

Draft

**LEVELS AND DETERMINANTS OF HUNGER POVERTY IN
URBAN INDIA DURING THE 1990s**

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ABSTRACT

There are very few studies on the incidence of urban poverty and malnutrition in developing countries. The few studies that exist treat all urban areas – small towns, medium-sized towns and large metropolises – as a single urban entity. These studies conclude that urban poverty and urban malnutrition in developing countries is likely to grow in the near future (Haddad 1999, Ravallion 2002).

In this paper, we examine both the incidence of hunger-poverty – as measured by the inadequacy of calorie intake – among Indian metropolitan cities (urban agglomerations) in 1999-2000 as well as the change in hunger-poverty between 1993-94 and 1999-2000. The recent evidence from India (e.g., Meenakshi and Vishwanathan, 2003) suggests a divergent trend in the incidence of consumption-poverty and hunger-poverty; while the headcount index of consumption poverty has steadily declined since the 1970s, the incidence of hunger-poverty is reported to have increased.

There are two possible explanations for the divergent trend. First, the normative calorie norm that has been used to calculate hunger-poverty has remained the same since the 1970s (2,100 calories per person per day). Second, urban areas – comprising both small towns with of population of 5,000 persons population and large cities with over ten million population – are treated as a single entity by all the empirical studies. Dubey et al. (2001) have reported that the incidence of poverty in metropolitan cities is only about one-half of that in the smaller towns.

Both of these assumptions are not likely to be valid. The normative calorie requirement could change over time due to inter-temporal changes in the structure of employment. Further, the normative calorie requirement could differ significantly across cities of varying size, as the economic activities in these cities would be organized differently.

In this paper, we estimate hunger poverty by basing normative calorie requirements on household-level data on employment and occupational tasks, using the quinquennial rounds of a large national survey (National Sample Survey) during the 1990s. Using these estimates, we then analyze the socioeconomic and policy determinants of hunger-poverty in the metropolitan areas of India. The policy determinants include certain types of city characteristics and amenities.

LEVELS AND DETERMINANTS OF HUNGER POVERTY IN URBAN INDIA DURING THE 1990s

1. Introduction

This paper delves into incidence of poverty and hunger in Indian towns of different sizes. Traditionally, assessment of poverty has a pronounced bias in favor of rural poverty. See for example, Bardhan (1973), Ahluwalia (1978), Jain, Sundaram and Tendulkar (1988), Minhas and Jain (1989), Bhattacharya, Coondoo, Maiti and Mukherjee (1991), Gaiha (1992), Tendulkar (1992), Vaidyanathan (1992), Tendulkar, Sundaram and Jain (1993), Drèze and Srinivasan (1996) and many others.¹ A possible explanation for 'rural bias' in poverty assessment in case of developing countries could be that these countries have had very low level of urbanization in the initial stages. For example, in 1951 the urbanization level in India was under 16 percent that increased to over 27 percent by 2001.

In recent times incidence of poverty in the urban areas has drawn attention of researchers and policy makers. Excepting studies by Hoselitz (1957) and Sovani (1966), most of the studies are of recent origin, e.g. Rodgers (1989), Moser, Herbert and Makonnen (1993), Rakodi (1995), Moser (1996), de Haan (1997), Ruel and Garrett (1999). These studies consider urban poverty as a theme for the future. It is argued that since several developing countries are growing at a faster rate, the rate of urbanisation in these countries is also faster as well.² The first three studies mentioned did not treat urban poverty as a phenomenon separate from rural poverty. Through the thesis of over-

¹ The references quoted here are not exhaustive. There are many more studies, which are predominantly rural oriented. By contrast, the literature on urban poverty in India is limited.

² Median growth rate of urban population and per- capita income in the developing countries has been 4.4 percent and 5 percent respectively as compared to developed countries where it has been 1.75 percent and 3 percent respectively (World Development Report, 1984).

urbanization in the developing countries Hoselitz (1957) and Sovani (1966) concluded that the rural to urban migration was caused by push-factors, implying that it is poor who migrate, has led to increase in urban poverty incidence in recent times. Similarly, Rodgers (1989) argued that the urban poverty was a spillover of the rural poverty through the labour market processes. These observations seem to be have led researchers, for example Haddad et al (1999) and Ravallion (2002), to argue that that urban poverty and urban malnutrition could possibly be in increasing in developing.

These generalizations appear to be counterintuitive. For urbanization is a dynamic process that results due to high elasticity of substitution of capital and labour for land. This coupled with various positive externalities and scale economies leads to high concentration of population, resulting in growth of large cities. These processes result in substantial gain in factor productivity, specially labour. The available evidence suggests that labour productivity increases by 6-7 percentage points with doubling of city size (Sviekauskas, 1975).³ If the urban labour productivity gain is transferred to urban labour, then their real wages will increase as city size increases. Consequently, the poverty incidence in the large cities should be lower compared to smaller towns and cities. Indeed, empirical evidence provided by Dubey and Gangopadhyay (1998a) and Dubey et al (2001) supports this view.

While there is evidence to suggest that there is differential incidence of poverty by size-class of cities, there is no direct estimate of malnutrition at similar level of disaggregation. In this paper we have estimated poverty incidence and malnutrition among towns and cities of varying sizes in India during 1990s. The rest of the paper is

³ Here, city size is measured in terms of population.

organized in the following fashion. Next section provides a brief review of urban poverty studies in India. In section 3, we have reviewed data and methodological issues related to measurement of urban poverty and malnutrition. In section 4, incidence of poverty and malnutrition in the 1990s along with some of the correlates of urban poverty is discussed.. Finally, paper is summarized in section 5.

2. Urban Poverty in India: A review

As pointed out above, major focus of poverty studies has been on rural poverty. Some recent studies report national urban poverty figures along with rural poverty. The level of disaggregation in these studies is a state or regions within a state. In this category is the official poverty estimates put out by the Indian Planning Commission. They report the number and percent of poor at the all India level and also at the level of states (GOI, 1997, 2001). The official estimates suggest that during 1980s the incidence of urban poverty was stagnating while in the last decade, there has been significant decline in urban poverty.

There are a few more studies like those by Bardhan (1989), Minhas et al (1992), Gangopadhyay, Jain and Dubey (1997), Dubey and Gangopadhyay (1998a), Deaton and Tarrozzi (1999), Deaton (2003) and many others that report high spatial variation in levels of urban poverty across the states with varying degree of decline over time. Some researchers have tried to explain this by relating poverty incidence to variables of development state level.

In the recent years, Vashishtha, (1993) and Dubey and Gangopadhyay (1998a), report poverty estimates for the NSS regions in each of the states.⁴ Dubey and Gangopadhyay (1998b) and Dubey et al (2001) report incidence of urban poverty for different size-class of towns at all India level.

These researchers have examined the effect of size-class on incidence of poverty. They find that with the increase in size of urban settlements, the incidence of poverty declines. The variation in incidence of poverty across different size of urban settlement is explained through the nature of employment and labour productivity. In the smaller size-class of towns, the labour productivity (measured through level of education) is lower and in the larger towns it is higher, resulting in higher poverty in the former and lower poverty in the latter. In a similar type of study, Dubey and Mahadevia (2001) estimate incidence of poverty in individual metropolitan cities in India for two years, 1987-88 and 1993-94. They also report that the incidence of poverty declines with the increase in the size among the metropolitan cities also.⁵

The brief review of urban poverty assessment suggest that while there are wide variations in poverty incidence across states and regions with in large states and also across city sizes, the direct estimates of calorie deficiency or malnutrition at similar level of disaggregation does not appear to have been examined.

⁴ NSS region in large Indian states have been formed by combining contiguous districts falling with in a so called same demographic and agro-climatic zones.

⁵ There are a few studies that report poverty incidence in urban areas either by size of the slum settlement or some times surveying a few households. Clearly these studies are neither comparable over time or space.

3. Poverty Measurement: Data and Methodological Issues

3.1 Poverty Line

In most of the developing countries, including India, poverty is measured in absolute sense. A common approach in measuring absolute poverty is to specify a bundle of goods and services deemed necessary to meet basic consumption needs. The most widely used estimates use food energy requirements to define basic consumption needs.

The normative food energy intake was worked out by the **Task Force**,⁶ constituted by the Planning Commission in 1979. This group accepted the calorie intake norms recommended by the Nutrition Expert Group (1968), according to fourteen age-sex-activity categories. The census based activity pattern, according to age and sex (differing for rural and urban populations), was super-imposed on the (projected) rural and urban populations.⁷ This provided the age-sex-activity-specific composition of the rural and urban populations. The specific calorie norms (assumed to be uniform for the rural and urban populations) were then weighted by the corresponding compositions of the rural and urban populations separately, to derive the rural and urban *average* uniform calorie norms. The daily calorie requirements per person worked out, on the average, to be 2435 for rural and 2095 for urban areas.⁸

From the average quantities of food items that would meet this calorie requirement, the cost of food basket was calculated. The expenditure on food is used to identify the poverty line. The result is a poverty norm that has some expenditure on non-

⁶ See GOI (1979).

⁷ For specific numerical assumptions made in this connection, see Perspective Planning Division (1979), pages 5-7.

⁸ Dandekar and Rath (1971) also estimated a uniform poverty norm for both rural and urban sectors based on daily calorie intake of 2250 Kcal per capita. But since most of the researchers, and also the official poverty calculation in India now use the calorific norm suggested by the Task Force (GOI, 1979), we will restrict our discussion to the later only. See Dubey and Gangopadhyay (1998) for details on this issue.

food items also, assuming that the basic health care and education will be provided by the state. Therefore, the non-food component of the PL is a residual in the level of expenditure where basic food requirement is fulfilled. For the urban sector the money value of urban poverty line was worked out at Rs.56.64 at 1973-74 prices.⁹ The average food energy requirement has been kept invariant since then while poverty line has been updated for both temporal changes and spatial variations in prices.¹⁰

3.2 Data

For assessing poverty, a welfare profile of the population is required. Since poverty is conceptually related to consumption, the data used in poverty studies in India is the consumption expenditure by the households.¹¹ This data is collected through a sample survey conducted by the National Sample Survey Organization (NSSO), Government of India. In this paper we use household level consumption expenditure data (Schedule 1.0) collected during the 50th and 55th rounds of survey carried out by the NSSO. The reference periods were the agricultural year July to June in both rounds of survey.¹² The data are collected using a stratified sampling design. The household weights, therefore, are a natural part of the data. Roughly, 120,000 households were surveyed in each of the two rounds.

⁹ For further details, see Dubey and Gangopadhyay (1998a).

¹⁰ There are two price indices, for Industrial Workers (CPIIW) and for Urban Non-manual Employees (CPIUNME), available for urban sector in India. A combined price index is used by taking a simple average of the two in updating poverty line for price variation. These data are collected from different urban centres spread over two states in India. A closer examination of these centres suggests that by 2001 census about 32 centres have population over a million. This is likely to overestimate price variation as compared to smaller towns.

¹¹ In the huge literature on poverty in India, there are only a few studies based on income data. See Pradhan and Saluja (1998) for an exhaustive survey of literature on this issue.

¹² The agricultural year in India is different from the financial year that runs from April 1 to March 31.

In this paper along with the consumption expenditure data, we also use employment and unemployment data (Schedule 10.0) collected by the NSSO for the same years. During 1993-94, both consumption and employment and unemployment data were collected from the same households. But in 1999-2000, this information was collected from two different sets of households.

The coverage of these surveys is the entire territory of the Indian Union except for areas where it has not been possible to reach the households. For the purpose of the survey, NSSO had considered 32 states and union territories during these two rounds. Each of these is divided into one or more regions. The GOI (1993, 1999) have the details on coverage and design of the surveys and also the composition of regions.¹³

The consumption data contains detailed information on household consumption -- quantity as well as value of consumption on all the goods and services that the households consume. We use both value and the total quantity of food items consumed in both rounds in this paper.¹⁴ The employment and unemployment data (Schedule 10.0) has information on age, sex, and activity of all the members (about 600,000 persons) of the surveyed households.

For calculating poverty incidence, we use values of the of different consumption items by the households and normalize it to arrive at per person consumption expenditure. For converting the quantities to calorie consumption by the household, calorific values for each food item are used; these are also referred to as conversion

¹³ See also Dubey and Gangopadhyay (1998) on this issue.

¹⁴ There is some difference in the way the consumption data were collected in these two rounds. Consequently, we have aggregated the quantity of food items consumed in 50th round to make it comparable to 55th round.

factors.¹⁵ From the employment data, we use age, sex and occupation of all the members in the surveyed households to calculate normative calorie requirement for each household. The normative food energy requirement by age-sex-occupation is reported in Dubey (2003).¹⁶

3.3 Sample size and population Distribution by Size-class of Towns

Of the entire data set, in this paper we use only the consumption and employment and unemployment data relating for the urban sector. The urban sample is stratified into four classes of cities.¹⁷ These are:

- (i) S1: all the towns (census or other-wise) with population less than 50,000
- (ii) S2: towns with population more than 50,000 but less than 200,000
- (iii) S3: towns with population more than 200,000 but less than a million
- (iv) S4: towns with population more than a million

The city size-wise sample size for two years, 1993-94 and 1999-2000 for all the major states in India and remaining states and union territories clubbed together is reported in table 1. Distribution of sampled households among four strata suggests that one can get a reliable estimate of consumption and poverty for different size of towns and cities.

Tables 2 and 3 report distribution of population by different city sizes. It is apparent that smaller towns account for substantial proportion of population among them. On the whole, over 30 per cent of urban population surveyed by the NSS in 1993-94

¹⁵ The conversion factors are available from Gopalan et. al. (1993), GOI (1979), GOI (1997) and GOI (2001).

¹⁶ Details on these calculations are available in Bhandari and Dubey (2001) and also Dubey (2003).

¹⁷ During two rounds of survey, the number of strata formed for collecting data on urban households is different. We have made them comparable over two rounds by merging two strata in 1993-94 and splitting one stratum into two.

lived in cities and towns with population less than 50,000 (S1). In towns and cities with population between 50,000 and 200,000 (S2), the proportion of urban population was about a quarter. In S3 proportion of population was only 23 percent and in the metros (S4), about 22 percent (Tables 2).

The NSS urban population distribution across size-classes does not tally with the census figures. Since the census has a different size-class classification of urban centres, except the definition of metro, we have not been able to compare the population distribution data by size-class of the census with that of the NSS. As per 1991 census, 32.63 per cent urban population lived in the metro cities (NIUA 1995). As per the NSS, of the surveyed population, only 21.51 per cent lived in the metro cities (Table 2). Tables 2, therefore, do not suggest the actual distribution of urban population over different size-class of urban settlements but indicate the sampling distribution. A similar distribution is obtained from 1999-00 NSS data.

3.4 Expenditure Distributions and Inequality by City Size

Table 4 reports average real (at 1993-94 prices) per capita expenditure by city size in 1993-94 and 1999-00. This table clearly brings out the differences in level of living across different city sizes. Average expenditure in million plus cities is about 50 percent higher in both the rounds. This is very clear from figure 1 and 2 also where the distribution of expenditure appears log normal and in both the rounds the four city sizes have a distinct distribution. Growth in real expenditure in different city size has been

different too.¹⁸ For S1, the real APCTE increased by 10.77 percent. In other size classes, the increase has been: in S2 by 16.11 percent, in S3 by 15.53 percent and in S4 by 8.87 percent.

What would explain these differences? Here we report average weekly earning (real) of a group of workers that could be considered casual for four city sizes in two rounds.¹⁹

Average real weekly wages (at 1993-94 prices) for casual workers²⁰

City Size	1993-94	1999-00	Growth (in %)
S1	193.91	296.83	53.08
S2	180.09	328.70	82.52
S3	214.34	376.17	75.50
S4	247.32	422.01	70.63
Total	210.08	353.24	68.15

The table suggests that the average wages in S4 are over 28 percent higher than in S1. The disparity in earnings increased over the years also though increase appears to be on the higher side as far as NSS data is concerned.²¹

Figures 1 and 2 show the expenditure distribution in all the four city sizes for two years. Figure 3 to 6 shows the distribution of population at various expenditure classes for four years 1983, 1987-88, 1993-94 and 1999-2000 for each town sizes. Similarly,

¹⁸ For calculating real expenditure, the nominal expenditure in 1999-00 has been deflated using an implicit price deflator derived from the state-wise official poverty line. Though this may not be the best way of deflating expenditure.

¹⁹ The wages reported in the NSS data can be considered indicative only as the data is not standardised.

²⁰ The labourers included for calculating wages are: Labourers not classified elsewhere (n.e.c.), Bricklayers & other Construction workers, Material handling and related equipment operators, loaders and unloaders, Maids and other housekeeping services n.e.c.

²¹ The average wages reported in 1999-00 does not seem plausible though the spatial variation is consistent with 1993-94. However, for the same years, rural wages for the workers engaged in agricultural operations shows a similar change (GOI, 2003).

figure 7 is plotted for entire urban population.²² Clearly, during 1990s, urban sector appears to have benefited most. Another interesting thing to observe is that shift in the distribution to right at lower expenditure levels is smooth. This also highlights the fact that the direction of change in urban poverty incidence will be independent of poverty line.

In figures 4 to 7, the population distribution is plotted for four city sizes for all the four rounds as in figure 3. In S1 the shift in the distribution does not appear to much while other three city sizes seem to have benefited more specially during the 1990s.

Table 5 reports measure of inequality, Gini Coefficients for S1 to S4 for two years, 1993-94 and 1999-2000. For the urban sector as a whole, the inequality appears to be increasing. Among different sizes of towns also Gini coefficient has increased marginally except in S2. Among the major states for which the Gini coefficient is reported, temporal change appears to be mixed.

4. Poverty Measures by City Size

In the last section, we discussed the changes in average expenditure and distribution of population at various level of expenditures. In this section we discuss different poverty measures, head count index, poverty gap index, FGT index and calorie poverty for four city sizes.

4.1 Poverty Measures

Poverty indices have been calculated using expenditure distribution for different city sizes for all India as well as for major states. The poverty line used in these

²² Data from two earlier rounds is included to see the long-term shift in the distribution and also consistency of the expenditure distribution.

calculations is state-wise Indian Official Poverty line reported in GOI (1997) and GOI (2001).

The poverty indices, head count, poverty gap and FGT are reported in tables 6 (1993-94) and 7 (1999-00). In 1993-94, the HCI in S4 is almost half of that in S1. This is also true for all the states. In other words, there is a clear hierarchal structure in the city size and poverty incidence. A similar story emerges in 1999-00 both at the all India level as well as among the states. In terms of poverty incidence, urban settlements are ranked as:

$$S1 < S2 < S3 < S4$$

This is irrespective of level of urbanisation or level of development of the states.²³

4.2 Calorie Poverty

In this section we discuss incidence of calorie poverty. A person is considered calorie poor if their food energy intake falls short of the recommended normative food energy requirement. The calorie poverty has been worked out on the basis of average intake and requirement at household level as intra-household allocation of food is beyond the scope of this paper.

²³ The official poverty number for the urban sector available in GOI (1997) and GOI (2001) for the two rounds, 1993-94 and 1999-00 are higher compared to those reported in Deaton and Tarrozzi (1999) and Deaton (2003). The basic difference is in the absolute values of poverty lines used in the two sets of calculations. While Deaton and Tarrozzi (1999) and Deaton (2003) have derived a different set of price indices using NSS data to update the PLs, the Indian Official Poverty Line is updated using price data collected specifically for the purpose. Former show a lower price increase. Consequently, the Poverty Line used by Deaton and Tarrozzi (1999) and Deaton (2003) is lower than the PLs used in the GOI (1997) and GOI (2001) calculations. However, the direction of temporal change will not be affected given the distribution discussed in the last section.

4.2.1 The Household Calorie Requirement

Compared to the methodology adopted by the Task Force described above, in this paper we worked out the normative calorie requirement on the basis of age-sex-activity patterns using the unit level employment and unemployment data. We have retained the assumption of uniform specific calorie norm for the urban sector across geographical areas. In other words, we consider age, sex and occupation as the sole criteria determining calorific requirement.²⁴ This seems necessary as the normative requirement used by the Task Force was worked out in 1979. Moreover, this is an average for the country as a whole while there could be variations in employment structure over the states and size of urban settlements. Further, not only level of urbanisation level has increased but there might have been change in the occupational structure in the urban areas.

The average normative calorie requirement has declined in the urban sector compared to that worked out by the Task Force quoted above. The averages calculated for 1993/94 and 1999/00 at the all India level based on alternative refinements are reported below. We consider the average normative requirement reported in the last column better than the other norms.²⁵ Table 8 reports average normative calorie requirement for four city sizes for major states and also for all India level. This table highlights the spatial variation in normative calorie requirement.

²⁴ See Dubey (2003) for details.

²⁵ See Dubey (2003) for details.

Average Calorie Requirement in the Urban Sector
(Kcal per capita/day)

Sector	Task Force (TF) Methodology	TF Adjusted for Age	Refined Methodology based on NCO	RM Adjusted for Age
1993-94	2056	2011	2107	2051
1999-00	2064	2005	2109	2049

4.3 Incidence of Calorie Poverty

Using the normative calorie requirement for each household, we calculated the proportion of population that is calorie poor in four city sizes for major states as well as all India. The incidence of calorie poverty is reported in table 9. It is to be pointed out here that for 1999-00, the proportion of population whose food energy falls short of the normative requirement could not be calculated directly at the household level as the we used employment and unemployment data for calculating the normative requirement in 1999-00 whereas the calorie consumption has been calculated consumption expenditure data. Unfortunately, unlike earlier rounds of survey, the two sets of households in this round were different. Consequently, we had to use an approximation, predicted household calorie requirement.

Between 1993-94 and 1999-00, the results suggests that the calorie poverty has increased for the urban sector as a whole as well as for different city sizes. Other unexpected finding is, unlike consumption expenditure poverty where there is unambiguous decline over time as well as over city sizes; the calorie poverty is either increasing as the city size increases or it is stagnant.

This seems rather implausible results especially in the light of significant differences in the real average per capita expenditure in the two rounds. The organization of economic activity in the urban areas is such that on an average, the literacy rates are

higher than rural areas. In fact, average years of schooling of the population in working age groups increases with city size that to some extent explains the higher earnings and average expenditure. Clear, the available data is not in a position to reconcile the divergent trends in the expenditure and calorie poverty.

5. Conclusion and Policy Implications

In this paper we examined incidence of income and hunger poverty at different size of urban settlements in India and among Indian states. We started with the hypothesis that organization of economic activities in different size of urban settlement could be different. This could affect the level of productivity of labour located in urban settlements of varying sizes. This could affect labour earnings and their poverty levels. The increased labour earnings would then have an impact on income and hunger poverty of the household.

We find that there is an unambiguous relationship between size of the urban settlement and incidence of income poverty. The households living large cities (with population more than a million) are less likely to be in poverty than their counterparts in the smaller towns. However the same does not appear to be true in case of hunger poverty. In fact our calculations suggests that the household living in Indian metropolises are more like to be suffering from hunger poverty than those in the smaller towns. When contrasted with the relatively low poverty incidence, the higher incidence of deficiency in calorie intake is cause for concern. Despite the finding that Indians on the average require fewer calories in the nineties than they did before, the study finds that almost half

the Indians report consuming fewer calories than they require as per the widely believed norms.

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Table 1: Sample Size (Number of households surveyed)

State	1993-94					1999-00				
	< 50,000	50,000-2 lakh	2-10 lakh	> 10 lakh	Total	< 50,000	50,000-2 lakh	2-10 lakh	> 10 lakh	Total
APR	910	1,150	908	677	3,645	862	1,131	662	1,139	3,794
ASS	480	200	200		880	468	192	192		852
BIH	718	477	959		2,154	864	671	540	192	2,267
GUJ	559	549	240	1,024	2,372	768	778	261	957	2,764
HAR	180	360	157		697	192	436	130		758
KAR	789	520	640	519	2,468	840	623	479	480	2,422
KER	950	360	520		1,830	1,056	396	563		2,015
MPR	1,188	787	753	504	3,232	1,246	882	634	383	3,145
MAH	879	560	1,303	2,783	5,525	864	644	1,320	2,370	5,198
ORI	399	279	359		1,037	478	334	178		990
PUN	459	579	509	399	1,946	480	546	476	381	1,883
RAJ	629	436	433	303	1,801	658	494	545	288	1,985
TND	1,151	1,105	952	836	4,044	1,332	1,272	516	1,056	4,176
UPR	1,514	874	1,420	639	4,447	1,517	971	1,171	955	4,614
WEB	750	1,040	718	829	3,337	756	1,007	586	951	3,300
Other States	3,202	1,874	666	986	6,728	3,987	2,117	1,426	859	8,389
All India	14,757	11,150	10,737	9,499	46,143	16,368	12,494	9,679	10,011	48,552

Source: Special tabulation by authors using unit record NSS data

Table 2: State-wise Population Distribution Across City-Size in 1993-94

State	S1	S2	S3	S4	All
APR	30.20	34.22	25.02	10.57	100.00
ASS	56.13	21.43	22.44	---	100.00
BIH	30.91	23.85	45.24	---	100.00
GUJ	29.27	31.30	8.51	30.93	100.00
HAR	27.12	54.48	18.40	---	100.00
KAR	79.76	20.24	0.00	---	100.00
KER	36.55	22.22	21.31	19.91	100.00
MPR	55.65	20.87	23.47	---	100.00
MAH	38.78	27.22	20.02	13.97	100.00
ORI	20.68	11.62	22.42	45.27	100.00
PUN	43.27	25.77	30.95	---	100.00
RAJ	22.70	30.08	30.76	16.46	100.00
TND	35.49	25.17	25.60	13.74	100.00
UPR	32.01	27.54	19.61	20.84	100.00
WEB	35.84	22.74	29.55	11.87	100.00
APR	23.84	34.52	21.72	19.92	100.00
All India	30.86	24.74	22.90	21.51	100.00

Source: As in table 1

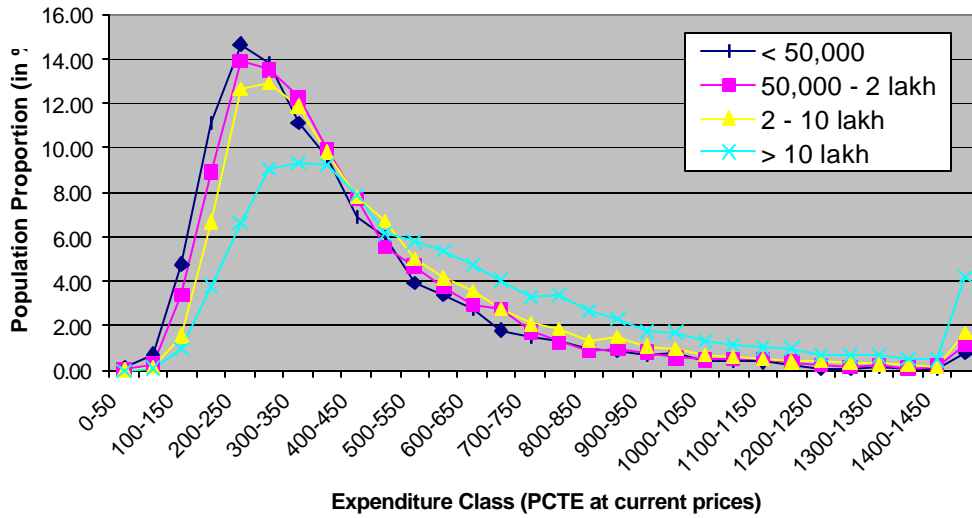
Table 3: Population Distribution by City Size and States, 2001

Major States	S1	S2	S3	S4	Total
APR	13.47	36.33	32.81	17.40	100.00
ASS	47.23	28.10	24.67	---	100.00
BIH	29.18	34.53	20.21	16.08	100.00
GUJ	19.59	26.87	11.23	42.31	100.00
HAR	24.09	37.98	20.43	17.49	100.00
KAR	25.31	22.52	27.74	24.43	100.00
KER	41.61	25.31	33.08	---	100.00
MPR	36.01	25.16	19.69	19.14	100.00
MAH	14.70	11.27	22.73	51.30	100.00
ORI	37.76	26.92	35.32	---	100.00
PUN	25.37	30.30	27.11	17.21	100.00
RAJ	29.58	23.09	29.66	17.67	100.00
TND	42.95	21.65	19.93	15.48	100.00
UPR	29.74	22.23	24.15	23.89	100.00
WEB	17.05	30.62	27.33	25.00	100.00
Total	26.22	23.65	24.04	26.09	100.00

Note: A similar population distribution is obtained from 1999-00 NSS data. It is not being reported here for space constraints.

Source: Census 2001

**Figure 1: Distribution of population by expenditure classes
(Different city sizes in 1993-94)**



**Figure 2: Distribution of population by expenditure classes
(Different city sizes in 1999-00)**

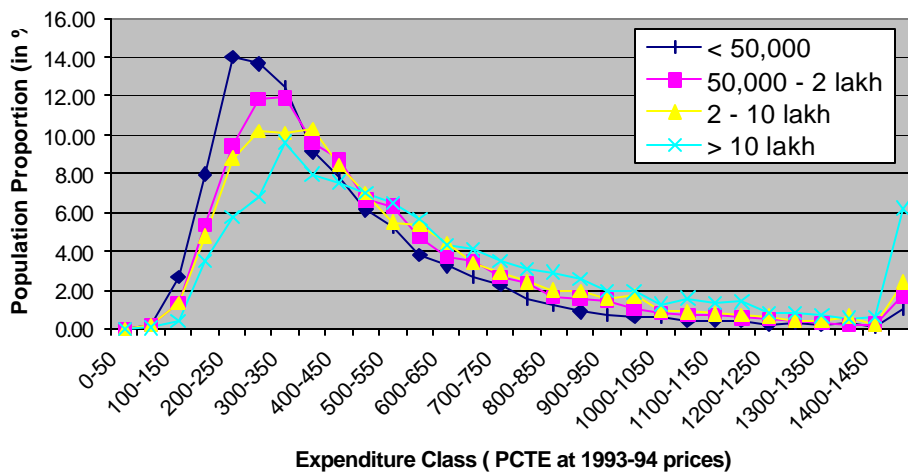


Figure 3: Distribution of population by expenditure classes in urban areas

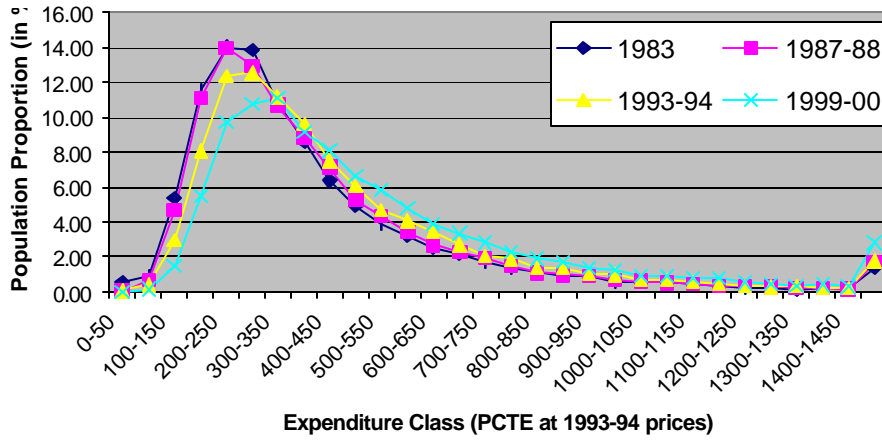
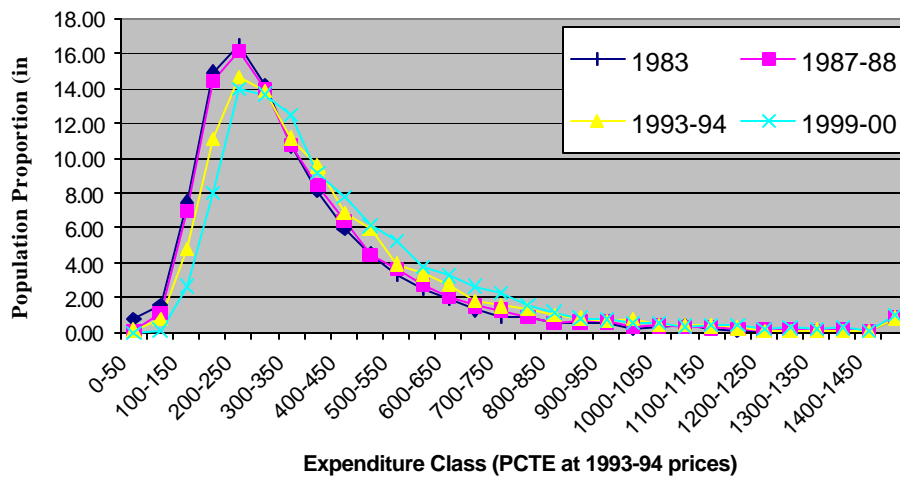
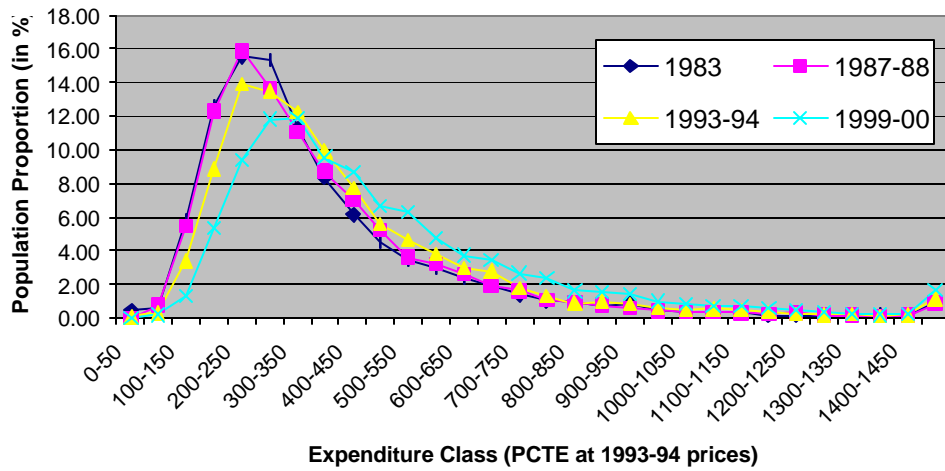


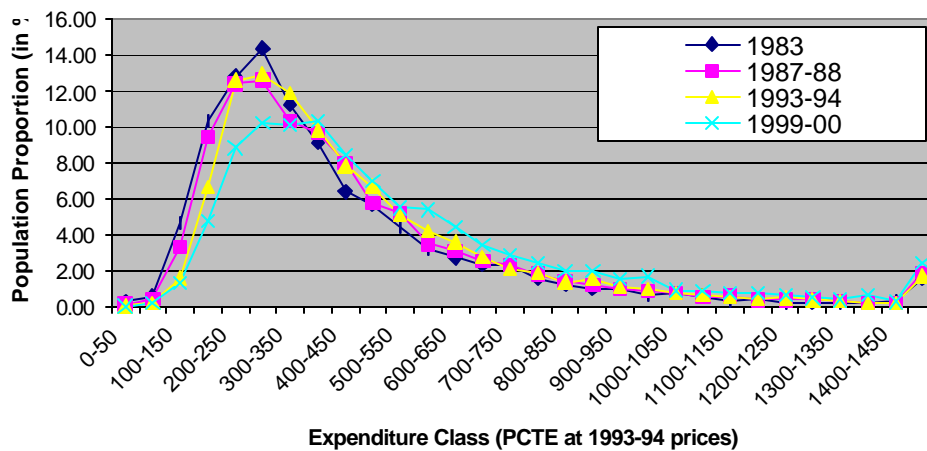
Figure 4: Distribution of population by expenditure classes (Cities with population less than 50,000)



**Figure 5: Distribution of population by expenditure classes
(Cities with population between 50,000 to 2 lakh)**



**Figure 6: Distribution of population by expenditure classes
(Cities with population between 2 to 10 lakh)**



**Figure 7: Distribution of population by expenditure classes
(Cities with population more than 10 lakh)**

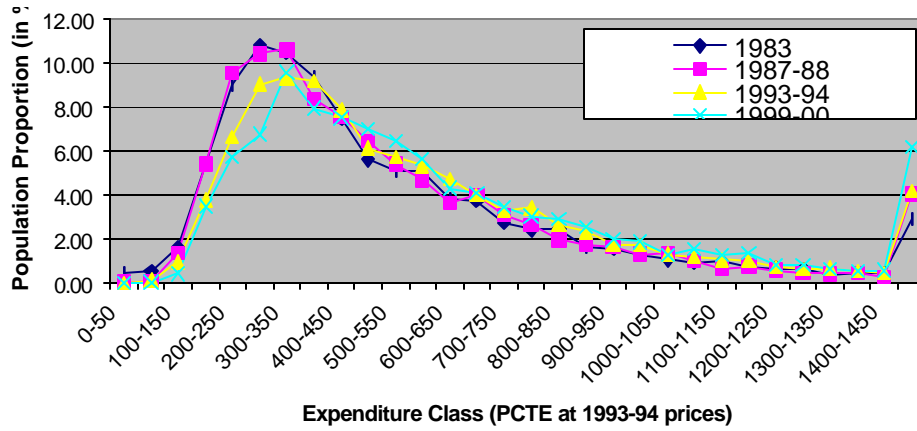


Table 4: Average real per capita monthly expenditure (at 1993-94 prices)

(In Indian Rupees)

State	1993-94					1999-00				
	S1	S2	S3	S4	Total	S1	S2	S3	S4	S1
APR	366.89	399.16	427.82	516.43	408.96	373.00	481.51	474.72	545.61	469.54
ASS	419.15	448.58	566.68	...	458.57	398.45	594.94	696.95	...	502.55
BIH	283.77	346.08	403.75	...	352.90	346.71	346.73	421.99	447.99	378.32
GUJ	396.88	460.61	379.28	522.50	454.18	511.04	521.06	515.36	634.56	558.58
HAR	463.66	490.34	440.42	...	473.92	458.19	614.59	583.16	...	560.35
KAR	373.89	373.71	455.05	538.83	423.96	420.82	503.92	531.63	740.52	542.96
KER	460.09	515.96	554.07	...	493.82	487.57	607.49	622.85	...	548.35
MPR	350.87	406.08	458.93	501.62	408.60	402.65	456.47	494.15	592.48	456.57
MAH	375.18	423.56	471.42	657.01	529.74	426.41	492.00	514.39	713.74	594.25
ORI	392.39	383.10	432.96	...	402.56	340.36	432.44	464.90	...	391.08
PUN	467.39	520.35	502.25	571.62	511.20	525.44	635.09	584.68	596.91	587.12
RAJ	371.93	396.94	473.16	520.76	424.60	430.90	399.71	513.62	688.77	479.64
TND	379.36	407.72	487.16	522.52	438.10	534.38	501.09	875.78	702.43	606.31
UPR	336.71	375.42	456.48	434.65	392.54	349.22	468.04	531.26	416.28	430.16
WEB	400.24	449.59	497.92	579.35	474.17	529.83	468.48	475.77	618.34	525.60
OTH	487.01	639.93	753.01	794.77	623.94	573.55	596.92	714.61	906.68	770.11
All India	391.11	422.70	467.99	606.28	459.89	433.23	490.80	540.66	660.03	528.06

Note: ... denotes that no cities with population more than a million were there in that particular state.

Source: As in table 1

Table 5: Gini Coefficients of Monthly Per Capita Expenditure across different city sizes

State	1993-94					1999-00				
	S1	S2	S3	S4	Total	S1	S2	S3	S4	Total
APR	0.3127	0.3288	0.3116	0.3208	0.3235	0.2858	0.3076	0.3096	0.3281	0.3156
ASS	0.2782	0.2543	0.3001	...	0.2899	0.2774	0.2777	0.2971	...	0.3124
BIH	0.2754	0.2997	0.3105	...	0.3094	0.2903	0.2882	0.3755	0.3168	0.3230
GUJ	0.2604	0.2708	0.2389	0.3262	0.2910	0.2789	0.2685	0.2671	0.3074	0.2910
HAR	0.2492	0.2862	0.3186	...	0.2839	0.2884	0.2814	0.2813	...	0.2911
KAR	0.3338	0.2929	0.3086	0.2740	0.3187	0.3004	0.3547	0.2781	0.2882	0.3282
KER	0.3392	0.3446	0.3395	...	0.3434	0.3028	0.3378	0.3342	...	0.3262
MPR	0.2984	0.3169	0.3390	0.3714	0.3306	0.2770	0.2914	0.3390	0.4088	0.3193
MAH	0.3688	0.3358	0.3274	0.3228	0.3571	0.3295	0.3081	0.3367	0.3471	0.3540
ORI	0.3148	0.2764	0.3147	...	0.3072	0.2690	0.2869	0.3133	...	0.2964
PUN	0.2665	0.3038	0.2796	0.2446	0.2811	0.2617	0.3041	0.2887	0.3102	0.2936
RAJ	0.2672	0.2978	0.2948	0.2773	0.2935	0.2563	0.2526	0.2650	0.3199	0.2851
TND	0.3103	0.3453	0.3497	0.3660	0.3481	0.3811	0.3244	0.5204	0.3525	0.3890
UPR	0.3249	0.3103	0.3240	0.2976	0.3258	0.2986	0.3315	0.3347	0.3213	0.3319
WEB	0.3373	0.3314	0.3254	0.3273	0.3388	0.4472	0.2735	0.3014	0.3430	0.3467
OTH	0.2785	0.3759	0.4374	0.4058	0.3691	0.2737	0.2933	0.3017	0.3577	0.3468
All India	0.3181	0.3228	0.3287	0.3527	0.3414	0.3220	0.3126	0.3424	0.3605	0.3469

Note: As in table 4

Source: As in table 1

Table 6: Poverty ratios across different city sizes in 1993-94

State	HCR					PGI					FGT				
	S1	S2	S3	S4	Total	S1	S2	S3	S4	Total	S1	S2	S3	S4	Total
APR	45.07	41.38	35.80	19.61	38.82	0.1208	0.1000	0.0725	0.0356	0.0927	0.0457	0.0351	0.0209	0.0093	0.0321
ASS	9.02	6.59	6.47	...	7.93	0.0091	0.0121	0.0063	...	0.0092	0.0025	0.0031	0.0011	...	0.0023
BIH	49.58	36.34	24.06	...	34.88	0.1211	0.0843	0.0472	...	0.0789	0.0414	0.0292	0.0151	...	0.0266
GUJ	36.49	22.00	33.76	25.35	28.32	0.0800	0.0531	0.0755	0.0508	0.0623	0.0257	0.0179	0.0232	0.0148	0.0197
HAR	12.59	13.51	30.95	...	16.47	0.0169	0.0267	0.0615	...	0.0305	0.0033	0.0081	0.0175	...	0.0085
KAR	51.87	47.57	31.71	17.24	39.66	0.1626	0.1295	0.0838	0.0337	0.1126	0.0664	0.0482	0.0301	0.0096	0.0432
KER	28.75	23.20	14.79	...	24.31	0.0665	0.0503	0.0333	...	0.0553	0.0235	0.0163	0.0102	...	0.0189
MPR	57.44	45.27	40.18	38.42	47.96	0.1702	0.1229	0.1055	0.0951	0.1337	0.0671	0.0447	0.0371	0.0331	0.0502
MAH	58.96	50.29	40.89	17.08	34.97	0.2098	0.1474	0.1015	0.0399	0.1015	0.0973	0.0615	0.0357	0.0139	0.0416
ORI	44.70	39.00	36.32	...	40.64	0.1303	0.1007	0.1028	...	0.1141	0.0506	0.0373	0.0369	...	0.0429
PUN	14.92	13.49	9.52	3.11	10.89	0.0224	0.0223	0.0150	0.0023	0.0168	0.0059	0.0052	0.0037	0.0002	0.0041
RAJ	38.18	34.28	25.14	17.71	31.05	0.0872	0.0867	0.0498	0.0335	0.0701	0.0275	0.0298	0.0155	0.0099	0.0226
TND	45.63	44.85	32.00	32.22	40.02	0.1261	0.1153	0.0744	0.0766	0.1029	0.0549	0.0420	0.0245	0.0274	0.0398
UPR	47.93	38.11	22.08	20.77	34.83	0.1310	0.0863	0.0458	0.0485	0.0858	0.0490	0.0283	0.0140	0.0162	0.0300
WEB	33.83	25.47	18.57	10.35	22.94	0.0747	0.0482	0.0343	0.0178	0.0454	0.0234	0.0151	0.0107	0.0052	0.0141
OTH	7.03	8.86	12.83	16.11	10.84	0.0152	0.0130	0.0301	0.0392	0.0249	0.0050	0.0031	0.0110	0.0143	0.0087
India	38.91	34.94	28.28	19.84	31.69	0.1074	0.0857	0.0643	0.0447	0.0801	0.0420	0.0304	0.0211	0.0150	0.0291

HCR (Head Count Ratio) is in percentage; PGI (Poverty Gap Index) and FGT (Foster- Greer- Thorbecke index) are ratios.

Note: As in table 4

Source: As in table 1

Table 7: Poverty ratios across different city sizes in 1999-00

State	HCR					PGI					FGT				
	S1	S2	S3	S4	Total	S1	S2	S3	S4	Total	S1	S2	S3	S4	Total
APR	43.89	22.37	28.88	18.56	27.24	0.0893	0.0485	0.0570	0.0336	0.0556	0.0273	0.0156	0.0171	0.0090	0.0170
ASS	11.64	1.95	0.78	...	7.22	0.0252	0.0014	0.0007	...	0.0148	0.0071	0.0001	0.0001	...	0.0041
BIH	33.62	35.66	33.22	28.00	33.48	0.0722	0.0639	0.0787	0.0375	0.0673	0.0227	0.0170	0.0295	0.0068	0.0208
GUJ	19.25	15.94	13.73	10.80	14.73	0.0342	0.0261	0.0204	0.0159	0.0240	0.0105	0.0062	0.0049	0.0039	0.0064
HAR	21.59	5.07	4.07	...	10.02	0.0486	0.0087	0.0051	...	0.0204	0.0199	0.0023	0.0012	...	0.0076
KAR	37.79	31.14	19.12	5.74	24.48	0.0967	0.0691	0.0337	0.0099	0.0566	0.0336	0.0228	0.0098	0.0022	0.0187
KER	22.03	16.62	17.73	...	19.84	0.0450	0.0292	0.0341	...	0.0391	0.0138	0.0074	0.0093	...	0.0114
MPR	43.75	33.21	35.53	33.30	38.47	0.1088	0.0863	0.0774	0.0859	0.0952	0.0381	0.0311	0.0234	0.0314	0.0331
MAH	48.52	34.79	33.22	14.14	26.56	0.1405	0.0936	0.0907	0.0243	0.0667	0.0537	0.0353	0.0329	0.0070	0.0239
ORI	53.61	31.05	31.01	...	42.41	0.1366	0.0719	0.0953	...	0.1081	0.0465	0.0261	0.0421	...	0.0389
PUN	8.04	3.76	5.58	4.48	5.47	0.0083	0.0042	0.0103	0.0009	0.0063	0.0016	0.0007	0.0025	0.0001	0.0013
RAJ	24.67	29.63	11.54	2.50	19.49	0.0444	0.0510	0.0205	0.0049	0.0345	0.0122	0.0133	0.0053	0.0011	0.0092
TND	28.34	30.29	11.89	11.36	22.67	0.0606	0.0651	0.0215	0.0249	0.0483	0.0198	0.0209	0.0063	0.0080	0.0156
UPR	43.16	23.07	16.83	31.94	30.52	0.0932	0.0515	0.0349	0.0679	0.0656	0.0295	0.0164	0.0105	0.0189	0.0200
WEB	25.39	11.55	14.59	9.72	14.55	0.0541	0.0188	0.0212	0.0147	0.0256	0.0173	0.0045	0.0056	0.0035	0.0071
OTH	5.52	13.39	3.65	7.09	7.38	0.0106	0.0259	0.0081	0.0113	0.0131	0.0033	0.0069	0.0026	0.0026	0.0034
India	33.67	23.12	21.66	15.32	23.87	0.0771	0.0495	0.0488	0.0290	0.0522	0.0258	0.0158	0.0162	0.0082	0.0168

Note: HCR (Head Count Ratio) is in percentage; PGI (Poverty Gap Index) and FGT (Foster- Greer- Thorbecke index) are ratios.

Note: As in table 4

Source: As in table 1

Table 8: Normative Calorie Requirement Adjusted for Age, Sex and Work Category

States	1993-94					1999-2000				
	S1	S2	S3	S4	Total	S1	S2	S3	S4	Total
APR	2057	2042	2048	2051	2049	2050	2070	2059	2052	2061
ASS	2068	2086	2067	---	2072	2050	2044	2050	---	2049
BIH	2074	2043	2068	---	2064	2019	2022	2021	2050	2024
GUJ	2038	2025	2031	2080	2046	2045	2057	2048	2068	2057
HAR	2018	2046	2067	---	2042	2012	2070	2043	---	2048
KAR	2040	2047	2050	2058	2047	2058	2055	2058	2050	2055
KER	2056	2061	2057	---	2057	2039	2033	2055	---	2043
MPR	2028	2034	2028	2038	2031	2029	2022	2017	2032	2026
MAH	2025	2044	2054	2064	2051	2027	2037	2071	2068	2059
ORI	2103	2022	2088	---	2078	2054	2074	2041	---	2059
PUN	2022	2026	2041	2102	2042	2030	2029	2071	2122	2055
RAJ	2027	2044	2034	2064	2038	2024	2059	2075	2070	2052
TND	2056	2054	2077	2076	2064	2061	2041	2067	2070	2058
UPR	2008	2026	2018	2041	2019	2011	2056	2048	2042	2036
WEB	2084	2079	2068	2079	2078	2060	2047	2041	2051	2050
OTH	2087	2054	2054	2078	2080	2054	2087	2026	2059	2059
Total	2048	2044	2049	2067	2051	2037	2051	2053	2059	2049

Note: As in table 4

Source: As in table 1

Table 9: Incidence of Calorie Poverty

States	1993-94					1999-2000				
	S1	S2	S3	S4	Total	S1	S2	S3	S4	Total
APR	47.84	53.68	58.43	56.08	53.38	67.82	61.83	68.39	71.03	65.94
ASS	50.17	70.40	42.09	---	52.70	67.31	65.11	59.89	---	65.39
BIH	47.53	44.18	42.04	---	44.25	50.27	55.27	56.22	28.68	50.51
GUJ	43.21	44.19	65.55	58.70	50.21	60.84	59.13	62.95	74.25	65.45
HAR	25.61	45.42	67.35	---	44.08	68.87	55.43	70.11	---	62.24
KAR	55.92	50.89	48.64	55.28	53.12	59.03	62.81	54.70	55.31	57.93
KER	56.91	58.08	54.87	---	56.68	58.20	45.47	50.93	---	53.94
MPR	41.92	49.70	44.23	61.17	47.19	54.69	51.14	46.11	64.22	53.74
MAH	60.60	50.93	58.45	56.99	57.36	58.17	58.46	59.39	64.36	61.49
ORI	34.61	40.89	40.11	---	37.93	41.93	42.72	34.33	---	41.03
PUN	45.10	47.22	58.50	48.06	50.35	50.64	50.42	62.90	60.22	55.18
RAJ	34.79	42.87	43.50	45.27	40.49	37.49	42.70	38.40	49.71	40.59
TND	50.19	61.81	55.14	57.36	55.88	58.16	59.25	53.47	51.46	56.22
UPR	42.28	47.96	44.60	55.53	45.83	48.59	41.35	41.55	63.12	49.39
WEB	51.86	48.20	47.56	47.25	48.74	65.77	59.50	64.98	63.69	63.05
OTH	32.82	43.83	35.21	40.59	36.40	45.53	56.17	40.57	49.74	48.85
All India	45.16	50.08	50.20	53.13	49.08	54.96	54.84	53.73	60.59	56.17

Note: As in table 4

Source: As in table 1