## A Tale of Two Middle Classes

By

### **Sonalde Desai**

Visiting Fellow National Council of Applied Economic Research

And

Associate Professor
Department of Sociology
University of Maryland
College Park MD 20742-1315
USA
sdesai@socy.umd.edu

May 10, 20001

I thank Shakun Datta for research assistance and NCAER for providing me with research affiliation during my sabbatical leave.

The views expressed in this paper are the sole responsibility of the author and do not reflect the views of NCAER or University of Maryland.

### A Tale of Two Middle Classes

#### **Sonalde Desai**

### **Abstract**

Using data from the National Sample Survey 38<sup>th</sup>, 43<sup>rd</sup>, and 50<sup>th</sup> rounds, this paper examines the changes in the size and composition of the households falling in upper tail of the consumption distribution. Empirical results indicate growth in lower middle class (defined as households with per capita expenditure exceeding twice the poverty line but below four times the poverty line for the year) as well as the upper middle class households (defined as households with per capita expenditure exceeding four times the poverty line). However, the pattern of growth in these two groups is different. Lower middle class, where the bulk of the growth is located, experienced a broad based growth with different social groups and occupations gaining more or less equitably. In contrast, in the upper middle class, the growth is far more elitist with upper caste Hindus and Christians and professional and administrative households gaining disproportionately.

### Introduction

In recent years, the discourse about middle class seems to have caught public imagination. However, two different stories are simultaneously being told. According to one story, high rate of economic growth over the past decade has resulted in a large number of people moving from poverty into the middle class. This broad based economic boom affected all sections of the society and resulted in a growing market. It is expected that this growing market will increase opportunities for domestic and foreign companies, thereby augmenting the virtuous cycle of growth (Das, 2000; Das, 2001). The second story, however, focuses on the elitist nature of this growth and suggests that Indian middle class is become increasingly insular with the perks of middle class existence reserved for the privileged sections of society (Varma, 1998).

Little economic data exists to support either contention and while the discourse about middle class has dominated public imagination, relatively little academic research

has been directed at this topic. This paper seeks to fill some of these gaps by examining the size and the composition of upper and middle income groups using data from the National Sample Surveys for 1983 (38<sup>th</sup> round), 1987-88 (43<sup>rd</sup> round) and 1993-93 (50<sup>th</sup> round).

While researchers studying poverty have often implicitly or explicitly focused on the upper end of the income distribution (see studies in Krishnaswamy, 1990; Sundrum, 1987), an explicit focus on the middle class allows us to explore what being middle class means and the social processes through which individuals and family are able to have access to middle class lifestyles.

### **Middle Class Life Styles**

One of the problems inherent in the discussion of the middle class is that it is difficult to define what constitutes the middle class (Beteille, 2001). Indeed, the researchers from the National Council on Applied Economic Research (NCAER), authors of the most frequently cited research in this area (Rao and Natarajan, 1996) have called upper income groups in their study "the consuming class" instead of the middle class.

NCAER estimates show that in 1993-94, 54% of the households earned less than 20,000 Rs; 28% households earned between 20,000 and 40,000 Rs.; 11% households earned between 40,000 and 62,000 Rs.; 5% households earned between 62,000 and 86,000 Rs.; and, 3% households earned more than 86,000 Rs. The figures for 1995-96, the latest year for which NCAER presents the data are somewhat higher (Natarajan, 1998).

Unfortunately, income data is notoriously difficult to collect. NCAER survey relies on a single question, "What was your household income in the last year?" It is not

clear whether the responses refer to the net or the gross income; white or both white and black income. Nor is it clear how reliable such responses to a single question are.

However, apart from the NCAER survey, no other national survey with reasonably large samples contains good income estimates. Finding such data for several points in time is even more difficult.

Alternatively, we can use the consumption expenditure data from the National Sample Surveys (NSS) to provide us with some estimates of different types of lifestyles. The NSS data contain detailed information regarding a household's expenditure patterns over the 30 days preceding the survey; moreover the methodology for data collection has remained fairly comparable over time, allowing for an examination of trends. However, these surveys were initially designed to measure levels of poverty. Thus, while an effort is made to collect information on luxury items, it seems likely that there is some underestimation of consumption expenditure for some of these items (Minhas et al., 1986). For example, the expenditure on items like foreign travel may well be omitted from the response and alcohol or tobacco consumption may be deliberately under reported. Consequently, some care is required in using the consumption expenditure distribution at the upper end of the spectrum.

Conceptual differences between the definition of middle class using income based definitions and consumption based definitions is important to note. On the whole, consumption reflects income and often is a better measure of a family's economic conditions than income. Income tends to fluctuate over time, particularly in a predominantly agricultural economy. Consequently, expenditure may be a better proxy

<sup>&</sup>lt;sup>1</sup> The methodology has changed for the 55<sup>th</sup> round resulting in serious concerns regarding comparability of these estimates (Sen, 2000). However, the surveys analysed in this paper are based on comparable data.

for permanent income rather than actual income. This is the reasoning that led the World Bank's Living Standards Measurement Surveys to collect consumption expenditure data rather than the income data (Visaria, 1980; Wahab, 1980). The difference between income and consumption is due to savings; different households have different propensity to save. However, conceptually if one is really interested in middle class life-style, perhaps consumption data provide better estimates.

For the purpose of the paper, the population is divided into four groups based on per capita consumption. For each survey year, taking the urban and rural figures for poverty line for that specific year, the population is divided into: households below poverty; near poor households (i.e. those above poverty but where per capita consumption is below twice the value of the poverty line); lower middle group (where per capita consumption is between two and four times the value of the poverty line); and, upper middle class (where per capita consumption exceeds four times the poverty line). It is important to note that in 1973-74 the poverty line was defined as the expenditure which was sufficient to provide basic caloric needs. This line is annually adjusted to take account of the inflation. Thus, this definition provides an inflation adjusted picture of the changes in consumption distribution. Values of per capita household consumption for each category are listed in Appendix Table 1.

These consumption groups seem to have clearly different lifestyles (Table 1).

Moving above poverty line leads to living in a pucca house, particularly in urban areas.

Access to a flush or septic toilet within home as well as a television also increases with the movement above poverty line, particularly once a household's consumption exceeds the value of poverty line multiplied by two. In contrast, ownership of a vehicle, car or

scooter, is largely the phenomenon of the highest consumption group, the one defined by four times the poverty line.

This convergence between consumption figures and ownership of various consumer durables is not surprising since the consumption data include expenses on many of these items. However, it does provide a prima facie evidence that the consumption data seem to tap into the life style of the families.

### Comparison Between NSS Data and NCAER-MISH Data

National Council of Applied Economic Research carries out regular surveys on the structure of Indian markets. These surveys, called Market Information Survey of Households (MISH) are a major source of information on the size of the middle class till date. Thus, it is worthwhile trying to compare the NSS based estimates with the MISH based estimates.

Unfortunately, NSS collects data on consumption expenditure and MISH collects data on income. Thus, one needs information on savings rate in order to map consumption expenditure distribution onto income distribution. Since savings rates vary by across different income groups (Pandit, 1992), this paper uses another NCAER survey, Micro Adjustment of Macro Policies (MIMAP) to estimate the savings rate at various consumption levels. For a detailed description of MIMAP survey, see (NCAER, 2000).

Since MIMAP collected both income and consumption data using a battery of questions, it provides fairly accurate estimates of both income and consumption. In fact, in results not reported here, we plotted consumption distribution from the MIMAP survey onto the NSS consumption distribution and they were fairly comparable. In order to

estimate the savings rates and thereby income, I regressed per capita savings income on per capita consumption as well as a squared and a cubed term for consumption. Using the regression coefficients and the constant from this regression, I calculated savings and income for each household in the NSS data. The income distribution thus obtained is presented in Table 2 along with comparable income distribution from MISH. While there are some discrepancies in the two lowest categories, the estimated proportion of the population in the upper income groups, households earning more than 40,000 per year, is remarkably alike. This exercise increases our confidence in using the NSS data to look at the life styles at the upper end of the income distribution.

### **Changes in Consumption over Time**

How far does the NSS consumption data support the popular notion of rapidly growing middle class? Figures 1, 2, and 3 show changes in the distribution of per capita consumption expenditure between 1983, 1986-87 and 1993-94. The figures are presented in 1993-94 prices following adjustment for inflation according to state-specific prices using urban and rural data. For exact details of the inflation adjustment see Dube and Gangopadhyay (1998).

The results present an intriguing picture. In keeping with the research showing declining rate of poverty for these three quinquennial surveys (Dube and Gangopadhyay, 1998; Planning Commission, 1993; Sen, 2000), these figures show a shift from the lower end of the consumption distribution towards the middle, with a relatively small upward shift at the upper end. The shift from below poverty to just above poverty is concentrated largely in the rural areas, the shift at the upper end of the distribution is

concentrated in urban areas between 1983 and 1987-88 and in rural areas for the subsequent period.

Similar changes are summarized in Table 3. The results indicate a substantial decline<sup>2</sup> in the households living below poverty line over this period.<sup>3</sup> This is accompanied by a substantial increase in the near poor households as well as those in the middle consumption category. The increase in the upper middle class category is considerably smaller in absolute terms.

These results are consistent with those presented by the income based estimates of the middle class from the NCAER survey. This survey also shows that while there is a substantial growth of the households earning 40-62,000 Rs., the increase for the higher income groups is smller in absolute terms. Thus, by all indications, a decline in poverty accompanied by an upward shift in the distribution with a substantial increase in near poverty and lower middle class with a small increase in the upper middle class. Note that even this small absolute increase for upper middle class can result in large relative increase due very small starting values.

What is important to recognize is that regardless of the growth, we are still speaking of relatively low levels of consumption expenditures. The upper middle class, as defined here, consists of households that spend at least 823 Rs. and 1,125 Rs. per person

2

<sup>&</sup>lt;sup>2</sup> Since this paper only relies on the quinquennial surveys between 1983 and 1993-94. These surveys record a decline in poverty rate regardless of the calculation method used (Datt, 1999; Gupta, 1999; Sundaram and Tendulkar, 2000). However, it is important to note the controversy surrounding poverty figures and consumption expenditure estimates in the 1990s. Annual surveys in 1990s based on "thin" samples show higher incidence of poverty than the 50<sup>th</sup> round large sample.

<sup>&</sup>lt;sup>3</sup> Note that the figures of households below poverty differ from the head count figures presented in most of the poverty studies. Upper income households tend to be smaller than the lower income households; hence, poverty figures based on households show lower number in poverty than those based on head count.

per month in rural and urban areas respectively and those in the lower middle class spend even less than that. Even in 1993-94 prices, expenditure of 1,000 Rs. per month hardly makes for a wealthy lifestyle. Even more telling is the fact that in 1993, only 27 percent of this so called upper middle class lived in a pucca house with a septic/flush toilet and own a TV. If we add the requirement of owning a scooter or a car, the proportion is barely 15 percent.

### Who has Benefited from this Growth?

Arguably the most important question with respect to the growth of the middle class is the composition of the middle class. Has this growth been relatively broad based or has it been limited to certain sections of the society? In order to examine this, the paper focuses on the change in the composition of the middle class.

Table 4 presents the occupational composition of the upper middle class and all three other groups (poor, near poor and lower middle class) for various rounds of NSS. The term "occupation" in this paper refers to the primary occupation of the household listed in NSS schedule 1. This variable indicates the occupation from which primary source of household income is derived. When multiple sources of income are present, it refers to the occupation that provides the greatest amount of income.

When compared with the overall changes in occupational distribution, perhaps the most striking observation in this table is that while there are relatively few changes in the occupational composition of the lower middle class, the composition of the upper middle class has changed significantly. The proportion of upper middle class households listing their primary occupation as farming or production work has gone down from 47% in

1983 to 38% in 1993-94 while those listing professional or administrative positions has gone up from 24% to 33%.

Since different rates of urban/rural and regional growths as well as differential changes in household size might complicate these bivariate relationships, this paper estimates a multinomial logit model controlling for urban residence, region of the country, being scheduled caste/tribe, religion, and household size in addition to occupation. The means for the variables included in this analysis are shown in Appendix Table 1. The dependent variable is divided into three categories: (1) The poor and the near poor, i.e. families whose per capita expenditure is less than 2 times the poverty line for the survey year; (2) Lower middle class, consisting of families where per capita consumption is between 2 and 4 times the poverty line; (3) Upper middle class where per capita consumption is more than 4 times the poverty line. The exact cutoff points are presented in Appendix Table 2 and the bottom two categories are combined into the poor/near poor category which forms the base category for this analysis. In multinomial logistic regression, the impact of selected variables on the likelihood of being in category two vs. category one and in category three vs. category one is simultaneously estimated. Although the results are presented with the comparison to base category poor and near poor, it is possible to calculate the coefficients for comparing the categories 2 and 3 from the coefficients presented above.

These results, presented in Tables 5 and 6 show an interesting pattern. In each table, urban households<sup>4</sup>, households in the northern and the western parts of the country

\_

<sup>&</sup>lt;sup>4</sup> Interestingly, the urban-rural differences seem to increase between 1983 and 1987-88 but decline between 1987-88 and 1993-94. This is attributable to two factors: (1) The 43<sup>rd</sup> round was conducted during the famine of 1987, a period during which agricultural incomes were depressed; (2) Much of the growth in

and upper caste households have higher likelihood of being in the lower middle or the upper middle class. Similarly, professionals and administrators are far more likely to be in the lower and upper middle class compared to farmers, the omitted category. But as we compare various columns, we see that the odds ratios for various categories remain more or less constant over time. This suggests that while social inequalities were not reduced in the 15 year period between 1983 and 93-94, they also did not increase in size, at least as far as the lower middle class is concerned. However, the same can not be said for the upper middle class. In Table 6, whereas difference between professionals and farmers in the likelihood of being in the upper middle class as opposed to poor and near poor category is about three fold, it becomes nearly nine fold by 1993. On the other hand, whereas the scheduled caste households were about 0.53 times as likely as the upper castes to be members of the upper middle class in 1983, their relative risk ratio goes down to 0.40 in 1993-94. Thus, the differences between various social groups appear to widen over time as far as access to upper middle class lifestyle is concerned.

### **Discussion**

This paper has examined the changes in the size and the composition of middle and upper middle class populations using data from the 38<sup>th</sup>, 43<sup>rd</sup> and 50<sup>th</sup> rounds of NSS. Households with per capita consumption level between two and four times the poverty line are considered lower middle class and those with consumption levels above four times the poverty line are considered upper middle class.

The results show that while there has been a growth between 1983 and 1993-94 for both of these segments, the absolute growth is greater for the lower middle class

Indian economy during early 1990s occurred due to the agricultural growth. Hence, the rural incomes and consumption grew substantially during this period, reducing the urban-rural differences.

albeit, relative growth is higher for the upper middle class. Thus, when we talk about nearly 20 percent of the population being in the middle class, more than 75 percent of this group consists of individuals in the lower middle class.

The composition of both lower and upper middle class reflects the well known inequalities in the Indian society viz. higher likelihood of being in the middle class for urban households; for households living outside the heartland of Bihar, Madhya Pradesh and Uttar Pradesh; for non sc/st households; for Hindu and Christian households; and for households where professional and administrative positions provide the primary source of income. However, there are some changes in the determinants of the middle class status over time.

While many of the disadvantaged groups in 1983 remain disadvantaged in 1993-94, these differences have not widened when it comes to lower middle class status. Thus, there appears to be a broad based gain in this category with all groups sharing the benefits of the growth. The picture changes when it comes to the upper middle class status, with scheduled caste and scheduled tribe households and Muslim households falling farther behind. The changes are even more drastic when we look at the occupational composition. Professionals and administrators were always more likely to be better off than the cultivators, but their advantage has strikingly improved over time. Thus, whereas in 1983 professionals and administrators formed 24% of the upper middle class, this proportion had increased to 31% by 1993-94. Much of these changes have occurred at the expense of the farmers and agricultural wage workers.

These observations suggest two contrasting pictures. On the one hand, the lower middle class, where bulk of the middle class is concentrated, has experienced a broad

based growth with diverse groups of Indians sharing the fruits of economic development.

On the other hand, the upper middle class increasingly consists of the individuals in professional and administrative positions. Since these occupations require high education, one can infer that this group has also become increasingly educated.

This disjunction between broad based growth at the lower level and increasingly elite composition of the upper class poses an interesting quandary for the public life. A broad-based movement from poverty or near poverty to lower middle class between 1983 and 1993-94 represents impressive achievements. However, with the increasingly elitist nature of the growth at the upper end, further upward mobility is likely to be blocked for the marginalized groups. Since the growth at the lower level is accompanied by substantially increasing in consumer aspirations and desire for upward mobility, if the entry to the upper middle class is blocked for these populations, it is likely to lead to substantial political unrest.

The results presented here are limited to the analysis of NSS 38<sup>th</sup>, 43<sup>rd</sup> and 50<sup>th</sup> rounds. It seems highly likely that the trends observed in mid 90s have become accentuated in the later part of the decade. Reduction in top tax bracket and increase in government salaries following the pay commission report are likely to increase the disposable incomes of the families in formal sector and at the upper levels of income distribution. However, individuals who are not in the formal sector and consequently often don't pay taxes will experience lower benefits. If the size of the formal sector has not grown substantially but the wages have, as seems to be the case based on the preliminary reports, it seems highly likely that the composition of the upper middle class has become and will continue to become more elitist in nature.

### References:

Beteille, Andre. 2001. "A Note on the Composition of The Indian Middle Class," paper presented at Konrad-Adenauer Foundation workshop on Middle Class Values in India and Western Europe. March 2-11, 2001.

Bhalla, S.S. 2000. "Growth and Poverty in India – Myth and Reality," mimeo, <a href="http://oxusresearch.com">http://oxusresearch.com</a>.

Das, Gurcharan. 2000. India Unbound. New Delhi: Viking.

Das, Gurcharan. 2001. "Shifting Middle Class Values as Reflected through the Changing Indian Entrepreneur," paper presented at Konrad-Adenauer Foundation workshop on Middle Class Values in India and Western Europe. March 2-11, 2001.

Datt, G. 1999. "Has Poverty Declined Since Economic Reforms? Statistical Data Analysis," *Economic and Political Weekly*, 11<sup>th</sup> December.

Dube, Amresh and Shubhashis Gangopadhyay. 1998. *Counting the Poor: Where are the Poor in India?* Sarvekshana Analytical Report No. 1. New Delhi: Department of Statistics, Govt. of India.

Gupta, S.P. 1999. "Trickle Down Theory Re-Visited: The Role of Employment and Poverty," V.B. Singh Memorial Lecture, Indian Society of Labour Economics, November 18-20. Cited in Sen, Abhijit, 2000. . "Estimates of Consumption Expenditure and Its Distribution: Statistical Priorities after NSS 55<sup>th</sup> Round." *Economic and Political Weekly*, December 16, 2000.

Krishnaswamy, K.S. 1990. (Ed.) *Poverty and Income Distribution*. Bombay: Sameeksha Trust.

Minhas, B.S., S.M. Kansal, Jagdish Kumar, and P.D. Joshi. 1986. "On the reliability of the Available Estimates of Consumer Expenditure in India," *Journal of Income and Wealth*. Vol. 9, No. 2.

Natarajan, I. 1998. *Indian Market Demographics Report, 1998*. New Delhi: National Council of Applied Economic Research.

National Council of Applied Economic Research. 2000. MIMAP India News. Vol. 1, Issue 2.

Pandit, B.L. 1992. *Growth and Structure of Savings in India: An Econometric Analysis*. New Delhi: Oxford University Press.

Planning Commission. 1993. Report of the Expert Group on Estimation of Proportion and Number of Poor. New Delhi: Planning Commission.

Rao, S.L. and I. Natarajan. 1996. *Indian Market Demographics – The Consumer Classes*. New Delhi: NCAER.

Sen, Abhijit. 2000. "Estimates of Consumption Expenditure and Its Distribution: Statistical Priorities after NSS 55<sup>th</sup> Round." Economic and Political Weekly, December 16, 2000.

Sundaram, K. and S. Tendulkar. 2000. Poverty in India: An Assessment and Analysis. Mimeo, Delhi School of Economics.

Sundrum, R.S. 1987. Growth and Income Distribution in India. New Delhi: Sage.

Varma, Pavan. 1998. The Great Indian Middle Class. New Delhi: Penguin.

Visaria, Pravin. 1980. Poverty and Living Standards in Asia: An Overview of the Main Results and Lessons of Selected Household Surveys. Living Standards Measurement Study, Working Paper No. 2. Washington, D.C.: The World Bank.

Wahab, Mhammed Abdul. 1980. Income and Expenditure Surveys in Developing Countries: Sample Design and Execution. . Living Standards Measurement Study, Working Paper No. 9. Washington, D.C.: The World Bank.

Table 1: Life Styles of Different Consumption Groups, 50<sup>th</sup> Round NSS.

## Proportion with Access to Various Amenities/Ownership of Consumer Durables

## RURAL

	Poor	Near Poor	Lower Middle	Upper middle
Pucca House	0.21	0.34	0.51	0.58
Toilet	0.03	0.08	0.18	0.25
Television	0.07	0.13	0.24	0.29
Car or Scooter	0.03	0.05	0.11	0.16

## URBAN

_				
	Poor	Near poor	Lower Middle	Upper Middle
Pucca House	0.48	0.73	0.89	0.89
Toilet	0.32		0.80	
Television	0.14	0.33	0.47	0.52
Car or Scooter	0.02	0.12	0.23	0.32

## TOTAL

	Poor	Near Poor		Upper Middle
Pucca	0.27	0.43	0.66	0.722
House				
Toilet	0.09	0.20	0.43	0.52
Television	0.09	0.18	0.33	0.40
Car or Scooter	0.03	0.06	0.15	0.24

Table 2: Comparison of Income Distribution using NCAER-MISH and NSS Surveys

	Urban	Rural	Total			
NSS Based Estimates <sup>1</sup>						
Upto 20,000	30.81	55.76	49.12			
20,001 – 40,000	38.46	32.89	34.37			
40,001 – 62,000	17.32	7.71	10.27			
62,001 – 86,000	7.12	2.05	3.40			
Above 86,000	6.28	1.59	2.84			
	100	100	100			
MISH Distribut	tion					
Upto 20,000	33.46	61.38	53.61			
20,001-40,000	33.06	25.97	27.94			
40,001-62,000	18.74	8.31	11.21			
62,001-86,000	8.71	2.71	4.38			
Above 86,000	6.04	1.63	2.86			
	100	100	100			

NSS collects data on consumption expenditure not income. In order to obtain income estimates from NSS data, consumption expenditure is multiplied by savings rate, estimated from NCAER-MIMAP survey. This survey uses the same sampling frame as the NCAER-MISH survey and collects detailed consumption and income data. This allows us to estimate savings rate for various income groups. By regressing household income on consmuption expenditure in MIMAP survey and then applying these coefficients to NSS data, NSS based household income is predicted as:

Income =  $-20.16 + 1.35 * MPCE + .00039 * MPCE^{2} -.000000059 * MPCE^{3}$ 

Table 3: Percent of Population According to Various Consumption Categories, NSS Rounds  $38^{th},43^{rd}$  and  $50^{th}$ 

	38 <sup>th</sup> Round 1983	43 <sup>rd</sup> Round 1987-88	50 <sup>th</sup> Round 1993-94
Rural			
Poor (below the poverty line)	53.24	47.77	33.43
Near Poor (above the poverty line but below 2* poverty line)	36.57	40.44	50.61
Lower Middle (above 2* poverty line but below 4* poverty line)	8.57	9.88	13.68
Upper Middle (above 4* poverty line)	1.62	1.92	2.28
,	100	100	100
Urban			
Poor (below the poverty line)	36.08	28.29	26.56
Near Poor (above the poverty line but below 2* poverty line)	40.20	41.36	43.04
Lower Middle (above 2* poverty line but below 4* poverty line)	19.02	23.59	24.19
Upper Middle (above 4* poverty line)	4.70	6.76	6.22
,	100	100	100
Total			
Poor (below the poverty line)	48.91	43.09	31.6
Near poor (above the poverty line but below 2* poverty line)	37.48	40.66	48.6
Lower Middle (above 2* poverty line but below 4* poverty line)	11.21	13.17	16.48
Upper Middle (above 4* poverty line)	2.40	3.08	3.33
	100	100	100

Table 4: Changes in the Occupational Distribution over time for Lower and Upper Middle Class, 1983 to 1993-94

## Round 38 (1983)

	Poor, Near Poor and Lower Middle	Upper middle
Professional&Technical workers	3.81	17.19
Administrative, Executive & Managerial	1.37	6.90
Clerical and related workers	4.09	11.03
Sales workers	6.87	7.19
Service workers	4.29	5.84
Farmers, Fishermen etc	36.59	28.61
Production, artisans etc.	18.86	17.82
Agricultural wage workers	24.05	5.28
	100	100
Round 43 (1987-88)		
Professional&Technical workers	3.54	20.08
Administrative, Executive & Managerial	1.64	10.12
Clerical and related workers	4.13	11.74
Sales workers	7.16	8.28
Service workers	4.07	4.88
Farmers, Fishermen etc	34.33	24.21
Production, artisans etc.	20.06	16.1
Agricultural wage workers	24.9	4.24
	100	100
Round 50 (1993-94)		
Professional&Technical workers	3.88	19.97
Administrative, Executive & Managerial	1.98	12.92
Clerical and related workers	4.21	10.7
Sales workers	7.80	8.97
Service workers	3.90	4.68
Farmers, Fishermen etc	32.78	23.92
Production, artisans etc.	20.25	14.95
Agricultural wage workers	24.63	3.2
	100	100

Table 5: Determinants of the Likelihood of Being in Lower Middle Class Vs. Below or Near Poverty, Results from Multinomial Logit.

	38 <sup>th</sup>	43 <sup>rd</sup>	50 <sup>th</sup>
	Round	Round	Roun
			d
Residence (Rural Omitted)			
Urban Residence	1.51	1.75	1.09
Region (Central Omitted)			
North	2.64	2.42	2.69
South	1.47		1.22
East	1.35	1.07 n.s.	1.04 n.s.
Northeast	1.27	1.26	0.93 n.s.
West	1.72	1.55	1.62
Caste/Tribe (Non SC/ST Omitte			
Scheduled castes	0.52	0.51	0.52
Scheduled tribes	0.31	0.49	0.44
Religion (Hindu Omitted)			
Muslim	0.67	0.77	0.67
Christian	1.61	1.82	1.64
Other	1.83	1.88	1.44
Occupation (Cultivator Omitte	d)		
Professional & technical	2.95	3.39	3.60
workers			
Administrative,exe &	2.80	2.51	3.00
managerial workers			
Clerical workers	1.97		2.56
Sales workers	0.86	0.99 n.s.	1.16
Service workers	0.84	0.87	0.89
Production workers, artisans	0.75	0.74	0.78
Agricultural wage workers	0.23		0.26
No Occupation or Missing	0.63	0.77	0.72
Household size	0.75	0.74	0.73

### NOTE:

 All coefficients significant at atleast 0.05 level, most at 0.001 level unless marked n.s.—not significant.

Table 6: Determinants of the Likelihood of Being in Upper Middle Class Vs. Below or Near Poverty, Results from Multinomial Logit.

	38 <sup>th</sup>	43 <sup>rd</sup> Round	<b>50</b> <sup>th</sup>				
	Round		Round				
Residence (Rural Omitted)							
Urban	1.75	2.14	1.13				
Region (Central Omi	tted)						
North	2.71	2.54	4.14				
South	1.41	1.18	1.27				
East	1.14 n.s.	0.83	0.97 n.s.				
Northeast	1.05 n.s.	0.68	0.49				
West	1.57	1.37	1.99_				
Caste/Tribe (Non SC	/ST Omitted)						
Scheduled castes	0.45	0.40	0.37				
Scheduled tribes	0.37	0.38	0.25				
Religion (Hindu Omit	tted)						
Muslim	0.68	0.60	0.59				
Christian	1.68	1.93	2.25				
Other	2.23	1.94	1.49				
<b>Occupation (Cultivat</b>	or Omitted)						
Professional &	4.72	6.86	8.59				
technical workers							
Administrative, exe &	5.35	6.70	10.25				
managerial workers							
Clerical workers	2.22	2.77	3.51				
Sales workers	0.83	1.03 n.s.	1.34				
Service workers	0.82	0.80	0.93 n.s.				
Production workers,	0.68	0.64	0.67				
artisans							
Agricultural wage	0.22	0.19	0.13				
workers							
No occupation or	0.65	0.98 n.s.	0.92 n.s.				
missing							
Household size	0.65	0.64	0.59				

### NOTE:

 $\circ~$  All coefficients significant at at least 0.05 level, most at 0.001 level unless marked n.s.—not significant.

# **Appendix Table A.1: Consumption Expenditure Levels for Different Consumption Categories (in Rs.)**

Year	Poor	Near Poor	Lower Middle	Upper Middle
1983 Rural	<=101.8	101.8 - 203.6	203.6 - 407.2	407.2+
1983 Urban	<=117.5	117.5 - 235	235 - 470	470 +
1987-88 Rural	<= 131.8	131.8 - 263.6	263.6 - 527.2	527.2 +
1987-88 Urban	<= 152.1	152.1 - 304.2	304.2 - 608.4	608.4 +
1993-94 Rural	<= 205.84	205.84 - 411.68	411.68 - 823.36	823.36 +
1993-94 Urban	<= 281.35	281.35 - 562.7	562.7 - 1125.4	1125.4 +

Appendix A.2: Means for the Variables Used in the Analysis

	38th round	43rd round	50th round
Rural Areas (*)	0.75	0.76	0.73
Urban Areas	0.25	0.24	0.27
Central Region (*)	0.32	0.33	0.32
Northern Region	0.12	0.12	0.11
Southern Region	0.26		
Eastern Region	0.12	0.12	0.13
Northeastern Region	0.03	0.03	
Western Region	0.14	0.14	
Non SC/ST (*)	0.73	0.73	0.72
Scheduled Castes	0.18	0.18	0.19
Scheduled Tribes	0.09	0.09	0.09
Hindu (*)	0.84	0.84	0.84
Muslim	0.10	0.11	0.10
Christian	0.03	0.02	0.02
Others	0.03	0.03	0.03
Farmers excluding	0.35	0.32	0.31
agricultural wage workers (*)			
Professional & technical workers	0.04	0.04	0.04
Administrative, exec. & managerial workers	0.01	0.02	0.02
Clerical workers	0.04	0.04	0.04
Sales workers	0.07	0.07	0.08
Service workers	0.04	0.04	0.04
Production workers,	0.18	0.19	0.19
artisans			
Agricultural wage workers	0.22	0.23	0.23
Missing or no occupation	0.05	0.05	
Household size	5.10	4.99	4.78

### NOTE:

### (\*) Omitted Variables

States in the Central region include Bihar, Madhya Pradesh and Uttar Pradesh; North includes Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Delhi and Chandigarh; South includes Andhra Pradesh, Karnataka, Kerala, Tamil Nadu & Andaman & Nicobar Islands and Pondicherry; East includes Orissa and West Bengal; Northeast includes Assam, Manipur, Meghalaya, Nagaland, Sikkim, Tripura, Mizoram and Arunachal Pradesh; and, West includes Gujarat, Maharastra, Goa, Lakshwadeep Daman & Diu and Dadar & Nagar Haveli.

# **Appendix Table A.2: Consumption Expenditure Levels for Different Consumption Categories (in Rs.)**

Year	Poor	Near Poor	Lower Middle	Upper Middle
1983 Rural	<=101.8	101.8 - 203.6	203.6 - 407.2	407.2+
1983 Urban	<=117.5	117.5 - 235	235 - 470	470 +
1987-88 Rural	<= 131.8	131.8 - 263.6	263.6 - 527.2	527.2 +
1987-88 Urban	<= 152.1	152.1 - 304.2	304.2 - 608.4	608.4 +
1993-94 Rural	<= 205.84	205.84 - 411.68	411.68 - 823.36	823.36 +
1993-94 Urban	<= 281.35	281.35 - 562.7	562.7 - 1125.4	1125.4 +