



GOVERNMENT OF MAHARASHTRA

**A REPORT ON
'EMPLOYMENT AND UNEMPLOYMENT SITUATION'
BASED ON DATA COLLECTED IN STATE SAMPLE OF
60Th ROUND OF NATIONAL SAMPLE SURVEY
(JANUARY – JUNE, 2004)**

VOL. I

**Directorate of Economics and Statistics, Planning Department,
Government of Maharashtra, Mumbai**

PREFACE

The Directorate of Economics and Statistics has prepared the report on 'Employment and Unemployment situation' based on the data of state sample collected in the 60th round (January – June, 2004) of National Sample Survey.

2. Vol. I of the report contains important findings of the survey in 'Executive Summary' while important results are given in 'Survey Findings'. Estimation procedure, concepts and definitions and some statistical tables are given in vol. II, which is available on the website <http://mahades.maharashtra.gov.in> along with detailed tables.

3. I hope results of this survey will be useful to senior officers of the Government involved in policy framing, researchers, economists and academicians.

Mumbai

Director of Economics and Statistics,
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Government of Maharashtra.

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Chapter-1

Executive Summary

Background

1. The study of employment and unemployment situation is atmost important for framing policies and implementation of plan schemes. The NSS surveys targeted towards capturing the employment and unemployment situations were conducted once in five years. However, since the planners and decision makers felt the need for annual information on the situation, NSS has started collecting such information separately on annual basis from this i.e.60th round survey conducted during January – June, 2004. The earlier annual series information was limited in terms of coverage and contents which was abridged with the consumer expenditure schedule.

Findings:-

2. Improvement in the sex ratio is observed in 2004 as compared to 1999-2000 reflecting on the appropriateness/necessity of the ban on sex determination tests during pregnancy, while declining average family size is an indicator of achievements of the family planning programme.

3. A major proportion of 60.1 per cent of the rural and 65.9 per cent of the urban population belongs to the 'working population' age group of 15-59 years. About 46 per cent of rural population depends on self employment while 45 per cent of urban population is dependent on wages/salaries.

4. The overall proportion of workers, according to the usual principal activity status for both the rural and urban as well as males and females, shows decreasing trend over the period from 1983 to 2004, though in absolute terms, the employment opportunities are increasing.

5. The worker population ratio for the rural males in the age group 30-59 years was nearly 99 per cent while that for the rural females in the same age group was just above 55 per cent.

6. Gender gap between the worker population ratio is wider in urban areas compared to the rural areas, may be due to the life-style in the rural areas wherein the females need to take active participation in work force.

Other important survey findings are:

- Proportion of self-employed persons in the rural areas has reduced significantly resulting in increase in casual labour over the period 1983 to 2004; but the proportion of regular wage/ salaried persons has remained almost same.
- In urban areas the proportion of regular wage/salaried persons has increased significantly amounting to reduction in self-employed persons, but the proportion of casual labour has remained same over the period of 20 years from 1983.
- Higher proportion of females compared to that of males in rural areas are engaged in primary sector.
- There is a huge disparity in wages of casual workers engaged in public or other types of work in urban and rural areas, with urban average daily wages about three times as much as the rural wages.
- In case of rural female, a shift in employment from tertiary and secondary sector to primary sector is observed over the period 1982-88 to 2004.

- In urban areas significant shift from primary sector to tertiary sector is observed for both males and females, which is more pronounced in case of females.
- The unemployment rate is very high (33 to 35 percent) for educated females (diploma/certificate or graduate and above) in the rural areas.
- The unemployment rates for different educational levels reveal that the rates are higher among the higher levels of education irrespective of area, age and gender.
- Nearly 3.6 per cent rural and 4.2 per cent urban population in the age-group of 15-29 year reported to have received formal vocational training.
- Fewer females in the age group 15-29 year received formal vocational training than males.

Survey Recommendations

The following recommendations emerge from the survey.

- (i) Illiteracy among rural females needs to be addressed on priority.
- (ii) The disparity in wages of casual workers engaged in public or other types of work in urban and rural areas needs to be reduced.
- (iii) Changes/modifications may be made in the policies regarding vocational training and the trades so that more females are encouraged to join them.
- (iv) The worker population ratio is 3 per cent in rural areas for females in the age group of 5-14 years, which speaks about the prevalence of girl-child labour in rural areas. Steps need to be taken to stop this practice.
- (v) The vocational training should be more employment/self employment oriented.

Chapter-2

Survey Findings

Introduction

2.1 **Past surveys:** To assess the volume and structure of employment and unemployment, starting with the 9th round (May-September, 1955), NSSO conducted a number of surveys on employment and unemployment. Based on concepts and definitions recommended by the Dantwala Committee, quinquennial surveys on employment and unemployment have been conducted since the 27th round (July, 1972 – June, 1973) of NSS. Apart from these quinquennial surveys, NSSO has been regularly collecting information on certain key items on employment and unemployment, as a part of annual series from a smaller sample of households in each round since its 45th round (July, 1989 – June, 1990) through the schedule on Household Consumer Expenditure (Schedule 1.0).

2.2 **The present survey:** In the present survey, there was a significant change in respect of the procedure of data collection and content of information as compared to the earlier annual rounds. An additional requirement of measuring employment and unemployment in terms of current daily status approach was submitted by the Planning Commission. They also stressed the requirement of collecting information in respect of formal vocational training received by the youth to assess its volume and structure, for future manpower planning, besides collecting information from persons who were unemployed on all 7 days preceding the date of survey, on their employment, if any, in the past, status and industry of work, reason for quitting the job, etc. that were generally collected in the quinquennial rounds. These requirements necessitated the designing of a separate schedule (Schedule 10) for collection of information on employment and unemployment situation in order to release the burden of the schedule meant for gathering information on household consumer expenditure. Therefore, the schedule on employment and unemployment was canvassed in a separate set of sample households.

About the survey

2.4 **Items of enquiry:** As in the quinquennial round surveys, in the present survey too, data was collected on some characteristics, based on which, estimates of employment and unemployment, measured in terms of three basic approaches, viz., usual status, current weekly status and current daily status can be obtained. The reference period for these approaches differ - it being 365 days preceding the date of survey for 'usual status', 7 days preceding the date of survey for 'current weekly status' and each day of the 7 days preceding the date of survey for 'current daily status'.

2.5 Data was collected on the activity status of all persons, i.e. for workers, for those seeking or available for work and also for those who are out of labour force. A worker could be self-employed or enjoy regular salaries/ wages or be employed on casual wage basis. Data on this aspect, along with the industry of work of the worker and his/ her occupation, was collected. In order to reveal the multi-dimensional features of the employment-unemployment situation, information on several correlates pertaining to it was also gathered. In addition, probing questions were put to the persons who were unemployed on all the seven days preceding the date of survey in order to understand the numerical magnitude of new entrants into the job market and reason for becoming unemployed for those who were ever employed. Information was also collected, for the first time, from the youth of age 15-29 years with educational qualification middle school and above but below graduate about whether they had acquired any formal vocational training.

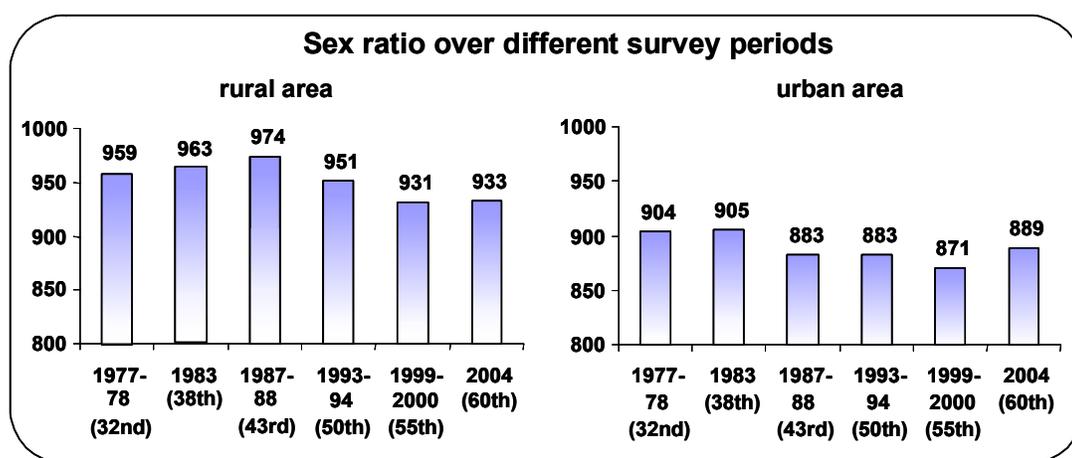
2.6 The survey was conducted from 1st January, 2004 to 30th June, 2004. The survey period was divided into two sub-rounds of three months duration and was conducted in 272 rural and 408 urban units of Maharashtra in which 5,390 households were covered.

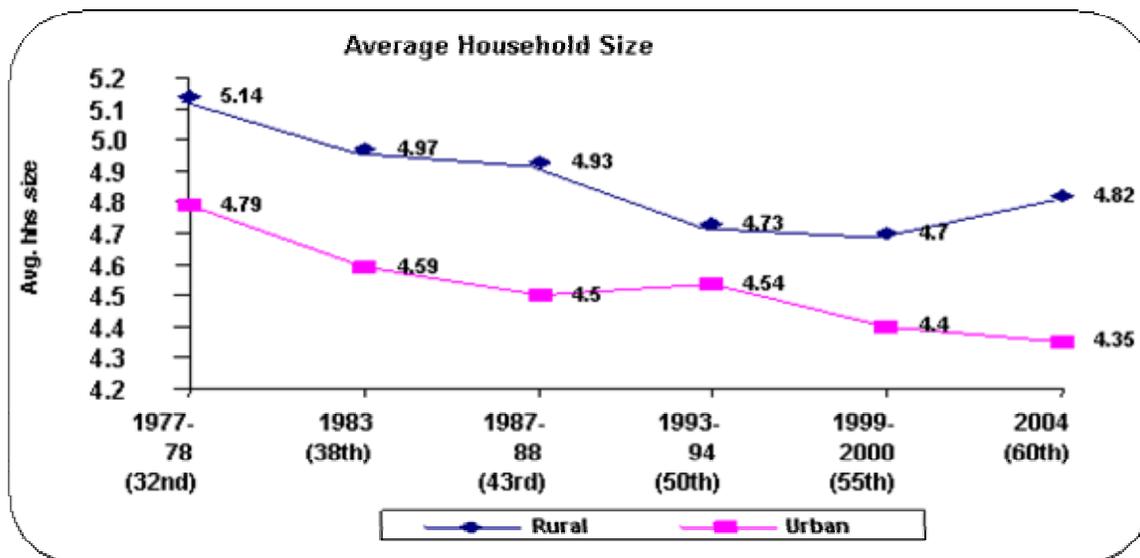
Findings of the survey

2.7 A comparative status of the household sizes and the sex ratio as estimated in various NSS surveys for urban and rural areas of the State have been shown in table 1. A steady decline in the household size from 1977-78 to 2004 can be observed in both rural and urban areas, though a slight increase is observed in the rural areas in 2004. The sex ratio is better in rural areas than urban areas. An improvement in the sex ratio is observed in 2004 as compared to 1999-2000 reflecting on the appropriateness/necessity of the ban on sex determination tests during pregnancy.

Table 1
Average household size and sex ratio

NSS survey periods	Rural		Urban	
	Average Household Size	Sex-ratio	Average Household Size	Sex-ratio
(1)	(2)	(3)	(4)	(5)
1977-78 (32 nd)	5.14	959	4.79	904
1983 (38 th)	4.97	963	4.59	905
1987-88 (43 rd)	4.93	974	4.50	883
1993-94 (50 th)	4.73	951	4.54	883
1999-2000 (55 th)	4.70	931	4.40	871
2004 (60 th)	4.82	933	4.35	889





2.8 Table 2 indicates that the proportion of self-employment dependent persons is higher in the rural areas (45.8 per cent) than in the urban areas (38.8 per cent). About 45 per cent population in urban areas depends on regular wages/salaries.

Table 2
Percentage distribution of households and persons by household type

Household type (1)	Households (2)	Persons (3)
Rural		
Self-employed in:		
Agriculture	32.0	35.4
Non-agriculture	10.3	10.4
<i>All self-employed</i>	42.3	45.8
Agricultural labour	35.3	36.4
Other labour	7.4	7.3
Rural labour	42.7	43.7
Others	15.0	10.5
All	100.0	100.0
Urban		
Self-employed	38.6	38.8
Regular wage/salaried	44.2	44.9
Casual labour	11.1	11.8
Others	6.1	4.5
All	100.0	100.0

2.9 Table 3 shows that about 13 per cent of the rural population have monthly per capita expenditure less than Rs.300. About 31.7 per cent of rural and 4.3 per cent of urban population has MPCE between Rs.300 and 420 indicating vast disparity in the consumption expenditure and thereby economic conditions of the rural and urban population.

Table 3
Percentage distribution of households and population by MPCE class

MPCE class (Rs.)	Rural		MPCE class (Rs.)	Urban	
	Households	Population		Households	Population
(1)	(2)	(3)	(4)	(5)	(6)
less than 225	3.3	2.6	less than 300	-	-
225-255	2.6	3.7	300-350	1.5	2.0
255-300	5.2	6.7	350-425	1.6	2.3
300-340	8.5	10.2	425-500	4.5	6.0
340-380	11.3	12.5	500-575	7.0	8.4
380-420	8.4	9.0	575-665	6.9	7.8
420-470	11.5	12.2	665-775	9.2	10.0
470-525	10.7	11.1	775-915	10.1	10.9
525-615	13.1	12.2	915-1120	11.9	12.3
615-775	11.7	10.1	1120-1500	13.6	13.1
775-950	6.8	5.1	1500-1925	20.7	17.1
950 & above	6.8	4.5	1925 & above	13.1	10.0
All	100.0	100.0	All	100.0	100.0

2.10 Table 4 shows that 60.2 per cent of the rural and 65.9 per cent of the urban population belongs to the 'working population' age group of 15-59 years. The old population in the age group 60 + years is 8.1 per cent in rural and 6.8 per cent in the urban areas.

Table 4
Percentage distribution of population by five-year age-groups

age-group	Rural			Urban		
	Male	Female	Person	Male	Female	Person
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0-4	8.8	9.0	8.9	7.8	6.8	7.3
5-9	10.6	9.8	10.2	8.8	9.6	9.2
10-14	12.7	12.4	12.6	11.2	10.3	10.8
15-19	11.1	9.8	10.5	10.5	10.2	10.4
20-24	8.4	8.3	8.3	9.9	10.3	10.1
25-29	7.4	7.9	7.6	9.1	8.8	9.0
30-34	6.0	8.0	6.9	8.8	8.8	8.8
35-39	7.6	7.4	7.5	7.6	8.1	7.8
40-44	6.3	5.9	6.1	6.2	6.6	6.4
45-49	5.4	5.0	5.2	6.0	5.6	5.8
50-54	3.6	4.1	3.8	4.2	4.1	4.2
55-59	4.2	4.1	4.2	3.4	3.5	3.4
60 & above	7.8	8.4	8.1	6.4	7.2	6.8
All	100.0	100.0	100.0	100.0	100.0	100.0

2.11 A remarkable difference in the proportion of illiterate population in the rural urban areas can be seen from Table 5. The rural urban disparity in age specific literacy (age 15 years and above) is more prominent. Also, the gap between male and female illiterates is more prominent in rural than in urban areas, indicating that female illiteracy in rural areas must be addressed on priority.

Table 5
Percentage distribution of persons by general educational level

Category	General educational level			
	Not literate	Literate up to primary	Middle school	Secondary & above
(1)	(2)	(3)	(4)	(5)
Rural male	28.8 (21.4)	28.5 (22.5)	24.2 (28.8)	18.5 (27.2)
Rural female	46.0 (45.7)	26.4 (20.0)	18.7 (21.8)	8.8 (12.5)
Urban male	18.0 (8.8)	20.9 (13.4)	25.0 (28.0)	36.0 (49.8)
Urban female	26.4 (20.8)	22.9 (16.2)	22.8 (25.0)	28.0 (38.0)

Note: Figures in parentheses relate to persons of age 15 years & above

2.12 Labour force, or in others words, the ‘economically active’ population, refers to the population which supplies or seeks to supply labour for production and, therefore, includes both ‘employed’ and ‘unemployed’ persons and the labour-force participation rate (LFPR) is defined as the proportion of persons in the labour-force. Similarly, the number of persons/person-days employed is referred to as work-force participation rate (WFPR) or worker-population ratio (WPR). For measuring LFPR or WPR, all the three approaches, viz. usual status, current weekly status and current daily status, were adopted for collection of data in the survey. The Worker Population Ratio (WPR), Proportion of Unemployed population (PU) and Labour Force Participation Rate (LFPR) are given in table 6. It may be noted that the LFPR is higher in rural areas than urban areas according to all the statuses.

Table 6
WPR, PU and LFPR according to usual principal status, usual principal + subsidiary status, current weekly status and current daily status

status	WPR			PU			LFPR		
	Male	Female	Person	Male	Female	Person	Male	Female	Person
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Rural									
ups	55.3	30.0	43.1	1.0	0.2	0.6	56.3	30.3	43.7
ups+ss	55.5	32.3	44.3	1.0	0.2	0.6	56.5	32.6	44.9
cws	55.0	30.7	43.3	1.3	0.4	0.9	56.3	31.1	44.1
cds	51.9	26.8	39.8	2.4	1.0	1.7	54.3	27.8	41.5
Urban									
ups	52.4	12.1	33.4	2.4	0.7	1.6	54.8	12.7	35.0
ups+ss	52.6	13.0	33.9	2.4	0.7	1.6	55.0	13.6	35.5
cws	52.2	12.6	33.6	2.6	0.8	1.7	54.8	13.4	35.3
cds	51.5	11.8	32.8	2.9	0.9	1.9	54.4	12.7	34.7
Rural + Urban									
ups	54.2	23.3	39.4	1.5	0.4	1.0	55.7	23.7	40.4
ups+ss	54.4	25.1	40.4	1.5	0.4	1.0	55.9	25.5	41.3
cws	53.9	23.9	39.6	1.8	0.5	1.2	55.7	24.4	40.8
cds	51.7	21.2	37.1	2.6	0.9	1.8	54.3	22.1	38.9

ups – usual principal status, *ups+ss* – usual principal + subsidiary status, *cws* – current weekly status, *cds* – current daily status

2.13 The worker population ratio (percentage of number of persons/person-days worked) according to different approaches for various rounds are presented in table 7. One can easily see the difference between the quinquennial and annual survey estimates. The results based on quinquennial surveys are expected to be better than the annual series surveys because of the sample size and concentration on the subject. It is observed that the overall proportion of workers according to the usual principal status for both the rural and urban as well as males and females show decreasing trend over the period from 1983 to 2004. The WPR-UPS for the males in the rural areas has declined from 60.6 per cent in 1983 to 55.3 per cent in 2004, while for the females it has declined from 44.9 per cent in 1983 to 30.0 per cent in 2004. The WPR-UPS for the males in the urban areas has declined from 56.1 per cent in 1983 to 52.4 per cent in 2004 and for the

females it has declined from 14.5 per cent in 1983 to 12.1 per cent in 2004. Similar trend is observed for the WPR according to usual principal + subsidiary status, current weekly status and current daily status. Although the proportion of workers in the total population shows declining trend, the number of employment opportunities are gradually increasing over the period. Obviously, the rate of increase in employment opportunities is lower than the rate of increase in the population which in turn resulted in declining trend of WPR. The difference between WPR according to usual principal status and usual principal + subsidiary status is an indicator of under-employment, which is more prevalent in case of females than males and in rural areas than in urban areas.

Table 7
WPR according to 'usual status', 'current weekly status' and 'current daily status' approaches for various rounds
(Percentage)

Round (survey period)	Male				Female			
	ups	ups+ss	cws	cds	ups	ups+ss	cws	cds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Rural								
60 (Jan-Jun'04)	55.3	55.5	55.0	51.9	30.0	32.3	30.7	26.8
59 (Jan-Dec'03)	57.1	57.4	57.0	-	29.7	33.0	29.8	-
58 (Jul-Dec'02)	54.7	55.1	54.8	-	29.4	32.0	30.6	-
57 (Jul'01-Jun'02)	53.2	53.7	52.5	-	35.1	38.3	35.2	-
56 (Jul'00-Jun'01)	52.4	52.7	52.6	-	30.6	33.0	30.6	-
55 (Jul'99-Jun'00)*	58.9	59.1	58.8	57.2	32.0	35.0	33.2	30.7
54 (Jan-Jun'98)	53.0	53.9	52.4	-	20.7	26.3	20.2	-
53 (Jan-Dec'97)	54.1	55.0	53.5	-	22.2	29.1	22.2	-
52 (Jul'95-Jun'96)	54.2	55.1	53.8	-	23.4	29.5	23.3	-
51 (Jul'94-Jun'95)	54.7	56.0	54.1	-	23.7	31.7	24.1	-
50 (Jul'93-Jun'94)*	61.0	61.6	60.3	57.7	40.2	44.7	38.0	34.2
49 (Jan-Jun'93)	53.2	54.5	52.7	-	24.3	31.1	23.2	-
48 (Jan-Dec'92)	54.1	55.6	53.6	-	25.0	31.3	24.4	-
47 (Jul-Dec'91)	53.8	54.6	53.4	-	24.4	29.4	23.8	-
46 (Jul'90-Jun'91)	54.2	55.3	53.5	-	24.2	29.2	23.0	-
45 (Jul'89-Jun'90)	53.7	54.8	52.8	-	25.2	31.9	23.0	-
43 (Jul'87-Jun'88)*	60.9	61.5	59.6	56.6	44.1	47.9	41.4	34.9
38 (Jan-Dec'83)*	60.6	61.5	59.3	55.8	44.9	47.8	39.6	34.9
Urban								
60 (Jan-Jun'04)	52.4	52.6	52.2	51.5	12.1	13.0	12.6	11.8
59 (Jan-Dec'03)	54.7	54.8	54.8	-	12.0	13.5	12.2	-
58 (Jul-Dec'02)	54.8	54.9	54.8	-	11.3	12.1	10.8	-
57 (Jul'01-Jun'02)	51.5	51.6	51.4	-	9.4	10.3	9.7	-
56 (Jul'00-Jun'01)	52.2	52.3	52.1	-	12.4	12.9	12.4	-
55 (Jul'99-Jun'00)*	56.1	56.2	56.0	55.2	11.5	12.1	11.9	11.3
Cont.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
54 (Jan-Jun'98)	50.6	50.9	50.4	-	9.9	11.4	9.9	-
53 (Jan-Dec'97)	51.6	52.1	51.3	-	11.1	13.1	11.4	-
52 (Jul'95-Jun'96)	52.2	52.5	52.0	-	10.7	12.4	10.9	-
51 (Jul'94-Jun'95)	51.4	51.9	51.1	-	11.2	13.6	11.7	-
50 (Jul'93-Jun'94)*	56.8	57.1	56.6	55.5	13.2	14.3	13.3	12.6
49 (Jan-Jun'93)	50.6	50.9	50.4	-	11.3	13.0	10.9	-
48 (Jan-Dec'92)	50.2	50.7	50.1	-	12.5	14.6	12.2	-
47 (Jul-Dec'91)	51.1	51.6	50.9	-	12.0	13.2	11.7	-
46 (Jul'90-Jun'91)	50.8	51.3	50.6	-	12.3	14.3	12.4	-
45 (Jul'89-Jun'90)	50.1	51.2	50.3	-	12.4	14.6	12.1	-
43 (Jul'87-Jun'88)*	56.4	56.0	55.8	54.7	12.9	16.6	12.4	11.6
38 (Jan-Dec'83)*	56.1	56.9	56.4	54.4	14.5	15.8	13.9	12.5

* quinquennial surveys

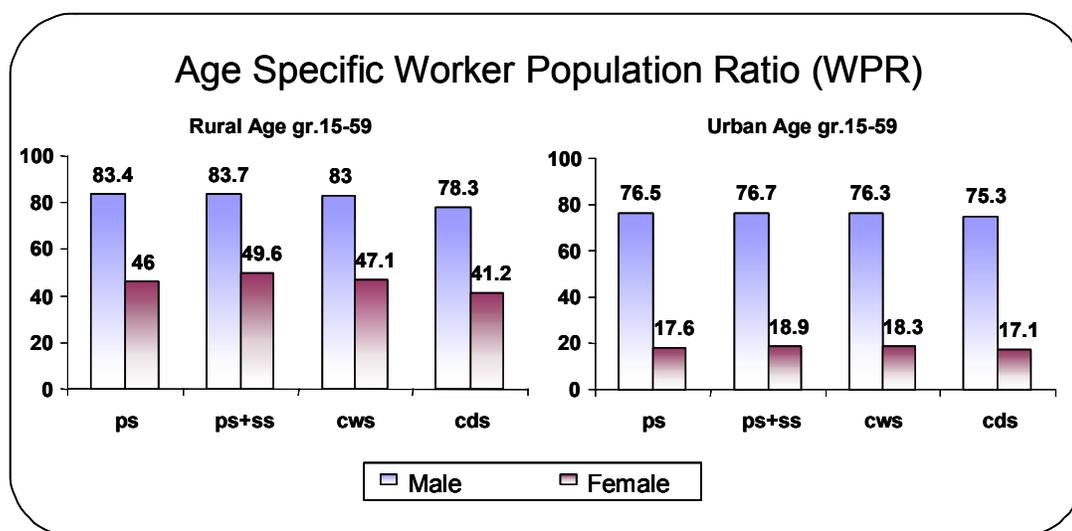
ups – usual principal status, ups+ss – usual principal + subsidiary status, cws – current weekly status, cds – current daily status

2.14 Table 8 gives WPR for broad age groups according to different statuses. The WPR for the rural males in the age group 30-59 years was nearly 99 per cent while that for the rural females in the same age group was just above 55 per cent. The gender gap between the WPR is wider in urban areas compared to the rural areas, may be because the life-style in the rural areas wherein the females need to take active participation in work force. The WPR for rural females in the age group 5-14 years is about 3 per cent which speaks about the prevalence of girl child labour in the rural areas.. For the age group 60+ years, the WPR is observed to be higher for both males and females in rural area compared to their urban counterparts.

Table 8
WPR for broad age-groups according to 'usual status', 'current weekly status' and 'current daily status' approaches (Percentage)

Age-group (years)	Male				Female			
	ups	ups+ss	cws	cds	ups	ups+ss	cws	cds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Rural								
5-14	1.4	1.4	1.2	1.2	2.7	2.7	2.6	1.9
15-29	64.5	65.1	64.2	60.4	33.1	35.7	34.2	30.1
30-59	98.8	98.8	98.3	92.9	55.7	60.1	56.9	49.6
60 +	62.7	63.4	62.8	59.2	22.2	24.3	22.3	20.3
15-59	83.4	83.7	83.0	78.3	46.0	49.6	47.1	41.2
15 +	81.0	81.4	80.7	76.1	43.2	46.5	44.1	38.7
5 +	55.3	55.5	55.0	51.9	30.0	32.3	30.7	26.8
Urban								
5-14	1.1	1.2	1.0	0.9	0.3	0.3	0.3	0.2
15-29	54.6	55.1	54.3	53.4	10.6	11.8	11.3	10.4
30-59	94.4	94.4	94.3	93.3	23.1	24.5	23.9	22.5
60 +	30.6	30.6	29.8	29.1	6.1	6.6	6.3	6.0
15-59	76.5	76.7	76.3	75.3	17.6	18.9	18.3	17.1
15 +	72.5	72.6	72.2	71.2	16.4	17.7	17.1	16.0
5 +	52.4	52.6	52.2	51.5	12.1	13.0	12.6	11.8

ups – usual principal status, ups+ss – usual principal + subsidiary status, cws – current weekly status, cds – current daily status

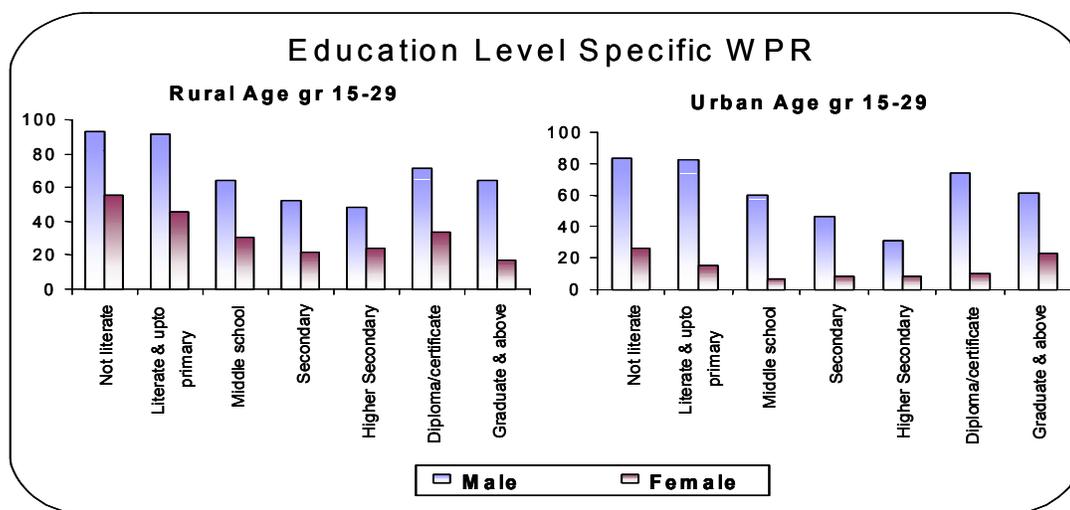


2.15 The WPR according to usual principal + subsidiary status for different education levels show some interesting facts (table 9). It can be observed that, for the age group of 15-29 years, in rural as well as urban areas, a decreasing trend is observed, for both male and female, from “not

literate” to “higher secondary” level of education, indicating more employment opportunities for labour class/manual workers. There is a wider disparity in the gender specific WPR for urban area than rural area.

Table 9
Education level specific WPR according to usual principal + subsidiary status

Education level	(Percentage)					
	15-29		15+		All ages	
	Male	Female	Male	Female	Male	Female
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural						
Not literate	92.7	55.7	86.8	53.2	44.3	36.7
Literate & upto primary	91.5	45.0	91.8	53.5	49.8	28.4
Middle school	64.2	30.4	79.0	37.8	64.0	30.4
Secondary	52.3	22.1	70.2	26.6	69.7	25.6
Higher secondary	48.7	23.9	64.2	24.4	64.2	24.4
Diploma/certificate	71.3	33.6	87.5	65.2	87.5	65.2
Graduate & above	64.4	16.8	81.2	23.1	81.2	23.1
Secondary & above	53.1	22.1	71.0	26.1	70.7	25.4
All	65.1	35.6	81.4	46.5	55.5	32.3
Urban						
Not literate	83.1	26.4	79.8	27.0	28.2	15.6
Literate & upto primary	82.5	14.8	79.0	18.5	36.7	9.7
Middle school	59.3	6.7	73.3	10.6	59.4	8.6
Secondary	46.2	8.0	67.1	10.9	67.0	10.9
Higher secondary	30.7	8.7	57.5	12.0	57.5	11.9
Diploma/certificate	74.0	10.3	87.3	36.4	87.3	36.4
Graduate & above	61.5	23.0	81.0	29.1	81.0	29.1
Secondary & above	44.4	11.6	69.3	16.8	69.2	16.7
All	55.1	11.8	72.6	17.7	52.6	13.0



2.16 The status of employment is divided into three different categories namely self-employed, regular wage/ salaried and casual labour. Percentage distribution of usually employed persons in rural areas by their status of employment for various rounds is given in table 10R and that for urban areas in table 10U. It is observed that the proportion of self-employed persons in the rural areas has reduced significantly resulting in increase in casual labour persons over the period 1983 to 2004, but the proportion of regular wage/ salaried persons has remained almost same. In urban areas the proportion of regular wage/salaried persons has increased significantly amounting to reduction in self-employed persons, but the proportion of casual labour has remained same over the period of 20 years from 1983.

Table 10R
Percentage distribution of usually employed by status of employment for various rounds

Round (survey period)	Principal status			All (ps+ss)		
	Self-employed	Regular wage/ salaried	Casual labour	Self-employed	Regular wage/ salaried	Casual labour
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rural males						
60 (Jan-Jun'04)	48.3	10.5	41.3	48.4	10.4	41.2
59 (Jan-Dec'03)	53.9	10.3	35.7	54.0	10.3	35.7
58 (Jul-Dec'02)	51.7	9.8	38.6	51.9	9.8	38.3
57 (Jul'01-Jun'02)	51.0	9.9	39.1	51.4	9.8	38.8
56 (Jul'00-Jun'01)	46.5	11.4	42.0	46.9	11.4	41.9
55 (Jul'99-Jun'00)*	48.3	8.4	43.3	48.6	8.4	43.0
54 (Jan-Jun'98)	54.7	7.1	38.2	55.3	7.0	37.7
53 (Jan-Dec.'97)	59.0	7.4	33.6	59.4	7.3	33.3
52 (Jul'95-Jun'96)	58.5	7.8	33.7	59.0	7.7	33.3
51 (Jul'94-Jun'95)	59.7	6.9	33.4	60.4	6.8	32.8
50 (Jul'93-Jun'94)*	46.7	11.3	42.0	47.1	11.2	41.7
49 (Jan-Jun'93)	58.3	8.1	33.6	59.1	7.9	33.0
48 (Jan-Dec'92)	60.1	8.5	31.4	60.8	8.3	30.9
47 (Jul-Dec'91)	59.3	9.1	31.6	59.5	9.2	31.3
46 (Jul'90-Jun'91)	55.2	13.1	31.7	55.7	12.8	31.5
45 (Jul'89-Jun'90)	59.1	10.0	30.9	59.7	9.8	30.5
43 (Jul'87-Jun'88)*	49.8	9.5	40.7	50.2	9.4	40.4
38 (Jan-Dec'83)*	54.4	9.6	36.0	54.9	9.5	35.6
Rural females						
60 (Jan-Jun'04)	45.2	2.1	52.7	47.4	1.9	50.6
59 (Jan-Dec'03)	51.2	3.0	45.8	17.4	0.9	14.7
58 (Jul-Dec'02)	42.9	3.4	53.4	44.7	3.1	52.2
57 (Jul'01-Jun'02)	56.4	1.5	42.1	59.4	1.4	39.2
56 (Jul'00-Jun'01)	46.4	4.7	48.9	48.0	4.4	47.6
55 (Jul'99-Jun'00)*	40.0	1.4	58.6	44.7	1.2	54.1
54 (Jan-Jun'98)	48.2	3.1	48.6	53.4	2.5	44.2
53 (Jan-Dec.'97)	51.8	2.7	45.5	57.0	2.1	40.9
52 (Jul'95-Jun'96)	50.7	3.0	46.3	56.4	2.4	41.2
51 (Jul'94-Jun'95)	51.0	3.0	46.0	57.0	2.2	40.8
50 (Jul'93-Jun'94)*	40.7	1.7	57.6	44.2	1.5	54.3
49 (Jan-Jun'93)	53.1	2.9	44.0	58.5	2.3	39.2
48 (Jan-Dec'92)	54.8	3.6	41.6	59.1	3.2	37.7
47 (Jul-Dec'91)	52.4	3.7	43.9	56.8	3.1	40.1
46 (Jul'90-Jun'91)	54.5	4.5	41.0	58.6	3.8	37.6
45 (Jul'89-Jun'90)	56.5	3.3	39.9	60.9	2.8	36.3
43 (Jul'87-Jun'88)*	45.0	1.3	53.7	47.4	1.2	51.4
38 (Jan-Dec'83)*	52.1	0.9	47.0	49.8	0.9	49.3

* *quinquennial surveys*

Percentage of employed according to principal status

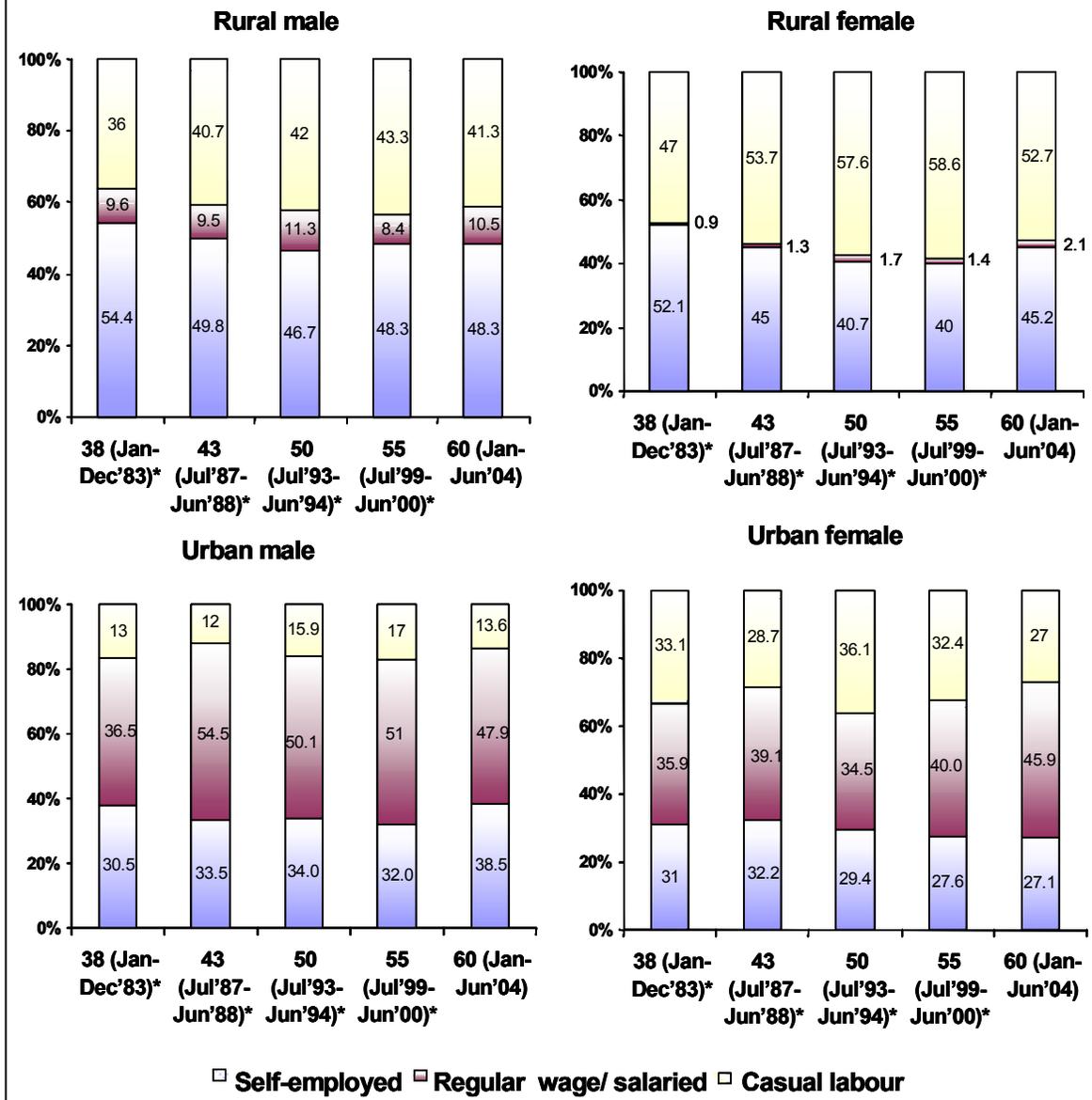


Table 10U

Percentage distribution of usually employed by status of employment for different rounds

Round (survey period)	Principal status			All (ps+ss)		
	Self-employed	Regular wage/ salaried	Casual labour	Self-employed	Regular wage/ salaried	Casual labour
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Urban males						
60 (Jan-Jun'04)	38.5	47.9	13.6	38.6	47.8	13.6
59 (Jan-Dec'03)	38.8	46.6	14.6	38.9	46.7	14.4
58 (Jul-Dec'02)	37.8	49.3	13.1	37.9	49.2	13.1
57 (Jul'01-Jun'02)	33.3	54.3	12.4	32.4	54.2	12.4
56 (Jul'00-Jun'01)	29.9	54.0	16.1	30.0	34.0	16.1
55 (Jul'99-Jun'00)*	32.0	51.0	17.0	31.4	51.6	17.0
54 (Jan-Jun'98)	42.2	39.7	18.1	42.5	39.5	18.1
53 (Jan-Dec.'97)	39.7	41.9	18.4	40.0	41.5	18.5
52 (Jul'95-Jun'96)	40.8	42.7	16.5	41.0	42.5	16.5
51 (Jul'94-Jun'95)	40.2	43.3	16.5	40.4	43.1	16.5
50 (Jul'93-Jun'94)*	34.0	50.1	15.9	34.2	50.0	15.8
49 (Jan-Jun'93)	38.7	39.7	21.6	38.9	39.5	21.6
48 (Jan-Dec'92)	40.6	39.9	19.5	41.2	39.4	19.3
47 (Jul-Dec'91)	42.5	40.1	17.4	48.9	39.9	17.2
46 (Jul'90-Jun'91)	40.4	44.5	15.1	40.7	44.2	15.1
45 (Jul'89-Jun'90)	41.3	42.1	16.6	42.3	41.3	16.4
43 (Jul'87-Jun'88)*	33.5	54.5	12.0	33.7	54.2	12.1
38 (Jan-Dec'83)*	30.5	36.5	13.0	30.6	56.2	13.2
Urban females						
60 (Jan-Jun'04)	27.1	45.9	27.0	31.3	42.9	25.8
59 (Jan-Dec'03)	26.7	47.5	25.8	31.9	44.4	23.7
58 (Jul-Dec'02)	23.9	45.1	31.9	28.1	42.1	29.8
57 (Jul'01-Jun'02)	24.6	50.6	24.7	28.3	48.2	23.5
56 (Jul'00-Jun'01)	26.4	39.0	34.6	28.2	37.7	34.1
55 (Jul'99-Jun'00)*	27.6	40.0	32.4	30.0	38.5	31.5
54 (Jan-Jun'98)	33.0	37.2	29.8	38.4	32.7	28.8
53 (Jan-Dec.'97)	33.3	36.0	30.7	39.7	31.3	29.0
52 (Jul'95-Jun'96)	34.7	38.0	27.3	40.0	33.2	26.8
51 (Jul'94-Jun'95)	36.3	35.7	28.0	42.6	30.1	27.3
50 (Jul'93-Jun'94)*	29.4	34.5	36.1	33.6	32.0	34.4
49 (Jan-Jun'93)	34.5	30.1	35.4	40.7	26.2	33.1
48 (Jan-Dec'92)	36.8	33.6	29.6	42.5	28.8	28.7
47 (Jul-Dec'91)	42.5	30.8	26.7	47.0	28.0	25.0
46 (Jul'90-Jun'91)	43.9	30.1	26.0	49.0	25.9	25.1
45 (Jul'89-Jun'90)	43.5	33.1	23.4	48.6	29.2	22.2
43 (Jul'87-Jun'88)*	32.2	39.1	28.7	35.2	36.0	28.8
38 (Jan-Dec'83)*	31.0	35.9	33.1	33.7	33.9	32.4

* *quinquennial rounds*

2.17 Percentage distribution of usually employed by broad groups of industry for various rounds is given in table 11. Broad groups of industries viz. primary, secondary and tertiary refer to industry divisions 01-05, 10-45 and 50-99 of National Industrial Classification-1998, respectively. On analysis of the results, it is observed that higher proportions of females compared to that of males in rural areas are engaged in primary sector. In case of rural female a shift from tertiary and secondary sector to primary sector is observed. In urban areas significant shift from primary sector to tertiary sector is observed for both males and females, which is more pronounced in case of females.

Table 11

Percentage distribution of usually employed persons by broad group of industry for various rounds

Round (survey period)	Male						Female					
	Primary		Secondary		Tertiary		Primary		Secondary		Tertiary	
	ps	all										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Rural												
60 (Jan-Jun'04)	72.4	72.5	11.4	11.4	16.1	16.1	91.0	90.8	4.4	4.7	4.7	4.5
59 (Jan-Dec'03)	70.4	70.8	14.3	14.1	15.3	15.1	84.1	85.2	9.9	9.5	6.0	5.3
58 (Jul-Dec'02)	68.5	68.8	14.0	13.8	17.5	17.4	83.4	84.9	9.1	8.7	7.5	6.5
57 (Jul'01-Jun'02)	67.2	67.8	14.8	14.5	18.0	17.7	81.9	84.0	12.4	10.9	5.7	5.1
56 (Jul'00-Jun'01)	68.8	69.0	13.7	13.6	17.5	17.4	81.2	81.8	13.9	13.3	4.9	4.9
55 (Jul'99-Jun'00)*	71.2	71.4	12.7	12.6	16.1	16.0	84.1	85.4	9.3	8.9	6.6	5.7
54 (Jan-Jun'98)	75.5	75.7	10.3	10.2	14.2	14.1	87.6	88.5	7.0	6.6	5.4	4.9
53 (Jan-Dec.'97)	75.7	75.8	10.6	10.6	13.7	13.6	87.5	88.5	7.7	7.2	4.7	4.2
52 (Jul'95-Jun'96)	74.6	74.8	11.5	11.4	13.9	13.7	85.4	86.8	8.7	8.0	5.9	5.2
51 (Jul'94-Jun'95)	75.2	75.6	10.4	10.3	14.4	14.1	86.2	87.1	8.8	8.3	5.0	4.6
50 (Jul'93-Jun'94)*	73.9	74.1	11.3	11.2	14.8	14.7	84.7	86.2	9.1	8.3	6.2	5.5
49 (Jan-Jun'93)	74.9	75.0	11.0	10.9	14.1	14.1	86.2	87.2	7.7	7.4	6.1	5.4
48 (Jan-Dec'92)	75.3	75.7	10.6	10.4	14.1	13.9	85.8	86.2	7.8	7.8	6.4	6.0
47 (Jul-Dec'91)	74.8	74.9	11.2	11.2	14.0	13.9	85.9	86.3	7.9	7.9	6.2	5.8
46 (Jul'90-Jun'91)	70.5	71.0	12.3	12.1	17.2	16.9	84.2	84.9	8.3	8.1	7.5	7.0
45 (Jul'89-Jun'90)	71.6	71.7	12.0	12.1	16.4	16.2	80.0	81.4	13.0	12.4	7.0	6.1
43 (Jul'87-Jun'88)*	73.9	74.5	12.3	12.1	13.8	13.4	82.5	84.7	11.2	10.0	6.3	5.3
38 (Jan-Dec'83)*	77.2	77.5	10.2	10.0	12.3	12.2	86.2	87.5	7.8	7.4	5.7	4.8
Urban												
60 (Jan-Jun'04)	5.4	5.4	34.7	34.6	59.7	59.8	13.7	13.3	26.9	27.4	59.1	59.0
59 (Jan-Dec'03)	6.0	6.3	33.8	33.6	60.2	60.1	14.5	19.0	29.9	31.2	55.6	49.7
58 (Jul-Dec'02)	6.9	7.0	33.8	33.7	59.4	59.3	15.6	17.1	29.8	31.5	54.6	51.3
57 (Jul'01-Jun'02)	7.8	7.8	32.2	32.1	60.1	60.0	17.3	21.1	30.9	33.2	51.9	45.7
56 (Jul'00-Jun'01)	6.3	6.6	35.9	35.6	57.9	57.8	13.6	18.3	34.2	34.2	52.2	47.5
55 (Jul'99-Jun'00)*	6.5	6.6	32.9	32.8	60.6	60.6	14.6	17.7	29.3	29.3	56.1	52.9
54 (Jan-Jun'98)	9.0	9.2	32.4	32.2	58.6	58.6	18.7	22.1	29.2	28.0	52.0	49.9
53 (Jan-Dec.'97)	7.6	7.8	34.3	34.0	58.2	58.1	16.5	20.0	32.8	32.4	50.7	47.6
52 (Jul'95-Jun'96)	8.1	8.2	33.5	33.5	58.4	58.3	17.9	20.9	31.0	30.9	51.2	48.2
51 (Jul'94-Jun'95)	8.6	8.8	33.0	32.9	58.4	58.3	15.4	20.5	35.4	34.3	49.2	45.2
50 (Jul'93-Jun'94)*	8.7	9.0	33.1	32.9	58.2	58.1	19.3	24.7	29.9	29.1	50.8	46.2
49 (Jan-Jun'93)	10.1	10.2	34.5	34.4	55.4	55.4	23.2	25.8	30.6	30.6	46.2	43.6
48 (Jan-Dec'92)	10.4	10.7	34.5	34.3	55.1	55.0	19.5	22.4	30.4	30.8	50.1	46.8
47 (Jul-Dec'91)	9.5	9.5	30.6	30.7	59.9	59.8	21.7	23.7	27.8	28.2	50.5	48.1
46 (Jul'90-Jun'91)	9.1	9.2	33.6	33.6	57.3	57.2	22.3	24.9	31.8	31.6	45.9	43.5
45 (Jul'89-Jun'90)	9.5	10.0	32.3	31.9	58.2	58.2	21.4	24.1	29.7	30.3	48.9	45.6
43 (Jul'87-Jun'88)*	8.5	9.1	34.3	34.0	57.2	56.9	21.8	29.4	32.4	31.7	45.8	38.9
38 (Jan-Dec'83)*	9.7	10.3	34.4	34.2	55.1	55.0	25.5	31.0	30.7	30.6	43.0	37.6

* quinquennial surveys

ps – principal status

Note: Broad groups of industries viz. primary, secondary and tertiary refer to the groups of NIC-98 industry divisions 01-05, 10-45 and 50-99, respectively.

2.18 It is interesting to note from table 12 that in rural area 9.8 per cent male and 10.4 per cent of female who were already employed in principal activity status pursued subsidiary economic activity as well. In urban area this proportion was very low, being 0.8 per cent and 1.5 per cent respectively for male and female. Proportion of unemployed pursuing subsidiary activity, is also very low both for rural and urban area.

Table 12
Percentage of persons reporting subsidiary economic activity for broad usual principal activity status

Usual principal activity status (1)	Rural		Urban	
	Male	Female	Male	Female
	(2)	(3)	(4)	(5)
Self employed	8.5	7.4	1.4	2.7
Regular employee	10.8	10.4	0.7	1.5
Casual labour	11.2	13.0	-	0.3
All employed	9.8	10.4	0.8	1.5
Unemployed	4.5	5.5	0.5	-
Not in labour force	0.5	3.3	0.3	1.0
All	5.7	5.4	0.6	1.1

2.19 Information on average daily wages for casual workers with activity status “worked as casual wage labour in public works” and “worked as casual wage labour in other types of works” in the age group of 15-59 years, shown in table 13, indicates that there is a huge disparity in wages in rural and urban areas with urban average daily wages about three times as much as the rural.

Table 13
Average daily wages for casual workers* of age 15-59 years

Sector (1)	Average daily wage (Rs.)		
	Male	Female	Person
	(2)	(3)	(4)
Rural	71	34	59
Urban	165	119	156

* Activity status worked as casual wage labour in public works (code 41) and worked as casual wage labour in other types of works (code 51)

2.20 The average daily wages for regular salaried /wage employees with activity status “worked as regular salaried/wage employee” in the age group 15-29 years, given in table 14, indicates that the wages are higher in urban area than in rural area.

Table 14
Average daily wages for regular salaried/wage employees* (31) of age 15-59 years

Sector (1)	Average daily wage (Rs.)		
	Male	Female	Person
	(2)	(3)	(4)
Rural	150.98	124.19	148.49
Urban	195.61	159.85	189.83

* Activity status worked as regular salaried/wage employee (code 31)

2.21 The unemployment rate, defined as the proportion of persons/person-days unemployed to the persons/person-days in the labour force, is a widely used indicator of unemployment. These unemployment rates according to different approaches along with percentage of unemployed persons to total population are given in table 15R and 15U for various rounds. The unemployment rates according to the current daily status are higher for both the rural and urban areas and for both the genders. No specific trend is observed in unemployment rates.

Table 15R
Unemployment rates (proportion of persons (or person-days) unemployed in labour force)

Round	Male				Female				Rural
	ups	ups+ss	cws	cds	ups	ups+ss	cws	cds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
60 (Jan-Jun'04)	1.8	1.7	2.4	4.5	0.8	0.7	1.2	3.5	
	(1.0)	(1.0)	(1.3)	(2.4)	(0.2)	(0.2)	(0.4)	(1.0)	
59 (Jan-Dec'03)	1.2	1.0	1.6	-	0.0	0.0	0.7	-	
	(1.0)	(0.9)	(1.5)		(0.2)	(0.2)	(0.4)		
58 (Jul-Dec'02)	2.0	2.0	1.8	-	0.7	0.6	0.7	-	
	(1.0)	(0.8)	(1.5)		(0.2)	(0.2)	(0.4)		
57 (Jul'01-Jun'02)	2.2	2.2	3.7	-	0.3	0.3	1.6	-	
	(0.7)	(0.6)	(1.4)		(0.5)	(0.5)	(0.7)		
56 (Jul'00-Jun'01)	3.0	2.8	2.8	-	0.6	0.6	0.6	-	
	(0.9)	(0.8)	(1.2)		(0.1)	(0.1)	(0.4)		
55 (Jul'99-Jun'00)	1.4	1.2	1.8	2.6	0.6	0.6	0.7	1.8	
	(1.1)	(0.9)	(2.1)	(3.7)	(0.4)	(0.3)	(1.0)	(1.5)	
54 (Jan-Jun'98)	2.4	2.1	2.9	-	2.0	1.5	2.7	-	
	(1.3)	(1.1)	(1.5)		(0.4)	(0.4)	(0.6)		
53 (Jan-Dec.'97)	1.6	1.2	2.0	-	0.9	0.7	1.8	-	
	(0.9)	(0.7)	(1.1)		(0.2)	(0.2)	(0.4)		
52 (Jul'95-Jun'96)	1.5	1.3	1.8	-	0.8	0.7	0.9	-	
	(0.8)	(0.7)	(1.0)		(0.2)	(0.2)	(0.2)		
51 (Jul'94-Jun'95)	1.2	1.0	1.8	-	0.5	0.4	1.2	-	
	(0.7)	(0.6)	(1.0)		(0.1)	(0.1)	(0.3)		
50 (Jul'93-Jun'94)	1.1	0.9	1.3	1.9	0.3	0.3	0.6	1.0	
	(1.1)	(0.8)	(1.7)	(3.0)	(0.3)	(0.3)	(0.8)	(1.3)	

Note: Figures within brackets indicate percentage of unemployed persons (person-days)

Table 15U
Unemployment rates (number of persons (or person-days) unemployed in labour force)

Round	Male				Female				Urban
	ups	ups+ss	cws	cds	ups	ups+ss	cws	cds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
60 (Jan-Jun'04)	4.4	4.3	4.7	5.3	5.2	4.8	5.7	7.0	
	(2.4)	(2.4)	(2.6)	(2.9)	(0.7)	(0.7)	(0.8)	(0.9)	
59 (Jan-Dec'03)	4.0	4.0	4.2	-	5.5	0.0	5.4	-	
	(2.4)	(2.3)	(2.8)		(0.5)	(0.5)	(0.6)		
58 (Jul-Dec'02)	3.5	4.5	3.7	-	4.2	4.0	4.4	-	
	(2.6)	(2.5)	(3.1)		(0.8)	(0.7)	(0.7)		
57 (Jul'01-Jun'02)	5.6	5.6	5.7	-	6.7	6.2	6.5	-	
	(2.4)	(2.2)	(2.6)		(0.6)	(0.5)	(0.6)		
56 (Jul'00-Jun'01)	4.4	4.4	4.4	-	5.3	5.1	5.3	-	
	(2.3)	(2.2)	(2.6)		(0.5)	(0.4)	(0.5)		
55 (Jul'99-Jun'00)	4.4	4.3	4.5	4.9	7.0	5.9	6.9	7.2	
	(2.6)	(2.4)	(3.0)	(3.8)	(0.9)	(0.8)	(1.0)	(1.2)	
54 (Jan-Jun'98)	5.3	5.1	5.4	-	8.1	6.8	7.8	-	
	(2.8)	(2.7)	(2.9)		(0.9)	(0.8)	(0.8)		
53 (Jan-Dec.'97)	3.7	3.9	4.3	-	5.1	4.4	5.8	-	
	(2.1)	(2.1)	(2.3)		(0.6)	(0.6)	(0.7)		
52 (Jul'95-Jun'96)	4.0	3.8	4.1	-	3.6	3.1	3.5	-	
	(2.2)	(2.1)	(2.2)		(0.4)	(0.4)	(0.4)		
51 (Jul'94-Jun'95)	3.7	3.4	3.9	-	4.1	3.4	4.0	-	
	(2.0)	(1.8)	(2.1)		(0.5)	(0.5)	(0.5)		
50 (Jul'93-Jun'94)	3.5	3.4	3.8	4.2	4.8	4.4	4.8	5.0	
	(2.4)	(2.2)	(2.8)	(3.6)	(1.1)	(1.0)	(1.2)	(1.4)	

Note: Figures within brackets indicate percentage of unemployed persons (person-days)

2.22 The unemployment rates for different educational levels reveal that the rates are higher among the higher levels of education irrespective of area, age and gender. Table 16 provides the unemployment rates along with the proportion of unemployed in the population according to the usual principal + subsidiary status for the age groups 15-29, 15+ and all. The highest unemployment rate is observed for well educated females in rural areas in the age group 15-29 years.

Table 16
Education-level specific usual status (ps+ss) unemployment rate (UR) and proportion of unemployed (PU) for persons of age groups 15-29, 15+ and all ages

Education level (1)	Rural				Urban			
	UR		PU		UR		PU	
	Male (2)	Female (3)	Male (4)	Female (5)	Male (6)	Female (7)	Male (8)	Female (9)
Age group: 15-29								
Not literate	3.0	-	2.9	-	2.5	2.6	2.1	0.7
Literate & upto primary	0.7	-	0.6	-	6.8	5.1	6.0	0.8
Middle school	4.3	0.3	2.9	0.1	10.4	10.7	6.9	0.8
Secondary	7.1	8.7	4.0	2.1	8.7	14.0	4.4	1.3
Higher secondary	4.7	10.4	2.4	2.8	17.2	23.7	6.4	2.7
Diploma/certificate	7.5	35.0	5.8	18.1	10.3	-	8.5	-
Graduate & above	15.2	33.6	11.5	8.5	20.4	20.9	15.8	6.1
Secondary & above	7.7	12.3	4.4	3.1	14.3	19.4	7.4	2.8
All	4.7	2.5	3.2	0.9	11.0	13.2	6.8	1.8
Age-group: 15+								
Not literate	0.6	-	0.5	-	1.8	1.5	1.5	0.4
Literate & upto primary	0.1	-	0.1	-	2.6	1.1	2.1	0.2
Middle school	2.1	0.3	1.7	0.1	4.9	4.5	3.8	0.5
Secondary	3.6	6.0	2.6	1.7	3.6	6.8	2.5	0.8
Higher secondary	3.0	9.0	2.0	2.4	6.3	14.4	3.9	2.0
Diploma/certificate	2.8	12.7	2.5	9.5	3.1	-	2.8	-
Graduate & above	5.9	21.8	5.1	6.4	5.6	8.8	4.8	2.8
Secondary & above	3.8	8.4	2.8	2.4	4.9	9.2	3.6	1.7
All	1.7	0.6	1.4	0.3	4.3	4.8	3.3	0.9
Age-group: All								
Not literate	0.7	-	0.3	-	2.4	1.9	0.7	0.3
Literate & upto primary	0.2	-	0.1	-	2.7	1.0	1.0	0.1
Middle school	2.1	0.3	1.4	0.1	5.0	4.4	3.1	0.4
Secondary	3.6	5.9	2.6	1.6	3.6	6.8	2.5	0.8
Higher secondary	3.0	9.0	2.0	2.4	6.4	14.4	3.9	2.0
Diploma/certificate	2.8	12.7	2.5	9.5	3.1	-	2.8	-
Graduate & above	5.9	21.8	5.1	6.4	5.6	8.8	4.8	2.8
Secondary & above	3.8	8.6	2.8	2.4	4.9	9.2	3.6	1.7
All	1.8	0.6	1.0	0.2	4.4	5.1	2.4	0.7

2.23 Table 17 presents the estimates of the proportion of persons who received formal vocational training. Nearly 3.6 per cent in rural and 4.2 per cent in urban areas in the age-group of 15-29 years reported to have received formal vocational training. Fewer females received formal vocational training in both rural and urban areas than males. Moreover, the proportion of people receiving vocational training increases with age.

Table 17
Percentage of persons in age group 15-29 years with general educational level middle school and above but below graduate who received formal vocational training by age group

Age group (years)	Rural			Urban		
	Male	Female	Person	Male	Female	Person
(1)	(2)	(3)	(4)	(5)	(6)	(7)
15-19	2.8	0.8	1.9	2.4	1.4	1.9
20-24	5.0	2.2	3.9	5.7	4.6	5.2
25-29	9.6	2.4	6.7	9.9	3.3	7.0
All(15-29)	5.0	1.6	3.6	5.4	2.8	4.2

2.24 It can be seen that 60 per cent of rural male and 90.3 per cent of rural females who did diploma/certificate courses received formal vocational training. In comparison, the proportion of males and females in both rural and urban areas with level of education 'middle school' is negligible.

Table 18
Percentage of persons in age group 15-29 years with general educational level middle school and above but below graduate who received formal vocational training by general educational level

General educational level	Rural		Urban	
	Male	Female	Male	Female
(1)	(2)	(3)	(4)	(5)
Middle school	0.4	0.1	1.5	0.3
Secondary	6.6	2.7	6.1	2.6
Higher secondary	12.4	4.6	8.5	7.3
Diploma/certificate course	59.9	90.3	58.7	28.7

2.25 Table 19 shows the number of employed, unemployed and not in labour force persons who had received vocational training. It can be seen that 21.9 per cent rural and 12.6 per cent urban male with vocational training and general level of education from middle school and above to below graduation were unemployed. In urban areas more females under this category are unemployed than males.

Table 19
Percentage of persons in age group 15-29 years with general educational level middle school and above but below graduate who received formal vocational training by broad activity status

Broad activity status	Rural		Urban	
	Male	Female	Male	Female
(1)	(2)	(3)	(4)	(5)
Employed	5.9	2.6	0.7	12.4
Unemployed	21.9	15.9	12.6	24.4
Not in labour force	2.3	1.0	2.8	1.8

2.26 The percentage distribution of persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training by field of training is given in table 20. It is observed that computer trades are more popular both in the rural and urban areas and among both the genders. Textile related work is second among the females in both the areas.

Table 20
Percentage distribution of persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training by field of training

Field of training (1)	Rural		Urban	
	Male (2)	Female (3)	Male (4)	Female (5)
Mechanical engineering trades	21.1	-	20.7	0.2
Electrical and electronic engineering trades	19.4	3.7	20.5	3.2
Computer trades	29.0	41.9	33.6	32.6
Civil engineering and building construction related works	2.6	-	3.3	0.7
Chemical engineering trades	1.6	-	2.1	0.1
Leather related work	2.0	-	-	0.1
Textile related work	-	25.2	0.6	24.2
Catering, nutrition, hotels and restaurant related work	-	-	1.1	0.5
Artisan/craftsman/handicraft and cottage based production work	-	-	-	1.8
Creative arts/artists	-	-	-	1.6
Agriculture and crop production related skills and food preservation related work	2.9	-	-	0.1
Non-crop based agricultural and other related activities	2.0	-	0.8	0.0
Health and paramedical services related work	5.9	-	1.6	10.2
Office and business related work	1.4	7.8	4.8	3.6
Driving and motor mechanic work	4.7	-	3.0	-
Beautician, hairdressing and related work	-	4.1	-	4.6
Work related to childcare, nutrition, pre-schools and creche	0.4	4.5	0.6	1.8
Journalism, mass communication and medic related work	0.0	-	1.2	0.1
Printing technology related work	1.7	-	0.8	0.7
Other	5.3	12.9	5.4	13.3
Not reported	0.0	-	-	0.7
All	100.0	100.0	100.0	100.0

2.27 Percentage distribution of persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training by institution of training is given in table 21, which indicates that ITIs/ITCs are the major institutes for receiving the vocational training for males in both the areas.

Table 21
Percentage distribution of persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training by institution of training

Institution of training (1)	Rural		Urban	
	Male (2)	Female (3)	Male (4)	Female (5)
Industrial Training Institutes (ITIs)/ Industrial Training Centres (ITCs)	39.4	10.2	24.5	6.6
School offering vocational courses (Secondary, Higher Secondary level)	10.1	5.4	6.5	6.3
UGC (first degree level)	3.0	-	6.6	1.1
Polytechniques	2.4	-	9.2	4.6
Hotel Management Institutes	-	-	0.6	1.4
Food craft and Catering Institutes	-	-	0.5	-
Small Industries Service Institutes/ District Industries Centres/ Toll Room Centres	0.8	5.4	3.8	2.2
Fashion Technology Institutes	-	-	-	3.9
Tailoring, Embroidery and Stitch Craft Institutes	1.0	12.4	1.5	13.9
Nursing Institutes	0.9	-	0.5	2.7
Institutes giving Diploma in Pharmacy	1.1	-	1.3	-
Hospital and Medical Training Institutes	3.8	-	0.5	3.5
Nursery Teachers' Training Institutes	0.4	4.5	-	2.2
Institutes offering training for Agricultural Extension	3.1	-	-	-
Handloom/Handicraft Design Training Centers/KVIC	-	-	0.4	-

Cont.

	(1)	(2)	(3)	(4)	(5)
Recognised Motor Driving Schools		3.2	-	3.0	-
Recognised Beautician Schools		-	4.1	-	8.0
Institutes run by Companies/Corporations		-	-	3.2	1.3
Institutes for Journalism and Mass Communication		-	-	1.5	-
Other Institutes		30.1	53.2	36.5	42.2
Not reported		0.7	4.9	-	-
All		100.0	100.0	100.0	100.0

2.28 Percentage of persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training and reported it to be helpful in taking up an/another economic activity for each field of training is given in table 22. It is observed that the sample reporting the training helpful is inadequate but the information about usefulness of field of training may be viewed as indicative. In general, the percentage of persons reporting receipt of any vocational training and reporting it to be helpful in taking up economic activity is found to be at least 50 per cent.

Table 22
Percentage of persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training and reported it to be helpful in taking up an/another economic activity for each field of training

Field of training	Rural				Urban			
	Male		Female		Male		Female	
	Per-centage	Sample reporting helpful						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Mechanical engineering trades	63.8	9	-	-	50.0	18	-	-
Electrical and electronic engineering trades	54.1	12	-	-	59.4	22	40.4	2
Computer trades	31.1	7	23.1	3	45.8	28	57.4	18
Civil engineering and building construction related works	58.7	2	-	-	79.0	5	100.0	1
Chemical engineering trades	100.0	2	-	-	81.0	2	-	-
Textile related work	-	-	100.0	7	42.5	1	45.1	7
Catering, nutrition, hotels and restaurant related work	-	-	-	-	100.0	2	100.0	1
Creative arts/artists	-	-	-	-	-	-	100.0	2
Agriculture and crop production related skills and food preservation related work	51.0	3	-	-	-	-	-	-
Non-crop based agricultural and other related activities	46.1	1	-	-	100.0	1	-	-
Health and paramedical services related work	89.8	6	-	-	68.5	3	100.0	5
Office and business related work	-	-	-	-	74.9	5	-	-
Driving and motor mechanic work	68.2	4	-	-	100.0	6	-	-
Beautician, hairdressing and related work	-	-	100.0	1	-	-	76.6	5

Work related to childcare, nutrition, pre-schools and crèche	100.0	2	100.0	1	100.0	1	100.0	1
Printing technology related work	-	-	-	-	100.0	1	-	-
Other	66.8	5	100.0	3	56.4	4	100.0	5
All	50.9	53	56.3	15	56.4	99	62.7	47

2.29 Percentage of employed persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training and reported it to be useful in present economic activity for each field of training is given in table 23. It is observed that more than 50 per cent of the persons report the vocational training to be useful in their present economic activity. In this case also the sample is inadequate but the information contained in it is indicative.

Table 23

Percentage of employed persons in age group 15-29 years with general educational level middle school and above but below graduate who received vocational training and reported it to be useful in present economic activity for each field of training

Field of training	Rural				Urban			
	Male		Female		Male		Female	
	Per-centage	Sample report-ing helpful						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Mechanical engineering trades	45.7	4	-	-	72.8	18	-	-
Electrical and electronic engineering trades	66.3	7	-	-	73.3	17	100.0	1
Computer trades	39.4	5	15.4	1	74.8	24	83.2	7
Civil engineering and building construction related works	100.0	2	-	-	100.0	2	100.0	1
Chemical engineering trades	100.0	1	-	-	100.0	1	-	-
Textile related work	-	-	100.0	4	100.0	2	38.1	1
Catering, nutrition, hotels and restaurant related work	-	-	-	-	100.0	2	100.0	1
Creative arts/artists	-	-	-	-	-	-	100.0	2
Agriculture and crop production related skills and food preservation related work	100.0	3	-	-	-	-	-	-
Non-crop based agricultural and other related activities	100.0	2	-	-	-	-	-	-
Health and paramedical services related work	100.0	5	-	-	100.0	3	100.0	5
Office and business related work	-	-	-	-	45.6	2	-	-
Driving and motor mechanic work	68.2	4	-	-	100.0	6	-	-
Beautician, hairdressing and related work	-	-	-	-	-	-	100.0	4
Work related to childcare, nutrition, pre-schools and crèche	100.0	2	100.0	1	100.0	1	-	-
Other	-	-	100.0	3	63.6	3	83.4	3
All	54.8	35	82.6	9	74.1	81	88.7	25

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GOVERNMENT OF MAHARASHTRA

**A REPORT ON
'EMPLOYMENT AND UNEMPLOYMENT SITUATION'
BASED ON DATA COLLECTED IN STATE SAMPLE OF
60Th ROUND OF NATIONAL SAMPLE SURVEY
(JANUARY – JUNE, 2004)**

VOL.II

**Directorate of Economics and Statistics, Planning Department,
Government of Maharashtra,
Mumbai**

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Note: Hard copy of detailed tables is available at the Directorate of Economics and Statistics, Government of Maharashtra, Mumbai Office.

Chapter – Two

CONCEPTS AND DEFINITIONS

2.0 The concepts and definitions of some important terms used in the survey are explained in the following paragraphs. They are relevant to this report for understanding various estimates on employment-unemployment.

2.1 **Household:** A group of persons normally lived together and took food from a common kitchen constituted a household. The adverb “normally” means that temporary visitors were excluded but temporary stay-aways were included. Thus, a son or daughter residing in a hostel for studies was excluded from the household of his/her parents, but a resident employee or resident domestic servant or paying guest (but not just a tenant in the house) was included in the employer’s/host’s household. “Living together” was given more importance than “sharing food from a common kitchen” in drawing the boundaries of a household in case the two criteria were in conflict. However, in the special case of a person taking food with his family but sleeping elsewhere (say, in a shop or a different house) due to space shortage, the household formed by such a person’s family members was taken to include the person also. Each inmate of a mess, hotel, boarding and lodging house, hostel, etc. was considered to be a single-member household except that a family living in a hotel (say) was considered as one household only. The same principle was applicable for the residential staff of such establishments.

2.2 **Economic activity:** Any activity resulting in production of goods and services that add value to national product was considered as an economic activity. Such activities included (i) production of all goods and services for market (market activities), i.e. production for pay or profit, and, (ii) the production of primary commodities for own consumption and own account production of fixed assets, among the non-market activities.

2.2.1 The entire spectrum of human activity falls into two categories - economic and non-economic activities. The economic activities have two parts - market activities and non-market activities. Market activities are those that involve remuneration to those who perform it, i.e., activity performed for pay or profit. These are essentially production of goods and services for the market including those of government services, etc. non-market activities are the production for own consumption of primary products including own account processing of primary products and own account production of fixed assets.

2.2.2 The full spectrum of economic activities as defined in the UN system of National Accounts (1993) was not covered in the definition adopted for the NSS 60th round survey of Employment and Unemployment. For example, the former included activities like own account processing of primary products among other things. In the NSS, activities relating to the production of primary goods for own consumption, was restricted to the agriculture sector only and did not include the activities in mining and quarrying sector. The coverage of economic activities has, however, remained the

same since the 50th round. Earlier, to that, own account production of fixed assets was not considered as economic activity.

The term 'economic activity' in the present survey, therefore, included:

- (i) all the market activities performed for pay or profit which result in production of goods and services for exchange.
- (ii) of the non-market activities.

(a) all the activities relating to the agricultural sector (Industry Divisions 01 to 05 of NIC 1998) which result in production (including gathering of uncultivated crops, forestry, collection of firewood, hunting, fishing etc.) of agricultural produce for own consumption

and

(b) the activities relating to the own-account production of fixed assets. Own account production of fixed assets include construction of own houses, roads, wells etc., and of machinery, tools etc., for household enterprise and also construction of any private or community facilities free of charge. A person may be engaged in own account construction either in the capacity of a labourer or a supervisor.

As per the practice followed in earlier rounds, certain activities like prostitution, begging, smuggling etc., which though fetched earnings, were not considered as economic activities.

2.3 Activity status: It is the activity situation in which a person was found during a reference period with regard to the person's participation in economic and non-economic activities. According to this, a person could be in one or a combination of the following three broad activity statuses during a reference period:

- (i) working or being engaged in economic activity (work) as defined above
- (ii) being not engaged in economic activity (work) but either making tangible efforts to seek 'work' or being available for 'work' if the 'work' is available, and
- (iii) being not engaged in any economic activity (work) and also not available for 'work'.

Broad activity statuses mentioned in (i) and (ii) above are associated with 'being in labour force' and the last with 'not being in the labour force'. Within the labour force, broad activity status (i) and (ii) were associated with 'employment' and 'unemployment', respectively.

2.3.1 Categories of activity status: Identification of each individual into a unique situation could pose a problem when more than one of the three broad activity statuses listed above were concurrently obtained for a person. In such an eventuality, the identification uniquely under any one of the three broad activity statuses was done by adopting either the major time or priority criterion (see para 2.10 below). The former was used for classification of persons according to the 'usual activity status' approach and the latter for classification of persons according to the 'current activity status' approach. Each of the three broad activity statuses was further sub-divided into several detailed activity categories. If a person categorised as engaged in

economic activity by adopting one of the two criteria mentioned above was found to be pursuing more than one economic activity during the reference period, the appropriate detailed activity status code related to that activity in which relatively more time had been spent. A similar procedure was adopted for assigning detailed activity code for persons categorised as engaged in non-economic activity and pursuing more than one non-economic activity. The detailed activity categories under each of the three broad activity statuses used in the survey (along with the codes assigned to them as indicated in brackets) are stated below:

- (i) situation of working or being engaged in economic activities (employed):
 - (a) worked in household enterprise (self-employed) as own account worker (11);
 - (b) worked in household enterprise (self-employed) as employer (12);
 - (c) worked as helper in household enterprises (unpaid family worker) (21);
 - (d) worked as regular salaried/wage employee (31);
 - (e) worked as casual wage labour (i) in public works (41), (ii) in other types of work (51);
 - (f) had work in household enterprise but did not work due to: (i) sickness (61), (ii) other reasons (62); and
 - (g) had regular salaried/wage employment but did not work due to: (i) sickness (71), (ii) other reasons (72);
- (ii) situation of being not engaged in work but seeking or available for work (unemployed):
 - (a) sought work (81) and
 - (b) did not seek but was available for work (82)
- (iii) situation of being not available for work (not in labour force):
 - (a) attended educational institutions (91);
 - (b) attended domestic duties only (92);
 - (c) attended domestic duties and was also engaged in free collection of goods (vegetables, roots, firewood, cattle-feed, etc.) sewing, tailoring, weaving, etc. for household use (93);
 - (d) rentiers, pensioners, remittance recipients, etc. (94);
 - (e) not able to work due to disability (95);
 - (f) beggars, prostitutes (96);
 - (g) others (97) and
 - (h) did not work due to sickness (for casual workers only) (98).

2.4 Workers (or employed): Persons who were engaged in any economic activity or who, despite their attachment to economic activity, abstained from work for reason of illness, injury or other physical disability, bad weather, festivals, social or religious functions or other contingencies necessitating temporary absence from work, constituted workers. Unpaid helpers who assisted in the operation of an economic activity in the household farm or non-farm activities were also considered as workers. All the workers were assigned one of the detailed activity statuses under the broad activity category ‘working’ or ‘being engaged in economic activity’ (or employed).

2.5 Seeking or available for work (or unemployed): Persons, who owing to lack of work, had not worked but either sought work through employment exchanges, intermediaries, friends or relatives or by making applications to prospective employers or expressed their willingness or availability for work under the prevailing conditions of work and remuneration, were considered as those who were 'seeking or available for work' (or employed).

2.6 Labour force: Persons, who, were either 'working' (or employed) or 'seeking or available for work' (or unemployed) or 'seeking or available for work' (or unemployed) constituted the labour force. Persons who were neither 'working' nor 'seeking or available for work' for various reasons during the reference period were considered as 'out of labour force'. The persons under this latter category are students, those engaged in domestic duties, rentiers, pensioners, recipients of remittances, those living on alms, infirm or disabled persons, too young or too old persons, prostitutes, smugglers, etc. and casual labours not working due to sickness.

2.7 Self-employed: Persons who operated their own farm or non-farm enterprises or were engaged independently in a professional or trade own-account or with one or a few partners were deemed to be self-employed in household enterprises. The essential feature of the self-employed is that they have autonomy (i.e. how, where and when to produce) and economic independence (i.e. market, scale of operation and money) for carrying out their operation. The fee or remuneration received by them comprised two parts - a return for their labour contribution and profit of the enterprise. In other words, their remuneration was determined wholly or mainly by sales or profits of the goods or services which were produced.

2.7.1 Categories of self-employed persons: Self-employed persons were categorised as follows:

(i) **own account workers:** those self-employed persons who operated their enterprises, on their own account or with one or a few and who, during the reference period, by and large, ran their enterprise without hiring any labour. They could, however, have had unpaid helpers to assist them in the activity of the enterprise;

(ii) **employers:** those self-employed persons who worked on their own account or with one or a few partners and who, by and large, ran their enterprise by hiring labour; and

(iii) **helpers in household enterprise:** those self-employed persons (mostly family members) who were engaged in their household enterprises, working full or part time and did not receive any regular salary or wages in return for the work performed. They did not run the household enterprise on their own but assisted the related person living in the same household in running the household enterprise.

2.8 Regular salaried/wage employee: These were persons who worked in others' farm or non-farm enterprises (both household and non-household) and, in return, received salary or wages on a regular basis (i.e. not on the basis of daily or periodic renewal of work contract). This category included not only persons getting

time wage but also persons receiving piece wage or salary and paid apprentices, both full time and part-time.

2.9 Casual wage labour: A person who was casually engaged in others farm or non-farm enterprises (both household and non-household) and, in return, received wages according to the terms of the daily or periodic work contract, was a casual wage labour.

2.10 Different approaches followed to determine activity status: The persons surveyed were classified into various activity categories on the basis of the activities pursued by them during certain specified reference periods. There were three reference periods for this survey. These are: (i) one year (ii) one week and (iii) each day of the reference week. Based on these three periods, three different measures of activity status are arrived at. These are termed respectively as usual status, current weekly status and the current weekly status and the current daily status. The procedure adopted to arrive at these measures is given below.

2.10.1 Usual activity status: The usual activity status relates to the activity status of a person during the reference period of 365 days preceding the date of survey. The activity status on which a person spent relatively longer time (i.e. major time criterion) during the 365 days preceding the date of survey is considered as the principal usual activity status of the person. To decide the principal usual activity of a person he/she was first categorised as belonging to the labour force or not during the reference period on the basis of major time criterion. Persons thus adjudged as not belonging to the labour force were assigned the broad activity status 'neither working nor available for work'. For persons belonging to the labour force, the broad activity status of either 'working' or 'not working but seeking and/or available for work' was ascertained based on the same criterion viz. relatively longer time spent in accordance with either of the two broad statuses within the labour force during the 365 days preceding the date of survey. Within the broad activity status so determined, the detailed activity status of a person pursuing more than one such activity was determined once again on the basis of the relatively longer time spent on such activities. In terms of activity codes (stated earlier in para 1.3.1), codes 11-51 were applicable for persons classified as workers, while code 81 was assigned to people either seeking or available for work (unemployed persons) and codes 91-97 for those who were out of labour force.

2.10.2 Subsidiary economic activity status: A person whose principal usual status was determined on the basis of the major time criterion could have pursued some economic activity for a relatively shorter time (minor time) during the reference period of 365 days preceding the date of survey. The status in which such economic activity was pursued was the subsidiary economic activity status of that person. Thus, activity status codes 11-51 only were applicable for persons reporting some subsidiary economic activity. It may be noted that engagement in work in subsidiary capacity could arise out of the following two situations, viz.

(i) a person could be engaged for a relatively longer period during the last 365 days in one economic/non-economic activity and for a relatively shorter period in another economic activity, and

(ii) a person could be pursuing one economic activity/non-activity almost throughout the year in the principal usual activity status and simultaneously pursue another economic activity for a relatively shorter period in a subsidiary capacity.

2.10.3 Current weekly activity status: The current weekly status of a person is the activity status obtaining for a person during a reference period of 7 days preceding the date of survey. It is decided on the basis of a certain priority cum major time criterion.

2.10.3.1 According to the priority criterion, the status of 'working' gets priority over the status of 'not working but seeking or available for work' which, in turn, gets priority over the status of 'neither working nor available for work'. A person was considered working (or employed) if he/she, while pursuing any economic activity, had worked for at least one hour on at least one day during the 7 days preceding the date of survey. A person was considered 'seeking or available for work (or unemployed)' if, during the reference week, no economic activity was pursued by the person but he/she made efforts to get work or had been available for work any time during the reference week though not actively seeking work in the belief that no work was available. A person who had neither worked nor was available for work any time during the reference week was considered as engaged in non-economic activities (or not in labour force).

2.10.3.2 After deciding the broad current weekly activity status of a person on the basis of 'priority' criterion, the detailed current activity status was then decided on the basis of 'major time' criterion if that person pursued multiple economic activities. The current weekly activity status of a person could be any one of the detailed activity status (ref. para 1.3.1) and could have codes 11 to 98. Of these codes, 11 to 72 pertained to workers, 81 to 82 for unemployed and 91 to 98 for persons out of labour force. It may be noted that these are the same as the usual status codes (stated in para 1.10.1 before) except that codes 61, 62, 71, 72, 82 and 98 are not applicable for usual status and code 81 for usual status is used to indicate both the situations of seeking and being available for work.

2.10.4 Current daily activity status: The activity pattern of the population, particularly in the unorganised sector, is such that during a week, and sometimes, even during a day, a person could pursue more than one activity. Moreover, many people could even undertake both economic and non-economic activities on the same day of a reference week. The current daily activity status for a person was determined on the basis of his/her activity status on each day of the reference week using a priority-cum-major time criterion (day to day labour time disposition). Time disposition was recorded for every member of a sample household. This involved recording of different activities pursued by the members along with the time intensity in quantitative terms for each day of the reference week. The different activities were identified and recorded in terms of 'activity status' and 'industry' codes for persons in urban areas and 'activity status', 'industry' and 'operation' codes for persons in rural areas. The terms 'industry' and 'operation' are explained later. The following points were considered for assigning the time intensity and determining the current daily status of a person:

i) Each day of the reference week was looked upon as comprising either two 'half days' or a 'full' day for assigning the activity status.

ii) A person was considered 'working' (employed) for the entire day if he/she had worked for 4 hours or more during the day.

iii) If a person was engaged in more than one of the economic activities for 4 hours or more on a day, he/she was assigned two out of the various economic activities on which he/she devoted relatively longer time on the reference day (for each of those two activities, the intensity was 0.5)

iv) If a person had worked for 1 hour or more but less than 4 hours he/she was considered 'working' (employed) for half-day and 'seeking or available for work (unemployed) or 'neither seeking nor available for work' (not in labour force) for the other half of the day depending on whether he was seeking/available for work or not.

v) If a person was not engaged in any 'work' even for 1 hour on a day but was seeking/available for work even for 4 hours or more, he was considered 'unemployed' for the entire day. But if he was 'seeking/available for work' for more than 1 hour and less than 4 hours only, he was considered 'unemployed' for half day and 'not in labour force' for the other half of the day.

vi) A person who neither had any 'work' to do nor was available for 'work' even for half a day was considered 'not in labour force' for the entire day and was assigned one or two of the detailed non-economic activity statuses depending upon the activities pursued during the reference day.

2.11 Vocational Training: A vocational was broadly defined as a training which prepared an individual for a specific vocation or occupation. The main objective of vocational education and training is to prepare persons, especially the youth, for the world of work and make them employable for broad range of occupations in various industries and other economic sectors. It aims at imparting training to persons in very specific fields through providing significant 'hands on' experience in acquiring necessary skill, which make them employable or create for them opportunities of self-employment.

2.12 Formal vocational training: For the purpose of this survey, only formal vocational training was considered. Formal vocational training takes place in education and training institutions, which follow a structural training programme, leading to recognised certificates, diplomas or degrees. For the purpose of our survey, the following characteristics were considered for recognising training programmes as formal vocational training”

i) structured training programme towards a particular skill having standard norms and syllabus and curriculum;

ii) more emphasis on skill development rather than building knowledge;

iii) certificate/diploma/degree received should have recognition by State/Central Government, Public Sector and other reputed concerns.

By point (i) it was meant that:

(a) the course should have definite title with prescribed syllabus and curriculum with specified duration of the training;

(b) it should have some entry level eligibility in terms of education, age.

In point (iii), the term ‘reputed concern’ meant reputed business concern as well as NGOs.

2.13 Field of vocational training: Conventionally, vocational education and training has been oriented towards a number of engineering and technical trades. Though they continue to form the core of vocational education, its scope was considerably widened to include many non-engineering trades also. In the 60th round survey, the various fields for formal vocational training considered were:

mechanical engineering trades, electrical and electronic engineering trades, computer trades, civil engineering and building construction related works, chemical engineering trades, leather related work, textile related work, catering, nutrition, hotels and restaurant related work, artisan/craftsman/handicraft and cottage based production work, creative arts/artists, agriculture and crop production related skills and food preservation related work, non-crop based agricultural and other related activities, health and paramedical services related work, office and business related work, driving and motor mechanic work, beautician, hairdressing & related work, work related to tour operators/travel managers, photography and related work, work related to childcare, nutrition, pre-schools and creches, journalism, mass communication and media related work, and printing technology related work.

2.14 Institution providing vocational training: Some of the major sources from where vocational training can be received are: (a) programmes within the mainstream educational system; (b) technician-level vocational programmes initiated by the Ministry of Labour; (c) programmes offered by government-sponsored training institutions outside the school and university systems; and (d) miscellaneous programmes. In this survey, the sources of formal vocational training i.e. the institutions providing vocational training considered were:

Industrial Training Institutes (ITIs)/Industrial Training Centers (ITCs), Schools offering vocational courses (Secondary, Higher Secondary level), UGC (first degree level), Polytechnics, Community Polytechnics/Janasiksha Sanstha, National Open School, Hotel Management Institutes, Food craft & Catering Institutes, Small Industries Service Institutes/District Industries Centres/Tool Room Centres, Fashion Technology Institutes, Tailoring, Embroidery and Stitch Craft Institutes, Nursing Institutes, Rehabilitation/Physiotherapy/Ophthalmic and Dental Institutes, Institutes giving Diploma in Pharmacy, Hospital and Medical Training Institutes, Nursery Teachers’ Training Institutes, Institutes offering training for Agricultural Extension, Training provided by Carpet Weaving Centers. Handloom/Handicraft Design Training Centers/KVIC, Recognised Motor Driving Schools, Institute for Secretariat Practices. Recognised Beautician Schools, Institutes run by Companies/Corporations, Institutes for Journalism and Mass Communication, other institutes.

2.15 Procedure followed for collecting employment and unemployment particulars: In the quinquennial round surveys, particulars of employment and unemployment were collected according to the usual principal status, usual subsidiary status through two separate blocks. A separate block was also used for recording particulars of current weekly status and current daily status of the individual household members where weekly status was derived from the current daily statuses. In the 60th round, employment and unemployment particulars according to the usual

principal status and usual subsidiary status were collected through a single block. The current weekly and daily activity particulars were collected through a single separate block in the same manner as that of the quinquennial rounds. Prior to the 60th round, in the annual round surveys, only activity status and industry of work according to usual principal, subsidiary status and current weekly status approach were collected through a few columns of the demographic block of the Consumer Expenditure Schedule (Schedule 1.0) where current weekly status and industry was determined through a direct query.

2.16 Procedure for collecting monthly per capita consumer expenditure (MPCE): In the annual round surveys prior to the 60th round, since employment and unemployment particulars were collected through Schedule 1.0, the MPCE obtained from detailed consumer expenditure schedule were used for studying the employment and unemployment situation by MPCE. Like in the 55th, 60th and the just completed 61st rounds on employment and unemployment, to get a proxy for total expenditure, a worksheet was used for collection of information on household consumer expenditure in Schedule 10. The approximate value of consumer expenditure obtained through the worksheet has been used for studying employment characteristics by different levels of living of the household members. The worksheet contained 36 different components of household consumer expenditure. Depending upon the type of items, either of the two reference periods viz., 30 days and 365 days, was used to record consumption of different groups of items. The items of consumption were classified into four groups and three different approaches viz. (i) consumption approach, (ii) expenditure approach and (iii) first-use approach, were followed for defining consumption of items. The different groups were (i) food (other than ‘cooked meals’), pan, tobacco & intoxicants and fuel & light, (ii) cooked meals, miscellaneous goods and services including education, medical, rent, taxes and cess, (iii) clothing and footwear and (iv) durable goods. The procedure followed for defining consumption of the four groups were (i) consumption approach, (ii) expenditure approach, (iii) first-use approach and (iv) expenditure approach. The definition of household consumer expenditure and the procedure for evaluating that was the same for both Schedule 10 and Schedule 1.0.

Chapter – Three

SAMPLE DESIGN AND ESTIMATION PROCEDURE

3.0 Sample Design

3.1 A stratified multi-stage sampling design, for rural as well as urban areas, was adopted for selection of the sample units in the 60th round survey of NSSO. The first stage units (FSU) were the census villages in the rural areas and the Urban Frame Survey (UFS) blocks of NSSO in the urban areas. The ultimate stage units (USU) were households in both rural and urban areas. In case of large villages/blocks, hamlet-groups/sub-blocks constituted the intermediate stage whenever these were formed in the selected FSU.

3.2 **Selection of the first-stage units (FSU's):** The various steps involved for selection of the FSUs are discussed at length in the following few paragraphs.

3.2.1 **Sampling frame for first stage units:** For rural areas, the list of villages as per Population Census 1991 constituted the sampling frame for selection of sample FSUs. For the urban areas, the list of latest available Urban Frame Survey (UFS) blocks of NSSO was used as the sampling frame for selection of FSUs.

3.2.2 **Stratification of first-stage units in rural areas:** For formation of strata in the rural areas, village population as per census 1991 was considered. From the list of villages of each State initially, two special strata were formed at the State level as stated below:

- Stratum 1: all FSUs with population between 0 to 50 and
- Stratum 2: FSUs with population more than 15,000.

In a state, special stratum 1 was formed whenever at least 50 such FSUs were found in a State and special stratum 2 was formed if at least 4 such FSUs were found in a State. Otherwise, such FSUs were merged with the general strata.

From FSUs other than those covered under special strata 1 & 2, general strata were formed and its numbering started from 3. Each district of a State was normally treated as a separate stratum. However, if the census rural population of the district was greater than or equal to 2 million as per population census 1991 or 2.5 million as per population census 2001, the district was split into two or more strata by grouping contiguous tehsils.

3.2.3 **Stratification of first-stage units in urban areas:** In the urban sector, strata were formed within each NSS region on the basis of size class of town as per Population Census 2001. The stratum numbers and their composition (within each region were as follows:

stratum number	size class of town
1	all towns with population less than 50,000
2	all towns with population 50,000 or more but less than 2 lakhs
3	all towns with population 2 lakhs or more but less than 10 lakhs
4, 5, 6 ...	each town with population 10 lakhs or more

The stratum numbers were kept as above even if, in some regions, some of the strata were not formed.

3.2.4 Allocation of first-stage units among Strata: A total of 7612 FSUs (villages and UFS blocks) were allocated at the all-India level on the basis of Investigator strength in different States. The total number of sample FSUs was allocated to the different States in proportion to provisional population as per Census 2001 subject to the availability of Investigator, ensuring more or less uniform workload. The State level sample FSUs was then allocated between the rural and urban sectors in proportion to provisional population as per Census 2001 with 1.5 weightage to urban areas subject to the restriction that urban sample size for bigger Maharashtra did not exceed the rural sample size. A minimum of 8 FSUs was allocated to each state separately for and urban areas.

Within each sector of a State, the respective sample size was allocated to the different strata in proportion to the provisional population of the stratum as per Census 2001. Allocations at stratum level were adjusted to a multiple of 4 with a minimum sample size of 4.

3.2.5 Selection of first stage units: FSUs were selected with Probability Proportional to size with replacement (PPSWR), size being the population as per Population Census 1991 in all the strata for rural sector except for stratum 1. In stratum 1 of rural sector and in all the strata of urban sector, selection was done using Simple Random Sampling without replacement (SRSWOR). Within each stratum, samples were drawn in the form of two independent sub-samples in both rural and urban sectors.

3.3 Selection of ultimate stage units (USUs) with a FSU: The various steps involved for selection of the USUs i.e. households within a FSU are discussed below.

3.3.1 Selection of hamlet-groups/sub-blocks: Large villages and blocks having approximate present population 1200 or more were divided into a suitable number of 'hamlet-groups' in the rural sector and 'sub-blocks' in the urban sector, as given below:

approximate present population of the sample village/block	no. of hamlet-groups/ sub-blocks formed
less than 1200	1 @
1200 to 1799	2
1800 to 2399	3
2400 to 2999	4

3000 to 3599	5
..... and so on	6

@ hamlet-group/sub-block formation was not done

Hamlet-groups/sub-blocks were formed by more or less equalising the population. Two hamlet-groups/sub-blocks were selected from a large or UFS block, wherever hamlet-groups/sub-blocks were formed, by SRSWOR. Listing and selection of the households were done independently in the two selected hamlet-groups/sub-blocks so formed.

3.3.2 Stratification of households for Schedule 10: For both rural and urban sector, all the households listed in a village/UFS block in case there was no hamlet group/sub-block formation and all the households listed in a hamlet group/sub-block in case of hamlet-group/sub-block formation, were stratified into two second stage strata (SSS). Composition of households for the two second stage strata were as follows:

sss number	composition of households
1	household with at least one member of age below 30 years with educational level secondary or above
2	other households

3.3.3 Selection of households: From each sample village/block, 8 households were selected for canvassing Schedule 10. Four schedules were selected from each SSS in case there was no hamlet group/sub-block formation. In case of hamlet group/sub-block formation, two households were selected from each SSS within each hamlet group/sub-block. The sample households from each SSS were selected by Simple Random Sampling Without Replacement (SRSWOR). If a household was selected for more than one schedule, only one schedule was canvassed in that household in the priority order of Schedule 1.0, Schedule 10 and Schedule 25.0 and in that case the household was replaced by another household for canvassing the other schedule.

4. Estimation Procedure

Procedure followed for obtaining estimates of aggregates, ratios is briefly indicated below

4.1 Notations:

s = subscript for s-th stratum

m = subscript for sub-sample (m=1,2)

i = subscript for i-th FSU [village (panchayat ward)/block]

d = subscript for a hamlet-group/sub-block (d= 1,2)

j = subscript for j-th second stage stratum in an FSU/hg/sb

k = subscript for k-th sample household under a particular second stage stratum within an FSU/hg/sb

D = total number of h-g's/s-b's formed in the sample village(panchayat ward)/block

D*= 1 if D =1

= D÷2 for FSUs with D > 1

N = total number of FSUs in rural stratum 1 or in any urban stratum

Z = total size of a rural stratum other than stratum 1 (= sum of sizes for all the FSUs of a rural stratum other than stratum 1)

z = size of sample village used for selection

n = number of sample village/block surveyed including zero cases but excluding casualty for a particular sub-sample and stratum

H = total number of households listed in a second-stage stratum of a hamlet-group/sub-block of sample FSU

h = number of households surveyed in a second-stage stratum of a hamlet-group/sub-block of sample FSU

x,y= observed value of characteristics x,y under estimation

X,Y= estimate of population total X,Y for the characteristics x,y

Under the above symbols,

y_{smidjk} = observed value of the characteristic y for the k-th household in the j-th second stage stratum of the d-th hg/sb (d = 1, 2) of the i-th FSU belonging to the m-th sub-sample for the s-th stratum;

However, for ease of understanding, a few symbols have been suppressed in following paragraphs where they are obvious.

4.2 Estimation of aggregates for a particular sub-sample (m) and stratum (s) in rural/urban sector:

4.2.2 Schedule 10:

Rural:

(a) Estimation formula for stratum 1:

(i) For households selected in j-th second stage stratum:

$$\hat{Y}_j = \frac{N}{n_j} \sum_{i=1}^{n_j} D_i^* \left[\frac{H_{ij}}{h_{ij}} \sum_{k=1}^{h_{ij}} y_{ijk} + \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right] ; j=1,2.$$

(ii) For all selected households:

$$\hat{Y} = \sum_j \hat{Y}_j$$

b) Estimation formula for other strata:

(i) For households selected in j-th second stage stratum:

$$\hat{Y}_j = \frac{Z}{n_j} \sum_{i=1}^{n_j} D_i^* \left[\frac{H_{ij}}{h_{ij}} \sum_{k=1}^{h_{ij}} y_{ijk} + \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right]$$

(ii) For all selected households:

$$\hat{Y} = \sum_j \hat{Y}_j$$

Urban:

(a) Estimation formula for a stratum:

(i) For households selected in j-th second stage stratum:

$$\hat{Y}_j = \frac{N}{n_j} \sum_{i=1}^{n_j} D_i^* \left[\frac{H_{ij}}{h_{ij}} \sum_{k=1}^{h_{ij}} y_{ijk} + \frac{H_{i2j}}{h_{i2j}} \sum_{k=1}^{h_{i2j}} y_{i2jk} \right]$$

ii) For all selected households:

$$\hat{Y} = \sum_j \hat{Y}_j$$

Note: Values of j for sch. 10, j = 1 or 2 and

4.3 Overall Estimate for Aggregates for a stratum:

Overall estimate for aggregates for a stratum (\hat{Y}_s) based on two sub-samples is obtained as:

$$\hat{Y}_s = \frac{1}{2} \sum_{m=1}^2 \hat{Y}_{sm}$$

4.4 Overall Estimate of Aggregates at State level:

The overall estimate \hat{Y} at the State level is obtained by summing the stratum estimates \hat{Y}_s over all strata belonging to the State.

4.5 Estimates of Ratios:

Let Y and X be the overall estimate of the aggregates Y and X for two characteristics y and x respectively at the State level.

Then the combined ratio estimate (R) of the ratio ($R = \frac{Y}{X}$) is obtained as

$$\hat{R} = \frac{\hat{Y}}{\hat{X}}$$

--x--