Understanding Poverty among the Elderly in India: Implications for Social Pension Policy

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Introduction

- Cash transfers to the poor elderly or ‘social pensions’ are one of the most important anti-poverty programs operating today in India.
- In 2007, the Government of India announced that changes to eligibility rules would increase the number of beneficiaries from an estimated 8.7 to almost 16 million people or roughly one in five elderly Indians.
- The benefit provided by the central government would be more than doubled from 75 to 200 rupees per month. State governments would be asked to provide an additional 200 bringing the total to about US$10 per month.

Aims and Objectives

- Little is however known about poverty among the elderly or its determinants and thus the potential impact of this important program.
- This paper seeks to analyze the elderly poverty rates in 16 major Indian states with a view to assess the potential impact of social pension policy and inform the policy discussion.
- This exercise updates the only previous study of old age poverty by Deaton and Paxson (1995) which was based on data for 1987-88 and covered six Indian states.
- We examine the sensitivity of poverty rates to adult equivalence scales and size economies in consumption.

Data

- The analysis is primarily based on the fifty-second round (1995-96) National Sample Survey (NSS) household-level data.
- We also make use of 60th round NSS and 2004-05 ADB data-sets for analysing elderly mortality.
- We focus on rural households where most of the poor elderly live and where there is generally very low coverage of contributory pension schemes.

Key demographic characteristics

- On average, about 27% of sample members coresided with elderly members in 1995-96, though some inter-state disparity is observed. For example, while 43% individuals in Kerala lived with an elderly person, the proportion was only 21% in AP and Tamil Nadu, 24% in Rajasthan and West Bengal and 25% in Assam, Bihar and MP, all below the national average.
- Clearly these states are at different stages of demographic development and an important correlate of this inter-state variation of key demographic characteristics would be variation in state-level prosperity.

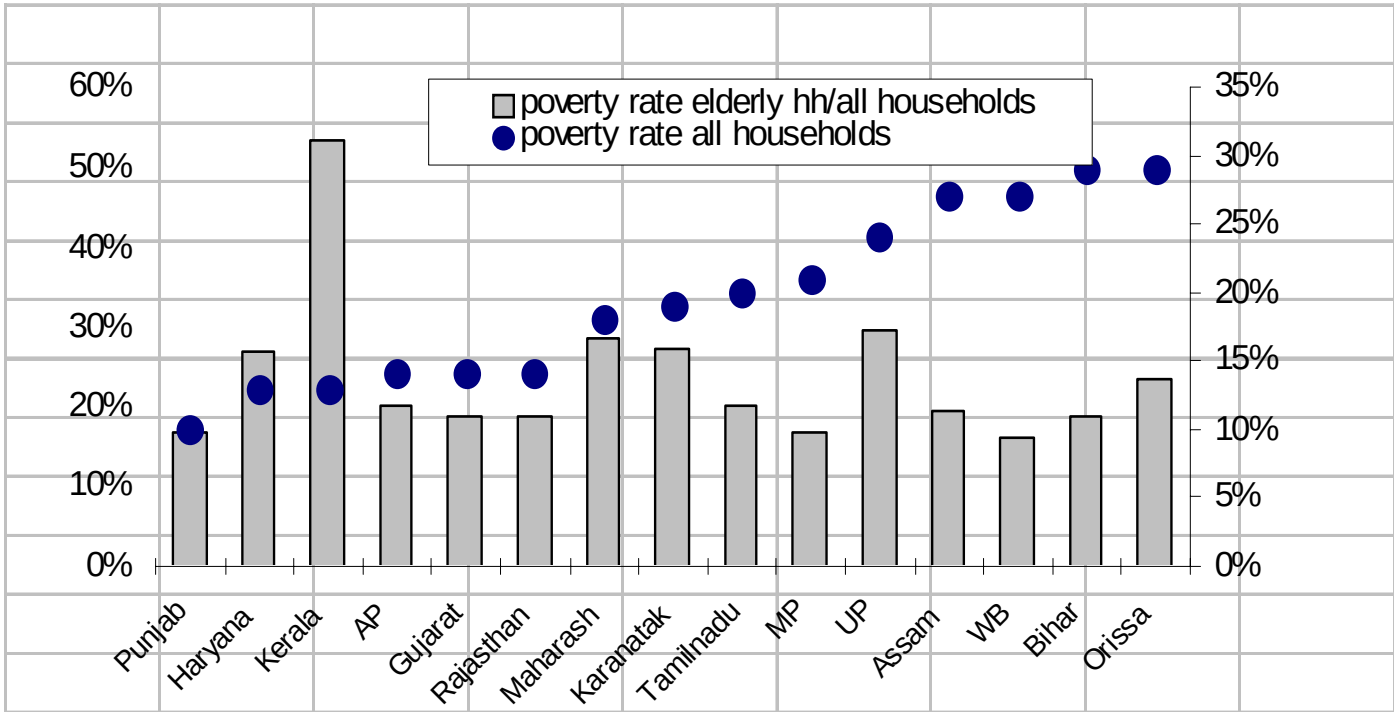
Classification of elderly

- We classify sample households by living arrangements: households with and without elderly people aged sixty and above.
- We further distinguish any elderly 60+ from *older elderly* often defined as those aged 75 and above. This distinction is particularly important because of deteriorating health and reduced productivity among the group of older elderly.
- Following the categorical targeting schemes in many states, we use a third classification, i.e., households with and without elderly 65+.
- We also distinguish households with all elderly from those with *female elderly* (widows tend to be overrepresented here).

Adjusted and unadjusted poverty rates

- We estimate both unadjusted and adjusted poverty head count ratios for different groups of households.
- Generally, old age poverty rates tend to be lower in better performing states like Punjab, Haryana than in the worse performing ones (e.g., Bihar, Rajasthan).
- Adjusted poverty rates tend to be lower for households with any elderly with the only clear exception of Kerala. This general result holds even after controlling for difference in demographic composition of households..
- Similar result holds for 1995-96 and 2004-05 NSS data.

Elderly 60+ poverty rates



Learning from Kerala

- Poverty rate and the probability of being poor are both higher among households with elderly in Kerala. Why?
- Kerala is much further ahead not only in its demographic transition and aging process, but also in terms of educational and health attainment than any other state in our sample.
- As in other countries, the rapid aging of Kerala's population is due to a large decline in fertility as well as longer adult life expectancy.
- Thus one of the explanations for the observed interstate variation is that the poor have shorter lives and are therefore 'missing' from the households with elderly in all states except Kerala.

Survivorship Bias

- Using 52nd round NSS data, we found that (a) elderly are more likely to be present in households with higher APCE and (b) elderly poverty rate relative to non-elderly poverty was lower in districts with lower APCE. Thus as incomes and expenditure levels rise, elderly mortality would decline and this effect would be greater among poorer households.
- Most studies linking mortality and income levels have used data from higher income countries (Cutler et al. 2006), recent exception being Bannerjee and Duflo (2007). In rural Indonesia (Vietnam), a poor person over age 50 living in a rural area was five (three) times more likely to have died in the next five years than a similar non-poor individual.
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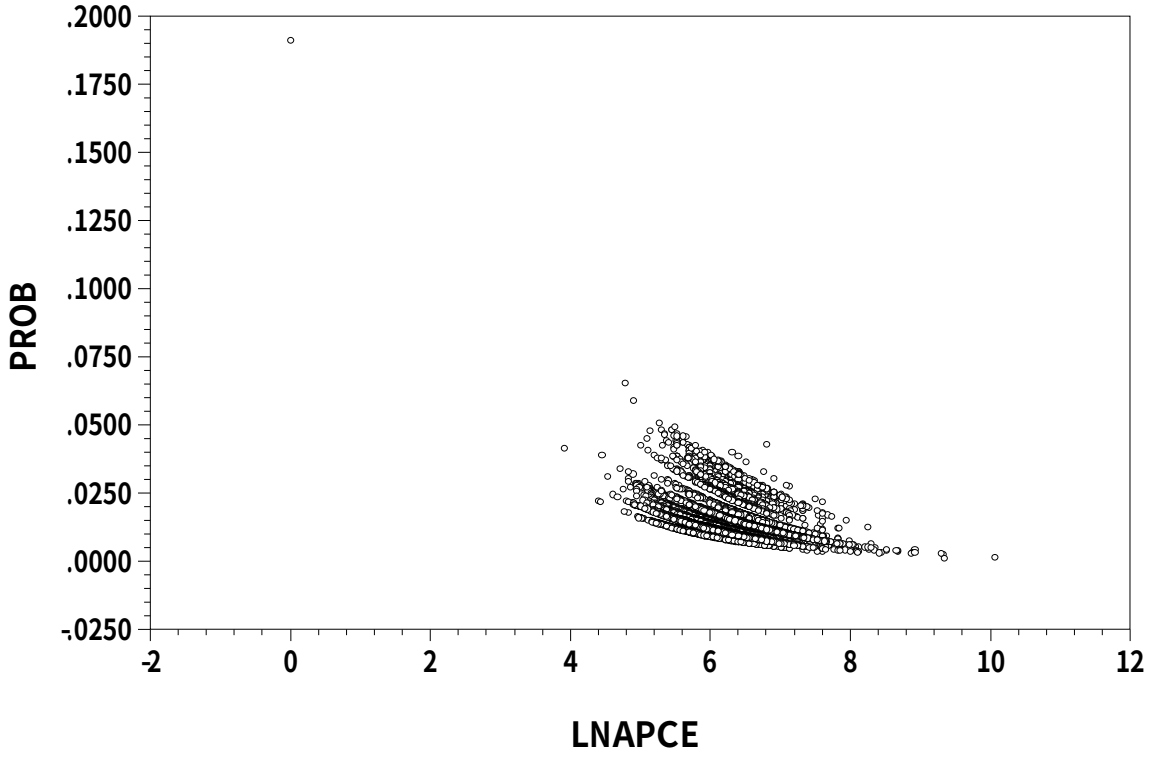
Evidence of survivorship bias in India

- Using 60th round NSS data, we found that a 55+ member is more likely to die if s/he lives in a household with lower APCE, after controlling for average age and gender of any member 55+.
- Furthermore, we used a data of more than 40000 workers commissioned by the Asian Development Bank conducted in 2004. Controlling for the age of the respondent, the probability that the individual's father had died is higher in households with lower income (logged).

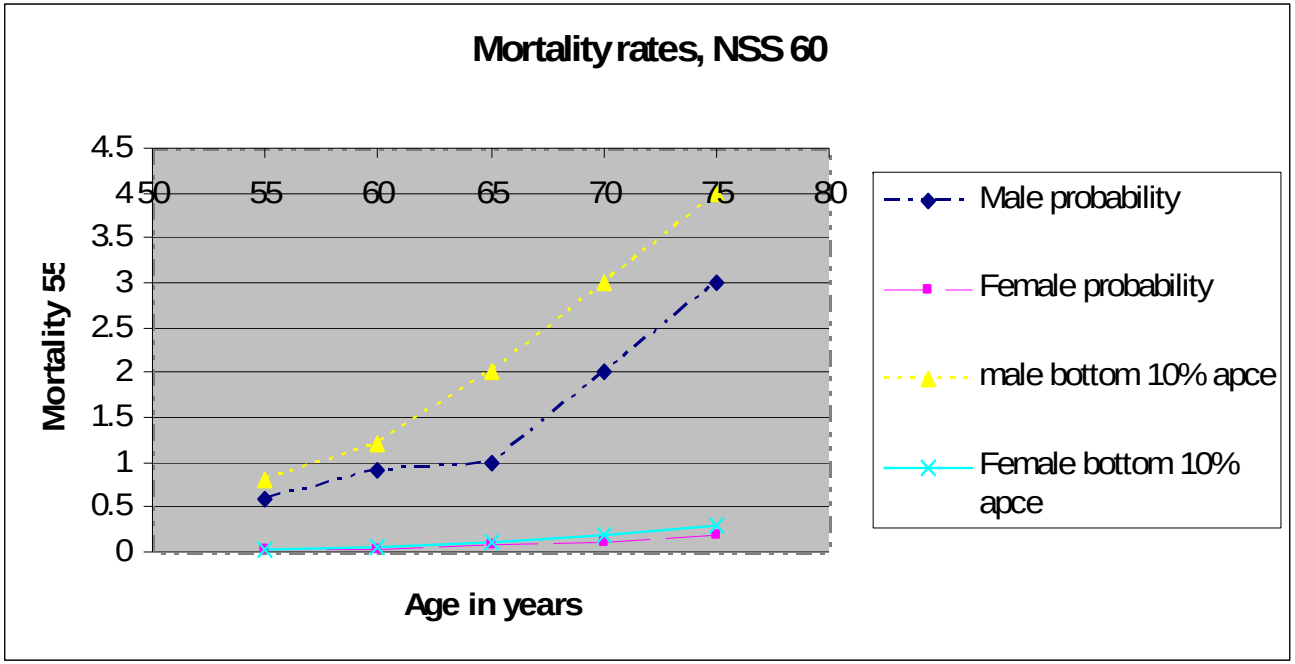
Detecting survivorship bias

	NSS 60 (hh. Level)	ADB 2004 (IndivLevel)	NSS 52 (district)
Dep. Var.	Death 55+	Father alive	HCR 60+ /HCR <=60
Log APCE	-0.19 (4.960)**	-	0.13 (2.318)*
Log Income	-	0.04 (14.44)**	-
Chi-sq	126.9693	6164.31	
F-stat			4.184**
Obs.	18829	40838	450

Evidence of survivorship bias: Plot of probability of mortality 55+



Male-Female elderly mortality rates



Policy implications

- This analysis highlights that lower relative poverty rates of the elderly is due to their lower survival chances, which in turn means that lower relative poverty rates of the elderly are undesirable.
- Given this counter-intuitive result, it may be useful to focus on other indicators as well such as mortality and morbidity rates of the elderly when assessing the potential impact of transfer programs.
- The evidence of an income-mortality link should influence thinking about social pension design.

Policy implications (2)

- Advocates of universal pensions that are paid to all citizens above a certain age, as in neighboring Nepal, must justify a much more regressive transfer than would have been the case if this link did not exist. Simply put, the rich will receive the transfer for much longer than the poor.
- In contrast, well targeted schemes with lower initial eligibility ages could pay higher benefits to more poor elderly.
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