

EMERGING EMPLOYMENT AND UNEMPLOYMENT SCENARIOS IN WEST BENGAL: IMPLICATIONS FOR POLICY

S.K. Bhaumik

This paper seeks to build some understanding of the employment and unemployment situation in West Bengal during past two decades or so. This is important in view of added emphasis on employment generation both by the state and central governments in the Tenth Plan period. For setting appropriate policies towards employment generation/unemployment reduction, it is necessary to develop state-specific understanding of the trends and dimensions of employment/unemployment particularly in recent years. Apart from delineating emerging employment/unemployment scenarios, this paper attempts projections of employment/unemployment in West Bengal by the end of Tenth Plan period and offers some suggestions that might be useful to combat adverse situation on the employment/unemployment front.

I. INTRODUCTION

The main purpose of this paper is to take stock of the employment and unemployment situation in the state of West Bengal during past two decades or so. This issue assumes special significance in view of the current strategy, both at the levels of central and state governments to provide added emphasis upon employment generation in the Tenth Plan period. The policy of the central government is best outlined in the Approach Paper to the Tenth Five Year Plan that was submitted to the 49th National Development Council Meeting on 1st September 2001 in New Delhi. The Approach Paper clearly sets out 'achieving employment growth to keep pace with addition to labour force' as one of the main objects of the Tenth Five Year Plan. Accordingly, 'providing gainful high-quality employment to the addition to the labour force over the Tenth Plan period' has been set as one of the 'monitorable targets' in the Tenth Plan period and beyond. The Government of West Bengal echoes almost a similar policy as it becomes clear from several pronouncements of its different functionaries in recent months. However, achieving desired results on this front would require formulating appropriate policies towards employment promotion/unemployment reduction in the years to come. To this end, it would be essential to develop

some understanding of the employment/unemployment situation that prevailed in the state over the past decade or two and that currently prevails. This paper attempts to do that.

The paper is divided into seven sections. Section II spells out the sources of data used and methodology followed. Section III examines the unemployment situation in the state of West Bengal. Specifically, our object is to examine the magnitude of unemployment in the state as also the changes in it during the past two decades. In this part of our study, we also focus attention on the magnitudes (numbers) of the rural and urban and male and female unemployed. This disaggregation helps in identifying the sections of populations as well as the regions (rural/urban) that are relatively more affected by the problem of unemployment. In order to highlight the enormity of the problem of unemployment in the state, we compare the unemployment situation in the state of West Bengal with the all-India figures.

Having noted the dimensions and magnitudes of unemployment, we move on, in Section IV, to understanding in some detail the employment situation in the state. There are several aspects covered in this section. We begin by examining the levels as well as the growth rates of employment and changes in it during the reference period of our study. We also analyse the sectoral composition of employment in the state.

S.K. Bhaumik is Reader in Economics, Department of Economics, Calcutta University, Kolkata 700 050.

The author is grateful to the Planning Commission (Government of India) and the State Planning Board (Government of West Bengal) for extending financial support for this study. The author is also grateful to G K Chadha, Nilakantha Rath, P N Roy, P S Das, Kalyan Sanyal, P P Sahu, and Susmita Halder for their extremely valuable comments on an earlier draft of this paper. Shrawanti Saha and Malay Lahiri provided excellent research assistance. The author alone is responsible for all remaining errors.

Section V of this study is devoted to understanding the relationship between growth rates of output/income and employment in the state of West Bengal. We estimate the sectoral employment elasticities in order to identify the sectors that show relatively higher prospects of employment generation in the state.

We attempt projections of employment and unemployment for the state of West Bengal by the end of the Tenth Five Year Plan in Section VI. We project the likely employment/unemployment scenario that the state might encounter by the end of the Tenth Five Year Plan. The final Section VII summarizes the main findings and offers some policy suggestions for the future.

II. DATA BASE AND METHODOLOGY

This study is based exclusively on data available from secondary sources. There are two main sources from which we could gather data for studying employment situation in the state, namely, the decennial Censuses and the National Sample Survey (NSS) reports on employment and unemployment. However, only the NSS data make it possible to study employment through its various dimensions. Moreover, the Census reports do not provide any data about unemployment. One important limitation of the Census data has been the clear underestimation of female workers due to its definitional constraints. Moreover, the data are not comparable over time due to changes in the definition of a worker over various Censuses. On the other hand, all through its quinquennial surveys (six so far, between the period 1972-73 to 1999-00), the NSS followed a common conceptual framework for estimation of the number of employed/unemployed in the country.¹ Briefly stated, NSS estimate of the employed or workers is quite comprehensive and include most workers who contribute to the production of goods and services in the country [Datt, 2001]. Accordingly, the question of under-estimation of any section of workers does not arise much in the context of NSS data. In view of these merits of the NSS data, we have used them extensively in order to build our understanding of employment / unemployment situation in the state as also changes in them.

As regards the NSS methodology of estimating the number of employed or workers, it may be noted that there are in fact three different approaches to measuring the employed in any survey year. They are known as employed based on concepts of usual status (US), current weekly status (CWS) and current daily status (CDS). Again, the employed/workers according to US are categorized further as usual principal status (US-PS) workers and usual subsidiary status workers (US-SS). The employed according to US-PS refers to a person who was engaged in any economic activity for relatively longer time during the preceding 365 days from the date of survey. On the other hand, the employed according to US-SS refers to a person who was categorized as unemployed as per US-PS definition but pursued some economic activity in a subsidiary capacity.² In the NSS surveys, a person is designated as employed as per CWS concept if he/she was engaged in any economic activity for at least one hour on any day of the week preceding the day of enquiry. The third concept of CDS gives idea about level of employment on each day for the week preceding the day of enquiry. A person is designated as employed as per CDS on a day if he/she has worked for 4 hours or more during the day. However, if he/she worked for one hour or more but less than 4 hours, this is to be considered as employed for half a day.

Corresponding to the above concepts of employed, one could visualize three different concepts of unemployed - usually unemployed, unemployed as per current weekly status and unemployed according to the daily status. Again, the usually unemployed may be categorized as (i) usually unemployed according to principal status [known as Unemployed (US-unadjusted)], which include those who are unemployed according to US-PS definition, but may be engaged in any subsidiary activity, and (ii) the unemployed (US-adjusted) which is a measure of number of unemployed according to US-PS minus the number who are engaged only in any subsidiary activity (among usually unemployed according to PS). Then there is unemployment estimates according to CWS and CDS that capture,

respectively average weekly picture of unemployment and average level of unemployment on a day during the survey year. Among these alternative concepts of unemployment, since the usual status estimate indicates the number of persons unemployed for a period of 365 days, it provides a measure of the 'chronically unemployed'. The second estimate based on CWS concept includes both chronic unemployment as well as intermittent unemployment of those categorized as usually employed caused by seasonal fluctuations in the labour market. The third estimate, based on CDS concept, provides the most inclusive measure of unemployment as it captures unemployed days of the chronically unemployed, the unemployed days of the usually employed who became intermittently unemployed during the reference week and also the unemployment days of those classified as employed according to the 'priority criterion' of current weekly status.³

The NSS data on employment/unemployment are now available for six points of time representing six rounds of quinquennial surveys: 27th Round (October 1972 - September 1973), 32nd Round (July 1977 - June 1978), 38th Round (January - December 1983), 43rd Round (July 1987 - June 1988), 50th Round (July 1993 - June 1994) and 55th Round (July 1999 - June 2000).⁴ However, since our concern in this paper has been to understand employment/unemployment scenarios for the state of West Bengal broadly during past two decades, we have chosen to utilize data for the years 1983, 1993-94 and 1999-00.⁵ The period 1983 to 1993-94 broadly represents the developments during the decade of 1980s while the developments during 1990s is supposed to be captured by the period 1993-94 to 1999-00.⁶

Since this study attempts to compute absolute figures of employed and unemployed at specific points of time, some adjustments to the NSS data become essential. This is because the NSS reports on employment/unemployment furnish data only in terms of 'rates' - labour force participation rate, workforce participation rate, unemployment rate and so on (these are expressed in terms of per

thousand population). We follow the methodology adopted by Sundaram [2001] to compute the absolute numbers of employed as well as unemployed both in West Bengal and All India. Following Sundaram, we first compute population levels at the midpoints of our reference years (i.e., on 1st July, 1983, 1st January, 1994 and 1st January, 2000). For this purpose, we utilize population data available from the reports/website of Census of India for the years 1981, 1991 and 2001. Using these data, we compute annual compound growth rates of population for each decade that we subsequently utilize to find, through the method of interpolation, the population figures corresponding to the midpoints of the reference years. Having obtained the population figures thus, we utilize NSS data on labour force participation rates, workforce participation rates and unemployment rates to work out the absolute numbers of employed and unemployed.

In this study, for examining employment/unemployment scenarios, we utilize the employment/unemployment figures worked out under the CDS concept. As mentioned earlier, the estimates on CDS basis provide a far more comprehensive measure of unemployment (also employment) vis-à-vis estimates based on other measures (US-PS+SS and CWS). Therefore, the Government of India [2002] too has opted recently for this measure for understanding the changing dimensions of unemployment/employment in the country. However, for understanding some specific aspects such as age group-wise distribution of workers, workers' status/sectoral distribution, etc., we have to fall back upon the data available on US-PS+SS basis.

III. MAGNITUDE AND GROWTH OF UNEMPLOYMENT IN WEST BENGAL

Total Number of Unemployed

In this section, we begin by presenting estimate of the number of unemployed in the state of West Bengal at different points of time along with the same for all-India. Table 1 presents the data on CDS basis. It is observed that as in the case of all-India, the number of unemployed in West Bengal was much larger in 1999-00 than in 1983.

The number of unemployed increased sharply during the period 1993-94 to 1999-00 while it had declined by 1993-94.

Table 1. Estimated Number of Unemployed (CDS basis) in West Bengal and all-India

Year (1)	(in lakh)	
	West Bengal (2)	All India (3)
1983	27.86	216.14
1993-94	24.56	202.43
1999-00	39.85	264.36
Average yearly change:		
1983 to 1993-94	-0.31	-1.31
1993-94 to 1999-00	2.55	10.32

Source: Computed on the basis of data available from the following reports published by the National Sample Survey Organisation: (1) Report on the Third Quinquennial Survey on Employment and Unemployment: Survey Results - All India, Report No. 341; (2) Report on the Third Quinquennial Survey on Employment and Unemployment: Survey Results for States, Report Nos. 341/1 to 341/15; (3) Employment and Unemployment in India, 1993-94, Fifth Quinquennial Survey, NSS 50th Round, Report No. 409; and (4) Employment and Unemployment Situation in India, NSS 55th Round, Report No. 458 (Part I).

Rural-Urban Distribution of Unemployed

The number of rural unemployed decreased in West Bengal while the number of urban unemployed increased during 1983 and 1993-94 (Table 2). On the other hand, the number of urban unemployed increased from 7.58 lakh in 1983 to 8.96 lakh in 1993-94. This trend was reversed during 1993-94 to 1999-00. In rural areas, the number of unemployed almost doubled. However, in urban areas the number of unemployed decreased marginally. The sharp increase in the number of rural unemployed during 1993-94 to 1999-00 is consistent with the trend observed in India as a whole. The differential rates of increase in rural and urban unemployed led to a sharp increase in the share of the total unemployed in West Bengal by 1999-00. The problem of unemployment had become more severe in rural areas than in urban areas.

Table 2. Estimated Number of Unemployed (CDS basis) in West Bengal and all-India by Rural-Urban Divide

Year (1)	West Bengal		All India	
	Rural (2)	Urban (3)	Rural (4)	Urban (5)
1983	20.28 (72.78)	7.58 (27.22)	161.79 (74.85)	54.35 (25.15)
1993-94	15.60 (63.52)	8.96 (36.48)	143.01 (70.65)	59.42 (29.35)
1999-00	31.22 (78.35)	8.63 (21.65)	193.12 (73.05)	71.23 (26.95)

Note: Figures in brackets are percentages to total unemployed.
Source: As In Table 1

Male-Female Division of Unemployed

Table 3 provides information on the male-female break-up of unemployed in West Bengal and all-India. Nearly three-fourths of the unemployed in West Bengal have been the males.

The share of males in the total unemployed in West Bengal declined steadily but slowly during 1983 and 1999-00. The share of males amongst the unemployed in West Bengal was slightly higher than in the country as a whole.

Table 3. Estimated Number of Unemployed (CDS basis) in West Bengal and all-India by Male-Female Divide

Year (1)	West Bengal		All India	
	Male (2)	Female (3)	Male (4)	Female (5)
1983	21.56 (77.37)	6.30 (22.63)	153.62 (71.08)	62.52 (28.92)
1993-94	18.82 (76.65)	5.73 (23.35)	145.71 (71.98)	56.73 (28.02)
1999-00	30.27 (75.96)	9.58 (24.04)	194.78 (73.68)	69.57 (26.32)

Note: Figures in brackets are percentages to total unemployed
Source: As In Table 1

Growth Rates of Unemployed

The annual growth rates of the unemployed -

rural and urban, male and female - calculated from two end point data⁷ - given in Table 4 below, highlight the characteristics discussed above.

Table 4. Annual Growth Rates of Unemployed (CDS basis) in West Bengal and all-India

Period (1)	Rural			Urban			Rural + Urban		
	Male (2)	Female (3)	Person (4)	Male (5)	Female (6)	Person (7)	Male (8)	Female (9)	Person (10)
WEST BENGAL									
1983 to 1993-94	-1.93	-4.39	-2.47	0.19	6.11	1.60	-1.28	-0.90	-1.19
1993-94 to 1999-00	10.80	17.48	12.26	1.94	-8.26	-0.62	8.24	8.93	8.40
1983 to 1999-00	2.52	3.05	2.65	0.82	0.64	0.79	2.08	2.57	2.19
ALL INDIA									
1983 to 1993-94	-0.75	-2.12	-1.17	0.08	3.56	0.85	-0.50	-0.92	-0.62
1993-94 to 1999-00	5.34	4.63	5.13	4.06	-0.11	3.07	4.96	3.46	4.55
1983 to 1999-00	1.42	0.28	1.08	1.51	2.21	1.65	1.45	0.65	1.23

Source: Computed on the basis of Tables 1, 2 and 3

The data clearly indicate that unemployment situation in West Bengal worsened noticeably in the years since 1993-94. There was massive increase in the number of unemployed during the period 1993-94 to 1999-00, largely due to the very high growth of the rural unemployed (both male and female).

Unemployment in West Bengal Compared with all-India

The higher (lower) growth rate of the unemployed in West Bengal than in India as a whole resulted in the rising (falling) share of West Bengal among the country's unemployed. Table

5 shows that the percentage share of West Bengal in all-India unemployed decreased during the period 1983 to 1993-94 but increased during 1993-94 to 1999-00. Similar is the picture in regard to the share of West Bengal among the unemployed in rural India. In the case of West Bengal's share in the urban unemployed, however, a declining trend is observed during the period 1993-94 to 1999-00. Table 5 also gives information about West Bengal's share in all-India male and female unemployed. It is observed that, in rural areas, the share of West Bengal in both male and female unemployed in India declined during 1983 to

Table 5. Percentage Share of West Bengal in all-India Unemployed (CDS)

Period (1)	Rural			Urban			Rural + Urban		
	Male (2)	Female (3)	Person (4)	Male (5)	Female (6)	Person (7)	Male (8)	Female (9)	Person (10)
1983	14.04	9.34	12.53	14.00	13.75	13.95	14.03	10.08	12.89
1993-94	12.38	7.30	10.91	14.15	17.74	15.07	12.92	10.11	12.13
1999-00	16.77	14.64	16.17	12.51	10.65	12.11	15.54	13.77	15.07

Source: As In Table 1

1993-94 but increased significantly during 1993-94 to 1999-00. The situation, however, is different in the case of urban males and females. Both for urban males and females, West Bengal's share declined during the period 1993-94 to 1999-00. But, given the numerical preponderance of rural unemployed, in overall terms, the share of West Bengal in total unemployed in India clearly increased in the period since 1993-94.

In order to compare the unemployment situation in West Bengal with other states, we have

also computed the number of unemployed (CDS basis) in fifteen major states of India. Table 6 provides information as regards number of unemployed at the three points of time for fifteen major states of India and also their growth rates of unemployed during the periods 1983 to 1993-94 and 1993-94 to 1999-00. It is seen that among major states of India, the number of unemployed in West Bengal was high even in 1983. In that year, West Bengal had second highest number of unemployed, the first position going to Tamil Nadu. While the same rank was

Table 6. Unemployed in West Bengal vis-à-vis Other States of India [CDS basis]

State (1)	Number of Unemployed [in lakh]			Annual Growth Rate (Per Cent)	
	1983 (2)	1993-94 (3)	1999-00 (4)	1983 to 1993-94 (5)	1993-94 to 1999-00 (6)
Andhra Pradesh	21.72 (4)	21.39 (3)	26.61 (4)	-0.14 (7)	3.71 (9)
Assam	2.28 (15)	5.97 (12)	6.66 (12)	9.58 (1)	1.84 (10)
Bihar	18.30 (6)	18.55 (4)	23.84 (5)	0.13 (6)	4.27 (8)
Gujarat	7.44 (10)	9.82 (8)	8.98 (11)	2.68 (4)	-1.48 (14)
Haryana	2.76 (14)	3.66 (13)	2.93 (15)	2.72 (3)	-3.66 (15)
Karnataka	11.59 (8)	9.68 (9)	9.82 (9)	-1.70 (11)	0.23 (13)
Kerala	21.82 (3)	16.39 (7)	23.61 (6)	-2.69 (13)	6.27 (5)
Madhya Pradesh	5.57 (11)	9.36 (10)	13.42 (8)	5.06 (2)	6.20 (6)
Maharashtra	19.36 (5)	17.24 (5)	26.81 (3)	-1.10 (9)	7.63 (3)
Orissa	9.04 (9)	8.83 (11)	9.50 (10)	-0.22 (8)	1.23 (11)
Punjab	4.16 (13)	2.27 (15)	3.39 (14)	-5.61 (14)	6.93 (4)
Rajasthan	4.77 (12)	2.56 (14)	6.45 (13)	-5.74 (15)	16.63 (1)
Tamil Nadu	37.16 (1)	29.06 (1)	30.88 (2)	-2.31 (12)	1.02 (12)
Uttar Pradesh	14.73 (7)	16.44 (6)	21.32 (7)	1.05 (5)	4.43 (7)
West Bengal	27.86 (2)	24.56 (2)	39.85 (1)	-1.19 (10)	8.40 (2)
All India*	208.55	195.78	254.06	-0.60	4.44
All India**	216.14	202.43	264.36	-0.62	4.55

Notes: * implies all-India consisting of 15 major states only.

** implies all-India considering all states and union territories.

Figures in brackets are ranks among 15 major states.

Source: As In Table 1.

maintained in the year 1993-94, by the year 1999-00, West Bengal jumped to the topmost position in the matter of number of unemployed. As regards annual growth rate of unemployed, while the rank of West Bengal during 1983 to 1993-94 was tenth among fifteen major states of India, it moved up to the second position during 1993-94 to 1999-00. All these lead to the conclusion that not only has West Bengal been experiencing the highest concentration of unemployed in India at present, but also that the number of unemployed has been growing at a very high rate in recent years.

IV. GROWTH AND STRUCTURE OF EMPLOYMENT IN WEST BENGAL

Total Number of Employed

We begin by presenting the estimated numbers of employed (on CDS basis) in West Bengal and all-India during the three years of NSS. Table 7 shows that the total number of employed in West Bengal increased from 156.10 lakh in 1983 to 221.28 lakh in 1993-94, and to 226.65 lakh in 1999-00. This shows that increase in the absolute number of employed in West Bengal was quite high in the period prior to 1993-94 compared to the period after that. The same trend is also visible for all-India.

Table 7. Number of Employed (CDS basis) in West Bengal and all-India

Year (1)	Rural			Urban			Rural + Urban		
	Male (2)	Female (3)	Person (4)	Male (5)	Female (6)	Person (7)	Male (8)	Female (9)	Person (10)
WEST BENGAL									
1983	92.00	15.34	107.34	42.06	6.70	48.76	134.06	22.04	156.10
1993-94	131.91	24.02	155.93	55.05	10.30	65.35	186.96	34.32	221.28
1999-00	129.74	23.78	153.52	63.14	9.98	73.13	192.89	33.76	226.65
ALL INDIA									
1983	1,351.32	526.49	1,877.81	430.56	85.52	516.08	1,781.88	612.00	2,393.88
1993-94	1,711.41	699.35	2,410.76	615.25	131.31	746.56	2,326.66	830.66	3,157.32
1999-00	1,787.56	723.20	2,510.76	712.28	145.93	858.20	2,499.84	869.12	3,368.96

Source: As In Table 1.

Rural-Urban Distribution of Employed

If we look at the rural-urban break-up of the employed in West Bengal, it is found that nearly 68 per cent of them were concentrated in rural

areas in 1999-00 (Table 8A). The share of the rural employed increased by 1993-94, but declined by 1999-00. For the country as a whole, however, the share of the rural unemployed steadily declined over the entire period.

Table 8A. Percentage of Employed (CDS basis) in West Bengal and all-India by Rural-Urban Divide

Year (1)	West Bengal			All India		
	Rural (2)	Urban (3)	Total (4)	Rural (5)	Urban (6)	Total (7)
1983	68.76	31.24	100.00	78.44	21.56	100.00
1993-94	70.47	29.53	100.00	76.35	23.65	100.00
1999-00	67.73	32.27	100.00	74.53	25.47	100.00

Source: As In Table 1.

Male-Female Division of Employed

It is possible to look at the male-female divisions of employed in West Bengal in terms of Tables 7 and 8B. It is observed that nearly 85 per cent of employed in West Bengal are males. The percentage share of males in total employed

marginally declined by 1993-94 and reserved by 1999-00. It is further seen that slightly higher percentage of the employed among urban employed is males as compared to the rural employed. While the trends are similar for all-India, the basic difference is the higher percentage of females in India than in West Bengal.

Table 8B. Percentage of Employed (CDS basis) in West Bengal and all-India by Male-Female Divide

Year (1)	Rural		Urban		Rural + Urban	
	Male (2)	Female (3)	Male (4)	Female (5)	Male (6)	Female (7)
WEST BENGAL						
1983	85.71	14.29	86.26	13.74	85.88	14.12
1993-94	84.59	15.41	84.24	15.76	84.49	15.51
1999-00	84.51	15.49	86.35	13.65	85.10	14.90
ALL INDIA						
1983	71.96	28.04	83.43	16.57	74.43	25.57
1993-94	70.99	29.01	82.41	17.59	73.69	26.31
1999-00	71.20	28.80	83.00	17.00	74.20	25.80

Source: As In Table 1

Age Group-wise Distribution of Employed

In the context of discussion on size of employment, it may be of some interest to know about age group-wise distribution of the workers/employed. It is not possible to develop an appropriate idea about this since the published NSSO reports do not provide any information about age group-wise distribution of workers on CDS basis. However, the NSSO reports do provide data on age group-wise distribution of workers according to US-PS+SS concept, which may be utilized to form some broad idea on this aspect.

Appendix Table 1 provides information on the age group-wise distribution of US-PS+SS workers both in West Bengal as well as all-India. The important points to note here are: (1) Nearly 92 per cent of all workers (under US-PS+SS concept) in West Bengal are drawn from the age group 15-59 years in 1999-00; the corresponding figure for all-India is 91 per cent. (2) In the year

1999-00, the youth (15-29 years of age) accounted for nearly 36 per cent of all workers in West Bengal; this for all-India is 34 per cent. (3) There is a clear tendency for the youth losing their share in total workers both in West Bengal and all-India between the two periods considered in this study.⁸ This has been true irrespective of regions (rural/urban) as well as sex of workers (male/female). (4) Over the years, the share of age group 15-59 years (youth+non-youth) in total workers seems to have increased both in West Bengal as well as all-India primarily. An important reason would be the greater proportion of educations. (5) The incidence of child workers (5-14 years of age) has been declining steadily between 1983 to 1999-00 both in West Bengal and all-India. In the year 1999-00, only 3.41 per cent of all workers fall in this age group while for all-India the corresponding figure was only 2.94 per cent. (6) The percentage of old-age workers (those with age 60 years and above) also seems to be declining over the years both in West Bengal and all-India. Of the total workers in West Bengal in 1999-00, only

4.55 per cent are drawn from this group while the corresponding figure in all-India has been 6.67 per cent.

Growth Rate of Employed

The annual growth rates of the employed, calculated with the help of two-point employment date, are given in Table 9.

The data show that the annual rates of growth of total employment in West Bengal as well as in India were quite high during 1983-94, in fact much higher in West Bengal than in India as a whole. This was true for rural as well as urban employment, and male as well as female employment. It is worth noting that growth rates for the rural employed, both male and female, was higher than the urban growth rates in West Bengal.

In this matter, the trend was the reverse in India as a whole. In India, urban growth rates for both males and females was higher than in case of rural.

The situation dramatically changed for West Bengal during 1993-94 and 1999-00. There was a drastic reduction in the over-all growth rate of the employed - from 3.38 per cent to only 0.4 per cent during 1993-00. This was even more striking in rural West Bengal where amongst both male and female employed there was a steady decline in the number of employed - resulting in negative growth rates. Even in urban area female employment declined.

While there was a much lower growth rate of all types of employed at the all-India level there was no negative growth. Of course, the decline was much greater in rural areas than in urban areas.

Table 9. Annual Growth Rates of Employed (CDS basis) in West Bengal and all-India

Period (1)	Rural			Urban			Rural + Urban		
	Male (2)	Female (3)	Person (4)	Male (5)	Female (6)	Person (7)	Male (8)	Female (9)	Person (10)
WEST BENGAL									
1983 to 1993-94	3.49	4.36	3.62	2.60	4.18	2.83	3.22	4.31	3.38
1993-94 to 1999-00	-0.28	-0.17	-0.26	2.31	-0.51	1.89	0.52	-0.27	0.40
1983 to 1999-00	2.11	2.69	2.19	2.49	2.45	2.49	2.23	2.62	2.29
ALL INDIA									
1983 to 1993-94	2.28	2.74	2.41	3.46	4.17	3.58	2.57	2.95	2.67
1993-94 to 1999-00	0.73	0.56	0.68	2.47	1.77	2.35	1.20	0.76	1.09
1983 to 1999-00	1.71	1.94	1.78	3.10	3.29	3.13	2.07	2.15	2.09

Source: Computed on the basis of Table 7.

Since 1993-94, the growth of employment has been much lower in West Bengal compared to all-India.⁹ Further, rural West Bengal experienced much sharper decline in the growth rate of employed during this period. West Bengal also experienced much faster decline in female employment and only a slow growth in male employment during the period.

Share of West Bengal in all-India Employed

These different rates of growth in the two periods are reflected in the changing share of West Bengal in the employed in the country as a whole. While the share of West Bengal amongst the total employed increased from 6.52 per cent to 7.01 per cent during 1983 and 1993-94, its share declined to 6.73 per cent by 1999-2000. Similar was the situation with regard to rural West Bengal. Urban West Bengal recorded a steady decline

in its share amongst the total urban employed in the country.

Table 10. Percentage Share of West Bengal in all-India Employed (CDS basis)

Year (1)	Rural			Urban			Rural + Urban		
	Male (2)	Female (3)	Person (4)	Male (5)	Female (6)	Person (7)	Male (8)	Female (9)	Person (10)
1983	6.81	2.91	5.72	9.77	7.83	9.45	7.52	3.60	6.52
1993-94	7.71	3.44	6.47	8.95	7.84	8.75	8.04	4.13	7.01
1999-00	7.26	3.29	6.11	8.86	6.84	8.52	7.72	3.88	6.73

Source: Computed on the basis of Table 7.

Marginalisation of Employment

It would be useful to note the extent of change in the proportion of workers who reported productive employment as only a subsidiary activity - workers who may be called part-time workers or workers at the Margin. Table 11 shows that 14-25 per cent of all employed in West Bengal were only such subsidiary or part-time workers in 1983. In 1993-94 the proportion was only a little lower 13.26. But by 1999-00 it drastically came down to 6.23 per cent. A very large part of the female workers was part time or margin workers, in 1983 47.72 per cent, and in 1999-00 it came down to 24.34 per cent. Not unexpectedly, the percentage were much higher in case of rural females, it came down from 52.85 per cent in 1983 and 54.59 per cent in 1993-94 to 27.5 per cent in

1999-00.

While decline is noticed in the all-India situation as well, it is not as sharp as in West Bengal. This is because in 1983 and 1993-94, the proportion of such part time or marginal female workers in the country was half of what it was in West Bengal. By 1999-00 the two percentages were much nearer.

There was an almost 50 per cent decline amongst male marginal workers. But their proportions were quite small near 2 or 3 per cent in 1983, declining to about half that by 1999-00.

The position in urban areas was similar, except that the marginal female workers were almost half in proportion in urban than the rural areas.

Table 11. Marginalisation of Employment in West Bengal and all-India (Usual Status basis)

Region (1)	Sex (2)	Percentage of Subsidiary Status Workers to Total Workers					
		West Bengal			All India		
		1983 (3)	1993-94 (4)	1999-00 (5)	1983 (6)	1993-94 (7)	1999-00 (8)
Rural	Male	4.45	3.41	1.87	3.39	2.71	1.69
	Female	52.85	54.59	27.50	27.06	28.66	22.74
	Person	17.08	15.62	7.55	12.04	12.00	9.01
Urban	Male	2.57	2.18	1.06	2.36	1.54	0.97
	Female	25.44	27.27	12.82	20.26	21.94	15.83
	Person	6.38	6.80	2.88	6.06	5.83	3.86
Rural + Urban	Male	3.91	3.06	1.63	3.16	2.41	1.49
	Female	47.72	48.58	24.34	26.26	27.71	21.73
	Person	14.25	13.26	6.23	10.89	10.65	7.79

Source: As In Table 1.

Status Distribution of Employed

We now come to the issue of status distribution of the employed/workers in West Bengal. The NSS reports provide information on the status distribution of workers under the concept of 'Usual Status'. Table 12 gives percentage distribution of Usual Status (PS+SS) workers into categories such as self-employed, regular employee and casual labour both for West Bengal and all-India at our chosen points of time. It is found that nearly one-half (49.6 per cent) of the employed (US-PS+SS) in West Bengal were engaged in self-employment in the year 1999-00 which is a little lower than the corresponding percentage for all-India (52.61 per cent). It is also seen that, contrary to the trend for all-India, the percentage of self-employed in West Bengal increased during 1983 to 1993-94. However, during 1993-94 to 1999-00, the percentage of self-employed declined both in West Bengal and all-India.

When we look at the percentages of self-employed separately for rural and urban areas, it is found that both in West Bengal and all-India, this is relatively higher in rural areas than in urban areas. Moreover, compared to West Bengal, the percentage of rural employed workers as self-employed was high in all-India. Another point to note is that the percentage of self-employed among the urban workers seems to be increasing over the years particularly in West Bengal but the same among the rural workers has declined.

As regards regular employee, it is found that their share has been falling gradually in West Bengal. This is just opposite to the picture observed for all-India. The percentage share of regular employee in West Bengal declined from 20.42 per cent in 1983 to 16.25 per cent in 1999-00. In all-India, the percentage of regular employee increased from 13.78 per cent in 1983 to 14.64 per cent in 1999-00. If we look at the percentage of regular employee separately for rural and urban areas, in the case of West Bengal, this declining trend is clearly visible in both areas.

Further, when we look at the male-female divisions as regards the percentage of regular employee, it is found that this has declined in West Bengal between the period 1983 to 1999-00 for both males and females. However, it also needs to be mentioned that decline in the percentage of regular employee among male workers has been much more pronounced than that of female workers. Between 1983 and 1999-00, the percentage of regular employee among male workers declined from 22.74 per cent to 17.17 per cent while in the case of female workers, this declined from 12.90 per cent to 12.63 per cent. Again, between different sexes as well as regions, the declining trend in the percentage of regular employee is clearly visible in the cases of rural male, urban male and urban female while in the case of rural female workers such a trend is not so pronounced.

The percentage of casual labour among the employed increased gradually over the years in all-India. In West Bengal, this actually declined in the period prior to 1993-94 but showed an increasing trend after 1993-94. While in the year 1993-94, the percentage of casual labour among the employed was low in West Bengal (29.63 per cent) compared to all-India (31.78 per cent), by the year 1999-00 this percentage became quite high in West Bengal compared to all-India. When we look at the rural-urban contrasts, it is found that the extent of casualisation of workers is far higher in rural West Bengal than in urban areas. In the year 1999-00, while nearly 41 per cent of rural workers in West Bengal were reported to be casual workers, the corresponding percentage in the case of urban workers was only 17 per cent. It is further observed that both rural male and female workers have been subjected much greater degree of casualisation in relation to their counterparts in urban areas. This is, however, true both for West Bengal as well as for all-India. The male-female contrast in this regard further shows the extent of casualisation in West Bengal has been greater for male workers than for female workers by the year 1999-00.

Table 12. Percentage of Usual Status (PS+SS) Workers as Self-employed, Regular Employee and Casual Labour in West Bengal and all-India

Region	Sex	Year	West Bengal				All India			
			Self-employed (4)	Regular Employee (5)	Casual labour (6)	Total (7)	Self-employed (8)	Regular Employee (9)	Casual labour (10)	Total (11)
Rural	Male	1983	49.69	11.43	38.88	100.00	60.50	10.30	29.20	100.00
		1993-94	54.70	10.30	35.00	100.00	57.70	8.50	33.80	100.00
		1999-00	49.20	7.50	43.30	100.00	55.00	8.80	36.20	100.00
	Female	1983	60.60	5.30	34.10	100.00	61.90	2.80	35.30	100.00
		1993-94	59.00	7.30	33.70	100.00	58.60	2.70	38.70	100.00
		1999-00	62.40	5.10	32.50	100.00	57.30	3.10	39.60	100.00
	Person	1983	52.54	9.83	37.64	100.00	61.01	7.56	31.43	100.00
		1993-94	55.73	9.58	34.69	100.00	58.02	6.42	35.55	100.00
		1999-00	52.12	6.97	40.91	100.00	55.80	6.82	37.38	100.00
Urban	Male	1983	35.74	50.60	13.66	100.00	40.90	43.70	15.40	100.00
		1993-94	37.40	47.60	15.00	100.00	41.70	42.00	16.30	100.00
		1999-00	43.10	39.90	17.00	100.00	41.50	41.70	16.80	100.00
	Female	1983	35.15	45.93	18.92	100.00	45.80	25.80	28.40	100.00
		1993-94	36.40	44.10	19.50	100.00	45.80	28.40	25.80	100.00
		1999-00	43.60	40.10	16.30	100.00	45.30	33.30	21.40	100.00
	Person	1983	35.64	49.82	14.54	100.00	41.91	40.00	18.09	100.00
		1993-94	37.22	46.96	15.83	100.00	42.56	39.14	18.30	100.00
		1999-00	43.18	39.93	16.89	100.00	42.24	40.07	17.69	100.00
Rural+Urban	Male	1983	45.66	22.74	31.60	100.00	56.02	17.94	26.04	100.00
		1993-94	49.83	20.81	29.36	100.00	53.60	17.07	29.32	100.00
		1999-00	47.38	17.17	35.45	100.00	51.29	17.85	30.86	100.00
	Female	1983	55.84	12.90	31.26	100.00	60.00	5.52	34.48	100.00
		1993-94	54.02	15.41	30.57	100.00	56.79	6.33	36.88	100.00
		1999-00	58.35	12.63	29.01	100.00	55.54	7.54	36.93	100.00
	Person	1983	48.06	20.42	31.52	100.00	57.35	13.78	28.87	100.00
		1993-94	50.77	19.60	29.63	100.00	54.64	13.57	31.78	100.00
		1999-00	49.60	16.25	34.15	100.00	52.61	14.64	32.75	100.00

Source: As In Table I.

We have also computed growth rates of workers under the three categories of self-employed, regular employee and casual labour for West Bengal and all-India during our chosen periods of time (Table 13). It is observed that of these three categories, the annual growth rate of self-employed workers has been the highest (2.95 per cent) in West Bengal during the period 1983 to 1993-94, followed by growth rates of workers as regular employee (2.02 per cent) and casual labour (1.83 per cent). The situation changed drastically during 1993-94 to 1999-00 when the growth rate of regular employee turned out to be negative (-2.34 per cent per year) and that of casual labour became the highest (3.16 per cent per year). As for the period 1993-94 to 1999-00, the self-employed workers in West Bengal grew only at the meagre rate of 0.37 per cent per year. If we compare the overall situation in West Bengal with that of all-India for this period (1993-94 to 1999-00), it becomes clear that the growth rates of regular employee and the self-employed were relatively lower in West Bengal but that of the casual labour was higher. As regards the rural and urban areas of West Bengal, the rate of decline in the number of regular

employee has been far more pronounced in rural areas of West Bengal than that in the urban areas during the period 1993-94 to 1999-00. Again, the number of regular employees among the females experienced higher rate of decline than that among the males during this period in West Bengal. As regards growth rate of regular employee during 1993-94 to 1999-00, Table 13 also shows that, contrary to the situation prior to 1993-94, the growth rates of both male and female regular employee became negative in rural West Bengal.

Table 13 also presenting the growth rates of self-employed workers in West Bengal by rural-urban and male-female divisions for the period 1993-94 to 1999-00. It is observed that the category of self-employed rural males suffered negative growth rate during this period while for other categories (rural female, urban male and urban female) the growth rates have been positive. It is also to be noted that the growth rate of self-employed workers has been higher during the period 1993-94 to 1999-00 than the previous period (1983 to 1993-94) only in the case of urban male in West Bengal.

Table 13. Annual Growth Rates of Usual Status (PS+SS) Workers as Self-employed, Regular Employee and Casual Labour in West Bengal and all-India

Region	Sex	Year	West Bengal				All India			
			Self-employed (4)	Regular Employee (5)	Casual labour (6)	Total (7)	Self-employed (8)	Regular Employee (9)	Casual labour (10)	Total (11)
(1)	(2)	(3)								
Rural	Male	1983 to 1993-94	3.60	1.67	1.65	2.67	1.24	-0.13	3.11	1.69
		1993-94 to 1999-00	-0.95	-4.38	4.46	0.82	0.14	1.53	2.10	0.94
		1983 to 1999-00	1.95	-0.56	2.67	2.01	0.85	0.47	2.76	1.43
	Female	1983 to 1993-94	1.26	4.63	1.41	1.52	0.87	1.05	2.28	1.39
		1993-94 to 1999-00	0.13	-6.55	-1.40	-0.80	-0.22	2.48	0.53	0.15
		1983 to 1999-00	0.86	0.44	0.39	0.68	0.48	1.57	1.65	0.95
	Person	1983 to 1993-94	2.95	2.14	1.60	2.38	1.10	0.03	2.77	1.58
		1993-94 to 1999-00	-0.67	-4.75	3.24	0.44	0.01	1.67	1.51	0.66
		1983 to 1999-00	1.64	-0.41	2.20	1.69	0.71	0.63	2.33	1.26
Urban	Male	1983 to 1993-94	2.77	1.74	3.24	2.33	3.31	2.74	3.68	3.12
		1993-94 to 1999-00	4.63	-0.77	4.34	2.19	2.53	2.49	3.13	2.61
		1983 to 1999-00	3.46	0.83	3.66	2.29	3.05	2.66	3.50	2.96
	Female	1983 to 1993-94	3.84	3.10	3.79	3.50	3.35	4.29	2.42	3.35
		1993-94 to 1999-00	1.73	-2.84	-4.19	-1.29	0.75	3.65	-2.16	0.94
		1983 to 1999-00	3.09	0.92	0.84	1.75	2.42	4.08	0.74	2.49
	Person	1983 to 1993-94	2.95	1.96	3.36	2.53	3.32	2.96	3.28	3.17
		1993-94 to 1999-00	4.14	-1.12	2.70	1.59	2.14	2.67	1.70	2.27
		1983 to 1999-00	3.40	0.84	3.14	2.21	2.91	2.87	2.73	2.86
Rural+Urban	Male	1983 to 1993-94	3.42	1.72	1.86	2.57	1.61	1.56	3.19	2.04
		1993-94 to 1999-00	0.37	-1.98	4.44	1.21	0.64	2.14	2.25	1.38
		1983 to 1999-00	2.32	0.37	2.81	2.09	1.27	1.78	2.86	1.81
	Female	1983 to 1993-94	1.60	3.64	1.70	1.92	1.12	2.96	2.29	1.64
		1993-94 to 1999-00	0.38	-4.13	-1.77	-0.91	-0.11	3.23	0.28	0.26
		1983 to 1999-00	1.16	0.76	0.44	0.89	0.68	3.08	1.57	1.15
	Person	1983 to 1993-94	2.95	2.02	1.83	2.42	1.44	1.76	2.84	1.91
		1993-94 to 1999-00	0.37	-2.34	3.16	0.76	0.39	2.31	1.53	1.02
		1983 to 1999-00	2.02	0.43	2.32	1.83	1.07	1.97	2.38	1.60

Source: Computed by using Tables 7 and 12.

In sum, it may be pointed out that nearly one-half of all workers in West Bengal are currently engaged in self-employed activities. The incidence of self-employment in West Bengal is relatively higher for workers in rural areas as well as for the female workers. In recent years, West Bengal has been experiencing decline in the incidence of workers under categories of self-employed and regular employees. This has been accompanied by rising tendency towards casualisation of employment. The degree of casualisation has been much more pronounced in the case of workers in rural areas as also for the male workers. Our estimated growth rates of self-employed, regular employee and casual workers clearly show very high growth rate of casual workers in West Bengal in the period since 1993-94. In recent years, the growth of self-employed workers has been negligible while that for regular employee is negative in West Bengal. It is also evident that the decline in the number of regular employees has been very sharp in the case of rural workers and also among the females. Further, among the self-employed, the category that suffered most in terms of declining growth rate in recent years is that of rural male. It is also found that casualisation has proceeded at much faster rate since 1993-94 in the case of both rural male and female workers in West Bengal.

Sectoral Distribution of Workers

Now we look at sectoral composition of employed/workers (US-PS+SS) in West Bengal and all-India from three different angles. (i) We look at percentage distribution of the employed in different sectors in order to identify the sector or sectors that are the most prominent providers of employment. (ii) We compute the gains/losses (increase/decrease) in the number of workers across different sectors in order to identify the sectors that have been subjected to gains/losses in terms of employment. (iii) We also assess the employment performance of different sectors by computing annual growth rates of employed

during our study periods. Needless to mention, all these aspects have been examined by focusing on rural-urban and male-female contrasts.

(i) *Percentage distribution of the employed/workers into different sectors:* Table 14 gives information on the percentage distribution of workers (US-PS+SS) with reference to different sectors in West Bengal and all-India. Our observations in this respect are noted below.

First, in West Bengal, the most important employment generating sectors are agriculture & allied activities, manufacturing, trade (wholesale & retail) and services. In the year 1999-00, agriculture & allied activities absorbed nearly 47 per cent of the workers, 19 per cent by manufacturing, 13 per cent by wholesale & retail trade and 11 per cent by services sectors. The significance of sectors such as transport, storage, etc., (5.53 per cent) and construction (3.37 per cent) is also noticeable in the year 1999-00. On the other hand, both mining & quarrying (0.46 per cent) and electricity, gas & water (0.39 per cent) together have provided employment to even less than one per cent of the workers. This picture of sectoral distribution of workers in West Bengal is different from that for all-India in many respects: (a) In the year 1999-00, as against 46.64 per cent of workers engaged in agriculture & allied activities in West Bengal, as high as 60.30 per cent of workers were engaged in agriculture & allied activities in all-India; (b) The manufacturing sector in West Bengal shared a much higher percentage of workers (19.08 per cent in 1999-00) compared to all-India (10.99 per cent) implying far greater significance of the manufacturing sector in the economy of West Bengal; and (c) The tertiary sector too absorbed a much higher percentage of workers in West Bengal (30.06 per cent in 1999-00) than in all-India (23.48 per cent). Table 14 reveals that each of the sectors included under tertiary sectors (wholesale & retail trade,

transport, storage, etc., and services) has absorbed higher percentage of workers in West Bengal than in all-India in the year 1999-00. All these points lead to the conclusion that the employment structure is relatively more diversified in West Bengal compared to all-India. This conclusion is further reaffirmed when we look at the percentage shares of farm and non-farm sectors in West Bengal and all-India. In contrast to nearly 53 per cent of total workers being absorbed in non-farm sectors in West Bengal in the year 1999-00, only about 40 per cent of workers got absorbed in the said sectors in all-India (Appendix Table 3).

Secondly, when we look at the sectoral distribution of workers separately for rural and urban areas, it is found that agriculture & allied activities expectedly stand out as the most significant absorber of rural workers in West Bengal. In the year 1999-00, of the total rural employment in West Bengal, nearly 64 per cent was accounted for by agriculture & allied activities. This, however, is lower than the share of this sector in all-India (76 per cent). The second important sector in providing employment to the rural workers in West Bengal currently is manufacturing (absorbing 16.48 per cent of workers in 1999-00). This is followed by wholesale and retail trade (8.57 per cent), services (5.38 per cent) and transport, storage, etc., (3.27 per cent) all of which fall within the group of tertiary sectors. The picture at the all-India level is almost the same except for the fact that all these sectors absorb relatively lower percentage of workers since the share of agriculture & allied activities is higher.

Thirdly, in urban West Bengal as also in all-India, three most important sectors together absorbing more than 75 per cent of workers have

been manufacturing, trade (wholesale and retail) and services. The presence of construction sector could also be felt in urban areas. In the year 1999-00, this sector absorbed about 6 per cent of workers in West Bengal and about 8 per cent of workers in all-India.

Fourthly, as we look at the male-female contrasts, it is found that a higher percentage of male workers is absorbed in agriculture & allied activities in rural West Bengal compared to female workers. In the year 1999-00, while about 66 per cent of male workers were absorbed in agriculture & allied activities in rural West Bengal, the corresponding percentage for female workers was 54. The participation of rural female workers in manufacturing has been also substantially high compared to their male counterparts in rural areas. In 1999-00, the percentages of male and female workers in rural manufacturing were 10.91 and 36.05, respectively. The other sector that attracted a sizeable proportion of rural female workers in West Bengal is services (6.69 per cent in 1999-00). This picture for West Bengal is different from that for all-India at least in two ways: (a) In rural India, the percentage of workers engaged in agriculture & allied activities has been much higher for female workers than for male workers, the two percentages being 85.23 and 71.33, respectively in 1999-00; and (b) the rural females in all-India participated to a much lesser extent in sectors such as manufacturing, trade and services than the rural females in West Bengal. All these observations imply that contrary to the picture prevailing in all-India, the incidence of rural non-farm employment in West Bengal has been substantially higher for female workers than for their male counterparts.

Table 14. Percentage Distribution of Usual Status Workers (PS+SS) into Different Sectors in West Bengal and all-India

Category	Year	Agriculture & allied / Primary	Mining & Quarrying	Manufacturing	Electricity, gas & Water	Construction	Secondary	Wholesale & retail trade	Transport, port, storage, etc.	Services	Tertiary	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
WEST BENGAL												
Rural Male	1983	73.20	0.60	8.50	0.10	1.70	10.90	6.30	2.60	7.00	15.90	100.00
	1993-94	64.76	0.20	11.71	0.10	2.70	14.71	9.01	3.50	8.01	20.52	100.00
	1999-00	66.47	0.40	10.91	0.10	2.70	14.11	10.21	4.20	5.01	19.42	100.00
Rural Female	1983	75.20	0.20	16.40	0.00	0.20	16.80	2.80	0.00	5.20	8.00	100.00
	1993-94	58.84	0.20	29.97	0.00	1.60	31.77	2.70	0.30	6.39	9.39	100.00
	1999-00	54.05	0.00	36.06	0.00	0.40	36.46	2.80	0.00	6.69	9.49	100.00
Rural Total	1983	73.72	0.50	10.56	0.07	1.31	12.44	5.39	1.92	6.53	13.84	100.00
	1993-94	63.35	0.20	16.07	0.08	2.44	18.78	7.50	2.74	7.62	17.87	100.00
	1999-00	63.72	0.31	16.48	0.08	2.19	19.06	8.57	3.27	5.38	17.22	100.00
Urban Male	1983	3.28	0.63	36.08	0.67	4.12	41.50	20.08	10.57	24.56	55.22	100.00
	1993-94	4.40	2.40	30.17	1.20	6.09	39.86	20.58	9.79	25.37	55.74	100.00
	1999-00	3.20	0.90	25.20	1.40	7.20	34.70	27.80	13.10	21.20	62.10	100.00
Urban Female	1983	12.40	0.70	27.60	0.10	0.70	29.10	4.50	1.20	52.80	58.50	100.00
	1993-94	8.60	0.90	30.50	0.00	1.50	32.90	4.70	1.90	51.90	58.50	100.00
	1999-00	2.30	0.50	28.60	0.00	1.90	31.00	13.20	1.50	52.00	66.70	100.00
Urban Total	1983	4.80	0.64	34.67	0.58	3.55	39.43	17.49	9.01	29.27	55.77	100.00
	1993-94	5.17	2.12	30.23	0.98	5.25	38.58	17.66	8.34	30.26	56.25	100.00
	1999-00	3.06	0.84	25.73	1.18	6.38	34.13	25.54	11.30	25.97	62.81	100.00
Rural & Urban Male	1983	53.00	0.61	16.47	0.27	2.40	19.74	10.28	4.90	12.07	27.26	100.00
	1993-94	47.75	0.82	16.91	0.41	3.66	21.80	12.27	5.27	12.90	30.45	100.00
	1999-00	47.58	0.55	15.18	0.49	4.04	20.26	15.46	6.86	9.84	32.16	100.00
Rural & Urban Female	1983	63.45	0.29	18.50	0.02	0.29	19.10	3.12	0.22	14.11	17.45	100.00
	1993-94	47.77	0.35	30.09	0.00	1.58	32.02	3.14	0.65	16.42	20.21	100.00
	1999-00	42.91	0.11	34.46	0.00	0.72	35.29	5.04	0.32	16.45	21.81	100.00
Rural & Urban Total	1983	55.47	0.53	16.95	0.21	1.90	19.59	8.59	3.80	12.55	24.95	100.00
	1993-94	47.76	0.72	19.86	0.32	3.19	24.09	10.22	4.24	13.69	28.15	100.00
	1999-00	46.64	0.46	19.08	0.39	3.37	23.30	13.35	5.53	11.18	30.06	100.00

(Contd.)

Table 14. (Concl'd.)

Category (1)	Year (2)	Agriculture & allied / Primary (3)	Mining & Quarrying (4)	Manufacturing (5)	Electricity, gas & Water (6)	Construction (7)	Secondary (8)	Wholesale & retail trade (9)	Transport, port, storage, etc. (10)	Services (11)	Tertiary (12)	Total (13)
ALL INDIA												
Rural Male	1983	77.73	0.60	7.02	0.20	2.21	10.03	4.41	1.71	6.12	12.24	100.00
	1993-94	74.10	0.70	7.00	0.30	3.20	11.20	5.50	2.20	7.00	14.70	100.00
	1999-00	71.33	0.60	7.29	0.20	4.50	12.59	6.79	3.20	6.09	16.08	100.00
Rural Female	1983	87.76	0.30	6.42	0.00	0.70	7.42	1.91	0.10	2.81	4.81	100.00
	1993-94	86.11	0.40	6.99	0.00	0.90	8.29	2.10	0.10	3.40	5.59	100.00
	1999-00	85.23	0.30	7.58	0.00	1.10	8.98	2.00	0.10	3.69	5.79	100.00
Rural Total	1983	81.40	0.49	6.80	0.13	1.66	9.08	3.50	1.12	4.91	9.53	100.00
	1993-94	78.40	0.59	7.00	0.19	2.38	10.16	4.28	1.45	5.71	11.44	100.00
	1999-00	76.16	0.50	7.39	0.13	3.32	11.34	5.13	2.12	5.26	12.51	100.00
Urban Male	1983	10.32	1.20	26.85	1.10	5.11	34.27	20.84	9.92	24.65	55.41	100.00
	1993-94	9.01	1.30	23.52	1.20	6.91	32.93	21.92	9.71	26.43	58.06	100.00
	1999-00	6.59	0.90	22.36	0.80	8.68	32.73	29.34	10.38	20.96	60.68	100.00
Urban Female	1983	31.25	0.60	26.92	0.20	3.13	30.85	9.58	1.51	26.81	37.90	100.00
	1993-94	24.68	0.60	24.08	0.30	4.10	29.07	9.99	1.30	34.97	46.25	100.00
	1999-00	17.70	0.40	24.00	0.20	4.80	29.40	16.90	1.80	34.20	52.90	100.00
Urban Total	1983	14.64	1.08	26.87	0.92	4.70	33.56	18.51	8.18	25.10	51.79	100.00
	1993-94	12.31	1.15	23.64	1.01	6.32	32.12	19.41	7.94	28.22	55.57	100.00
	1999-00	8.75	0.80	22.68	0.68	7.93	32.09	26.92	8.71	23.53	59.17	100.00
Rural & Urban Male	1983	62.31	0.74	11.56	0.41	2.87	15.58	8.17	3.58	10.36	22.11	100.00
	1993-94	57.44	0.85	11.23	0.53	4.15	16.76	9.70	4.12	11.97	25.80	100.00
	1999-00	53.52	0.68	11.44	0.36	5.65	18.13	13.00	5.17	10.18	28.35	100.00
Rural & Urban Female	1983	81.08	0.34	8.84	0.02	0.99	10.19	2.81	0.27	5.65	8.73	100.00
	1993-94	77.44	0.43	9.40	0.04	1.35	11.22	3.21	0.27	7.85	11.33	100.00
	1999-00	75.31	0.31	10.00	0.03	1.64	11.98	4.19	0.35	8.17	12.71	100.00
Rural + Urban Total	1983	68.59	0.60	10.65	0.28	2.24	13.77	6.38	2.47	8.78	17.63	100.00
	1993-94	63.96	0.72	10.63	0.37	3.24	14.96	7.59	2.87	10.63	21.08	100.00
	1999-00	60.30	0.57	10.99	0.26	4.40	16.22	10.25	3.67	9.56	23.48	100.00

Source: As in Table I.

Fifthly, both male and female workers in urban areas of West Bengal and all-India participated mostly in non-farm sectors. In West Bengal, for urban female workers, the most important sector has been services (absorbing 52 per cent of urban female workers in 1999-00), which is followed by sectors such as manufacturing and trade. These three sectors together absorbed nearly 94 per cent of urban female workers in West Bengal. As regards urban male workers in West Bengal, it is found that apart from these sectors, other sectors such as transport, storage, etc., and construction also absorbed a substantial percentage of them. The picture obtained for all-India is almost similar except for the fact that urban females at all-India level participated to a relatively greater extent in activities such as construction and trade than the urban females in West Bengal. On the other hand, the participation rate of urban females in services sector has been substantially higher in West Bengal than that for all-India.

Sixthly, we can also dwell upon temporal changes in percentage distribution of the workers (see Table 14). The main points emerging here are: (i) Over the years, the share of agriculture and allied activities (primary sector) in total number of employed declined gradually in the state of West Bengal as also in all-India. On the other hand, the share of tertiary sector increased steadily both in West Bengal and all-India. As regards the share of secondary sector, a slight decline in the percentage share of this sector in total employed is visible in West Bengal in recent years although for all-India the share of this sector improved gradually. (ii) In rural West Bengal, there has been gradual decline in the percentage share of primary sector in total rural employed while the shares of manufacturing, trade (wholesale and retail) and transport, storage, etc., recorded gradual improvement. In urban areas of West Bengal, the percentage share of manufacturing sector in total urban employed has been declining continuously since 1983. Almost a similar trend is discernible in the case of the

services sector. However, the sectors in urban areas to gain temporally in terms of percentage share of employed are trade (wholesale and retail), construction and transport, storage, etc. (iii) When we look at temporal changes in the percentage distribution of workers separately for males and females, it is found that in rural areas, both these categories experienced declining trends in agriculture & allied activities (primary sector). It is also to be noted that this decline has been sharper in the case rural females compared to the rural males particularly in recent years. (iv) In the case of females in rural West Bengal, there has been monotonic increase in the shares of manufacturing and services sectors in the total employed. On the other hand, for rural males, such a trend is visible in sectors such as trade (wholesale and retail) and transport, storage, etc. (v) The urban males in West Bengal seem to have benefited from temporal increases in the shares of sectors such as trade (wholesale and retail), construction, transport, storage, etc. In case of manufacturing and services sectors, urban males seems to have suffered from decline in terms of percentage of employed. As regards urban females in West Bengal, the shares of workers in trade, construction and transport, storage, etc., have gradually increased. Over the years, the services sector seems to have retained its significant position in respect of absorption of urban female workers.

(ii) *Sectoral Distribution of Gains/Losses in Employment:* We have computed in Table 15 average yearly increase (gain)/decrease (loss) in the number of employed (under US-PS+SS definition) for the periods 1983 to 1993-94 and 1993-94 to 1999-00. Several interesting points emerge from this table:

First, there is clear slackening of employment expansion during period 1993-94 to 1999-00 compared to 1983 to 1993-94 both in West Bengal as well as all-India. In West Bengal, the number of employed (as per US-PS+SS definition)

increased by 2.05 lakh per year during 1993-94 to 1999-00 which is much lower than 5.66 lakh per year during 1983 to 1993-94. In the period prior to 1993-94, the sectors that contributed significantly towards increase in employment in West Bengal have been manufacturing (1.70 lakh per year), agriculture (1.19 lakh per year), services (1.00 lakh per year), trade (0.90 lakh per year), construction (0.43 lakh per year) and transport, storage, etc., (0.33 lakh per year). In the period since 1993-94, increase in total employment in West Bengal was mainly due to the increase in employment in sectors such as trade (wholesale and retail) and transport, storage, etc. However, perhaps the most shocking development during this period (1993-94 to 1999-00) in West Bengal from the perspective of employment has been the almost total insignificance of manufacturing sector as contributor to employment expansion in the state. As against average yearly increase in manufacturing employment by 1.70 lakh during the period 1983 to 1993-94, manufacturing employment grew by mere 5 thousand per year during 1993-94 to 1999-00. Another disturbing development has been the performance of the services sector in West Bengal in recent years. While during the period 1983 to 1993-94, employment in services grew by 1.00 lakh per year, it actually declined by 88 thousand per year during 1993-94 to 1999-00. Further, the sector representing agriculture and allied activities also contributed at a much lower rate during the period 1993-94 to 1999-00 than they did in the earlier period. These developments in West Bengal are different from all-India at least in two respects: (i) In all-India, annual increase in employment in agriculture & allied activities has been almost insignificant during the period 1993-94 to 1999-00 as compared to the earlier period (1983 to 1993-94). (ii) Annual increase in manufacturing employment in all-India, though lower during 1993-94 to 1999-00 than during 1983 to 1993-94, has not been as dismal as is observed for West Bengal. (iii) Unlike West Bengal, annual increase

in the number of workers in construction in all-India was significantly higher in the years since 1993-94 than in the years from 1983 to 1993-94.

Secondly, almost all the sectors in rural West Bengal suffered employment setback during the period 1993-94 to 1999-00. Except for the two minor sectors, namely mining & quarrying and electricity, gas & water, in all other sectors the annual increases in number of employed were much lower during 1993-94 to 1999-00 than in the earlier period. More disturbing is the fact that in the sectors such as services and construction, the number of employed actually declined to the tune of 68 thousand and 5 thousand per year, respectively during 1993-94 to 1999-00. In urban areas of West Bengal, most significant losses in employment occurred in manufacturing and services sectors in recent years. During 1993-94 to 1999-00, employment in urban manufacturing declined by 23 thousand per year while decline in employment in the services sector was 20 thousand per year.

Thirdly, if we look at the male and female workers separately in rural areas of West Bengal, it is found that the loss of employment in agriculture & allied activities for the female workers was phenomenal during period 1993-94 to 1999-00. During this period, while employment in agriculture & allied activities increased by 1.24 lakh per year for the rural males, it declined by 57 thousand per year for the rural females. The loss of employment by the rural females in the period since 1993-94 is also visible in several other sectors, most notably, in transport, storage, etc., and mining & quarrying. On the whole, it appears from Table 15 that although both rural males and females have been subjected to employment setbacks in the period since 1993-94, rural females suffered more than the rural males in West Bengal. In urban areas of West Bengal, while male employment increased by 1.34 lakh per year during 1993-94 to 1999-00, female employment decreased by 16 thousand per year.

Table 15: Average Yearly Gains/Losses in the Number of Usual Status (PS+SS) Workers Distributed Over Different Sectors in West Bengal and all-India

Category	Average yearly Gains/Losses between 1993-94 to 1999-00	Agriculture & allied	Mining & Quarrying	Manufacturing	Electricity, Gas & Water	Construction	Wholesale & Retail Trade	Transport, Storage, etc.	Services	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
WEST BENGAL										
Rural Male	1983 to 1993-94 1993-94 to 1999-00	1.32 1.24	-0.04 0.05	0.74 -0.06	0.00 0.00	0.20 0.03	0.60 0.42	0.22 0.22	0.38 -0.68	3.43 1.23
Rural Female	1983 to 1993-94 1993-94 to 1999-00	-0.23 -0.57	0.00 -0.02	0.71 0.34	0.00 0.00	0.06 -0.09	0.01 0.00	0.01 -0.02	0.09 0.00	0.65 -0.36
Rural Total	1983 to 1993-94 1993-94 to 1999-00	1.09 0.67	-0.03 0.04	1.45 0.28	0.00 0.00	0.26 -0.06	0.61 0.42	0.23 0.20	0.47 -0.68	4.08 0.87
Urban Male	1983 to 1993-94 1993-94 to 1999-00	0.10 -0.07	0.11 -0.13	0.11 -0.14	0.04 0.04	0.16 0.20	0.27 1.07	0.08 0.50	0.34 -0.12	1.20 1.34
Urban Female	1983 to 1993-94 1993-94 to 1999-00	0.00 -0.14	0.01 -0.01	0.14 -0.09	0.00 0.00	0.01 0.01	0.02 0.16	0.01 -0.01	0.19 -0.08	0.38 -0.16
Urban Total	1983 to 1993-94 1993-94 to 1999-00	0.10 -0.21	0.11 -0.14	0.25 -0.23	0.04 0.04	0.17 0.21	0.29 1.24	0.10 0.48	0.53 -0.20	1.58 1.18
Rural & Urban Male	1983 to 1993-94 1993-94 to 1999-00	1.42 1.17	0.07 -0.08	0.85 -0.21	0.04 0.04	0.36 0.24	0.87 1.49	0.30 0.72	0.72 -0.80	4.63 2.57
Rural & Urban Female	1983 to 1993-94 1993-94 to 1999-00	-0.23 -0.71	0.01 -0.02	0.85 0.25	0.00 0.00	0.08 -0.09	0.03 0.16	0.03 -0.03	0.28 -0.08	1.03 -0.53
Rural & Urban Total	1983 to 1993-94 1993-94 to 1999-00	1.19 0.46	0.08 -0.10	1.70 0.05	0.04 0.04	0.43 0.15	0.90 1.65	0.33 0.69	1.00 -0.88	5.66 2.05

(Contd.)

Table 15. (Concl.)

Category	Average yearly Gains/ Losses between	Agriculture & allied	Mining & Quarrying	Manu- facturing	Electri- city, Gas & Water	Constru- ction	Wholesale & Retail Trade	Trans- port, Storage, etc.	Services	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
					ALL INDIA					
Rural Male	1983 to 1993-94 1993-94 to 1999-00	16.16 4.25	0.35 -0.21	2.01 2.24	0.24 -0.28	2.42 4.87	3.23 5.28	1.38 3.70	3.36 -1.73	29.15 18.11
Rural Female	1983 to 1993-94 1993-94 to 1999-00	10.30 -0.20	0.14 -0.17	1.45 1.15	0.00 0.00	0.29 0.36	0.45 -0.15	0.01 0.00	0.97 0.58	13.61 1.58
Rural Total	1983 to 1993-94 1993-94 to 1999-00	26.46 4.05	0.49 -0.38	3.45 3.39	0.24 -0.28	2.71 5.23	3.68 5.13	1.40 3.70	4.33 -1.16	42.75 19.69
Urban Male	1983 to 1993-94 1993-94 to 1999-00	0.96 -1.42	0.27 -0.27	2.55 2.77	0.25 -0.29	1.98 3.47	4.23 13.27	1.57 2.59	5.31 -2.11	17.11 18.00
Urban Female	1983 to 1993-94 1993-94 to 1999-00	0.43 -1.71	0.03 -0.05	0.83 0.38	0.03 -0.03	0.31 0.28	0.53 2.26	0.04 0.17	2.63 0.35	4.83 1.65
Urban Total	1983 to 1993-94 1993-94 to 1999-00	1.39 -3.13	0.29 -0.32	3.38 3.14	0.28 -0.32	2.29 3.76	4.76 15.53	1.61 2.76	7.94 -1.77	21.94 19.66
Rural & Urban Male	1983 to 1993-94 1993-94 to 1999-00	17.12 2.82	0.62 -0.48	4.55 5.00	0.49 -0.57	4.40 8.34	7.46 18.54	2.95 6.29	8.67 -3.84	46.25 36.11
Rural & Urban Female	1983 to 1993-94 1993-94 to 1999-00	10.73 -1.90	0.17 -0.22	2.28 1.53	0.03 -0.03	0.60 0.65	0.98 2.12	0.05 0.17	3.60 0.92	18.44 3.23
Rural & Urban Total	1983 to 1993-94 1993-94 to 1999-00	27.85 0.92	0.79 -0.70	6.84 6.53	0.51 -0.59	5.00 8.99	8.44 20.66	3.00 6.46	12.27 -2.92	64.69 39.35

Source: Computed by using Tables 7 and 14.

In three sectors in West Bengal, namely trade (wholesale and retail), transport, storage, etc., and construction average yearly increase in employment for urban males during period 1993-94 to 1999-00 turned out to be higher than that for the period 1983 to 1993-94. This pattern is also noticed in all-India. However, an important point of difference between West Bengal and all-India needs to be mentioned here. While in West Bengal employment of urban male in the manufacturing sector declined by nearly 14 thousand per annum during 1993-94 to 1999-00, in all-India it registered higher growth rate during the period than in the previous period (1983 to 1993-94). During the period 1993-94 to 1999-00, the urban females in West Bengal suffered from employment setback in all sectors, except for trade (wholesale and retail). In sectors such as manufacturing, mining & quarrying, transport, storage, etc., and services, urban female employment declined during period 1993-94 to 1999-00 in West Bengal.

(iii) *Growth rates of employed/workers in different sectors:* Table 15 presents the growth rates of the employed in different sectors. Of course, the picture is the same as discussed above.

To summarize the discussion in this section, it may be noted that the important sectors generating employment in West Bengal have been agriculture & allied activities, manufacturing, trade and services. Employment structure in West Bengal differs from that of all-India in that a lower percentage of workers in West Bengal is involved in agriculture & allied activities and a higher percentage in manufacturing and tertiary sectors (trade, transport, storage, etc., and services). The overall structure of employment is also much more diversified in West Bengal than in all-India since a higher percentage of workers is engaged in non-farm sectors. Considering sectoral distribution of workers separately for rural areas, agriculture & allied activities is seen to be the most important sector and manufacturing, services, transport, storage, etc., are the next most

important sectors. Over the years, the share of agriculture & allied activities in total rural employed has declined and the sectors to gain in the process have been manufacturing, trade (wholesale and retail), transport, storage, etc. The participation in agriculture & allied activities was much higher in the case of males than in the case of females. The rural females in West Bengal participated to a larger extent in the manufacturing sector than the rural males. The incidence of rural non-farm employment is much higher in West Bengal in the case of females.

In urban areas of West Bengal, the three sectors, namely manufacturing, trade and services absorbed more than 75 per cent of all workers. The services sector is specifically important for the urban female workers in West Bengal since this sector alone absorbed nearly 52 per cent of them in the year 1999-00. The other sectors where urban female workers were absorbed were manufacturing and trade. For urban male workers apart from manufacturing, trade and services, sectors such as transport, storage, etc., and construction also attracted a significant proportion of them. However, over the years, the shares of urban male workers in manufacturing and services sectors declined and a greater proportion of urban male workers flocked to sectors such as trade, construction, transport, storage, etc.

There is clear evidence to conclude that the state of West Bengal suffered setbacks on the employment front particularly, since 1993-94.¹⁰ As against an average annual increase in the number of employed by 5.66 lakh during 1983 to 1993-94 in West Bengal, the number of employed during 1993-94 to 1999-00 increased by 2.05 lakh per year. This increase in employment since 1993-94, though meager, was possible mainly because of better performance in the sectors like trade (wholesale and retail) and transport, storage, etc. The most disturbing development since 1993-94 has been the failure of the manufacturing and services sectors to generate additional

Table 16. Annual Growth Rates of Usual Status (PS+SS) Workers in Different Sectors in West Bengal and all-India

Category	Period	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1)	(2)	Agriculture & allied / Primary	Mining & Quarrying	Manufacturing	Electricity, gas & Water	Construction	Secondary & Wholesale & retail trade	Transport, storage, etc.	Services	Tertiary	Secondary + Tertiary	All sectors	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
WEST BENGAL.													
Rural Male	1983 to 1993-94	1.50	-7.50	5.88	0.00	7.33	5.67	6.25	5.65	4.02	5.22	5.41	2.69
	1993-94 to 1999-00	1.25	13.16	-0.37	0.00	0.82	0.12	2.94	3.93	-6.78	-0.11	-0.01	0.82
	1983 to 1999-00	1.41	-0.46	3.56	0.00	4.91	3.62	5.04	5.02	-0.05	3.25	3.40	2.01
Rural Female	1983 to 1993-94	-0.81	1.52	7.53	0.00	23.76	7.88	1.17	0.00	3.55	3.09	6.55	1.53
	1993-94 to 1999-00	-2.19	-100.00	2.31	0.00	-21.26	1.51	-0.20	0.00	-0.04	-0.62	1.04	-0.80
	1983 to 1999-00	-1.32	-100.00	5.60	0.00	4.99	5.52	0.67	-	2.23	1.73	4.51	0.68
Rural Total	1983 to 1993-94	0.93	-6.07	6.58	0.00	8.66	6.50	5.69	5.92	3.92	4.92	5.70	2.40
	1993-94 to 1999-00	0.54	8.15	0.87	0.00	-1.32	0.69	2.69	3.47	-5.23	-0.17	0.28	0.44
	1983 to 1999-00	0.79	-1.13	4.46	0.00	4.92	4.35	4.59	5.02	0.50	3.04	3.69	1.69
Urban Male	1983 to 1993-94	5.26	16.22	0.62	8.16	6.24	1.96	2.59	1.61	2.67	2.45	2.24	2.35
	1993-94 to 1999-00	-3.08	-13.21	-0.83	4.86	5.07	-0.15	7.44	7.27	-0.83	4.04	2.40	2.19
	1983 to 1999-00	2.15	4.51	0.09	6.95	5.81	1.19	4.33	3.63	1.38	3.02	2.30	2.29
Urban Female	1983 to 1993-94	-0.02	6.04	4.52	0.00	11.32	4.75	3.96	8.16	3.36	3.53	3.95	3.53
	1993-94 to 1999-00	-20.77	-10.50	-2.34	0.00	2.68	-2.26	17.25	-5.10	-1.25	0.90	-0.18	-1.29
	1983 to 1999-00	-8.13	-0.30	1.97	0.00	8.10	2.14	8.61	3.14	1.66	2.56	2.43	1.75
Urban Total	1983 to 1993-94	3.29	14.91	1.23	7.86	6.45	2.34	2.65	1.80	2.88	2.64	2.52	2.56
	1993-94 to 1999-00	-6.91	-12.98	-1.10	4.86	4.95	-0.46	8.04	6.88	-0.96	3.48	1.96	1.59
	1983 to 1999-00	-0.54	3.86	0.37	6.76	5.90	1.31	4.58	3.62	1.47	2.95	2.32	2.21
Rural & Urban Male	1983 to 1993-94	1.58	5.54	2.86	6.94	6.80	3.57	4.34	3.31	3.25	3.68	3.64	2.60
	1993-94 to 1999-00	1.15	-5.31	-0.60	4.21	2.92	-0.02	5.19	5.74	-3.26	2.14	1.27	1.21
	1983 to 1999-00	1.43	1.46	1.59	5.94	5.38	2.25	4.65	4.19	0.83	3.12	2.77	2.09
Rural & Urban Female	1983 to 1993-94	-0.78	3.77	6.77	0.00	19.63	7.08	2.00	12.83	3.42	3.37	5.46	1.94
	1993-94 to 1999-00	-2.66	-18.74	1.36	0.00	-12.99	0.71	7.22	-11.86	-0.88	0.36	0.58	-0.91
	1983 to 1999-00	-1.47	-5.06	4.77	0.00	6.55	4.72	3.87	3.14	1.83	2.26	3.66	0.89
Rural + Urban Total	1983 to 1993-94	0.99	5.32	4.01	6.72	7.62	4.48	4.16	3.52	3.29	3.63	4.01	2.44
	1993-94 to 1999-00	0.36	-6.39	0.09	4.21	1.68	0.20	5.33	5.33	-2.59	1.86	1.11	0.76
	1983 to 1999-00	0.76	0.90	2.56	5.80	5.42	2.90	4.58	4.18	1.11	2.98	2.95	1.83

(Contd.)

Table 16. (Concl'd.)

Category	Period	Agriculture & allied / Primary	Mining & Quarrying	Manufacturing	Electricity, gas & Water	Construction	Secondary	Wholesale & retail trade	Transport, storage, etc.	Services	Tertiary	Secondary + Tertiary	All sectors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
ALL INDIA													
Rural Male	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.25 0.30 0.90	3.18 -1.63 1.40	1.68 1.63 1.66	5.68 -5.67 1.40	5.37 6.83 5.90	2.78 2.93 2.84	3.86 4.56 4.12	4.21 7.43 5.37	3.02 -1.36 1.40	3.50 2.47 3.12	3.18 2.67 3.00	1.71 0.94 1.43
Rural Female	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.22 -0.02 0.77	4.18 -4.55 0.92	2.24 1.52 1.97	- - -	3.82 3.54 3.72	2.48 1.49 2.12	2.34 -0.68 1.23	1.37 0.13 0.92	3.26 1.55 2.64	2.87 0.72 2.08	2.64 1.19 2.11	1.41 0.15 0.95
Rural Total	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.24 0.18 0.85	3.42 -2.30 1.30	1.88 1.59 1.77	5.68 -5.67 1.40	5.15 6.41 5.60	2.69 2.52 2.63	3.58 3.73 3.63	4.13 7.28 5.26	3.07 -0.70 1.68	3.39 2.17 2.94	3.05 2.34 2.79	1.60 0.66 1.26
Urban Male	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.83 -2.61 0.19	3.93 -3.54 1.15	1.86 1.74 1.82	4.00 -4.14 0.96	6.16 6.60 6.32	2.76 2.51 2.67	3.65 7.72 5.11	2.94 3.76 3.24	3.84 -1.28 1.95	3.61 3.37 3.52	3.30 3.06 3.21	3.15 2.61 2.96
Urban Female	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.08 -4.50 -0.98	3.29 -5.64 -0.05	2.29 0.89 1.78	7.36 -5.64 2.44	6.08 3.64 5.19	2.80 1.13 2.19	3.80 10.18 6.08	1.89 6.58 3.58	6.03 0.57 4.01	5.36 3.22 4.58	4.28 2.44 3.61	3.38 0.94 2.49
Urban Total	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.50 -3.38 -0.30	3.86 -3.76 1.02	1.95 1.56 1.81	4.18 -4.23 1.04	6.15 6.22 6.17	2.77 2.25 2.58	3.67 8.00 5.22	2.90 3.86 3.25	4.36 -0.78 2.46	3.90 3.34 3.69	3.47 2.95 3.28	3.20 2.27 2.86
Rural + Urban Male	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.27 0.19 0.88	3.47 -2.35 1.31	1.78 1.69 1.75	4.67 -4.77 1.13	5.70 6.73 6.07	2.77 2.72 2.75	3.74 6.44 4.71	3.42 5.29 4.10	3.47 -1.32 1.71	3.57 2.99 3.36	3.24 2.88 3.11	2.06 1.38 1.81
Rural + Urban Female	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.22 -0.20 0.70	4.00 -4.76 0.72	2.26 1.29 1.90	7.36 -5.64 2.44	4.72 3.58 4.31	2.6 1.36 2.15	2.95 4.79 3.62	1.72 4.74 2.81	4.90 0.94 3.44	4.22 2.20 3.48	3.38 1.79 2.79	1.66 0.26 1.15
Rural + Urban Total	1983 to 1993-94 1993-94 to 1999-00 1983 to 1999-00	1.25 0.04 0.81	3.57 -2.80 1.21	1.91 1.58 1.79	4.76 -4.80 1.18	5.56 6.33 5.84	2.73 2.39 2.61	3.63 6.22 4.56	3.37 5.28 4.06	3.8 -0.75 2.12	3.68 2.86 3.38	3.27 2.66 3.05	1.93 1.02 1.60

Source: Computed by using Tables 7 and 14.

employment in the state. To put the record straight, while manufacturing employment in the state increased by mere 5 thousand per year during 1993-94 to 1999-00, in the case of services sector, the number of workers actually declined by 88 thousand per year during the same period. Considering the rural and urban areas separately, it is seen that almost all major sectors in rural West Bengal were subjected to employment setback since 1993-94. The rural female workers suffered more than their male counterparts particularly in the sector of agriculture & allied activities. The suffering of the female workers continued in urban areas too. The urban females in West Bengal suffered employment setback in recent years in all the sectors except the sector of wholesale and retail trade.

V. RELATION BETWEEN SECTORAL GROWTH RATES OF OUTPUT/INCOME AND EMPLOYMENT

In this section, we seek to explore the relationship, if any, between sectoral growth rates of output/income and employment. For this purpose, we compare annual growth rates of output/income and employment for different sectors for the periods, 1983 to 1993-94, 1993-94 to 1999-00 and 1983 to 1999-00. For computation of annual growth rates of output/income, we utilize data released by the Central Statistical Organisation (CSO) on Net State Domestic Product (NSDP) at 1980-81 prices.¹¹ Since NSDP data are given for different sectors and on a yearly basis, it is possible to compute sector-wise growth rates of output by fitting a semi-log function.¹² As regards annual growth rate of employment, we utilize here the sector-wise growth rates of employed/workers under US-PS+SS definition. These two growth rates have been utilized further to compute employment elasticity for different sectors.¹³

We start by looking at sectoral composition of NSDP in West Bengal. Table 17 provides necessary information on this. In the year 1999-00, agriculture & allied activities contributed about 28 per cent of NSDP; services, 25.07 per cent;

manufacturing, 16.93 per cent; trade, etc., 14.04 per cent; construction, 8.51 per cent; and transport, etc., 6.84 per cent. Each of the sectors such as mining & quarrying and electricity, gas & water contributed less than 1 per cent of NSDP in West Bengal. This ordering remained more or less unchanged all through the period 1983 to 1999-00. However, during period 1993-94 to 1999-00, there has been some decline in the percentage share of agriculture & allied activities (from 32.72 per cent in 1993-94 to 28.03 per cent in 1999-00) in the total NSDP and concomitant rise in the shares of all tertiary sectors. There is also some evidence of increase, though only marginally, in the share of manufacturing sector in NSDP during the same period.

If we look at the sector-wise growth rates of NSDP (Table 17), it is clearly observed that in all sectors except agriculture & allied activities, construction and electricity, gas & water the growth rates have been higher during period 1993-94 to 1999-00 than during 1983 to 1993-94. The NSDP from agriculture & allied activities grew at the rate of 4.02 per cent per year during the period 1993-94 to 1999-00 in West Bengal. This is quite impressive though it is lower than the growth rate achieved during the period 1983 to 1993-94 (6.88 per cent). Another noteworthy point is that the annual growth rate of NSDP from manufacturing more than doubled during the period 1993-94 to 1999-00 in West Bengal compared to the previous period. The NSDP growth rates for sectors such as trade, etc., transport, etc., and services were also higher during 1993-94 to 1999-00 than the growth rates during the previous period. Considering all sectors together, NSDP grew at the rate of 6.74 per cent per year during period 1993-94 to 1999-00 that is higher than 5.78 per cent growth rate recorded during 1983 to 1993-94.¹⁴

Table 17 also provides information on the average annual earnings per worker for different sectors. It is observed that for all sectors in West

Table 17. Annual Growth Rates of NSDP, Workers and Per Worker Earnings in West Bengal

Item	Period / Year	Agri. and Allied / Primary	Mining and Quarrying	Manufacturing	Electricity, Gas and Water Supply	Construction	Secondary	Trade, Hotels and Restaurants	Transport, Storage and Communication	Services	Tertiary	All Sectors
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
NSDP at Constant Prices (Base: 1980-81) [in Rs Crore]	1983	2,928.94	79.51	2,093.20	65.46	763.63	3,001.93	1,136.60	418.17	2,482.88	4,041.59	9,979.84
	1993-1994	5,891.37	25.83	2,903.16	169.60	1,544.45	4,643.82	2,258.68	1,018.60	4,190.30	7,468.03	18,004.02
	1999-2000	7,463.14	16.94	4,509.29	254.63	2,266.99	7,003.22	3,739.47	1,821.19	6,676.27	12,228.84	26,628.84
NSDP at Constant Prices (Base: 1980-81) [Percentage]	1983	29.35	0.80	20.97	0.66	7.65	30.08	11.39	4.19	24.88	40.50	100.00
	1993-1994	32.72	0.14	16.13	0.94	8.58	25.79	12.55	5.66	23.27	41.48	100.00
	1999-2000	28.03	0.06	16.93	0.96	8.51	26.30	14.04	6.84	25.07	45.92	100.00
Annual growth rate of NSDP (%)	1983 to 1993-94	6.88	-10.16	3.16	9.49	6.94	4.24	6.76	8.85	5.11	6.02	5.78
	1993-94 to 1999-00	4.02	-6.79	7.62	7.01	6.61	7.09	8.77	10.17	8.07	8.57	6.74
	1983 to 1999-00	5.83	-8.95	4.76	8.58	6.82	5.27	7.48	9.33	6.18	6.94	6.13
Annual growth rate of Workers (US - PS+SS basis) (%)	1983 to 1993-94	0.99	5.32	4.01	6.72	7.62	4.48	4.16	3.52	3.29	3.63	2.44
	1993-94 to 1999-00	0.36	-6.39	0.09	4.21	1.68	0.20	5.33	5.33	-2.59	1.86	0.76
	1983 to 1999-00	0.76	0.90	2.56	5.80	5.42	2.90	4.58	4.18	1.11	2.98	1.83
Average Annual Earnings per Worker [in Rs] at 1980-81 Prices	1983	2,564.00	7,221.00	5,997.00	15,356.00	19,492.00	7,440.00	6,423.00	5,344.00	9,602.00	7,866.00	4,845.00
	1993-1994	4,648.00	1,361.00	5,507.00	20,100.00	18,230.00	7,264.00	8,324.00	9,052.00	11,534.00	9,995.00	6,784.00
	1999-2000	5,763.00	1,326.00	8,509.00	23,563.00	24,214.00	10,822.00	10,089.00	11,850.00	21,510.00	14,650.00	9,590.00
Annual growth rate of earnings per Worker (%)	1983 to 1993-94	5.83	-14.70	-0.81	2.60	-0.64	-0.23	2.50	5.15	1.76	2.31	3.26
	1993-94 to 1999-00	3.65	-0.43	7.52	2.69	4.84	6.87	3.26	4.59	10.95	6.58	5.94
	1983 to 1999-00	5.03	-9.76	2.14	2.63	1.32	2.30	2.77	4.95	5.01	3.84	4.22

Note: NSDP, Workers and Earnings per Worker for 1983, 1993-94 and 1999-00 are as on 1st July 1983, 1st January 1994 and 1st January 2000 respectively.
Source: Central Statistical Organisation for NSDP data

Bengal (except mining & quarrying), per worker earnings gradually increased over the years 1983 to 1999-00. It is further seen that the growth rates of earnings per worker during the period 1993-94 to 1999-00 had been greater than that during the previous period in all the sectors except agriculture & allied activities and transport, etc.

The above picture relating to the growth rates of NSDP as well as average earnings per worker do not really tally with the growth rates of workers for different sectors in West Bengal during our study period. While the growth rates of NSDP for most of the sectors during 1993-94 to 1999-00 were higher than that during the previous period, an opposite picture is obtained as regards sectoral growth rates of workers (US-PS+SS). Considering all sectors together, while the number of workers (US-PS+SS) grew at the rate of 0.76 per cent per year during period 1993-94 to 1999-00 as against 2.44 per cent per year during 1983 to 1993-94, the rates of growth of NSDP per year for the two periods have been 6.74 per cent and 5.78 per cent, respectively. Similarly, for sectors such as manufacturing, trade, etc., transport, etc., and services, the growth rates of sectoral NSDP during 1993-94 to 1999-00 were higher than during 1983 to 1993-94. However, the rates of growth of workers in these sectors were lower during period from 1993-94 to 1999-00 than that during the earlier period. With the rates of growth of NSDP increasing over time and the rates of growth of workers/employed decreasing, there has been fall in the values of elasticity of employment (with respect to output/income) in most sectors in West Bengal excepting mining &

quarrying and transport, storage & communication. Table 18 gives computed values of elasticity for different time periods in various sectors in West Bengal. It is observed that considering all sectors together, the value of employment elasticity declined sharply in West Bengal from 0.42 to 0.11 (computed using employment growth rates for US-PS+SS workers) between the two time periods 1983-84 to 1993-94 and 1993-94 to 1999-00.¹⁵ The sharp decline in the value of employment elasticity between the same time periods is also observed in all-India. The elasticity values for all-India for the two time periods are 0.41 and 0.15, respectively [Government of India, 2001, p. 3.4]. It, however, needs to be mentioned that the rate of decline in the value of employment elasticity was relatively higher in West Bengal than in all-India. As regards employment elasticity for different sectors in West Bengal, Table 18 shows that the two sectors where the elasticity values have either remained constant or registered increase during period 1993-94 to 1999-00 over the previous period, have been trade, etc., and transport, storage & communication. Comparison of elasticity values for different sectors particularly for the period 1993-94 to 1999-00 reveals that employment-enhancing potentiality of primary and secondary sectors has significantly fallen in the state of West Bengal as also in India. The fact that these sectors might enjoy higher growth rates of output/income does not necessarily ensure that they would also absorb higher quantities of labour. In any case, the growth scenarios observed in the decade of 1990s in West Bengal as also in the case of all-India have not been beneficial from the point of view of employment expansion.

Table 18. Elasticities of Employment in Different Sectors in West Bengal with respect to Sectoral SDP

Sectors (1)	Employment Elasticity		
	1983 to 1993-94 (2)	1993-94 to 1999-00 (3)	1983 to 1999-00 (4)
Agri. and allied / Primary	0.14	0.09	0.13
Mining and Quarrying	-0.52	0.94	-0.10
Manufacturing	1.27	0.01	0.54
Electricity, Gas and Water Supply	0.71	0.60	0.68
Construction	1.10	0.25	0.80
Secondary	1.06	0.03	0.55
Trade, Hotels and Restaurants	0.61	0.61	0.61
Transport, Storage and Communication	0.40	0.52	0.45
Services	0.64	-0.32	0.18
Tertiary	0.60	0.22	0.43
All Sectors	0.42	0.11	0.30

Source: Computed by using Tables 16 and 17.

VI. EMPLOYMENT AND UNEMPLOYMENT PROJECTIONS

In this section, we have made projections of magnitudes of employment and unemployment in the state of West Bengal up to the end of Tenth Five Year Plan. In our projections for number of employed/unemployed, we utilize the growth rates of employed/unemployed obtained for the period 1993-94 to 1999-00 on CDS basis. We assume that the growth rates in employed/unemployed that we observe during period 1993-94 to 1999-00 would continue during the entire Tenth Plan period as well. Accordingly, we provide two alternative estimates of employed/unemployed corresponding to two NSDP growth scenarios - growth rate of 6.74 per cent per annum that is observed during period 1993-94 to 1999-00 (we call it the 'base level'

growth rate) and 8.8 per cent at which the Planning Commission projects West Bengal NSDP to grow during the 10th Five-Year Plan period.¹⁶

Table 19 shows that at the base level NSDP growth, the number of employed in the state is projected to move up from its level of 226.65 lakh on 01.01.2000 to 233.25 lakh on 01.04.2007. With this change in the number of employed, the state may expect to have 80.45 lakh of unemployed on 01.04.2007. However, with achievement of higher (8.8 per cent) NSDP growth rate, the number of unemployed could be reduced, though marginally, to 80.17 lakh by 2007.¹⁷ It is also to be noted that of these unemployed, nearly 90 per cent are expected to be from rural areas while the rest from urban areas.

Table 19. Projected Numbers of Employed and Unemployed in West Bengal [CDS basis]

(in lakh)

Region	Number of Employed [in lakh]				Number of Unemployed			
	Estimated on		Projected on 1.4.2007		Estimated on		Projected on 1.4.2007	
	01.01.2000	01.04.2002	At 6.74 % base level NSDP gr. rate	At 8.8 % NSDP gr. rate	01.01.2000	01.04.2002	At 6.74 % base level NSDP gr. rate	At 8.8 % NSDP gr. rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Rural	153.52	153.02	151.04	-	31.22	36.08	72.20	-
Urban	73.13	74.86	82.21	-	8.63	8.56	8.25	-
All	226.65	227.88	233.25	233.54	39.85	44.64	80.45	80.17

Source: Computed by the author

VII. SUMMARY AND CONCLUSIONS

We can now summarize the main findings of this study:

- (1) West Bengal has been experiencing very sharp increase in the number of unemployed in recent years. During period 1993-94 to 1999-00 (broadly representing post-economic liberalisation period in India), the number of unemployed (CDS basis) increased from 24.56 lakh to 39.85 lakh. Currently, West Bengal ranks first in terms of concentration of unemployed people among 15 major states of India. In terms of growth rate of unemployed, West Bengal occupied the second position among them during period 1993-94 to 1999-00. Of the total unemployed in West Bengal, nearly three-fourths have been males while the rest is females.
- (2) Although the number of unemployed increased both in rural and urban areas of West Bengal during 1993-94 to 1999-00, the increase has been relatively more severe in rural areas than in the urban areas. The massive increase in number of unemployed that is experienced by West Bengal in recent times has its origin in the high growth of unemployed among rural males, rural females and urban males.
- (3) On the employment front, West Bengal presents a gloomy picture, particularly in the period since 1993-94. There has been considerable slackening in the growth of employment in the state since 1993-94. While the number of employed (CDS basis) in the state increased on average by 6.21 lakh per year between 1983 and 1993-94, the same increased by mere 0.90 lakh per year during 1993-94 to 1999-00. In the rural areas, the absolute number of employed declined during 1993-94 to 1999-00 as against the per year increase of 4.63 lakh during the preceding period (1983 to 1993-94). On the other hand, average yearly increases in the number of employed in urban areas have been 6.21 lakh and 0.90 lakh for pre- and post- 1993-94 periods, respectively. There is clear indication that West Bengal has been subjected to employment setback since 1993-94 particularly in rural areas.¹⁸ This observation is also confirmed by annual growth rates of employed computed for rural and urban areas for the two time periods.
- (4) The male-female division of employed in West Bengal reveals that nearly 85 per cent of the employed have been the males. The growth rates of employed females both in rural and urban areas of West Bengal in the post-1993-94 period have been negative and much lower than those in the pre-1993-94 period. There is clear evidence to conclude that the females in West Bengal have been in a disadvantageous position so far as their employment is concerned.
- (5) As per the NSS data, the extent of marginalisation of employment has been relatively low in West Bengal as compared to all-India. In the year 1999-00, the percentage of workers in subsidiary (marginal) employment has been 6.23 per cent in West Bengal.¹⁹ However, between rural and urban areas of West Bengal, the incidence of marginal workers has been relatively higher in the former than in the latter. Further, the extent of marginalisation has been higher among female workers than among male workers.
- (6) Our analysis on the status distribution of workers reveals that at present (in 1999-00), nearly one-half of all workers/employed in West Bengal have been self-employed. The percentage of self-employed workers has been higher in rural areas than in the urban areas. However, the percentage of self-employed workers has been increasing in recent years in urban areas while it is declining in rural areas. All areas put together, there seems to be a declining trend in the percentage of self-employed workers

in West Bengal in recent years. As between male and female workers, the percentage of self-employed workers has been higher for the latter. Further, in the case of male workers, there seems to be a declining trend in the percentage of self-employed in recent years. A reverse trend is, however, visible among female workers.

- (7) As regards regular employees in West Bengal, our study shows that their share in total employed has been gradually declining in the state. Such a decline is clearly visible in both rural and urban areas and also in the case of male and female employed. However, in recent years, the rate of decline in the number of regular employee in West Bengal has been relatively higher in rural areas and also among the female workers.
- (8) The fall in the percentages of self-employed and regular employee among the workers has been associated with rise in the percentage of casual workers in West Bengal. About one-third of all workers in the state are found to have been in casual employment in 1999-00. There has been a clear tendency of increasing casualisation of employment in recent years in the state. Further, the degree of casualisation of employment has been relatively more pronounced in rural areas and also among male workers.
- (9) In West Bengal, agriculture & allied activities, manufacturing, trade (wholesale and retail) and services have been the important employment generating sectors. In recent years, the decline in the rate of employment creation has been specifically noticeable in sectors such as agriculture & allied activities and manufacturing. When we consider rural and urban areas separately, it clearly appears that almost all major sectors in the rural sector suffered employment setback since 1993-94. In this process, the rural females have suffered more than their male counterparts. In urban areas, the three sectors, namely manufacturing, trade and services together absorbed more than 75 per cent of workers. However, over the years, there have been declines in the shares of manufacturing and services sectors in total urban employed in West Bengal. In recent years, the sectors that gained in terms of percentage share of urban employed are trade (wholesale and retail), construction and transport, storage, etc. The rise in the participation rates of urban males in these sectors is particularly noticeable. On the other hand, the urban females in West Bengal are found to have suffered employment setback in almost all sectors recently, except for trade (wholesale and retail). This is confirmed by the negative growth rates that the urban female workers experienced during post- 1993-94 period in most of the sectors.
- (10) The sectoral distribution of NSDP in West Bengal shows that agriculture & allied activities continues to enjoy the status of most significant contributor to the state's NSDP (contributing nearly 28 per cent of NSDP in 1999-00). This is followed by sectors such as services, manufacturing, trade, etc., construction and transport, etc., arranged in order of importance. In recent years, there seems to be a tendency of percentage share of agriculture & allied activities to total NSDP to decline and that of tertiary and manufacturing sectors to increase. It is indeed heartening to note that annual growth rate of NSDP from manufacturing more than doubled in the post-1993-94 period as compared to pre- 1993-94 period in West Bengal. The other sectors to enjoy higher sectoral growth rates of NSDP in the post- 1993-94 period have been trade, etc., transport, etc., and services. All sectors put together, the growth rate of NSDP in West Bengal turns out to be 6.74 per cent per year during 1993-94 to 1999-00 that is higher than 5.78 per cent growth rate recorded over the period 1983 to 1993-94.

(11) Although West Bengal achieved higher and impressive growth rate of NSDP during post-1993-94 period, this has not been accompanied by any substantial expansion in employment. To put the record straight, although the growth rate of NSDP in the state during post-1993-94 period was higher than the same during pre-1993-94 period, the rate of growth of employment was substantially lower during post-1993-94 period. Consequently, there has been significant fall in the value of employment elasticity during post-1993-94 period in West Bengal. From the computed employment elasticity for different sectors, it appears that for all sectors, except trade and transport, storage & communication, the value of employment elasticity declined substantially in the period since 1993-94. This means that the employment enhancing capacity of primary and secondary sectors has significantly fallen in the state particularly during post-1993-94 years. The higher rate of economic growth (as indicated by higher growth of NSDP) enjoyed by West Bengal in recent years has not been beneficial from the point of view of employment expansion. In any case, the situation currently obtaining in West Bengal is more akin to the syndrome of 'jobless growth'.

(12) The employment/unemployment projections for West Bengal give a signal of 'unemployment-explosion' at the end of 10th Five Year Plan if the current growth patterns of employed/unemployed continue. Given the current rate of economic growth, our projections (based on growth rates of employed/unemployed on CDS basis observed during 1993-94 to 1999-00) show that the state might suffer from 80.45 lakh of unemployed persons by 01.04.2007. Attainment of higher economic growth (say, 8.8 per cent growth rate of NSDP as projected by the Planning Commission) could reduce the number of unemployed only

marginally to the level of 80.17 lakh, the bulk of which are likely to be concentrated in rural areas.

Policy Suggestions

In the light of the above findings, the following policy suggestions may be made.

(1) It is high time that vigorous efforts are made to attain higher growth of employment in the state so as to avoid the situation of 'unemployment-explosion' in the near future. In terms of our study, it is abundantly clear that such a goal would not materialize through traditional means of promoting the sectors such as agriculture and manufacturing. For both of these sectors, the employment elasticity has come down to a very low value signifying their declining potentiality to generate additional employment in the future. It is necessary that some structural changes be initiated within these sectors keeping in view the objective of creating more employment possibilities. As for agriculture, it seems important to design more diversified and yet labour-absorptive and remunerative crop-combinations. As regards manufacturing sector, in particular its organized segment, perhaps no one can deny their becoming less and less labour-intensive in the years to come under the compulsion of economic liberalization and globalisation. Under the emerging scenarios, therefore, one strategy could be to encourage establishment of a wide spectrum of new manufacturing units (both in rural and urban areas) so that total employment in this sector increases, although employment per establishment may not be very high or may be even declining. It is also important that the roles of private sector industries are recognized in right perspective and conducive atmosphere is created for their growth. The government must continue, with added vigour, its current policy of wooing the

private investors (both domestic and foreign) to establish new enterprises in the state. In the urban areas. The sectors such as trade (wholesale and retail), hotels & restaurants, transport, storage & communication and construction need to be promoted further because of their relatively higher employment-enhancing capabilities.

- (2) Since the bulk of the future unemployed is very likely to be from rural areas, it would be necessary to put additional effort towards more employment generation within rural areas. As we have mentioned above, some of this might be achieved through more diversification of the crop-economy. However, from the perspective of additional employment generation (also reducing poverty) within rural areas, the potentiality of rural non-farm sector (which includes rural industries) needs to be explored fully. The recent thrust of the government to bolster agro-processing sector as well as allied activities (e.g., fishery, poultry, dairying, horticulture and so on) is a welcome step in this direction. The potentiality of sectors such as trade (both wholesale and retail), transport, storage, etc., within rural areas also needs to be appreciated while designing promotional policies for different sectors. It is, however, a pity that the rural industrial sector (in particular, the so-called 'own-account-manufacturing-units', which incidentally represented 94.19 per cent of unorganised manufacturing units in rural areas in 2000-01²⁰) is in complete doldrums in West Bengal primarily due to lack of appropriate public support and promotional policies.²¹ Since a good proportion of rural workers depend on them for their livelihood in West Bengal, steps should be taken to rejuvenate them with appropriate public support programmes. The growth of rural non-farm sector is also recommended from the perspective of reducing gender discrimination relating to rural employment. As the rural female workers in West Bengal have revealed a greater inclination to participate in various kinds of non-farm activities, further growth and strengthening of this sector would go a long way in improving the plight of prospective female workers in the state.
- (3) It needs to be admitted that in the coming years, in comparison to demand, the scope of regular employment (in private as well as government establishments) would be too meagre. It would also be difficult to contain the pace of casualisation of workers that is already in motion in the state, along with many other states of India. It is, therefore, imperative on the part of both labour unions as well as government to be vigilant about the interest of casual workers (most of whom are presumably non-unionized) without hampering the production process. The state government could also perhaps initiate setting its own (state-specific) labour reforms policies so as to protect the combined interests of both the working class as well as producers/entrepreneurs under the changing circumstances.²² This might be beneficial to remove possible apprehensions of the prospective private investors/producers about destructive trade unionism and also to strengthen the morale of the working class.
- (4) It also goes without saying that, following current policies both at the levels of central and state governments, a great deal of increased employment in the future would have to be through the self-employment activities. However, contrary to expectations, the incidence of employment from self-employed activities has shown a declining trend in West Bengal in recent years. This calls for vigorous efforts on the part of the government to reverse this trend. In rural areas. Agriculture has been one principal component of self-employment activities. However, with the scope of pure

agricultural employment shrinking gradually, more so in the case of female workers, self-employment through various non-agricultural activities needs to be encouraged. To this end, necessary education as well as training, to be followed by government support (e.g., credit) to set up independent enterprises, would be essential. Ultimately, the mindset of the bengalee youth would have to be changed so as to motivate them towards self-employed activities. The necessary campaign might start right at the time of imparting education to them and the educational system should also have in-built motivating elements to take up self-employed activities.

NOTES

1. A Committee of Experts on Unemployment estimates evolved the conceptual framework followed by the NSS in its quinquennial surveys on employment and unemployment. The committee, chaired by Prof. M L Dantawala, was appointed by the Planning Commission, submitted its report in March 1970.

2. It may be noted that the NSS definition of US-PS and US-SS workers broadly correspond, respectively to the Census definitions of main and marginal workers. In Census, the main worker refers to a person whose main activity was participation in any economically productive work and who has worked for 183 days or more during past one year. The marginal worker is defined as a person whose main activity was participation in any economically productive work for less than 183 days.

3. According to the 'priority criterion' of CWS concept, the status of 'working' gets priority over 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'. Then a person is designated as employed or working if he/she while pursuing any economic activity, had worked for at least one hour on at least one day during the seven days preceding the date of survey. A person is considered unemployed if he/she had not worked for even one hour on any one day of the week but had been 'seeking' or had been 'available for work' for at least one hour during the reference week.

4. In between two quinquennial surveys, the NSS has been conducting surveys on certain selected aspects of employment / unemployment using small/thin samples. The data based on thin samples are available since the 45th Round (1989-90) and such data are released till 54th Round (January-June, 1998) so far. The past researchers using information based on thin samples observed that although they are more or less

acceptable for understanding developments on the employment / unemployment front at the all-India level, they could not be relied upon for arriving at generalized conclusion at the state level owing to very small sample size.

5. We have not utilized the data for the year 1987-88, this being an abnormal (drought) year.

6. In another way, the former period may be supposed to represent pre-economic reforms period in India while the latter representing post-economic reforms period.

7. Our formula for calculation of growth rate has been as follows:

$$X_t = X_0 [1+r]^n$$

$$\Rightarrow r = [X_t/X_0]^{1/n} - 1$$

where X_t and X_0 are number of unemployed in terminal and base years, respectively, 'r' is the rate of growth and 'n' is the length between two points of time. Using this formula, 'r' when multiplied by 100 provides growth rate in percentage terms.

8. Whether or not this has been due to some youth preferring higher education to availing employment could not be answered using aggregative and inadequate data available from the NSSO reports.

9. While examining the growth of employment, one may be interested to compare this with the growth rate of labour force. Since we have separately discussed the growth rates of both employed and unemployed, we have not included any further discussion on the growth rate of labour force in the main body of the paper. However, in Appendix Table 2 we provide the computed growth rates of labour force (CDS basis) both in West Bengal and all-India for our study periods, which may be compared with growth rates of employed (Table 9 above). It clearly emerges that the growth rate of labour force has been lower than the growth rate of employed both in West Bengal as well as all-India during the period 1983 to 1993-94 thereby signifying higher growth of employment as compared to unemployment (and hence labour force) during this period. This situation is reversed completely during the period 1993-94 to 1999-00 when the growth rate of employed has fallen short of the growth rate of labour force both in West Bengal and all-India. This is indicative of unemployment growing at a faster rate than employment during this period.

10. Burange [2001] observed that contrary to rather impressive growth of employment in organised manufacturing sector at the all-India level (4.15 per cent per annum) during 1991-92 to 1997-98, in West Bengal organised manufacturing employment grew only at the rate of 2.46 per cent per annum during the same period. This clearly contributed to the overall dismal performance by West Bengal on the employment front in the decade of 1990s.

11. The CSO actually provides NSDP data up to year 1997-98 at 1980-81 prices and for the period 1993-94 to 1999-00 at 1993-94 prices. We have combined these data after necessary adjustments so as to arrive at the NSDP series for the period 1983-84 to 1999-00 at 1980-81 prices.

12. The estimating equation has been $\ln(Y_t) = a + bt$. Having estimated this equation, the annual growth rate (per cent) is obtained as estimate of b multiplied by 100.

13. Employment elasticity = annual growth rate of employment / annual growth rate of output/income.

14. Elsewhere, we found that West Bengal ranked third, among fifteen major states of India, in terms of growth rate of NSDP during the post-reforms period (1993-94 to 1999-00). See Bhaumik [2002].

15. It is also to be noted that the value of employment elasticity for West Bengal for the period 1993-94 to 1999-00 would go down further if we utilize employment growth rates on CDS basis [see Appendix Table 4].

16. This Planning Commission projection had been reported to the press on 17 January 2002. See Business Standard, January 18, 2002.

17. The number of unemployed is reduced marginally with higher NSDP growth rate because of very low elasticity of employment prevailing in the state during period 1993-94 to 1999-00.

18. The employment setback in rural areas for post-1993-94 period has been more or less an all-India phenomenon as reported by Chadha [2001] and Chadha and Sahu [2002].

19. The NSS estimate of the percentage of subsidiary status workers to total workers in the year 1999-00 varies sharply from Census 2001 information on the percentage of marginal workers to total workers in West Bengal. As per Census 2001, the percentage of marginal workers in the state is 21.83 per cent that is slightly lower than 22.02 per cent for All India. This wide gap in the two alternative estimates of subsidiary/marginal workers, within a span of one year or so, needs to be carefully analyzed.

20. It is also found from NSSO [2002] that the own-account manufacturing units alone engaged 85.86 per cent of all workers in rural unorganized manufacturing in West Bengal in the year 2000-01.

21. In a recent study, Chadha [2001] reports, inter alia, the miseries of rural industries in West Bengal in the absence of adequate promotional support from the government. In particular, the rural industries in West Bengal lacked, in comparison to other states studied, in terms of necessary education, training and skill development of workers, technological

upgradation of producing units, infrastructure facilities (including roads, institutional credit, and assured electricity supply), input supply to the small and tiny units, development of appropriate marketing channels, and so on.

22. Such labour reforms policies may be different both in spirit and content from the labour reforms being pondered by the central government and yet may set compromising rules to protect the combined interests of producing and working classes.

REFERENCES

- Bhaumik, S.K., 2002; 'Unemployment in India in the Post-Liberalisation Era', paper presented at the *UGC-Sponsored Seminar on Indian Economy in the Post-Liberalisation Era*, held at the Rabindra Bharati University, Kolkata, March 21-22.
- Burange, L.G., 2001; 'Liberalisation and Employment in the Organised Manufacturing Sector of India: An Inter-Regional Analysis', *Journal of the Indian School of Political Economy*, Vol. 13, Nos. 2 and 3.
- Chadha, G.K., 2001; *Rural Industry in India and China: Exchanging Technological and Institutional Lessons* (mimeo), Report submitted to SSE-NIWL, Sweden.
- Chadha, G.K., 2001; 'Impact of Economic Reforms on Rural Employment: No Smooth Sailing Anticipated', *Indian Journal of Agricultural Economics*, Vol. 56, No. 3, July-September.
- Chadha, G.K. and P.P. Sahu, 2002; 'Post-Reform Setbacks in Rural Employment: Issues That Need Further Scrutiny', *Economic and Political Weekly*, Vol. 37, No. 21, May 25.
- Datt, Ruddar, 2001; 'Employment Issues - Inter-State Dimensions', in P.R. Brahmananda and V.R. Panchamukhi (Eds.), *Development Experiences in the Indian Economy: Interstate Perspectives*, Bookwell, Delhi, 2001.
- Government of India, 2001; *Report of Task Force on Employment Opportunities* (Chairman: M.S. Ahluwalia), Planning Commission, New Delhi. [Available at www.planningcommission.nic.in]
- Government of India, 2002; *Special Group on Targeting Ten Million Employment Opportunities Per Year: Employment Generating Growth*, (Chairman: S.P. Gupta), Planning Commission, New Delhi. [Available at www.planningcommission.nic.in]
- NSSO, 2002; *Unorganised Manufacturing Sector in India 2000-01*, Report Nos. 478-480, New Delhi.
- Sundaram, K., 2001; 'Employment - Unemployment Situation in the Nineties: Some Results From NSS 55th Round Survey', *Economic and Political Weekly*, Vol. 36, No. 11, March 17.

Appendix Table 1. Age Group-wise Distribution of Employed (US - PS+SS basis) in West Bengal and all-India [Percentage]

Region	Age Group (in years)	Year	West Bengal			All India		
			Male (4)	Female (5)	Person (6)	Male (7)	Female (8)	Person (9)
Rural	5-14 (Child)	1983	5.83	7.57	6.28	6.97	9.58	7.94
		1993-94	3.08	4.96	3.53	3.26	5.14	3.93
		1999-00	2.04	8.23	3.41	2.35	4.06	2.94
	15-29 (Youth)	1983	40.82	40.74	40.80	36.82	37.31	37.00
		1993-94	37.69	41.40	38.58	36.16	36.28	36.20
		1999-00	37.00	47.38	39.30	35.02	34.53	34.85
	30-59 (Non-youth)	1983	46.84	47.87	47.11	48.08	48.55	48.25
		1993-94	52.99	50.78	52.46	52.10	53.53	52.61
		1999-00	55.61	42.75	52.76	54.21	56.16	54.89
	15-59 (Youth+ Non-youth)	1983	87.66	88.61	87.91	84.90	85.86	85.25
		1993-94	90.68	92.18	91.04	88.26	89.81	88.81
		1999-00	92.61	90.13	92.06	89.23	90.69	89.74
	60 & above (Old-age)	1983	6.52	3.82	5.81	8.13	4.55	6.80
		1993-94	6.24	2.85	5.43	8.47	5.05	7.25
		1999-00	5.35	1.64	4.53	8.42	5.25	7.32
Urban	5-14 (Child)	1983	1.72	9.97	3.18	2.94	6.17	3.60
		1993-94	1.00	7.21	2.14	1.56	3.67	2.01
		1999-00	0.80	7.51	1.84	1.16	3.11	1.54
	15-29 (Youth)	1983	37.07	37.68	37.18	38.32	35.98	37.84
		1993-94	28.49	32.05	29.14	34.61	32.60	34.19
		1999-00	27.34	29.55	27.68	33.34	30.73	32.83
	30-59 (Non-youth)	1983	55.84	46.89	54.26	53.64	52.08	53.31
		1993-94	66.49	57.04	64.75	59.14	58.98	59.11
		1999-00	66.78	60.92	65.87	61.01	61.43	61.09
	15-59 (Youth+ Non-youth)	1983	92.91	84.57	91.44	91.96	88.06	91.15
		1993-94	94.98	89.09	93.89	93.75	91.58	93.30
		1999-00	94.12	90.47	93.55	94.35	92.16	93.92
	60 & above (Old-age)	1983	5.37	5.46	5.38	5.11	5.76	5.25
		1993-94	4.02	3.70	3.96	4.68	4.75	4.70
		1999-00	5.09	2.02	4.61	4.50	4.73	4.54
Rural+Urban	5-14 (Child)	1983	4.70	8.02	5.50	6.03	9.18	7.10
		1993-94	2.50	5.46	3.16	2.82	4.94	3.51
		1999-00	1.67	8.08	2.97	2.02	3.92	2.61
	15-29 (Youth)	1983	39.79	40.17	39.88	37.17	37.15	37.16
		1993-94	35.10	39.34	36.05	35.77	35.76	35.76
		1999-00	34.12	43.56	36.03	34.56	33.97	34.37
	30-59 (Non-youth)	1983	49.31	47.69	48.92	49.37	48.97	49.24
		1993-94	56.79	52.16	55.75	53.90	54.30	54.04
		1999-00	58.95	46.64	56.45	56.08	56.94	56.35
	15-59 (Youth+ Non-youth)	1983	89.10	87.86	88.80	86.54	86.12	86.40
		1993-94	91.89	91.50	91.80	89.67	90.06	89.80
		1999-00	93.07	90.20	92.48	90.64	90.91	90.72
	60 & above (Old-age)	1983	6.20	4.12	5.70	7.43	4.70	6.50
		1993-94	5.61	3.04	5.04	7.50	5.01	6.69
		1999-00	5.27	1.72	4.55	7.34	5.18	6.67

Source: Computed on the basis of data available from the following NSSO reports: (1) Report on the Third Quinquennial Survey on Employment and Unemployment, Report Nos. 341 and 341/11; (2) Employment and Unemployment in India, 1993-94, Fifth Quinquennial Survey, NSS 50th Round, Report No. 409; and (3) Employment and Unemployment Situation in India, NSS 55th Round, Report No. 458 (Part I).

Appendix Table 2. Annual Growth Rates of Labour Force (CDS basis) in West Bengal and all-India

Period (1)	Rural			Urban			Rural + Urban		
	Male (2)	Female (3)	Person (4)	Male (5)	Female (6)	Person (7)	Male (8)	Female (9)	Person (10)
West Bengal									
1983 to 1993-94	2.86	2.82	2.86	2.32	4.55	2.67	2.70	3.35	2.80
1993-94 to 1999-00	0.96	2.70	1.24	2.27	-1.89	1.60	1.36	1.32	1.35
1983 to 1999-00	2.17	2.78	2.27	2.30	2.16	2.28	2.21	2.61	2.27
All India									
1983 to 1993-94	2.08	2.38	2.16	3.19	4.10	3.35	2.36	2.65	2.43
1993-94 to 1999-00	1.02	0.81	0.96	2.58	1.59	2.40	1.45	0.94	1.31
1983 to 1999-00	1.69	1.81	1.72	2.97	3.18	3.00	2.03	2.02	2.03

Source: As in Appendix Table 1.

Appendix Table 3. Percentage of Non-farm Employment to Total Employment in West Bengal and all-India

Category (1)	West Bengal			All India		
	1983 (2)	1993-94 (3)	1999-00 (4)	1983 (5)	1993-94 (6)	1999-00 (7)
Rural Male	26.80	35.24	33.53	22.27	25.90	28.67
Rural Female	24.80	41.16	45.95	12.24	13.89	14.77
Rural Person	26.28	36.65	36.28	18.60	21.60	23.84
Urban Male	96.72	95.60	96.80	89.68	90.99	93.41
Urban Female	87.60	91.40	97.70	68.75	75.32	82.30
Urban Person	95.20	94.83	96.94	85.36	87.69	91.25
All Male	47.00	52.25	52.42	37.69	42.56	46.48
All Female	36.55	52.23	57.09	18.92	22.56	24.69
All Person	44.53	52.24	53.36	31.41	36.04	39.70

Source: As In Table 1.

Appendix Table 4. Employment Elasticity in West Bengal Under Alternative Concepts of Employed

Concept of Employed used (1)	Employment Elasticity during		
	1983 to 1993-94 (2)	1993-94 to 1999-00 (3)	1983 to 1999-00 (4)
US-PS+SS	0.42	0.11	0.30
CWS	0.57	0.12	0.39
CDS	0.58	0.06	0.37

Source: Computed by the author.