgargh	738	849	24.15	14.74	25.58	10.00	19.03	10.90	15.60	10.55	13.64	8.33	15.05	8.82
Gujarat	932	1152	11.02	14.71	14.76	27.68	7.01	11.55	9.15	7.59	4.61	7.14	6.92	6.06
Haryana	1915	1169	7.97	14.38	8.24	8.16	4.82	11.18	5.17	7.03	2.94	6.71	4.12	5.97
Jharkhand	748	974	29.53	27.14	25.65	21.90	19.46	23.33	12.37	17.98	15.21	17.62	12.60	17.46
Karnataka	902	1089	14.21	24.67	13.01	22.77	8.44	19.61	6.21	8.72	4.78	15.69	4.26	7.88
Kerala	1018	987	9.29	8.9	4.65	2.51	7.22	6.10	2.91	2.13	5.07	4.39	2.36	1.74
MP	771	897	23.14	21.5	27.39	28.02	18.95	17.54	17.45	11.92	15.85	12.32	16.07	10.19
Maharashtra	967	1126	13.88	13.83	14.27	17.31	9.21	10.43	8.63	6.15	5.59	8.43	7.67	4.72
Odisha	695	861	23.21	24.82	26.62	5.49	18.49	20.80	18.75	14.51	13.45	14.60	17.22	14.25
Punjab	1054	1155	6.40	12.02	5.34	15.28	3.29	8.41	2.26	4.70	1.90	4.33	1.75	4.70
Rajasthan	905	1002	10.93	9.68	12.88	11.74	6.61	6.20	6.98	5.93	4.72	3.72	6.88	4.97
TN	880	937	13.64	12.79	8.07	11.35	10.68	10.17	5.62	3.73	7.45	7.65	4.08	2.61
UP	768	941	21.99	26.89	23.21	23.98	13.86	21.03	11.85	16.09	10.14	16.26	11.13	14.25
WB	783	981	29.45	14.54	14.29	14.90	22.03	11.91	7.74	9.99	14.41	8.52	6.74	8.84

Table 5 presents the descriptive statistics of the variables used in the empirical analysis. The dependent variable, the household poverty status (the elderly household being poor or non-poor) is defined as a dichotomous variable, on the basis of monthly per capita consumption expenditure (MPCE), using the ofûcial poverty line cut-off of Rs.816 for rural areas and rs.1000 for urban areas.

Table 5: Descriptive Statistics of the Variables

Variable	Description	Mean	Std. dev.
Educational level of household head	Illiterate	0.23	0.42
	Literate	0.11	0.31
	Primary	0.12	0.33
	Secondary	0.14	0.35
	Higher secondary	0.09	0.29
	Diploma	0.01	0.11
	Under graduate	0.09	0.29
	Post graduate	0.03	0.18
Marital status of household head	Currently married	0.85	0.36
	Widow	0.11	0.31
	Never married/ divorced	0.04	0.20
Religion	Hindu	0.76	0.43
	Muslim	0.13	0.36
	Christian	0.07	0.25
	Others	0.04	0.20
Social group	Scheduled tribe	0.13	0.34
	Scheduled caste	0.15	0.36
	Backward community	0.39	0.49
	Other community	0.32	0.47
Occupation	Self-employed in agriculture	0.28	0.45
	Self-employed in non-agriculture	0.26	0.44
	Casual agricultural labour	0.08	0.27
	Casual non-agricultural labour	0.15	0.35
	Other rural labour	0.05	0.23
	Regular salary earner in rural sector	0.18	0.38
	Self-employed in urban sector	0.37	0.48
	Regular salary earner in urban sector	0.39	0.49
	Casual labour in urban sector	0.13	0.33
	Other urban labour	0.11	0.31
Number of children in the household	One	0.36	0.48
	Two	0.36	0.48
	Three	0.17	0.37

contd. table 5

Variable	Description	Mean	Std. dev.
	Four+	0.10	0.30
Age of child	<5 years	0.28	0.69
	6-14 years	0.76	0.43
Number of elders in	One	0.69	0.41
the household	Two	0.30	0.46
	Three+	0.01	0.10
Age of elderly	60-69 years	0.21	0.41
	70-79 years	0.09	0.21
	80+ years	0.03	0.17
Living arrangements	Living alone	0.03	0.17
of elderly	Living with other elders	0.26	0.44

The logistic regression estimates of the determinants of poverty among elderly households with and without adjustment for economies of scale and adult equivalence scales (size and composition of household) are presented separately for rural and urban areas in Table 6. The dependent variable is the economic deprivation of elderly households i.e. the elderly households being poor or non-poor. Both in rural and urban areas, the signiûcant predictors of the elderly household being poor are religion, social group, household type, education and occupation of household head, and living arrangement of the elderly. The probability of the elderly household being poor is positive but declines with an increase in the education level of the household head, relative to an illiterate head of the household. Overall, the household poverty rates are reduced when adjusted for economies of scales and equivalence scales.

With more elderly living in the housed, the unadjusted probability of the household being poor is 35 percent and the adjusted probability is 29 percent. The unadjusted probability of the elderly household being poor is much higher 46 percent when there is a person who is 80 years and above in the household in comparison to an elderly person of 60-79 years. However, when adjusted for equivalence scales and economies of scale, the probability is insignificant. When an elderly person lives with a non-elderly, compared to staying alone, the unadjusted probability of being poor is 62 percent, and on adjusting for size and composition, the probability falls to 42 percent showing a 20 percent decline.

In households with college-educated heads, the unadjusted probability of the household being poor is 8 percent while with adjustment the probability of the household being poor falls to 6 percent. When the head

Table 6: Logistic Regression Estimates of Poverty of Households with Elderly
Dependent variable: Household with elderly persons being poor

Variable	Rural				Urban			
	Unadjusted		Adjusted		Unadjusted		Adjusted	
	Odds ratio	Prob.	Odds ratio	Prob.	Odds ratio	Prob.	Odds ratio	Prob.
No. of elderly in the household=2	0.95	0.49	0.95	0.49	0.95	0.49	0.84***	0.46
No. of elderly in the household 3+	0.53**	0.35	0.41**	0.29	1.41	0.59	1.70	0.63
Elderly aged 70-79	1.06	0.51	1.07	0.52	1.16**	0.54	1.29**	0.56
Elderly aged 80+	0.85**	0.46	0.91	0.48	1.07	0.52	1.29**	0.56)
Elderly living with non-elderly	1.66**	0.62	0.73**	0.42	1.35**	0.57	0.59**	0.37
Head-literate	0.77**	0.44	0.66**	0.40	0.69**	0.41	0.70**	0.41
Head-secondary	0.30**	0.23	0.30**	0.23	0.23**	0.19	0.25**	0.20
Head-college	0.09**	0.08	0.06**	0.06	0.08**	0.07	0.05**	0.05
Head-widow	0.74**	0.43	0.91**	0.48	0.76**	0.43	0.92	0.48
Head-never married/ divorced	0.83	0.45	1.55**	0.61	0.79	0.44	0.91	0.48
Muslim	1.14***	0.53	0.89	0.47	1.17**	0.54	0.90	0.47
Christian	0.40**	0.29	0.40**	0.29	0.43**	0.30	0.45**	0.31
Scheduled caste	0.58**	0.37	0.45**	0.31	1.02	0.30	1.11	0.53
Backward community	0.42**	0.30	0.28**	0.22	0.79**	0.44	0.80	0.44
Casual agricultural labour	2.21**	0.69	2.66**	0.73	-	-	-	-
Casual non-agricultural labour	1.86**	0.65	2.08**	0.68	1.55**	0.61	1.55**	0.61
Salary earner	0.50**	0.33	0.37**	0.27	0.63**	0.39	0.61**	0.38
Self-employed in non-agriculture	1.24**	0.55	1.37**	0.58	-	-	-	-
Other labour	1.27**	0.56	2.23**	0.69	0.68**	0.40	0.93	0.48
Constant	0.34		0.27		0.58		0.40	
Log-likelihood	-6513.73		-3239.07		-4227.10		-2486.78	
LR chi-square	1551.06		989.62		1518.17		824.08	
Prob.>chi-square	0.00		0.00		0.00		0.00	
No. of observations	17798				11289			

Note: *, **, *** significant at 1, 5 and 10 percent levels.

of the household is a widow, the probability of the elderly household being poor is a significant 43 percent. On adjusting, the probability of household with divorced or never married household head, also becomes a significant, with 61 percent chance of the elderly household being poor relative to a currently married household head. The probability of a Muslim household being poor is 53 percent relative to a Hindu household with elderly, whereas it is only 29 percent for a Christian household. In comparison to schedule tribe elderly households, schedule caste households have 37 percent and backward communities have 30 percent higher probability of being poor.

With adjustments for household size and composition, there is a 6 percent decline in poverty rates in scheduled caste and 8 percent decline for backward community households.

Agricultural casual labour households are mostly poor in reference to a household self-employed in agriculture. Casual labour in non-agriculture also has a high probability of the household being poor, whereas, salary earning households have the least probability of being poor. When adjusted for equivalence and economies of scales, the probability of a self-employed agricultural household being poor increases by 3 percent and the probability of a salary earner household being poor declines from 33 percent to 27 percent. In terms of occupation, there is not much difference between rural and urban areas.

The logistic regression estimates of the incidence of poverty in households with children, presented in Table 7, also reinforce that larger households have a higher probability of being poor. The probability of the household being poor increases with a rise in the number of children. The unadjusted probabilities are higher than the probabilities with adjustment for economies of scale and equivalence scales. Both rural and urban households show close probabilities of being poor with most of the predictors. In reference to households one child, when there are two children, the unadjusted probability of being poor is 58 percent and when there are four or more children, the probability of household poverty increases to 82 percent. Both in rural and urban areas, the signiûcant predictors of households with more children being poor are religion, social group, household type, education and occupation of the household head. As the education level of household head increases, household poverty rates decrease. Households with children in the age group of 6-14 years are 43 percent poor in comparison to households with children <5 years, and the probability of being poor increases to 57 when adjusted for household size and composition. There is a 12 to l4 percent change both in urban and rural areas when adjusted assigning weights of 1 for adults, 0.5 and 0.75 for children and scale economies of 0.9. In rural areas, Muslims households have a higher probability of being poor in comparison to Hindus, followed by Christians. ln urban areas also, the Muslims household are the most probable vulnerable to poverty with more children. On adjusting, the poverty differentials reduce but the pattern remains the same. By social group, in reference to schedule tribe households, the higher probability of poverty is among the scheduled caste households, 35 percent in rural areas and 51 percent in urban areas. Similar results are obtained after adjustments also, but household poverty estimates reduce. Casual labour is most likely to be poor compared to a self-employed household, both in rural and urban areas.

Table 7: Logistic Regression Estimates of Poverty of Households with Children
Dependent variable: Household with children being poor

Variable	Rural				Urban			
	Unadjusted		Adjusted		Unadjusted		Adjusted	
	Odds ratio	Prob.	Odds ratio	Prob.	Odds ratio	Prob.	Odds ratio	Prob.
Two children	1.37**	0.58	0.90**	0.47	1.50**	0.60	1.02**	0.50
Three children	2.47**	0.71	1.10**	0.52	2.72**	0.73	1.24**	0.55
Four+ children	4.52**	0.82	1.35**	0.57	4.96**	0.83	1.81**	0.64
Children 6-14 years	0.75**	0.43	1.30**	0.57	0.86**	0.46	1.37**	0.58
Head-literate	0.79**	0.44	0.75**	0.43	0.75**	0.43	0.69**	0. .41
Head- secondary	0.23**	0.96	0.22**	0.18	0.23**	0.19	0.23**	0.19
Head-college	0.15**	0.13	0.09**	0.08	0.10**	0.09	0.08**	0.07
Head-widow	0.88**	0.47	1.16**	0.54	0.91	0.48	1.05	0.51
Head-never married/ divorced	1.04	0.51	1.01	0.50	1.69**	0.63	2.04**	0.67
Muslim	0.83**	0.45	0.68**	0.40	0.91**	0.48	0.89**	0.47
Christian	0.52**	0.24	0.38**	0.28	0.29**	0.22	0.10**	0.09
Scheduled caste	0.53**	0.35	0.44**	0.31	1.05**	0.51	0.72**	0.42
Backward community	0.40**	0.29	0.29**	0.22	0.85**	0.46	0.59**	0.37
Casual agricultural labour	2.37**	0.70	2.24**	0.69	-		-	
Casual non-agricultural labour	1.75**	0.64	1.81**	0.64	1.64**	0.62	1.57**	0.61
Salary earner	0.58**	0.37	0.52**	0.34	0.64**	0.39	0.63**	0.39
Self-employed in non-agriculture	1.15**	0.53	0.11	0.10	-		-	
Constant	0.58		0.16		0.52		0.18	
Log-likelihood	-6040.61		-6671.22		-9230.31		-4445.93	
LR chi-square	5747.24		1917.66		4276.19		1434.64	
Prob.>chi-square	0.00		0.00		0.00		0.00	
No. of observations	39236		23622					

Note: *, **, *** significant at 1, 5 and 10 percent levels.

With both elderly and children as dependent in the household, the dependency burden enormous, especially when the number of bread-winner is lesser in a household. Table 8 presents the logistic regression results for the household being poor with both children and elderly in the household. Both in rural and urban areas, the significant predictors of household being poor are social group, education and occupation of household head, and the number of dependents in the household. The estimates show that the odds ratio is comparatively much higher when there are five or more dependent people in a household. On the basis of religion, Muslim households have insigniûcant odds of being poor while

Christian households are more likely to be poor, relative to Hindu households. Both in rural and urban areas, casual labourers are most likely to be poor, compared to self-employed households. When consumption expenditure is adjusted for age and composition, it is observed that poverty estimates decline. Overall, dependency in the household leads to the household being in poverty.

Table 8 Logistic Regression Estimates of Poverty of Households with Elderly and Children
Dependent variable: Household with elderly and children being poor

Variable	Rural				Urban			
	Unadjusted		Adjusted		Unadjusted		Adjusted	
	Odds ratio	Prob.	Odds ratio	Prob.	Odds ratio	Prob.	Odds ratio	Prob.
No. of dependents 3	1.13	0.53	1.14	0.53	1.27**	0.56	0.93	0.48
No. of dependents 4	1.61**	0.62	0.96	0.49	1.70**	0.63	0.96	0.49
No. of dependents 5+	2.65**	0.73	1.29**	0.56	2.96**	0.75	1.33**	0.57
Head-literate	0.86**	0.46	0.69**	0.41	0.73**	0.42	0.73**	0.42
Head- secondary	0.37**	0.27	0.44**	0.31	0.28**	0.22	0.32**	0.24
Head-college	0.32**	0.11	0.04**	0.04	0.12**	0.11	0.11**	0.10
Head-widow	0.85**	0.46	0.93	0.48	0.71**	0.42	0.73**	0.42
Head-never married/ divorced	0.78	0.44	0.98	0.49	1,47	0.60	1.23	0.55
Muslim	0.99	0.50	0.88	0.47	1.05	0.51	0.98	0.49
Christian	0.40**	0.29	0.38**	0.28	0.32**	0.24	0.14**	0.12
Scheduled caste	0.56**	0.36	0.42**	0.30	1.01	0.50	1.02	0.50
Backward community	0.41**	0.29	0.25**	0.20	0.74**	0.43	0.57**	0.36
Casual agricultural labour	3.21**	0.76	3.42**	0.77	-	-	-	-
Casual non-agricultural labour	2.12**	0.68	2.26**	0.69	1.82**	0.65	1.78**	0.64
Salary earner	0.56**	0.36	0.40**	0.29	0.67**	0.40	0.61**	0.38
Self-employed in non-agriculture	1.30**	0.57	1.35**	0.57	-	-	-	-
Constant	0.37		0.18		0.60		0.29	
Log-likelihood	-4798.69		-2100.26		-2906.54		-1521.54	
LR chi-square	1391.43		636.78		1140.61		400.35	
Prob.>chi-square	0.00		0.00		0.00		0.00	
No. of observations	12137		6849					

Note: *, **, *** significant at 1, 5 and 10 percent levels.

CONCLUSION

Poverty and age are associated with each other. The probability of falling into poverty is altered, since both needs and income potential change over the life cycle. This makes care of old age people a signiûcant issue to the society and economy as the elderly are a dependent section of the society.

Similarly, children are also dependent on a family, although they are generally taken care of, unlike the old. Care of destitute children and orphans pose significant issues and their future depends on proper arrangements for their living and education. Even within households, some children are neglected in terms of investments in their education and health. A large household, with more children and old age people residing together, poses a threat of poverty of household, especially in households with a single earner. The vulnerability of household to poverty is also high in rural areas, illiterate and casual labour households and households with no male head. The deprivation of the elderly in situations where the family structure is dwindling to a nuclear family, causing the elderly losing their main support, is growing. Growing child care costs, child educational and other expenditures, makes the households unaffordable for large family size.

Over the years, India has a record of estimating poverty based on consumption expenditure of households. The poverty line cut off is also provided on the basis of household consumption expenditure. However, the general poverty estimates without consideration of the poverty among elderly or children give a higher proportion of households in poverty. In poverty estimates, some adjustments in household expenditure are made for elderly and child consumption expenditures, as the requirements, as well as consumption requirements of the elderly and children are not the same as those of adults in the household. Thus, adjusting household consumption expenditure for size and age composition is important for estimating poverty on the basis of household consumption. Adjusting with adult equivalence scales for age effects and economies of scale for size effects in household consumption expenditure is generally followed in many poverty estimates.

This study analyses the incidence of poverty in households with dependent elderly as well as children in households. The sensitivity of household poverty to age and household size composition is examined using the adult equivalence scales and economies of scale. The data on monthly per capita consumption expenditure of households from the NSSO 68th round (2011-2012) are used in the empirical analysis. The poverty in households with at least one dependent elderly and/or one child below 14 years of is considered, and the socioeconomic and demographic determinants of households being poor or above poor is estimated using the official poverty line cut-offs. Empirically, the logistic regression method is used in the estimation, both with and without adjustments for household economies of scale and equivalence scales separately for elderly households, households with dependent children and for households with both dependent elderly and children, in rural and urban areas of India.

The descriptive, as well as analytical results, show that poverty rates vary with social status, religion, occupation of the household head and age and size composition of the household. With adjustments in consumption expenditure for size and composition of the household, the probability of the household being poor reduces significantly. The vulnerability of households being poor is high in rural areas than in urban areas of India. When an elderly reside alone or with another elderly, the chances of the household being poor is highest. In rural India, elders residing alone or with other elders are the most deprived relative to the elders staying with non-elders. When the household has a regular salary earning, the probability of the household being poor is less, and the chances of being in poverty are greater when the household is a casual labourer in agriculture. With respect to child poverty, the estimated results show that when there are more dependent children the household is more susceptible to poverty. These ûndings are analogous to some preceding studies on poverty amongst the elderly in India. Education is another important predictor of poverty of households with children and the elderly. If the head of the household is well-educated, the chance of the household falling into poverty is less. Education helps in family planning, thus avoiding the incidence of child poverty also. Along with policies for social security, providing education should be a priority in India. This may lead to an overall increase in the standard of living of the poor and prevent more households vulnerable to poverty.

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