

Estimating Working Poverty in Pakistan Evidence from National, Rural and Urban Population

Khalid Zaman • Iqtidar Ali Shah • Imran Naseem

Abstract The aim of this paper is to estimate the population of working poor in the labour market in Pakistan. This study covered two different poverty ratios at two different times i.e., \$1.25 per day from 1987-2005 and official national poverty line at 2350 calorie per adult equivalent per day from 1979-2006 respectively. The main finding suggests that there are around 1.618 million working poor during 2004-05. These figures imply that around 3.7 percent of the employed persons in the Pakistan are currently living on less than \$1.25 per day. Similarly, around 1.631 million working poor (3.4 percent of working population) in the Pakistan are living below the official national poverty line i.e., Rs. 945.45 per month in 2005-06. In rural Pakistan, there is an estimated 0.957 million working poor, with lower and upper estimates of 0.812 million and 1.102 million respectively. These figures imply that around 4.7 percent of total working poor in the rural Pakistan are currently living on less than 2,450 calories per equivalent per day. In urban Pakistan, there are an estimated 0.673 million working poor with lower and upper estimates of 0.613 million and 0.730 million respectively. These figures imply that around 2.5 percent of total working poor in the urban Pakistan are currently living on less than 2,150 calories per equivalent per day. Government should focus on working poor estimates and introduce reform packages for the working poor in Pakistan.

Keywords Poverty - Working Poverty - Employment - Labor Force Participation Rate - Pakistan

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1. Introduction

Poverty is one of the main social problems and it is multidimensional concept. The present economic situation worldwide has generated a relatively new social category known as the 'working poor', i.e. even with job relinquishing below poverty line. In simple words working poor do not earn enough to look after minimum basic needs of their families. ILO (2002) defined working poor as the proportion of employed persons living below the poverty line.

The phenomena of working poor are not only limited to developing or underdeveloped countries but also an issue of developed world including Canada, USA and many European countries. In 1998, nine million Americans worked sometime during the year (of nine million, two million worked full-time and year-round) but fell below the official poverty level (Kim, 1999). According to ILO (2009a); the share of working poor (according to new poverty estimates of USD 1.25 a day) in total employment is estimated at 20.6 per cent in the world in 2007, Central and Eastern Europe 5.1 percent, South Asia 47.1 percent, Middle East 9.0 percent and Sub-Saharan Africa 58.3 percent. There is limited information and research work related to working poor. However, recently more attention has been given to the working poor category of poverty worldwide. Majid (2001) found only a slight decrease in the number of working poor around the world between 1986 and 1997, whereas his estimates indicated an increase in the lowest income countries. Berger and Harasty (2002) expanded this research and estimated world and regional working poverty for the years 1990 and 1998, as well as future trend and estimates until 2010. Their designed model estimated output growth required to match targeted reductions in global working poor. While examining growth requirements for reducing working poverty, Kapsos (2004) found an estimated 535 million working people with less than a dollar per day worldwide and 1.38 billion working people with less than less than \$2 per day. More shockingly Global Employment Trends (GET, 2010) reported dramatic increase in unemployment, working poor, and vulnerable employment, owing to the global economic crisis. The report indicated global 18 to 30 million unemployment in 2009 from 2007 and threatening to be more than 50 million if the situation continued to deteriorate. The multidimensional nature of wellbeing is now the well accepted approach in frontier research on poverty, inequality and policy analysis (Maasoumi and Yalonzky, 2012). Naschold (2012) employed a semi parametric panel data estimator to examine poverty dynamics in three villages in rural semi-arid India. The findings indicate prevalent structural immobility in this region suggesting a structural poverty trap, while all households face static asset holdings, higher castes, larger landholders, and more educated households are significantly at low risk. In the other study, Naschold (2013, p. 936) conclude that,

“Identifying household-level welfare dynamics and associated dynamic poverty trap thresholds can have important implications for the targeting of poverty reduction policies [...] Households in rural Pakistan and Ethiopia seem to be stuck in a static, structural-type poverty trap facing an expected level of long-term well-being that places them squarely in poverty”.

Saqib and Arif (2012) researched to measure time poverty among gender, occupational groups, industries, regions, and income levels by Time Use Survey (TUS) 2007 for Pakistan. They found 14% incidence of time poverty. Women were more time poor than men whether or not employed. Workers in certain professions and industries were more time poor as compared to other workers. Giesbert and Schindler (2012) explore welfare dynamics among households in rural Mozambique by using household panel data to test whether an asset-based poverty trap exists in rural Mozambique. The findings indicate that households in rural Mozambique are collectively trapped in generalized underdevelopment. Food-insecure households who have better access to income-generating opportunities and who can afford drawing on unproductive assets are able to sustain their productive asset base in the short term.

McKernan et al. (2012) investigated the ability of a poor to accumulate assets and his findings, contrary to common assumption, showed they could. Hence asset building subsidies that target low income families can be helpful in providing them more financial security. Bhorat and Westhuizen (2013) analyzed shifts in non-income welfare in South Africa between 1993 and 2004 and found a significant decrease in the headcount asset poverty rates across a range of covariates. This significant asset inequality decrease was in the stark contrast of results based on consumption data. While estimating multidimensional poverty among women in 14 Sub-Saharan African countries, Batana (2013) found important differences in poverty among the countries of the sample. Geographical dimensions indicated that rural areas were significantly poorer than urban ones and that a lack of schooling was, in general, the highest contributor to poverty.

As Hess (1994) pointed out a cruel irony of individuals (and families) fulfilling societal expectations to be employed and self-supporting were struggling for being economically viable. This challenges the dominant concepts of the long-term unemployed and of work avoidance. Emerging qualitative evidence suggests that the contemporary experience of unemployment is characterized by ‘churning’, which involves moving in and out of low-paid, short-term jobs, and on and off welfare benefits (Harkins and Egan, 2013).

The main objective of this paper is to estimate working poor in Pakistan as no profile of working poor is available. The more specific objectives are:

- To estimate the number of working poor below \$ 1.25 per day.
 - To estimate share of working poor at national, rural and urban Pakistan in total employment.
 - To estimate low and high estimates of working poor.
 - To analyze the trends of share of working poor at national, urban and rural Pakistan.
- The paper is organized as follows: after introduction which is provided in Section 1 above, Methodological framework is explained in Section 2. The estimation and interpretation of results is mentioned in Section 3. Section 4 concludes the paper.

2. Data Source and Methodological Framework

To construct the working poverty estimates (total counts and shares in employment), the following data were used:

- Poverty rates come from the World Bank's POVCAL Net (2008) and use reference lines of \$1.25 per day in 2005 Purchasing Power Parity (PPP) terms. The years for the poverty figures range from 1987 to 2005. The study also uses annual observations for the period of 1979-2006 at rural, urban and Pakistan (national) level. The data is obtained from various issues of Economic Survey of Pakistan and World Bank Development Indicators, 2009. The rural, urban and national poverty levels are estimated based on an official poverty line of 2,450; 2,150 and 2,350 calories per adult equivalent per day.
- Employment figures are taken from the Labour Force Survey of Pakistan 2008-09 and Economic Survey of Pakistan 2009-10.

The ILO in collaboration with the WB, is currently working on a national household survey to produce estimates of the working poor. The ILO calculates upper and lower bound estimates of the working poor. Upper bound estimates are calculated using the equation:

$$\text{Working poor} = \text{poverty rate} * \text{population} \quad (1)$$

Where, population is equal to the population aged 15 and above. The lower bound estimate of the working poor is calculated using the equation:

$$\text{Working poor} = \text{poverty rate} * \text{total employment} \quad (2)$$

The key assumption behind using total employed rather than labor force in the lower bound estimate is that labor force contains number of employed and unemployed people while we assessing the working poverty, therefore, there is no need to find the impact of unemployed while we calculating working poverty. This supposition necessitates every poor individual of any country without social safety to work in order to maintain a subsistence level of living (ILO, 2009b). In absence of reliable empirical data, these two estimates of the working poor provide reasonable assumption to believe that the true size of the working poor population may fall within the range given by those two bounds. The same methodology of ILO (2009b) for estimating upper and lower bound working poverty are employed in this paper.

3. Estimation and Discussion

3.1. Trends in Working Poverty on \$ 1.25 per day

Table 1 highlights the numbers of \$1.25 working poor over time. It included both the lower and upper estimates for providing an average estimate of the level and trend in working poverty over time. This simple average is used to calculate the approximate share of the working poor in total employment.

Table 1 Estimates of Working Poverty on \$ 1.25 (1987-2005)

Year	Total Employment ('000s)*	\$ 1.25 Poverty Estimates**	Working Poor Low Estimates ('000s)***	Working Poor High Estimates ('000s)*** \$ 1.25 Working Poor Average Estimates ('000s)***	Share of \$ 1.25	Working Poor in Employment***
1987	28,703	66.4%	3389	3520	3454	12.0%
1990	28,774	64.7%	3300	3798	3549	12.3%
1992	29,934	23.8%	1193	1473	1333	4.4%
1996	33,473	48.1%	2455	3339	2897	8.6%
1998	36,942	29.1%	1481	2153	1817	4.9%
2001	38,124	35.8%	1829	2910	2369	6.2%
2005	42,916	22.6%	1197	2040	1618	3.7%

* Economic Survey of Pakistan, various issues.

** Calculated by POVCAL Net.

*** Calculated by the authors.

World had an estimated 1.618 million working poor (\$1.25/day) in 2004-05 with 1.197 million and 2.040 million as lower and upper estimates. These figures implied around 3.7% of the employed persons in the Pakistan were living on less than \$1.25 per day.

3.2. Trends in Working Poverty on National Poverty Line

Table 2 indicates an estimated 1.438 million working poor on national poverty line in 1997, with 1.281 million and 1.595 million as lower and upper estimates respectively, implying around 6.1% of employed workforce living below the national poverty line. Similarly, the latest available estimates (2006) on national poverty line of Rs. 945.45 per day, indicate an estimated 1.631 million working poor on national poverty line. Lower and upper estimates stand on 1.204 million and 2.058 million respectively, implying around 3.4% of the employed workforce in Pakistan were living below than the Rs. 945.45 per day.

Table 2 Working Poverty Estimates at National Level (1979-2006)

Year	Total Employment ('000s)*	National Poverty Estimates*	National - Working Poor Low Estimates ('000s)**	National -Working Poor High Estimates ('000s)**	National -Working Poor Average Estimates ('000s)**	Share of National Working Poor in Employment**
1979	23,618	30.6%	1281	1595	1438	6.1%
1985	26,961	24.5%	1234	1253	1243	4.6%
1986	27,033	21.2%	1083	1096	1089	4.0%
1987	28,703	18.6%	951	987	969	3.3%
1988	28,995	17.35	883	1040	961	3.3%
1991	28,681	22.1%	1127	1297	1212	4.2%
1993	30,534	22.65	1133	1399	1266	4.1%
1994	31,288	25.0%	1275	1909	1592	5.1%
1997	34,597	21.8%	1111	1512	1311	3.7%
1999	37,296	30.6%	1560	2780	2170	5.8%
2002	38,882	34.5%	1759	2799	2279	5.8%
2005	42,916	23.9%	1266	2159	1712	3.9%
2006	46,952	22.3%	1204	2058	1631	3.4%

* Economic Survey of Pakistan, various issues. ** Calculated by the authors.

Figure 1 represents the comparison between the share of \$ 1.25 working poverty and share of national working poverty.

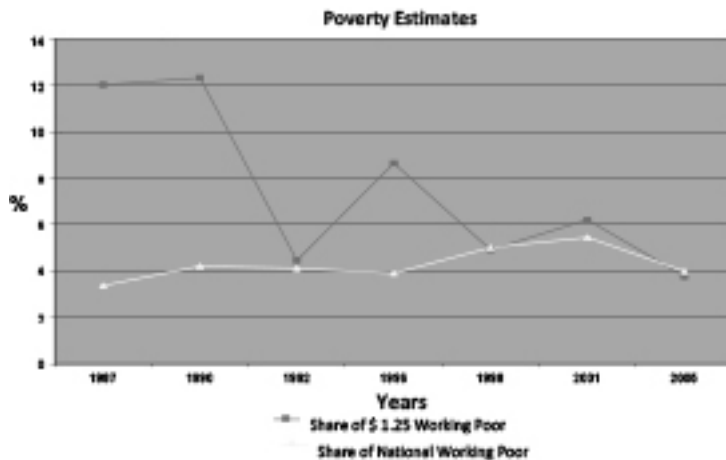
Figure 1 Comparison between shares of \$ 1.25 Working Poverty Vs Share of National Working

Figure 1 shows fluctuations in both results particularly in 1987-1990 and then 1993-1997. The reasons are taking the two different poverty lines size which taken by two different agencies i.e., World Bank and Planning Commission of Pakistan. However, during 2005 both results show approximate results.

3.3. Trends in Working Poverty at Rural and Urban Pakistan

Table 3 indicates an estimated 0.958 million working poor, with lower and upper estimates of 0.812 million and 1.102 million respectively in 2005-06, implying around 4.7 % of the workforce in the rural Pakistan as living on less than 2,450 calories per adult equivalent per day.

Table 3 Working Poverty Estimates at Rural Level (1979-2006)

Year	Rural Employment ('000s)*	Rural Poverty Estimates*	Rural - Working Poor Low Estimates ('000s)**	Rural - Working Poor High Estimates ('000s)**	Rural - Working Poor Average Estimates ('000s)**	Share of Rural Working Poor in Employment**
1979	12,517	27.7%	1157	1440	1298	10.3%
1985	13,750	24.1%	1210	1229	1219	8.8%
1986	14,597	20.7%	1057	1070	1063	7.2%
1987	14,064	18.1%	925	960	942	6.7%
1988	14,787	18.2%	894	930	912	6.1%
1991	13,480	23.4%	1196	1377	1286	9.5%
1993	14,656	27.4%	1370	1691	1530	10.4%
1994	15,644	27.8%	1421	1435	1428	9.1%
1997	15,222	25.9%	1324	1802	1563	10.2%
1999	17,529	34.7%	1769	2059	1914	10.9%
2002	16,330	39.3%	2004	3188	2596	15.8%
2005	18,453	28.1%	1489	2539	2014	10.95
2006	20,189	27.0%	812	1102	957	4.7%

* Economic Survey of Pakistan, various issues.

** Calculated by the authors.

Similarly, Table 4 indicates an estimated 0.673 million working poor, with lower and upper estimates of 0.616 million and 0.730 million respectively for 2005-6, implying around 2.5 % of the workforce in the urban Pakistan as living on less than 2,150 calories per adult equivalent per day.

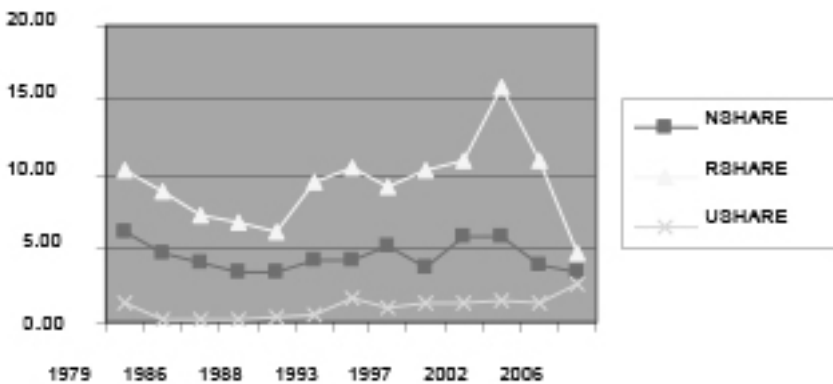
Table 4 Working Poverty Estimates at Urban Pakistan (1979-2006)

Year	Urban Employment ('000s)*	Urban Poverty Estimates*	Urban - Working Poor Low Estimates ('000s)**	Urban - Working Poor High Estimates ('000s)**	Urban - Working Poor Average Estimates ('000s)**	Share of Urban Working Poor**
1979	11,100	25.9%	80	200	140	1.26%
1985	13,210	21.1%	8	40	24	0.18%
1986	12,435	19.3%	15	37	26	0.20%
1987	14,638	16.8%	19	35	27	0.18%
1988	14,207	14.9%	39	59	49	0.34%
1991	15,,200	18.6%	47	101	74	0.48%
1993	15,877	17.7%	149	379	264	1.66%
1994	15,644	13.5%	71	257	164	1.04%
1997	19,374	12.4%	168	336	252	1.30%
1999	19,766	20.9%	202	318	260	1.31%
2002	22,551	22.7%	246	388	317	1.40%
2005	24,462	14.9%	201	403	302	1.23%
2006	26,762	13.1%	616	730	673	2.51%

* Economic Survey of Pakistan, various issues.

** Calculated by the authors.

Figure 2 shows a share of working poor at national, urban and rural Pakistan during the years 1979-2006.

Figure 2 Share of Working Poor at National, Urban and Rural Pakistan (1979-2006)

4. CONCLUSION

This paper estimates the working poor in rural, urban and national level. The ILO's methodology is adopted for estimating working poor who work but live under the poverty status. Almost 3.7 percent employed persons are living below the income of \$ 1.25 per day (2004-05). While 3.4 percent employed persons are living below an average 2,350 calories per adult equivalent per day during 2005-06 according to Pakistan's official poverty consumption data. In rural Pakistan, during 2005-06, almost 4.7 percent employed persons are spending their lives below the minimum consumption level of 2,450 calories per adult equivalent per day. While in Urban Pakistan, this share of employed persons is dropped to 2.5 percent in 2005-06.

Though this study refrains from policy recommendations dynamic challenges of Pakistan's working poor, it definitely feels the need for further research. Furthermore, this study primarily focuses on estimating the working poor and shares on different levels such as rural, urban, and national. Given the vitality of income from employment for the extreme poor, findings of the study reveal substantial likelihood of mitigating poverty in line with the MDGs.

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