Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

International Publications

Key Workplace Documents

3-1-2010

Demographic Ageing and Employment in India

International Labour Organization

Follow this and additional works at: http://digitalcommons.ilr.cornell.edu/intl

This Article is brought to you for free and open access by the Key Workplace Documents at DigitalCommons@ILR. It has been accepted for inclusion in International Publications by an authorized administrator of DigitalCommons@ILR. For more information, please contact jdd10@cornell.edu.

Demographic Ageing and Employment in India

Abstract
[Excerpt] This study by Irudaya Rajan brings to light the current and emerging issues concerning the implications of demographic change on the labour market in India. While population ageing is a major achievement of our times it presents major challenges for the world of work that need to be addressed. With 90 million persons over 60 years of age, India has the second largest population of older people in the world. Furthermore, between now and 2050 the Indian population over 60 years of age will almost quadruple. The low level of benefits and their limited coverage push large numbers of older people (particularly older women) to continue working in the informal economy. The combination of old-age, lack of access to decent work, poverty and exclusion is therefore of great concern.

This India study discusses the main economic and labour market issues and implications related to population ageing in India, and presents an overview of current policy responses. Section 1 of the study describes the main current and future demographic trends. Section 2 analyses overall employment and labour market situation of the older persons. Section 3 focuses on the poverty incidence in the old age in urban and rural areas. Section 4 deals with the main challenges of the social security system and provides an overview of the current pension reform. Section 5 presents the two main national policies targeting older people in India. The final section puts forward main policy suggestions towards ensuring a secure and decent old age for the Indian population.

Keywords
India, economy, labor market, aging, public policy, employment

This article is available at DigitalCommons@ILR: http://digitalcommons.ilr.cornell.edu/intl/86

ASIAN DECENT WORK DECADE 2006 2015

International Labour Organization

ILO Asia-Pacific Working Paper Series

Demographic ageing and employment in India

S. Irudaya Rajan

March 2010

ILO Regional Office for Asia and the Pacific

ILO Asia-Pacific Working Paper Series

Demographic ageing and employment in India

S. Irudaya Rajan
March 2010

Regional Office for Asia and the Pacific

Copyright © International Labour Organization 2010
First published 2010

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publications (Rights and Permissions), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: pubdroit@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with reproduction rights organizations may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

Rajan, Irudaya

Demographic ageing and employment in India / Irudaya Rajan ; International Labour Organization ; ILO Regional Office for Asia and the Pacific. - Bangkok: ILO, 2010
vi, 23 p. (ILO Asia-Pacific Working paper series)

ISBN: 9789221230069 (web pdf)

International Labour Organization; ILO Regional Office for Asia and the Pacific

ageing population / older worker / labour market / employment / social security / India

14.07.2

ILO Cataloguing in Publication Data

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

ILO publications can be obtained through major booksellers or ILO local offices in many countries, or direct from ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland, or ILO Regional Office for Asia and the Pacific, 11th Floor, United Nations Building, Rajdamnern Nok Avenue, Bangkok 10200, Thailand, email: BANGKOK@ilo.org. Catalogues or lists of new publications are available free of charge from the above address, or by email: pubvente@ilo.org

Visit our website: www.ilo.org/publns

Printed in Thailand

Preface

Since its inception the ILO has directed particular attention to the implications of demographic change in the world of work. The first instruments on the matter, adopted in the 1930s, set out to provide invalidity, old-age and survivors' insurance. In 1980 the ILO adopted the most comprehensive instrument on the subject: the Older Workers Recommendation 1980 (No. 162). The Recommendation aims to protect the right of older workers to equality of treatment and focuses on the measures that should be implemented to protect their needs.

This study by Irudaya Rajan brings to light the current and emerging issues concerning the implications of demographic change on the labour market in India. While population ageing is a major achievement of our times it presents major challenges for the world of work that need to be addressed. With 90 million persons over 60 years of age, India has the second largest population of older people in the world. Furthermore, between now and 2050 the Indian population over 60 years of age will almost quadruple. The low level of benefits and their limited coverage push large numbers of older people (particularly older women) to continue working in the informal economy. The combination of old-age, lack of access to decent work, poverty and exclusion is therefore of great concern.

This India study discusses the main economic and labour market issues and implications related to population ageing in India, and presents an overview of current policy responses. Section 1 of the study describes the main current and future demographic trends. Section 2 analyses overall employment and labour market situation of the older persons. Section 3 focuses on the poverty incidence in the old age in urban and rural areas. Section 4 deals with the main challenges of the social security system and provides an overview of the current pension reform. Section 5 presents the two main national policies targeting older people in India. The final section puts forward main policy suggestions towards ensuring a secure and decent old age for the Indian population.

The study has been jointly commissioned by the Regional Economic and Social Analysis Unit of the ILO Regional Office for Asia and the Pacific (ILO ROAP) and the Employment Policy Department of the ILO Employment Sector. It has been conducted under the technical supervision and overall coordination of Rika Fujioka from the ILO ROAP and Mariangels Fortuny from the ILO Employment Policy Department. Comments and contribution were provided by Sutki Dasgupta and Gyorgy Sziraczki from ILO ROAP. The study has contributed to a major report on employment and social protection in the new demographic context that has been prepared by the Employment and Social Protection Sectors.

The study is part of the ILO Asia-Pacific Working Paper Series, which intends to enhance the body of knowledge, stimulate discussion, encourage knowledge sharing and further research for the promotion of decent work in Asia and the Pacific.

Sachiko Yamamoto
Regional Director
Asia and the Pacific Region

Table of contents

Preface i

Table of contents iii

Abstract v

Abbreviations vi

1. Introduction 1

2. Population ageing in India 1

3. Labour market and employment 3

   3.1 Employment of older persons: evidence from the 2001 census 3

   3.2 Employment of older persons: evidence from the NSSs 6

4. Poverty in old age 8

   4.1 Dependency among the elderly 9

   4.2 Property and financial assets 9

5. Pensions and social security 10

   5.1 Social security for organised workers 10

   5.2 Contributory schemes 11

   5.3 Social security for unorganised sector (elderly) workers 14

   5.4 New initiatives: social security for unorganised workers 15

6. Elderly welfare 16

7. Conclusions and recommendations 16

References 19

Annexes 21

List of tables

Table 1: Population at 60 or older, 1961-2101 2
Table 2: Workers in organised and unorganised sectors, 1987-8 to 2004-5 3
Table 3: Labour force participation by age, gender and place of residence (%) 4
Table 4: Main and marginal workers by age, sex and place of residence, 2001 census (%) 4
Table 5: Labour force participation by levels of education, 2001 (%) 4
Table 6: Elderly main workers by industrial categories, 2001 (%) 5
Table 7: Unemployment by level of education, 2001 (%) 5
Table 8: Household workers among the elderly marginal and non-workers, 2001 (%) 6
Table 9: Worker-population ratios of older persons by age groups: various NSS rounds 6
Table 10: Employment status of older persons: various NSS rounds 7
Table 11: Labour force participation among older persons, 2004-5 (%) 8
Table 12: Poverty estimates, 2004-05 (% of total households) 9
Table 13: Dependency status among the elderly by gender and place of residence, 2004-05 9
Table 14: Property and financial asset management among older persons and widowed persons, by gender and area of residence 10
Table 15: Employees Provident Fund and Employment Pension Scheme, 1996-07, 2005-06 12
Table 16: Basic features of major social security schemes 14
Table 17: Social security schemes 14

List of annexes

Annex 1: Labour force participation among the elderly by major states, 2001 (%) 21
Annex 2: Poverty estimates for the elderly, 2004 21
Annex 3: Civil service pensions in India 22
Annex 4: Civil service pensioners, 1991-2006 22
Annex 5: Persons covered under formal pension systems, 2006 (%) 23
Annex 6: Pension liability by the central and state governments (crore rupees) 23

Abstract

This paper looks at the employment and unemployment situations of older persons in India, building upon a series of population censuses and rounds of National Sample Surveys, along with the author's projections. There are various mechanisms for older persons in India to remain active and engaged in gainful employment. However, these mechanisms are rarely prevalent, and poverty incidence among older persons is high, in terms of economic dependency and access to financial assets. Social security schemes exist for the organised and unorganised labour, of which coverage is nevertheless limited. This paper demonstrates the magnitude of these issues in India which has the second largest elderly population in the world. It thus highlights a need for effective and timely policy responses to address these issues.

About the author

Dr Sebastian Irudaya Rajan is a Chair Professor, Research Unit on International Migration at the Centre for Development Studies, in Trivandrum, Kerala, India.

The responsibility for opinions expressed in articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them, or of any products, processes or geographical designations mentioned.

Abbreviations

Crore	10 million
CSR	Civil Service Rules
EPF	Employment Provident Fund
EPFO	Employees Provident Fund Organization
EPS	Employment Pension Scheme
GDP	Gross Domestic Product
GIA	Grant in Aid Institutions
Lakh	100,000
LIC	Life Insurance Corporation
NFBS	National Family Benefit Scheme
NMBS	National Maternal Benefit Scheme
NOAPS	National Old Age Pension Scheme
NSAS	National Social Assistance Scheme
NSS	National Sample Survey
OASIS	Old Age Social and Income Security
PFMs	Private pension fund managers
SCF	National Senior Citizens Fund
WPR	Worker Population Ratio

1. Introduction

The twentieth century and the beginning of this one have seen an unprecedented demographic transition in the form of population ageing. Globally, life expectancy at birth increased from around 47 years in the 1950s to 67 in 2008, an increase of 20 years in the space of half a century. The gain has been impressive among less developed regions, i.e. 24 years compared to 10 in developed regions (UN, 2007). In India, the gain has been 21 years (Irudaya Rajan, 2008). India has the second largest number of older persons[1] in the world. On average, an older person is expected to live 18-20 years upon reaching 60.

When people live longer, what mechanisms are available to them to remain active and productive in employment and other gainful activities? How much unemployment and poverty are there among older persons? Are they covered under existing social security schemes and/or do they own financial assets and property? Are they assured of income through pension and retirement benefits? Are widowed women dispossessed? Is there any special social security provision for older women and widows? What are the policy responses? This paper aims to address these issues in the Indian context[2] using several population censuses and rounds of National Sample Surveys (NSS) and population projections by the author.

2. Population ageing in India

In 2008 India had 90 million older persons, the second largest in the world after China. According to the 2001 census, there were about 77 million persons aged 60 years and older, a notable increase from 25 million in 1961. The proportion of older persons rose from 5.6 per cent of the total population in 1961 to 6.6 per cent in 1991 (Irudaya Rajan, Mishra and Sarma, 1999) and to 7.5 per cent in 2001 (Irudaya Rajan, 2008). The number of persons aged 70 years or older rose from 9 million in 1961 to 29 million in 2001, representing 2.0 per cent of the total population in 1961 and 2.9 in 2001 (Table 1).

In 1961 an Indian census reported 99,000 centenarians. In 2001 there were 139,472 centenarians, 50,139 of them males and 89,333 females. The growth of different age groups among the elderly (i.e. 60 years or older, 70 years or older and 80 years or older) during 1991-2001 was much higher than the annual growth of 2.0 per cent for the general population. About 75 per cent of older persons live in rural areas (Irudaya Rajan, 2008).

Data indicate that men are expected to live 16 years beyond the age of 60 and 10 years beyond 70. The figures for women are 18 and 11 respectively. Urban women are expected to live two years longer than urban men (Irudaya Rajan and Aliyar, 2008).

Irudaya Rajan and Aliyar's projections (2008)[3] indicate the share of the elderly to be 19.1 per cent in 2051, 24.5 per cent in 2071 and 30.1 per cent in 2101, compared with 7.5 per cent in 2001. Their total number increases from 90 million in 2008 to 298 million in 2051 and 505 million in 2101. The number of persons above 70 years old was 9 million in 1961 and 29 million in 2001 and is expected to be 131 million in 2051 and 273 million in 2101. Similar trends hold for the age group above 80.

---

[1] Throughout this paper, older persons and the elderly refer to those who are 60 years or older.

[2] This study does not discuss the impact of the global financial crisis, mainly because the study was conducted prior to the crisis, and also because it would be difficult to assess such impact specifically vis-à-vis older persons.

[3] The component method of population projection is used to estimate the future population projection based on the past and the projected decline of fertility and mortality.

Table 1: Population at 60 or older, 1961-2101

	60 years or older		70 years or older		80 years or older	
	million persons	% of total population	million persons	% of total population	million persons	% of total population
1961	25.0	5.6	9.0	2.0	2.0	0.6
1971	33.0	6.0	11.0	2.1	3.0	0.6
1981	43.0	6.5	15.0	2.3	4.0	0.6
1991	57.0	6.8	21.0	2.5	6.0	0.8
2001	76.8	7.5	29.4	2.9	8.1	0.8
2011	96.5	8.1	42.4	3.5	10.9	0.9
2021	133.0	9.9	52.4	3.9	15.8	1.2
2031	184.1	12.7	74.8	5.1	19.7	1.3
2041	233.3	15.3	104.4	6.8	28.8	1.8
2051	298.2	19.1	131.3	8.3	40.5	2.5
2061	346.5	22.4	171.6	11.0	51.6	3.2
2071	377.2	24.5	195.5	12.9	69.8	4.5
2081	422.3	26.9	212.7	14.1	77.6	5.3
2091	463.6	28.7	247.8	16.1	88.8	6.1
2101	504.7	30.1	273.0	17.2	105.5	7.1

Source: The 2001 census data; Irudaya Rajan and Aliyar, 2008

India is one of a few countries in the world where older men reportedly outnumber older women (Irudaya Rajan, Mishra and Sarma, 1999), although female life expectancy at 60 is slightly higher than for males (Irudaya Rajan, 2008). It should however be noted that female mortality at infant and childhood ages was higher than males until the 1990s, and older persons often misreport their ages. This further complicates the analysis. Thus, the above observation of more males in old age does not reflect the actual situation (Mari Bhat, 1992, 2002; Irudaya Rajan, Sarma and Mishra, 2003; Sudha and Irudaya Rajan, 2003).

Marital status has major implications for the care of older persons. Married persons fare better in all economic and social aspects than single persons (Zick and Smith, 1991). Older women are of particular concern, especially widows. There is a marked gender disparity in widowhood due to (i) the longer lifespan of women than men (about two years since 2001); and (ii) the fact that women tend to marry men older than themselves (Gulati and Irudaya Rajan, 1999). As per the 2001 census, 33.07 per cent of the elderly were widows/widowers. Widowers represented 14.98 per cent of older men; widows 50.06 per cent of older women. An analysis shows that among persons aged 80 or older, 71.11 per cent of women are widows and 28.89 per cent of men widowers (Sreerupa, 2006; Irudaya Rajan and Sreerupa, 2007).

Nearly 77 per cent of the widowed elderly live with their children and/or grandchildren, reflecting the tradition of co-residence with children as the preferred arrangement for the elderly. Some 12.0 per cent of the elderly live with their spouses, 5.2 per cent live alone and 4.4 per cent with others. While only a small percentage live alone, more older women than men belong to this category (8 per cent versus 3 per cent). A larger share of older men than women lives with their spouses (15 per cent versus 8 per cent) or with spouses and others (61 per cent versus 29 per cent). This difference is due almost entirely to different marital status (NSS Organization, 2006).

Chronic morbidities and disabilities among older persons are likely to result in economic shock (Crystal et al., 2000), financial dependency (Pal, 2004), lack of autonomy, reduced social contact and loneliness. In the NSS, when asked to rate their health status as "excellent", "very good", "good/fair" or "poor", nearly 70 per cent of older persons reported "excellent", "very good" or "good/fair", and more than a quarter, "poor". A slightly higher share of older women than men reported their health to be "poor". The relative disadvantage among older women in terms of health appears particularly acute among older widows (Irudaya Rajan and Sreerupa, 2008).

3. Labour market and employment

In a country such as India, where no universal social security exists, people tend to work as long as they can (Irudaya Rajan, 2005). Casual, informal sector workers and the self-employed are not entitled to retirement benefits. Regularly employed, salaried persons in several sectors may, upon retirement, be entitled to a one-time gratuity based on final salary and a provident fund from contributions made while working. In a limited number of cases, salaried employees receive a monthly pension in addition to a gratuity and provident fund.

Employment of the elderly can be interrupted by retrenchment, sickness and disability. While opportunities for gainful employment decline as age advances into the 70s and 80s, many older persons need employment. Even those retiring with a pension tend to search for contract-based re-employment in the formal sector or join the informal sector.
Organised, formal sector workers[4] constitute a small share of the workforce (Table 2). In the 61st NSS in 2004-05, among all employed persons, regular workers constituted only 9.1 per cent of rural men, 3.7 per cent of rural women, 40.6 per cent of urban men and 35.6 per cent of urban women (Government of India, 2005). The rest were casual and self-employed workers without official retirement age.

Table 2: Workers in organised and unorganised sectors, 1987-8 to 2004-5

	Number (million persons)			% of total workforce		
	Organised	Unorganised	Total	Organised	Unorganised	Total
1987-88	25.4	301.8	327.2	7.8	92.2	100.0
1994-95	27.0	348.8	375.8	7.2	92.8	100.0
1999-00	27.8	371.2	399.0	7.0	93.0	100.0
2004-05	29.1	410.0	439.1	6.6	93.4	100.0

Sources: Organised employment figures are from annual report (1988) and Quarterly Employment Review (1994, 2000, 2004); unorganised employment figures are from different NSS rounds

Organised workers (including government or semi-government employees, industrial workers, and managerial cadres) are relatively privileged, with secure jobs and steady income. Some 32 per cent of organised workers are in the private sector and 62 per cent in the public sector. Organised workers constitute only 7 per cent of the total workforce. The rest are informal sector workers who tend to work beyond 60 years (Jhabvala and Subrahmanya, 2000; Mathew and Irudaya Rajan, 2008).

3.1 Employment of older persons: evidence from the 2001 census

As per the 2001 census, labour force participation[5] of older persons is 40.3 per cent: 60.2 per cent for men and 20.9 per cent for women, with more of them rural than urban. These gender and area variations were seen also among other age groups (Table 3).

[4] In the National Accounts the unorganised sector comprises residual enterprises and the organised sector public or private enterprises providing formal social protection and labour rights according to set norms.
[5] The census of India defines employment or work as physical and/or mental participation in any economically productive activity with or without compensation, wages or profit. Work involves actual work as well as supervision and direction. It also comprises part time help or unpaid work on a farm, in a family enterprise or any other economic activity. The reference period determining a person as worker and non-worker is one year preceding the date of enumeration.

Table 3: Labour force participation by age, gender and place of residence (%)

	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	39.1	51.7	25.6	41.8	52.1	30.8	32.3	50.6	11.9
15-59	61.1	80.7	40.0	66.8	83.4	49.5	48.0	74.9	17.6
60+	40.3	60.3	20.9	45.0	65.6	24.9	26.2	44.1	9.0
70+	30.3	49.4	12.2	33.1	52.4	14.2	21.9	39.7	6.7
80+	21.3	34.6	8.6	23.3	36.8	10.0	15.4	27.8	4.7

Source: Estimated by the author based on the 2001 census data

Workers in India may be classified as main workers (those who had worked in the major part of the reference period, i.e. 6 months or more); and marginal workers (those who had not). In the 15-59 year age group there are more female than male marginal workers. The share of marginal workers is higher in rural than urban areas. There is limited shift in status (from main to marginal workers, and vice versa) at the age of 60 years, both in urban and rural areas and among men and women. Some 79.7 per cent of older persons and 78.8 per cent of 15-59 year age group were main workers (Table 4).

Table 4: Main and marginal workers by age, sex and place of residence, 2001 census (%)

	Main Workers			Marginal Workers		
	Total	Male	Female	Total	Male	Female
15-59	78.8	88.3	58.3	21.2	11.8	41.7
60+	79.7	87.7	57.3	20.3	12.4	42.7
70+	70.9	78.0	51.0	29.1	22.0	49.0
80+	67.7	74.5	48.7	32.3	25.5	51.3
Total	77.8	87.3	57.3	22.2	12.7	42.7
Rural	73.9	85.0	54.1	26.1	15.0	45.9
Urban	90.8	93.3	79.3	9.2	6.7	20.7

Source: Estimated by the author based on the 2001 census data

Labour force participation of older persons varies among major states (Annex 1). Among 26 states surveyed, the labour force participation was lowest in Goa (26.8 per cent) and highest in Nagaland (53.5 per cent). The difference may be due to the type of jobs available for older persons in each state, such as in agriculture and the service sector. Meanwhile, there were marked gender differences in all the states. Thus, labour force participation generally rises in accordance with the level of education, both for the total population and for older persons in India. This implies that education facilitates access to better jobs which can provide high income during the working ages and a pension after retirement. Some 25.8 per cent of illiterate older persons are in the labour force, versus 48.1 per cent of those with technical diploma or equivalent and 50.3 per cent of those with graduate or post-graduate degree (Table 5). There are marked gender differences as the education level of women is much lower than men. A similar trend holds for urban and rural residents.

Table 5: Labour force participation by levels of education, 2001 (%)

Levels of education	Total population)			Older persons		
	Total	Male	Female	Total	Male	Female
Illiterate	34.8	41.5	30.0	25.8	30.7	22.2
Literate	42.7	57.6	20.3	31.6	42.6	15.0
Literate, below matriculate/secondary	37.3	50.7	19.0	27.6	37.5	14.1
Matriculate/secondary but below graduate	49.8	67.6	17.1	36.9	50.0	12.7
Technical diploma not equal to degree	65.0	69.1	49.7	48.1	51.1	36.8
Graduate and above other than technical diploma	60.9	77.9	26.3	45.1	57.7	19.5
Technical diploma equal to under/post graduate degree	67.9	74.5	50.7	50.3	55.1	37.5
Total	39.1	51.7	25.6	40.3	60.3	20.9
Rural	41.7	52.1	30.8	45.0	65.6	24.9
Urban	33.6	50.6	11.9	26.2	44.1	9.0

Source: Estimated by the author based on the 2001 census data

Manufacturing (household/non-household industry) represented 32.2 per cent of elderly main workers, followed by wholesale and retail trade, repair work, hotel and restaurants (24.6 per cent), and agricultural and related activities (9.7 per cent). Together these constituted about 75 per cent of older persons in the labour force (Table 6).

Table 6: Elderly main workers by industrial categories, 2001 (%)

	Total	Male	Female
Agriculture and allied activities	9.7	7.7	16.0
Mining and quarrying	0.8	0.8	0.6
Manufacturing (household and non-household industry)	32.2	31.1	37.6
Electricity, gas and water supply	0.5	0.5	0.1
Construction	6.3	6.8	3.5
Wholesale, retail trade, repair work, hotel and restaurants	24.6	26.7	14.5
Transport, storage and communications	4.6	5.3	0.9
Financial intermediation, real estate, business activities	3.7	3.9	2.3
Other services	18.3	17.1	24.5

Source: Estimated by the author based on the 2001 census data

As per the 2001 census, unemployment of older persons was 1.0-1.4 per cent in rural areas and 2.0 per cent in urban areas. This implies that older persons are willing to work in any jobs available to earn income to meet daily needs due to poverty and inadequate social security. Unemployment among illiterate older persons is negligible compared to older persons with higher levels of education (Table 7).

Table 7: Unemployment by level of education, 2001 (%)

Levels of education	Total population			Older persons		
	Total	Male	Female	Total	Male	Female
Illiterate	1.8	1.2	2.3	0.6	0.4	0.7
Literate	6.5	5.7	7.9	2.1	1.8	2.5
Literate, below matriculate/secondary	4.3	3.5	5.3	1.4	1.1	1.7
Matriculate/secondary but below graduate	11.9	10.2	15.1	3.8	3.3	4.8
Technical diploma not equal to degree	14.1	13.8	15.2	4.5	4.4	4.9
Graduate and above other than technical diploma	13.1	10.6	18.1	4.2	3.4	5.8
Technical diploma equal to under/post graduate degree	11.3	10.1	14.3	3.6	3.2	4.6
Total	4.4	4.0	4.8	1.4	1.3	1.5
Rural	3.4	3.1	3.7	1.1	1.0	1.2
Urban	6.9	6.3	7.7	2.2	2.0	2.5

Source: Estimated by the author based on the 2001 census data

3.1.1 Non-workers in Indian census

In the Indian census a person who did not work during the reference period is defined as a non-worker. Non-workers include (a) students not participating in any paid or unpaid economic activity; (b) persons engaged in daily household duties such as cooking, cleaning, caring for children, fetching water, etc.; (c) persons not helping in unpaid work in a family farm or enterprise; (d) dependents such as infants and very old persons; (e) retired pensioners not engaged in any economic activity; (f) beggars, vagrants, sex workers and persons with unidentified sources of income and unspecified sources of subsistence who are not engaged in any economic activity; and (g) those not in the above categories (e.g. persons living on remittance, agricultural or non-agricultural royalty and interest or dividend, convicts in jail, mental or charitable institutions with no paid work and persons seeking/available for work).

Table 8 shows the proportion of older marginal workers and non-workers engaged in daily household duties. Some 35.1 per cent for older female non-workers (32.7 per cent in rural areas and 41.0 per cent in urban) belonged to this category, as were 83.6 per cent of rural female marginal workers and 68.6 per cent of urban female marginal workers. Thus, so-called "invisible

work" among women is also prevalent among older persons. This may be regarded as the "care economy" (looking after children while mothers work outside), which in different circumstances might be considered a highly remunerative job.

Table 8: Household workers among the elderly marginal and non-workers, 2001 (%)

	Marginal workers			Non-workers		
	Total	Male	Female	Total	Male	Female
Total	55.7	22.2	82.7	24.9	4.1	35.1
Rural	57.9	24.3	83.6	24.1	4.8	32.7
Urban	30.9	6.4	68.6	26.8	2.8	41.0

Source: Estimated by the author based on the 2001 census data

3.2 Employment of older persons: evidence from the NSSs

The above discussions on employment among the elderly by education and sector were based on the 2001 census. This section draws on the five-yearly NSS concerning employment and unemployment in India. Table 10 shows the worker-population ratio (WPR) of older persons in different NSS rounds.

The WPR of older persons has generally been about half of the working age population (aged 15 years or older), a gap of about 20 percentage points. The WPR for older persons and that for the working age population have both been almost constant. For older persons it increased from 38.5 per cent in 1983 to 40.8 per cent in 1993-94, and to 35.7 in 2004-05. The tendency applies broadly to both older men (58.8 per cent in 1983, 62.9 per cent in 1993-94, and 55.4 per cent in 2004-05) and older women (18.0 per cent in 1983, 18.3 per cent in 1993-94, and 15.8 in 2004-05). There was a marked decline in the WPR in 2004-05 for both men and women. In addition, a quarter of older persons aged 80 years or older engaged in gainful employment. The WPR has nevertheless been declining with age, more rapidly among older women than men (Table 9).

Table 9: Worker-population ratios of older persons by age groups: various NSS rounds

Round		Rural			Urban			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
38th Round (1983)										
Age	60-69	74.9	27.4	51.7	58.1	15.0	36.5	69.8	23.5	47.0
	70-79	47.9	11.1	29.6	35.0	7.2	20.4	44.1	9.8	26.8
	80+	25.3	4.6	14.9	19.8	5.0	11.8	23.8	4.7	14.0
60+		63.1	20.7	42.2	48.7	11.9	29.9	58.8	18.0	38.5
15+		84.6	45.6	65.2	76.4	20.7	50.0	81.6	37.2	59.8
50th Round (1993-94)										
Age	60-69	82.6	29.6	57.1	54.5	13.8	33.5	73.5	24.0	49.1
	70-79	57.3	11.3	35.0	34.9	6.0	20.1	49.7	9.4	29.8
	80 +	24.7	3.9	14.5	15.0	1.6	7.7	21.5	3.0	12.1
60+		71.2	22.6	47.7	45.9	10.6	27.7	62.9	18.3	40.8
15+		84.8	45.3	65.5	76.3	22.2	50.4	81.5	36.7	59.7
61st Round (2004-05)										
Age	60-69	75.3	26.4	51.1	45.2	11.5	29.7	65.9	21.0	43.4
	70-79	48.0	10.1	30.1	30.2	5.2	17.4	41.7	8.2	25.4
	80 +	22.9	2.0	12.6	13.8	1.5	7.0	19.8	1.8	10.5
60+		63.3	20.2	42.2	38.6	8.8	24.3	55.4	15.9	35.7
15+		80.6	41.8	61.3	72.7	19.1	46.9	77.4	33.0	55.6

Source: Estimated by the author from the raw data of NSS rounds; Mathew and Irudaya Rajan, 2008

The male WPR is three to ten times higher than that for females. This may imply that older men are under greater pressure to engage in gainful employment even at an advanced age. In addition, as noted earlier, more older women than men attend to domestic duties. There have also been major rural-urban differences, with the rural WPR higher than the urban WPR by 13 to 20

percentage points. The only possible reason is higher levels of poverty in rural areas obliging older persons to seek gainful employment. Some older persons may not be in dire financial need but are physically fit to work (Table 9).

3.2.1 Employment status

Table 10 shows the employment status of older persons. The large majority has been self-employed (75.6 per cent in 1983 and 81.5 per cent in 2004-05). The second highest share has been casual labour (17.1 per cent in 1983 and 16.5 per cent in 2004-05). Regular (salaried/wage) employment has constituted the smallest share (6.5 per cent in 1983 and 4.4 per cent in 2004-05). This is natural since old persons are seldom hired in regular employment. This pattern generally applies both to men and women. A larger share of older men than women has been self-employed. A reverse trend holds for casual labour. The proportion of self-employed has been larger among rural older persons (77.8 per cent in 1983 and 82.7 per cent in 2004-05) than urban older persons (68.6 per cent in 1983 and 77.5 per cent in 2004-05). A larger share of urban than rural older persons has been regular, salaried workers, due possibly to the availability of fewer agricultural jobs in urban areas.

Table 10: Employment status of older persons: various NSS rounds

		Rural			Urban			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Round 38	Self-employed	79.3	73.5	77.8	71.1	58.8	68.6	77.2	70.4	75.6
	Regular employee	3.2	1.6	2.8	18.2	19.4	18.4	6.9	5.2	6.5
	Casual labour	16.7	24.5	18.6	9.8	21.5	12.3	15.0	24.0	17.1
	Others	0.9	0.5	0.8	0.9	0.3	0.7	0.9	0.4	0.8
Round 50	Self-employed	80.6	74.0	79.1	75.4	63.6	73.1	79.4	71.8	77.7
	Regular employee	2.1	1.0	1.8	13.9	14.5	14.0	4.9	3.8	4.7
	Casual labour	17.3	25.0	19.1	10.7	21.9	12.9	15.7	24.4	17.6
Round 61	Self-employed	84.7	76.2	82.7	79.3	69.9	77.5	83.3	74.9	81.5
	Regular employee	1.9	1.2	1.7	12.7	13.3	12.8	4.6	3.7	4.4
	Casual labour	15.8	24.8	18.0	10.3	18.9	11.9	14.5	23.6	16.5

Source: Same as Table 10; Mathew and Irudaya Rajan, 2008

There is a major difference between the elderly and working-age population in the case of self-employment. For both age groups, self-employment constitutes the largest share. However, the share is much higher for the elderly population (75.7 per cent in 1983, and 79.1 per cent in 1999-2000) than the working age population (54.8 per cent in 1993-94 and 57.7 per cent in 1987-88). Casual labour is more predominant among the working age than elderly population (Mathew and Irudaya Rajan, 2008). This may imply that casual labour is a less preferred option for older persons. Regular employment is less common among the elderly than the working-age population. Employers tend to be hesitant to hire older persons on a regular salaried basis in view of their age and perceived deterioration of health.

3.2.2 Employment of the elderly revisited

Older persons in rural areas tend to continue to work though their working hours decline as age advances (Singh, Singh and Sharma, 1987). As noted earlier, more elderly men than women are participating in economic activity. This may partly be due to the categories in the 2001 census concerning work (Gulati, Irudaya Rajan and Ramalingam, 1997). In the census, around 40 per cent of women were reportedly engaged in household duties. This indicates their active participation in caring for children and grandchildren (Mathew and Irudaya Rajan, 2008). The female labour participation rate would rise if this category was included.

In order to demonstrate the actual employment status, we have used the raw data from the NSS 61st round. The NSS provides a breakdown of employment types to capture work intensity among the elderly. There are 14 categories of employment (own account worker, employer, unpaid family worker,

regular salaried worker, casual labour in public and other works, attending domestic duties and engaged in household work) used to calculate the labour participation rates (Table 11).

Table 11: Labour force participation among older persons, 2004-5 (%)

	Work Category	Rural			Urban			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
11	Own account worker	40.2	3.6	22.0	21.7	2.6	11.9	35.8	3.3	19.6
12	Employer	1.5	0.5	1.0	1.2	0.0	0.6	1.5	0.4	0.9
21	Unpaid family worker	3.4	6.1	4.7	1.8	1.9	1.8	3.0	5.0	4.0
31	Regular salaried	1.2	0.2	0.7	5.1	1.2	3.1	2.2	0.5	1.3
41	Casual labour in public works	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
51	Casual labour in other works	12.9	6.4	9.7	3.2	2.2	2.7	10.6	5.3	8.0
81	Available for work	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
91	Attending schools	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
92	Domestic duties only	1.2	28.4	14.7	1.9	43.0	22.9	1.4	32.0	16.7
93	Household work	0.5	14.0	7.2	0.4	4.9	2.7	0.5	11.8	6.1
94	Rentier, pensioner	9.1	5.9	7.5	35.0	10.1	22.3	15.3	6.9	11.1
95	No work due to disability	5.5	3.8	4.6	3.7	3.2	3.4	5.0	3.6	4.3
96	Beggars, prostitutes	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
97	Others	23.9	30.5	27.1	25.5	30.4	28.0	24.3	30.5	27.4
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	11+12+21+31+41+51+92+93	61.0	59.2	60.1	35.2	55.8	45.76	54.9	58.3	56.6

Note: Estimated by the author based on the 61st round of the NSS

With regard to area of residence, 60 per cent of rural older persons, as opposed to 46 per cent of urban older persons, were at work. In the case of gender, 54.9 per cent of men and 58.3 per cent of women were at work. Notwithstanding the decline with the advance in age, 16 per cent of men aged 80 years or older and 17 per cent of women in this age group worked. There were only 2 percentage points of difference between rural older men (61 per cent) and women (59 per cent). In urban areas, the female labour participation rate was higher than that for males (Irudaya Rajan, 2005; Mathew and Irudaya Rajan, 2008).

It may be argued that poverty is a main reason for older persons having to work. There is a view that in developed countries, many older persons can afford to retire early because of the availability of pensions or social security, which are often missing in developing countries (Kinsella and Velkoff, 2001). There is also an argument that labour force participation is associated with a country's wealth, i.e. countries with high gross national product tend to have lower labour force participation among the elderly than countries with lower gross national product (Clark, York and Anker, 1997).

In this regard, a person attending a group discussion of rural elderly agricultural labourers in Tamil Nadu said: "For us there is only one retirement, not from work, but from the world." (Irudaya Rajan, Mishra, Sarma, 1995, 1999).

4. Poverty in old age

In India no official poverty estimates for the elderly are available. Social security and welfare programmes targeting the elderly refer to household poverty estimates (Table 12). As of 2004-05, some 27.5 per cent of households lived below the poverty line. The proportion is slightly higher in rural areas (28.3 per cent) than urban areas (25.7 per cent).

Table 12: Poverty estimates, 2004-05 (% of total households)

	1999-2000	2004-05
Rural	37.3	28.3
Urban	32.4	25.7
Combined	36.0	27.5

Source: Planning commission, Government of India, 2005

Sarmistha Pal and Robert Palacios (2008) estimate poverty among the elderly for major states in India (Annex 2). In general, poverty incidence is lower among households with elderly members than those without. The same trend holds for households with female elderly heads. Interestingly, there is not much difference between the total elderly population and elderly females. Meanwhile, individual poverty incidence is generally higher among the non-elderly than elderly. This implies that older persons contribute to their households in terms of paid and unpaid work. Deaton and Paxson (1995) present similar findings.

4.1 Dependency among the elderly

Based on indicators on economic dependency and ownership of property and assets as indicators, Irudaya Rajan (2005) assesses the level of poverty among the elderly. Table 15 presents these indicators calculated from the 60th NSS round (January-June 2004). A question to the elderly under this survey included their economic independence, categorised as (1) "not dependent"; (2) "partially dependent"; and (3) "fully dependent" on others for food, clothing and health care. The data are disaggregated by gender, place of residence and marital status. From these data, it is presumed that the fully dependent elderly live below the poverty line and therefore need economic support.

In rural areas, 58.2 per cent of women and 45.0 per cent of men were totally dependent, whereas in urban areas, the corresponding figures were 64.2 per cent and 45.4 per cent. There was thus a marked gender difference, with the most vulnerable being elderly women in urban areas (Table 13).

Table 13: Dependency status among the elderly by gender and place of residence, 2004-05

Dependency status	Rural (%)			Urban (%)			Total (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Older persons total									
Not dependent	36.4	24.7	30.7	38.6	22.4	30.4	37.2	23.8	30.6
Partially dependent	18.6	17.1	17.9	16.0	13.4	14.7	17.6	15.6	16.6
Fully dependent	45.0	58.2	51.4	45.4	64.2	54.9	45.2	60.6	52.8
Widowed persons									
Not dependent	33.3	12.4	18.0	38.1	17.3	21.7	34.8	14.3	19.3
Partially dependent	14.5	11.4	12.2	13.9	9.5	10.4	14.3	10.7	11.6
Fully dependent	52.2	76.2	69.8	48.1	73.1	67.9	50.9	75.0	69.1

Source: Estimated by the author using the 60th round of the NSS

4.2 Property and financial assets

To assess further the levels of poverty and economic dependency among the elderly, reference was made to the data on ownership of assets and property from the 52nd NSS round (Kodoth and Irudaya Rajan, 2008). The surveyed persons are classified in terms of whether or not they owned and/or participated in the management of property and/or financial assets (Table 14).

Table 14: Property and financial asset management among older persons and widowed persons, by gender and area of residence

	Rural (%)			Urban (%)		
	Male	Female	F/M	Male	Female	F/M
Older persons total						
Own property	81.9	47.9	0.6	76.5	43.4	0.6
Own and manage property	65.7	21.6	0.3	62.3	20.0	0.3
Own financial assets	70.3	41.2	0.6	71.3	38.5	0.5
Own and manage financial	56.7	18.9	0.3	58.6	17.6	0.3
Widowed persons						
Own property	73.6	44.0	0.6	66.1	39.8	0.6
Own and manage property	50.5	18.0	0.4	46.0	17.9	0.4
Own financial assets	64.2	36.1	0.6	62.6	33.3	0.5
Own and manage financial	44.9	15.1	0.3	44.7	15.2	0.3

Source: Kodoth and Irudaya Rajan, 2008

There are striking gender differences. Under all categories, older women are largely disadvantaged. This is due to limited implementation of inheritance laws in urban and rural areas. More than three-quarters of older men in rural and urban areas owned property, as opposed to less than half of older women. There is a significant gender gap in the ownership and management of property, i.e. 65.7 per cent of men versus 21.6 per cent of women in rural areas, and 62.3 per cent of men versus 20.0 per cent of women in urban areas. While the low proportion of older persons owning and managing property may be attributed to their age, the pronounced disadvantage of women is likely to be gender-related.

Women's share in the widowed population is predominant in India. This is partly because for cultural reasons older widows are more unlikely to remarry while remarriage among widowers is promoted. Moreover, women's life expectancy is generally longer. Widowhood is a source of particular vulnerability (Dreze, 1990; Chen, 2000). This can be observed in terms of the ownership and management of property and financial assets, as explained above. Generally, the proportion of widowed persons in this category, irrespective of gender (73.6 per cent of men and 44.0 per cent of women), is lower than older persons in general (81.9 per cent of men and 47.9 per cent of women). A similar tendency is observed both in urban and rural areas.

5. Pensions and social security

5.1 Social security for organised workers

In India there are several economic and social safety nets for vulnerable groups such as the elderly, disabled and widows. In broad terms, they are provided as a formal or informal social security system which aims to ensure equitable justice in the society (Heller, 2003).

The civil service pension system covers salaried workers in the central and state governments as well as union territory administrations. In the central government there are different pension schemes in different departments and ministries with respective rules on eligibility, e.g. railways, telecommunications and defence services. These programmes are typically on a pay-as-you-go basis and are non-contributory. The entire pension expenditure is charged to the annual revenue expenditure account of the government. There are different types of civil service pension schemes in India (Annex 3).

The pension amount is calculated based on the average basic pay drawn by an employee during the last 10 months of service. An amount of 50 per cent of the average pay is payable to employees having completed 33 years of qualifying service. The maximum pension amount for a government official is half of the basic pay last drawn (plus "dearness" relief based on the cost of living index). The decline in income upon retirement can be compensated for by other sources of

income by the family, such as interest on bank deposits, rental income, dividends from equity shares and mutual funds.

The normal retirement age in the formal sector ranges from 55 years in Kerala to 65 years for special categories of central government employees. In the majority of cases it is 60 years, in some occupations and states 58, and in a few cases 62. The voluntary retirement programmes exist in the central and state governments, as well as other public sector bodies. According to available information, 45,625 persons in 141 public sector undertakings retired voluntarily in 2001. Voluntary retirement is more common for professional, technical workers than low-, semi-skilled workers.

Gratuity is available to central and state government employees as retirement benefits, financed by the central government. Employees with a minimum five-year qualifying service receive a one-time lump-sum retirement gratuity, equivalent to a quarter of the last basic pay for a completed six-month period of service. Death gratuity is a one-time lump-sum benefit payable to the nominee of the deceased employee. There is also a service gratuity for employees with total qualifying service of less than 10 years. The admissible amount is a half-month basic pay for a completed six-month period of qualifying service, with no prescribed maximum or minimum.

Civil servants are also eligible for other pension benefits, such as provident funds. In all states, pension schemes cover all government employees. There are different pension schemes for grant-in-aid institutions (GIA), which are mostly educational. In some states, employees are fully covered by government pensions. For example, in West Bengal the number of pensioners under state government service is almost equal to that under GIA and local bodies. As a result of expanded coverage and extended longevity, there has been a phenomenal growth in the number of pensioners, i.e. about 5.2 million in 1990-91, 6.0 million in 1996-97, and 9.4 million in 2005-06 (Annex 4).

5.2 Contributory schemes

India has a complex of different schemes aimed at different segments of the labour force.

- **The organised segment of the private sector**

Two social insurance programmes, both overseen by the Employees Provident Fund Organization (EPFO), are mandatory for workers in establishments with 20 or more employees who earn less than 5,000 rupees a month. These workers constitute 49 per cent of the salaried workforce and 7 per cent of the estimated total workforce. One programme is the Employment Provident Fund (EPF) (defined-contribution); and the other, Employment Pension Scheme (EPS) (defined-benefit).

The EPF, launched in 1952, is mandatory for private and public enterprises in 177 specified sectors (excluding Jammu and Kashmir states) with 20 or more employees. This is for employees with initial basic wage and "dearness" allowance combined below 5,000 rupees. The EPF fund is managed by EPFO, or possibly by employers meeting EPFO requirements. With a few exceptions employees contribute 12 per cent of wages and employers 3.77 per cent. Benefits are lump-sum upon retirement. The return paid on funds, set by the government, was 12 per cent since 1990, 11 per cent since 2000, and currently 8.5 per cent. In 2004 it covered 24.3 million workers in 339,271 establishments (Table 15).

Table 15: Employees Provident Fund and Employment Pension Scheme, 1996-07, 2005-06

	1996-97	2005-06
Number of establishments	277,555	339,271
EPF members (1,000 persons)	20,289	24,372
EPS members (1,000 persons)	18,324	21,275
EPF contributions (billion rupees)	59.7	86.9
EPS contributions (million rupees)	27.9	40.5

Source: Annual reports of EPFO

The EPS, established in 1995, has smaller coverage than the EPF (about 21.3 million workers in 2006). It is funded by employers and the government, each contributing 8.33 per cent and 1.16 per cent of basic wage plus "dearness" allowance. The benefits are the average salary in 12 months before retirement multiplied by the years of service divided by70. The maximum replacement is 50 per cent. Employees with more than 20 years of service or retired at 58 years of age can add two more years of service. Thus, a 58-year-old worker with 33 years of service can retire with the maximum replacement rate. Early retirement is possible at 50 years, with reduced benefits.

Some mandatory provident funds, linked to specific occupations or states, cover about two million persons, i.e. the Coal Miners Provident Fund (1948), Assam Tea Plantation Provident Fund (1955), Jammu and Kashmir Provident Fund (1961), and Seamen's Fund (1966). They generally follow the rules of EPFO-regulated funds.

A number of voluntary group pension plans exists, due primarily to rules barring high-income workers from the EPF. These are run by managers appointed by employers or the Life Insurance Corporation (LIC), which is the only enterprise providing annuity schemes. Privately run schemes can accrue and invest funds but are obliged to buy annuities from the ILC on behalf of retiring employees. Not mandatory or sponsored by the government, the group pension plans still receive tax preferences and follow restrictive investment and annuity regulations. As of March 1998, these plans accrued about 65 billion rupees (Gupta, 2002). The LIC managed 49.7 billion rupees on behalf of 4,719 schemes. Some 3.1 billion rupees of annuity payment from these schemes covered about 210,000 persons in 2003.

- **Social security coverage in the formal sector**

The EPF and EPFO appear to be facing structural and financial crises (Goswami, 2001). Their coverage is limited to the organised workforce, while the informal sector is dominant in India. The majority of other retirement saving schemes also cover mostly organised sector workers. Nationwide coverage is 12 per cent. The remaining share of older persons (88 per cent) is in the unorganised sector. Among states, Kerala had the highest coverage (19.4 per cent) followed by West Bengal and Tamil Nadu (14.9 per cent) (Annex 5). The limited coverage is expected to deteriorate as the informal sector grows. The structural problem of the pension system is likely to deepen in future.

- **Pension expenditure**

Most of the rising pension expenditure is paid out of pay roll tax, with the growing pension liability of the government negatively affecting state finances (Prasad, 2005). The change in the age structure also affects the intergenerational distribution of the burden of pension schemes between pensioners and workers (Atkinson, 2001) as the period of pension exceeds the period of pay roll tax contribution. There is serous concern over the sustainability of the government-run defined benefits and the non-contributory pension system (Swain and Sen, 2004). The salary and pension payments account for a large proportion of both the central and state government expenditure, i.e. 9 per cent of GDP in 2003-04 compared with 7.9 per cent in 1990-91. Pension expenditure alone constituted about 2.5 per cent of GDP in 2003-04 as against 1.3 per cent in 1990-91. It has been larger than most other budget items of social sector expenditure. There was

an unprecedented increase in the 1990s, i.e. 6,870 crore rupees[6] in 1990-91 and 62,011 crore rupees in 2005-06. During this period, central government pension expenditure grew by 16 per cent.

The impact of demographic changes as well as pension coverage has varied widely among different states. The fiscal stress has been very high in Tamil Nadu, Kerala, West Bengal and Andra Pradesh, where life expectancy and the pension coverage are high. The fiscal impact of rapidly rising pension expenditure can be measured as a percentage of (1) revenue receipts and (2) the states' own revenues. National level pension expenditure constituted 12 per cent of revenue expenditure in 2004-05 in comparison with 2.0 per cent in 1980-81 and 5.0 per cent in 1990-91 (Annex 6).

Pension payments from a state's own revenue covers less than 15 per cent of the workforce and the elderly. This grew rapidly in the past two decades, from 3.4 per cent in 1980-81 to 7.9 per cent in 1990-91. The latter part of the 1990s saw a further sharp increase (18 per cent in 2004-05). In Bihar it reached 63.5 per cent. In Orissa and West Bengal it was around 30 per cent and Kerala, 28.5 per cent. Kerala had the highest revenue expenditure earmarked for pension payments.

- **Ongoing pension reform**

In response to the growing concern about the current pension funds, as well as poverty among the elderly, pension reforms have been discussed. The Ministry of Finance convened a committee to evaluate reform options for civil service retirement. These efforts build on the Old Age Social and Income Security (OASIS) project.

In 1998 a committee for Project OASIS was set up to examine and recommend changes for saving incentives by broader sections of workers. The committee report (Ministry of Social Justice and Empowerment, 2000) referred to the need to insulate retirement saving policy from politics, introduce better targeting of tax incentives and reach out to the informal sector. To achieve these goals, Individual Retirement Accounts were to be set up, linked to employers, with workers each given an individual account number not changing with employment. Annually, the initial minimum contribution was 500 rupees, with flexible conditions to allow participation of workers without steady income. Contributions are tax exempt up to 60,000 rupees per year. To reduce transactions costs, "points of presence" (post offices, banks, etc.) were set up to collect contributions and distribute benefits. A depositor acts as the main record keeper, pools contributions into large fund blocks and passes them to fund managers.

To give workers a choice, six competing private pension fund managers (PFMs) offer three investment portfolios with varied levels of risk and return. On retirement at 60, workers are required to allocate a portion of the outstanding fund to purchase annuities from insurance companies. Early withdrawal is banned. If an account balance exceeds 200,000 rupees, withdrawal is subject to 10 per cent tax. To ensure the smooth functioning, prevent abuse and safeguard workers' investments, there is an independent regulator. In addition the National Senior Citizens Fund (SCF) complements the centrally-funded National Old Age Pension Scheme (NOAPS) and private-sector efforts to improve the quality of life of the elderly. Government contributions to the pension scheme is redirected to this fund for three years as initial capital and then ceased.

In addition to the above, there are initiatives to: introduce a multi-pillar system as suggested by the World Bank as well as properly managed contributory civil service pension schemes; establish a pension regulatory authority with large private pension funds; and strengthen NOAPS and private pension initiatives.

[6] Crore is 10 million.

5.3 Social security for unorganised sector (elderly) workers

Social security schemes for the unorganised (informal) sector may be classified into four types (Table 16). There are different social security schemes (Table 17).

Table 16: Basic features of major social security schemes

Type of scheme	Sources of funding	Coverage	Entitlement criteria
Social assistance	Public revenue	Low income earners in designated categories	Means test
Social insurance	Contribution from employee, employer	Members of insurance scheme	Contribution record
Employer liability	Employer	Employees in designated categories	Employment criteria
Social allowances	Public revenues	Persons in designated categories	Domicile

Sources: ILO, 1979; US, 1980; 1982; Midgley, 1984

Table 17: Social security schemes

	Nature of benefit	Beneficiaries	Administrative/Financial arrangement
Employer's liability	Workmen's compensation; maternity; gratuity; retrenchment	Workers in the organised sector	Employers manage and pay
Social insurance	Medical care; sickness; maternity; work injury; old-age; invalidity; survivors; provident fund	Organised sector workers and some unorganised sector workers	Administered by Employees' State Insurance Corporation/ central board of trustees; funded by worker, employer and state government contributions
Social assistance (a) Central govt welfare funds	Medical care; education housing; water supply old-age; survivors	Mine; beedi; cine; building workers	Administered by department; funded by special levies in cesses
(b) Kerala welfare funds	Old-age benefit; medical care; education; marriage; housing	Unorganised sector workers (e.g. cashew; handloom; coir)	Administered by autonomous boards; funded by employer, worker and other contributions
(c) Subsidised insurance	Survivors; invalidity	Vulnerable workers (e.g. agricultural; handloom)	Administered by LIC and Government Insurance Corporation; funded by contributions from central and state governments
(d) Others	Old-age; maternity; survivors; support for employment, training, education, etc.	Persons outside job market; below poverty line; destitute; disabled; orphans; deserted and divorced women; widows; scheduled castes; scheduled tribes; other backward castes	Administered by departments; funded by general revenues

Source: Subrahmanya and Jhabvala, 2000

- **National Social Assistance Scheme**

The announcement on 15 August 1995 of a National Social Assistance Scheme (NSAS) was a significant step concerning old-age public assistance stipulated under the Indian Constitution. The NSAS has three components: NOAPS targeting poor older persons (managed by the Ministry of Rural Development); the National Family Benefit Scheme (NFBS); and the National Maternal Benefit Scheme (NMBS). NOAPS support is provided to states and union territories in line with the guidelines set by the central government (Irudaya Rajan, 2001). NOAC applicant must be 65 or older and be a destitute having little or no regular means of subsistence. The monthly NOAPS amount was 75 rupees ($2) and rose to 200 rupees ($5) in 2006. The numerical ceiling of the NOAPS pensions was 5.4 million persons (i.e. 50 per cent of the population over 65 years living below the poverty line) in 1995-96 and 6.9 million in 1998-99, while the qualifying amount was 48,020 lakh[7] in 1995-96 and 61,929 lakh in 1998-99. NOAPS was renamed the Indira Gandhi National Old Age Pension Scheme in 2007 and covered all persons over 65 who were living below the poverty line. As of 2008, the scheme aimed to reach 15.7 million persons.

- **Annapurna Scheme**

The Annapurna Scheme, introduced in 1999, provides 10 kilograms of rice or wheat per month free of cost to the elderly destitute who have no one to take care of them. The scheme aims to assist the destitute who are not covered by the NOAPS pension. For the first year of implementation 100 crore rupees was allocated. The scheme is expected to benefit about 6.6 lakh elderly destitute. It is implemented by the Ministry of Rural Development with the assistance of the Ministry of Food and Civil Supplies.

5.4 New initiatives: social security for unorganised workers

The National Commission for Enterprises in the Unorganised Sector reviewed social security schemes for informal sector workers with a view to expanding coverage. Two problems were identified: (1) deficiency or capability deprivation stemming from inadequate employment, low earnings, low health and educational status prevalent among the poorer population; and (2) absence of adequate safety net mechanisms for contingencies such as illness, accident, death and old age.

The importance of social security was stressed also by the National Commission on Rural Labour (1991) and the Second National Commission on Labour (2002). Some of their recommendations took into consideration the needs of older persons, such as an old-age pension at monthly 100 rupees to those below a set income level (from the National Commission on Rural Labour) and a savings-linked pension scheme as part of old-age benefits (the Second National Commission on Labour).

The National Advisory Council also drafted an Unorganised Sector Workers' Social Security Bill in 2005, recommending an old-age benefit scheme including pension for all below-poverty-line older workers based on workers' contributions. It also recommended a non-contributory old-age pension of monthly 200 rupees for all below-poverty-line unorganised workers. Furthermore, a contributory provident fund was recommended, by which at the age of 60 workers above the poverty line can opt to withdraw accrued credit or purchase an annuity for life. The provident fund is coupled with unemployment relief to allow workers to withdraw a half or quarter of the contribution, depending on the period of unemployment (with a lock-in period of 10 years).

In addition, two types of old-age security are suggested. The first is a contributory provident fund with an old-age pension premium of 565 rupees per worker per year for all APL workers required to contribute to the national social security scheme (with unemployment insurance where necessary). Employers and government also contribute 1 rupee per day (365 rupees per year). As

[7] Lakh is 100,000

only 17 per cent of informal workers (in the non-agricultural sector) have identifiable employers, contribution for the remaining 83 per cent is born by the government and recovered through tax. Second, a monthly old-age pension is provided to all below-poverty-line old workers, the cost of which is borne by the central government as a substitute for the private pension fund contribution of state governments (565 rupees/worker/year).

6. Elderly welfare

There are two important policy milestones on the road to the protection and welfare of the elderly.

First, the National Population Policy under the Ministry of Health has 12 strategic themes. One of them addresses the need for the support and care of an increasingly vulnerable older population in the context of weakening traditional support systems. NGOs and voluntary organisations are encouraged to enhance formal and informal avenues to allow economic self-reliance for the elderly, as well as tax benefits for children to look after their aged parents. The extension of the national old-age pension to all poor elderly is also included in this policy.

Second, the National Policy on Older Persons was formulated by the Ministry of Social Justice and Empowerment and adopted in 1999, which the UN marked as the "International Year of Older Persons". The policy stipulates the extension of government support for financial security, health care, shelter, welfare and other needs of older persons; the provision of protection against abuse and exploitation; opportunities to develop the potential of older persons; and services to improve their quality of life.

Viewing 60 and beyond as a time for people to lead an active, creative, productive and satisfying life, the policy emphasises the involvement of older persons. Principle areas of intervention include prompt settlement of pension, provident fund, gratuity and other retirement benefits. Widows are identified as needing special consideration in the settlement of benefits. The policy refers also to the need for income-generating activities by individual organisations (career guidance training, orientation and other support) and non-governmental organisations; abolishment of age-related discrimination in access to credit and other facilities; protection of the interests of older persons in sectors adversely affected by structural adjustment (especially household or small-scale industry). While the policy has been subject to debates and revisions and its implementation has not been comprehensive and constant, it has made some achievements, such as the extension of National Old Age Pension to all poor elderly and the passage of the Maintenance and Welfare of Parents and Senior Citizens Act 2007.

7. Conclusions and recommendations

India has the second largest elderly population in the world. On average, an elderly person is expected to live between 18 and 20 years beyond 60. The number of older persons in India is projected to increase from 90 million in 2008 to 298 million in 2051 and 505 million in 2101. The proportion of the elderly would reach 20 per cent in 2051, from 8 per cent in 2008. About 75 per cent of the elderly are in rural areas.

According to the 2001 census, 33.1 per cent of the elderly in India live without their partners. Widowers form 15.0 per cent and widows 50.1 per cent. About 77 per cent of the elderly live with their married or unmarried children and grandchildren. Although a small percentage of the elderly live alone, older women are more likely than men to be living alone (8 per cent versus 15 per cent).

The census also shows that labour force participation of older persons is 41.3 per cent (60.3 per cent for men and 20.9 per cent for women). Labour force participation of older persons in rural areas (45 per cent) is higher than in urban areas (26.2 per cent). Among the states, labour force participation is highest in Nagaland and lowest in Goa, due possibly to the types of jobs available, such as agricultural work. According to NSS data, labour force participation of the elderly increased from 38.5 per cent in 1983 to 40.8 per cent in 1993-94, but declined to 36.6 per cent in 1999-2000 and 35.7 in 2004-05. Labour force participation generally rises in accordance with the level of education both for the total population and for older persons.

The highest share of older persons (32.2 per cent) is engaged in manufacturing (household and non-household) industry. The majority of older persons are self-employed, some are engaged in casual labour and a very few, regular employment. Older persons engaged in daily household duties were not considered as being at work, but they account for 35 per cent among female elderly. If we include the category of workers reported as attending household duties, older women (58 per cent) work more than older men (55 per cent).

The labour participation of older persons may be linked to poverty and an inadequate social security system. In the meantime, while 27.5 per cent of households are below the poverty line, poverty among households with elderly members was slightly lower than those without, suggesting that the elderly contribute to family income. Nevertheless, 58 per cent of older women and 45 per cent of older men in rural areas and 64 per cent of older women and 45 per cent of older men in urban areas were "fully dependent" on others. Some 65 per cent of older men and just 20 per cent of older women owned and managed property.

The mandatory retirement age in the formal (both government and private) sector is 55 to 65 years, and is generally 60 years. Informal sector workers tend to work as long as they can, even with serious health problems. There is limited shift in status (i.e. from main to marginal workers and vice versa) at the age of 60 years, both in urban and rural areas and among men and women. Main workers constituted 79.7 per cent of older persons and 78.8 per cent of the 15-59 age group.

In terms of economic dependency, elderly women in urban areas are most vulnerable. At the same time, due to limited implementation of inheritance laws in urban and rural areas, older women are largely disadvantaged in terms of property and financial assets. While the low proportion of older persons owning and managing property may be attributed to their age, the pronounced disadvantage of women is likely to be gender-related.

In India, there are several mechanisms of social safety nets for vulnerable groups such as the elderly, disabled and widows. These include the civil service pension system, gratuity, provident funds and social insurance programmes. The coverage of these schemes is 12 per cent of older persons at work (i.e. in the organised sector). The remaining 88 per cent of older persons are at work in the unorganised sector and may access, though to limited extent, social assistance, social insurance, employer liability and social allowance. In order to address limited coverage of these schemes, in view also of ensuring fiscal viability, new initiatives have been undertaken, including pension reforms.

Recommendations

- In view of the limited information available on older persons, particularly employment, further research is needed in a number of areas. These include sectoral distribution of older workers; productivity of workers by age; skill improvement through life-long learning; and older women's "invisible" work and its contribution to the family, economy and society.

- The National Old Age Pension should be made universal for all formal workers irrespective of their economic status. Universal health insurance should also be introduced to allow all older persons to maintain health and participate actively in the labour market. It is important to offer choices for older workers to join and withdraw from different schemes.

- In strengthening social protection schemes for older persons, particular attention needs to be drawn to vulnerable older persons, such as those in poverty, older women and especially widows.

References

Atkinson, P. 2001. *The fiscal impact of population change.* (Boston, Federal Reserve Bank).

Clark, R.L.; York, E.A.; Anker, R. 1997. "Retirement and economic development: An international analysis", in P.R. De Jong; T.R. Manor (eds): *Social policy and the labour market* (Brookfield, Ashgate).

Crystal, S. et al. 2000. "Out-of-pocket health care costs among older Americans", in *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, Vol. 55, Issue 1, pp. 51-62.

Deaton, A.; Paxson, C. 1995. *Measuring poverty among the elderly*, NBER working paper no. 5296 (Cambridge, National Bureau of Economic Research).

Gulati, L.; Irudaya Rajan, S.; Ramalingam, A. 1997. "Women and work In Kerala: A comparison of the 1981 and 1991 censuses", in *Indian Journal of Gender Studies*, Vol. 4, No. 2, pp. 231-52.

Gulati, L.; Irudaya Rajan, S. 1999. "The added years: Elderly in India and Kerala", in *Economic and Political Weekly*, Vol. 34, No.44, pp. 46-51.

Government of India. 2005. *Employment and unemployment situation in India*, Report No. 507 (New Delhi, India, Ministry of Statistics and Programme Implementation, National Sample Survey Organization).

Heller, S.P. 2003. *Who will pay? Coping with ageing society, climate change and other long term fiscal challenges* (Washington, DC, International Monetary Fund).

International Labour Organisation (ILO). 1942. *Approaches to social security* (Montreal).

-. 1979. *The cost of social security*: *Tenth international enquiry 1975-1977* (Geneva).

Irudaya Rajan**,** S. 2001. "Social assistance for poor elderly: How effective?" in *Economic and Political Weekly*, Vol. 36, No. 8, pp. 613-17.

-. 2005. "Chronic poverty among the Indian elderly", in A.K. Mehta; A. Shepherd (eds): *Chronic poverty and development policy in India* (New Delhi, Sage Publications).

-. 2007. "Aging, pensions and social security in South Asia" in S. Irudaya Rajan (ed): *Social scurity for the elderly: Experiences from South Asia* (London/New York/New Delhi, Routledge).

Irudaya Rajan, S.; Sarma, P.S.; Mishra, U.S. 2003. "Demography of Indian aging, 2001-2051", in *Journal of Aging and Social Policy*, Vol. 15, Nos. 2 & 3, pp. 11-30.

Irudaya Rajan, S.; Mishra, U.S.; Sarma, P.S. 1995. "Living arrangements among the Indian elderly", in *Hong Kong Journal of Gerontology*, Vol. 9, No. 2, 1995, pp. 20-28.

-. 1999. *India's elderly: Burden or challenge?* (Thousand Oaks/London/New Delhi, Sage Publications).

Irudaya Rajan, S.; Sreerupa. 2007. "Gender disparity in Kerala. A critical interpretation", in S. Mukhopadhyay (ed): *The enigma of the Kerala women* (New Delhi, Social Science Press).

-. 2008. "Disease, disability and health care utilisation among the aged" in S. Irudaya Rajan, C. Risseeuw; M. Perera (eds): *Institutional provisions and care for the aged: Perspectives from Asia and Europe* (London/NewYork/New Delhi, Anthem Press).

Irudaya Rajan, S.; Aliyar, S. 2008. "Population aging in India", in S. Irudaya Rajan, C. Risseeuw; M. Perera (eds): *Institutional provisions and care for the aged: Perspectives from Asia and Europe* (London/New York/New Delhi, Anthem Press).

Irudaya Rajan, S.; Prasad, S. 2008. "Pensions and social security in India", in S. Irudaya Rajan,; C. Risseeuw; M. Perera (eds): *Institutional Provisions and Care for the Aged: Perspectives from Asia and Europe* (London/New York/Delhi, Anthem Press).

Jhabvala, R.; Subrahmanya, R.K.A. (eds). 2000. *The unorganised sector: Work security and social protection*. (New Delhi, Sage Publications).

Kinsella, K.; Velkoff, V.A. 2001. *An aging world*, US Census Bureau, Series P95/01-1 (Washington, DC).

Kodoth, P.; Irudaya Rajan, S. 2008. "Property and assets as economic security", in S. Irudaya Rajan; C. Risseeuw; M. Perera (eds): *Institutional provisions and care for the aged: Perspectives from Asia and Europe* (London/New York/ New Delhi, Anthem Press).

Midgley, J. 1984. *Social security, inequality and the Third World* (New York, John Wiley Sons).

Mari Bhat, P.N. 1992. "Changing demography of elderly in India", in *Current Science*, Vol. 63, No. 8, pp. 440-8.

Mari Bhat, P.N. 2002. "Maternal mortality in India: An update", in *Studies in Family Planning*, Vol. 3, No. 3, pp. 227-36.

Mathew, E.T.; S. Irudaya Rajan. 2008. "Employment as old age security" in S. Irudaya Rajan; C. Risseeuw; M. Perera (eds): *Institutional provisions and care for the aged: Perspectives from Asia and Europe* (London/New York/New Delhi, Anthem Press).

Ministry of Social Justice and Empowerment. 2000. *The Project OASIS Report*. By the Expert Committee for Devising a Pension System for India (Government of India).

National Sample Survey Organization. 2006. *Morbidity, health care and the condition of the aged. NSS 60th round, (January-June 2004), Report No. 507* (New Delhi, India, Ministry of Statistics and Programme Implementation).

Prasad, S. 2006. *A crisis in making: The pension system in India with special reference to Kerala*, (Trivandrum, India, Centre for Development Studies). Mimeo.

Pal, S.; Palacios, R. 2008. *Understanding poverty among the elderly in India: Implications for social pension policy*, Discussion Paper No. 3431 (Bonn, Institute for the Study of Labor).

Singh, K.; Singh, R,; Sharma, M.L. 1987. "Problems of aged women in Haryana", in M.L. Sharma; T.M. Dak (eds): *Aging in India* (New Delhi, Ajanta Publications).

Sreerupa. 2006. *Gender, ageing and widowhood: Health, vulnerability and socio-economic influences* (Trivandrum, India, Centre for Development Studies). Mimeo.

Sudha, S; Irudaya Rajan, S. 2003. "Persistent daughter disadvantage: Do estimated sex ratio at birth and sex ratios of child mortality risk reveal?", in *Economic and Political Weekly*. Vol. 38, No. 41, pp.4351-60.

Sibani S.; Sen, P. 2004. *Pension liabilities of the Central Government: Projections and implications* (New Delhi, Planning Commission, Government of India).

United Nations. 2007. *World population ageing 2007* (New York).

United States. 1980. *Social security programs throughout the world, 1979* (Washington, DC, Department of Health and Human Services).

World Bank. 1994. *Averting the old age crisis: Policies to protect the old and promote growth* (Washington, DC and Oxford, Oxford University Press).

Zick, C.D.; Smith, K. 1991. "Patterns of economic change surrounding the death of a spouse", in *Journal of Gerontology: Social Sciences*, Vol. 46, No. 6, pp. S310-320.

Annexes

Annex 1: Labour force participation among the elderly by major states, 2001 (%)

	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Arunachal	48.5	74.6	57.7	57.7	88.0	68.7	31.5	54.5	24.8
Assam	41.5	63.8	17.6	49.4	68.9	20.9	27.0	46.6	7.6
Bihar	43.7	67.2	15.0	52.0	72.6	17.9	28.4	49.1	6.5
Chhattisgarh	42.9	65.9	19.3	51.0	71.2	23.0	27.9	48.1	8.3
Goa	26.8	41.2	13.4	31.9	44.5	16.0	17.4	30.1	5.8
Gujarat	32.1	49.4	17.7	38.2	53.4	21.1	20.9	36.1	7.6
Haryana	34.8	53.6	8.2	41.5	57.9	9.8	22.6	39.1	3.5
Himachal Pradesh	42.2	64.8	34.5	50.2	70.0	41.0	27.4	47.3	14.8
Jharkhand	43.7	67.2	15.0	52.0	72.6	17.9	28.4	49.1	6.5
Karnataka	36.7	56.5	22.4	43.7	61.0	26.7	23.9	41.3	9.6
Kerala	29.6	45.5	11.9	35.2	49.1	14.2	19.2	33.2	5.1
Madhya Pradesh	42.4	65.2	32.5	50.5	70.4	38.7	27.6	47.6	14.0
Maharashtra	35.2	54.2	29.4	41.9	58.5	35.0	22.9	39.6	12.6
Manipur	45.5	69.9	55.7	54.1	75.5	66.3	29.5	51.0	24.0
Meghalaya	49.9	76.8	51.2	59.4	82.9	60.9	32.4	56.1	22.0
Mizoram	43.3	66.6	48.1	51.5	71.9	57.2	28.2	48.6	20.7
Nagaland	53.5	82.4	46.2	57.4	89.0	72.0	35.5	61.4	37.8
Orissa	39.6	60.9	15.6	47.1	65.8	18.6	25.7	44.5	6.7
Punjab	35.5	54.6	8.9	42.2	59.0	10.6	23.1	39.9	3.8
Rajasthan	34.8	53.5	3.1	41.4	57.8	3.7	22.6	39.1	1.3
Sikkim	47.3	72.8	39.4	56.3	78.6	46.9	30.8	53.1	16.9
Tamil Nadu	37.0	56.9	26.4	44.0	61.5	31.4	24.0	41.5	11.4
Tripura	35.0	53.8	8.1	41.6	58.1	9.6	22.7	39.3	3.5
Uttaranchal	32.8	50.4	19.7	39.0	54.4	23.4	21.3	36.8	8.5
Uttar Pradesh	39.1	60.2	13.3	46.5	65.0	15.8	25.4	44.0	5.7
West Bengal	35.0	53.8	8.1	41.6	58.1	9.6	22.7	39.3	3.5
All India	40.3	60.3	20.9	45.0	65.6	24.9	26.2	44.1	9.0

Source: Estimated by the author based on the 2001 census data

Annex 2: Poverty estimates for the elderly, 2004

	Household under poverty (per cent)		Household under poverty with female head (per cent)		Persons under poverty (per cent)	
	Elderly	Non-Elderly	Elderly 60+	Elderly 75+	Elderly	Non-Elderly
Andhra Pradesh	18	20	18	14	17	20
Assam	45	49	46	50	40	48
Bihar	52	58	51	46	45	57
Gujarat	20	21	19	17	16	21
Haryana	15	19	18	23	13	18
Karnataka	32	31	34	27	23	32
Kerala	18	14	17	17	15	15
Madhya Pradesh	33	37	32	30	28	36
Maharashtra	28	28	27	25	21	29
Orissa	41	51	45	38	39	49
Punjab	06	11	06	02	05	10
Rajasthan	20	20	22	25	17	20
Tamil Nadu	29	29	28	32	23	30
Uttar Pradesh	42	45	44	45	37	44
West Bengal	41	52	43	47	37	50

Source: Sarmistha Pal and Robert Palacios, 2008

Annex 3: Civil service pensions in India

(i) Superannuation pension: For government servants retired at the age stipulated for superannuation (Rule 35 of CSR).
(ii) Retirment pension: For government servants who retire prior to the stipulated age of superannuation under CSR and opt for voluntary retirement on being declared surplus (Rule 36).
(iii) Invalid pension: For government servants who retire on account of physical or mental infirmity which permanently incapacitates them to perform the service. This pension is granted on the recommendation of a designated medical board (Rule 38).
(iv) Compensation pension: For government servants discharged from service due to the abolition of their posts (Rule 39).
(v) Compulsory retirement pension: For government servants compulsorily retired from service as a measure of penalty. A competent authority can sanction either pension or gratuity or both at a rate not less than two-thirds and not more than the full amount of compensation pension or gratuity or both (Rule 40).
(vi) Compassionate allowance: For government servants dismissed or removed from service by the competent authority, whose cases merit special consideration; not exceeding two-thirds of pension or gratuity or both which would have been provided had they retired on compensation pension (Rule 41).
(vii) Pension on transferring into or under a corporation/company/body: For government servants permitted to be transferred into or under a corporation, company or body substantially owned or controlled by the central or state government.

Source: Report of High Level Expert Group on the New Pension System, Government of India, 2002

Annex 4: Civil service pensioners, 1991-2006

	Central government	State government	Total
1990-91	2594237	2568737	5162974
1991-92	2638184	2611933	5250117
1992-93	2716390	2689361	5405751
1993-94	2797200	2769367	5566566
1994-95	2880821	2852156	5732977
1995-96	2967202	2937677	5904879
1996-97	3105234	3074336	6179570
1997-98	3376717	3343118	6719835
1998-99	3430868	3396730	6827597
1999-00	3829218	3250000	7079218
2000-01	3938806	3365400	7304206
2001-02	4046396	3525000	7571396
2002-03	4152682	3855456	8008138
2003-04	4256062	4214228	8470290
2004-05	4403171	4554123	8957294
2005-06	4545213	4898737	9443949

Source: Calculated from Central Statistical Organization abstracts; Irudaya Rajan and Prasad, 2008

Annex 5: Persons covered under formal pension systems, 2006 (%)

	Civil service pensions (state)	Civil service pensions (centre)	Total
Andhra	8.2	4.1	12.3
Assam	8.9	2.8	11.7
Bihar	6.0	6.0	12.0
Gujarat	8.4	5.1	13.5
Haryana	8.6	4.5	13.2
Karnataka	8.2	5.9	14.1
Kerala	12.1	7.3	19.4
Madhya	7.0	5.1	12.1
Maharashtra	8.1	5.4	13.5
Orissa	6.7	4.5	11.2
Punjab	6.5	5.7	12.1
Rajasthan	5.9	5.1	11.0
Tamil Nadu	8.6	6.2	14.9
Uttar Pradesh	5.6	6.0	11.6
West Bengal	8.1	6.8	14.9
National	5.9	6.8	12.7

Sources: Computed by the researcher based on statistics on pension coverage in Handbook of Statistical Abstract, 2006 and information on the aged population in the 2001 census

Annex 6: Pension liability by the central and state governments (crore rupees)

	Centre	State	Total
1990-91	3,278	3,592	6,870
1991-92	3,748	3,715	7,463
1992-93	4,585	4,379	8,964
1993-94	5,206	5,107	10,313
1994-95	5,733	6,123	11,856
1995-96	6,928	7,813	14,741
1996-97	8,252	9,826	18,078
1997-98	11,375	11,667	23,042
1998-99	15,346	16,166	31,512
1999-00	19,444	22,679	42,123
2000-01	20,617	25,453	46,070
2001-02	21,411	27,849	49,260
2002-03	22,409	27,133	49,542
2003-04	24,242	29,456	53,698
2004-05	26,705	31,780	57,855
2005-06	27,908	34,103	62,011

Source: Pension expenditure calculated by the researcher based on Budget and Economic Survey Estimates

Demographic ageing and employment in India

This paper looks at the employment and unemployment situations of older persons in India, building upon a series of population censuses and rounds of National Sample Surveys, along with the author's projections. There are various mechanisms for older persons in India to remain active and engaged in gainful employment. However, these mechanisms are rarely prevalent, and poverty incidence among older persons is high, in terms of economic dependency and access to financial assets. Social security schemes exist for the organised and unorganised labour, of which coverage is nevertheless limited. This paper demonstrates the magnitude of these issues in India which has the second largest elderly population in the world. It thus highlights a need for effective and timely policy responses to address these issues.

ILO Regional Office for Asia and the Pacific

United Nations Building, 11th Floor
Rajdamnern Nok Avenue,
Bangkok 10200, Thailand
Tel. 662 288 1234, Fax. 662 288 3062
Email: BANGKOK@ilo.org

www.ilo.org/asia

DECENT WORK
A better world starts here

ISBN: 9789221230069