

CDE
October 2004

***Growth of Work Opportunities
In India: 1983 – 1999-2000***

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Working Paper No. 131

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Abstract

Against the backdrop of concerns about the slow down in the growth of total work force in the 1990s (relative to the 1980s) and of “jobless growth”, this paper offers a more nuanced assessment of the growth of different types of employment opportunities. This is done through an explicit focus on employment quality -- by reference to location of workers in non-poor households -- rather than simply focusing on the change in the number of workers. Also, based on a fresh assessment of the DGE and T estimates and NSS-Survey based estimates of organised sector employment, **the 1990s are shown to be a period of accelerated growth in the number of regular wage/salaried workers rather than of stagnation or decline in the growth of jobs.**

Keywords: Work Opportunities, Jobless Growth, Employment Quality, Employment Structure.

JEL Classification: J21, J23

Acknowledgements

A paper presented at a Conference in Honour of Prof. K.N. Raj on **Planning, Institutions, Markets and Development**, October 2 and 3, 2004, Thrissur, Kerala.

I. Introduction

The standard story of the growth of employment opportunities in India in the period since the Economic Reforms of the early Nineteen Nineties and the contrast with the “pre-reform” period is simply told. It revolves around two sets of numbers.

First, a simple comparison of the estimates of the number of workers on the Usual (principal plus subsidiary) Status for 1983, 1993-94 and 1999-2000 based on the NSS 38th, 50th and the 55th Rounds of Employment-Unemployment Surveys (line 1, Table 1) brings out the sharp decline in the average annual increments to the total work force from 6.82 million between 1983-1994 to just 3.83 million between 1994 and 2000.

The second set of numbers relate to the estimates of employment in public and private sectors released by the Directorate-General of Employment and Training (DGE and T for short). The DGE and T estimates of employment in the total organised sector as on 31st March of 1984, 1994 and 2002 (the latest year for which these estimates are available), respectively, 24.22 million, 27.38 million and 27.21 million, reveal an annual average increment of 0.3 million between 1984 and 1994 and an average annual decrease of 0.02 million over the period 1994-2002.

From the above, it is only a short step (of faith/imagination/or plain before-after reasoning) to link the slow-down in the growth of total work force and the negative growth in organised sector employment (as per DGE and T estimates) which forms the basis of the so-called “jobless growth” to the reforms of the 1990s or, if one is more adventurous, to the forces of globalisation.

Through an explicit focus on employment quality rather than simply focusing on change in number of workers, this paper offers a more nuanced assessment of the growth of different types of employment opportunities while a fresh assessment of the DGE and T and the NSS Survey-based estimates of organised sector employment leads to a sharply different result on the issue of jobless growth.

On the basis of fresh tabulations of the 55th Round Employment-Unemployment Survey data, the NSS-based estimates of organised sector employment are shown to have fuller coverage – especially in respect of the burgeoning private organised services sector – and hence are higher than the DGE and T estimates that underpin the

standard assessments about jobless growth. These results also show that the usual status workers in the activity-status category 'regular wage/salary earners' (or RWS-workers for short) account for 88 percent of organised sector employment. As this category also covers the workers receiving a regular wage/salary in the unorganised sector, tracking the growth of jobs by reference to the growth in the number of RWS-workers from NSS is clearly a better option than an exclusive reliance on the DGE and T estimates with its problems of non-response and the resulting incomplete and variable coverage. And, as we will show presently, the estimates of the number of RWS-workers for 1983, 1993-94 and 1999-2000 radically alters the assessment about the relative pace of growth of such "jobs" as between the 1980s and the 1990s with the latter emerging as a period of acceleration rather than of decline. And, this conclusion holds even when we consider the subset of RWS-workers in 'above-poverty-line' or APL-households as a proxy for the growth in good quality jobs in the economy.

Apart from the RWS-workers, two other partially overlapping categories of workers – the women and the self-employed – are distinguished as they account for almost the entire decline in the average annual increments to the total work force in the 1990s relative to the 1980s.

The decline in the female work force participation ratio (WFPRs) between 1993-94 and 1999-2000 underlying the sharp slow down in the average annual increments to women workers in the 1990s is substantially explained, especially in rural India, by shifts in the age-structure of the female population and the shift out of work force and a beneficial rise in participation in schooling of girls in the 5-9, 10-14 and the 15-19 age-groups. In the context of urban India, against the back drop of a poverty-driven higher female WFPR in poor relative to non-poor households – WFPRs that are higher despite higher child-dependency and child-woman ratios in the former set of households - the reduction in the proportion of women in poor households emerges as an additional factor lowering the female WFPR in 1999-2000 relative to 1993-94. It can hardly be anybody's case that age-structure shifts, or increases in schooling rates or a reduction in the proportion of women in poor households are adverse consequences of either the reforms process or of the forces of globalisation.

In respect of the self-employed, it is argued that, since self-employment often becomes the vehicle of residual rather than productive absorption of labour, it is essential that judgements about expansion of work opportunities in self-employment need to go beyond increases in the number of self-employed workers and incorporate assessments about the quality of self-employment. After examining other options for assessing the quality of self-employment, the location of such workers in non-poor households is interpreted as signalling an acceptable quality of employment – in terms of the returns from self-employment being adequate to enable the household to enjoy a living standard captured in an ‘above-poverty-line’ (APL for short) level of per capita total consumer expenditure (PCTE for short). It is shown that, cast in terms of increments to the number of workers in APL households, the slow-down in the average annual increments to total work force and for the self-employed among them is much less pronounced and, in the case of urban India, even reversed.

In respect of the other major category of workers, namely, the casual labourers, while an adjustment of the number of such workers for the number of days worked in a year is shown to widen the gap between the 1980s and the 1990s in terms of the average annual increments (with the increments being smaller in the 1990s) a shift of focus from quantity to quality – again with the number of casual labourers in APL household as the yardstick – is shown decisively to shift the balance in favour of the 1990s.

In the light of the reasoning set out above, the rest of the paper is organised as follows:

Based on estimates of work force on the Usual (principal plus subsidiary) Status classified by gender and rural-urban location sub-classified by broad activity-status categories for 1983, 1993-94 and 1999-2000, an overview of the growth of work opportunities in India in the 1980s and the 1990s is presented in Section II. While section III analyses the decline in female workforce participation rates between 1993-94 and 1999-2000, section IV offers an assessment of the changes in self-employment opportunities over the two periods. The situation in respect of the casual labourers is examined in section V and the issue of “Jobless growth” is addressed in section VI. The main findings of the paper are set out in the concluding section (section VII).

II. Growth of Work Opportunities in India: An Overview

Let us begin by setting out the broad contours of the growth of work force in India over the period 1983 – 1999-2000. Tables 1 through 5 present the estimates of work force on the Usual (principal plus subsidiary) Status for the mid-points of the 38th (1983), the 50th (1993-94) and the 55th Rounds of the NSS Employment-Unemployment Surveys, respectively, for the total (rural plus urban); the rural (males plus females); the urban (males plus females), the male, and, the female workers at the all-India level. The ten-and-a-half year period separating the 38th and the 50th Round Surveys is taken to represent the 1980s (broadly taken to represent in pre-Reforms period) while the six year period separating the 50th and the 55th Round surveys is taken to represent the Nineteen Nineties – loosely called the period of reforms, globalisation etc. In view of the unequal length of the two periods, for valid comparisons, the increments have been presented in terms of average annual increments. For each of the five population segments these estimates have been presented not only for the total work force but also for the three broad activity – status categories: the self-employed; the regular wage/salary earners (RWS-workers, for short); and casual (wage) labourers.

The comparative picture of average annual increments for total work force in the two periods (compare line 1, columns (4) and (7) in each of the Tables 1 through 5) that emerges is a striking decline in all segments of workers between the 1980s and the 1990s. Expressed as ratio of the average annual increments between 1983 and 1994, the average annual increments to total work force over the period 1994-2000 ranges from just 12 percent (for female workers in rural and urban areas taken together) to 90 percent for total (males plus females) work force in urban India.

This slow down (in average annual increments to work force) in the 1994-2000 period relative to the 1983 – 1994 period is even sharper when we consider the self-employed workers as a group. Thus, for women self-employed workers, we have an average annual **reduction** of a quarter-of-a-million between 1994 and 2000 in contrast to an increase of close to three-quarter-of-a-million between 1983 and 1994 Table 5). For rural areas as a whole too, we have a reduction (of three-quarters of a million) between 1994 and 2000 compared to an average annual increase of close to 2 million

between 1983 and 1994 (Table 2). For male workers too the contrast is quite sharp: under 0.8 million per annum between 1994 and 2000 compared to a little over 2.2 million between 1983 and 1994 (Table 4). It is only in urban areas (taking males and females together) that the contrast is less grim: 0.8 million (1994-2000) compared to 0.95 million between 1983 and 1994 (Table 3).

In respect of growth in the number of regular wage/salary earners or RWS-workers for short, which we shall presently argue to be a better indicator of the growth in jobs than the DGE and T estimates, however, **the period of the nineteen nineties performs better than the 1980s**. In all the five population categories identified here, the average annual increment has been higher in the 1990s by over 35 percent for total (rural plus urban) workers, for the total (males and females) rural population, for males as well as female workers (Tables 4 and 5). The difference is particularly large **in rural India**, where, even after excluding those “working under obligation” from the set of RWS-workers in 1983, **the average annual increments in the 1990s is over 2½ times the figure for the 1980s**. In urban India, however, the increments per annum between 1994 and 2000 is only about 4 percent higher than that realised between 1983 and 1994.

In respect of casual labourers, the figures taken as they are, reveal average annual increments in the 1990s to be lower (relative to the annual average increments in the 1980s) by close to 78 percent for women workers, and, for that reason, by close to 33 percent in rural areas and 31 percent in the country as a whole. For male workers (rural plus urban) the increment in the 1990s is lower by about 10 percent and by 21 percent in urban India.

It is clear from the above that two (partially overlapping) categories of workers, namely, the female workers as a group and the self-employed workers – both males and females – are the major contributors to the sharp slow-down in the average annual increments to the total work force in the 1990s relative to the 1980s. We will examine and interpret the employment outcomes in these two categories of workers more closely in the next two sections.

III. Demographics, Poverty, Participation in Schooling and Women's Participation in Work

At the heart of the observed slow down in the 1990s in respect of the average annual increments to total work force as well as in the case of the self-employed – where women accounted for 41 percent in 1994 – is the decline in work force participation rates of women between 1993-94 and 1999-2000. In rural India, the overall (or crude-) female work force participation rate fell from 328 per 1000 in 1993-94 to 297 per 1000 in 1999-2000, while in urban India, it declined from 155 per 1000 to 139 per 1000 over the same period.

Examining the demographic characteristics that shape the overall (or crude-) participation rates in poor and non-poor households, it has been shown (see Sundaram and Tendulkar (2004)) that

- i. the child-dependency ratio (the ratio of children in the 0-14 age-group to adults in the 15-64 age-group) is significantly higher – by close to or above 30 percentage points – in poor relative to the non-poor households. This would, *ceteris paribus*, push down the crude work force participation rates in poor relative to non-poor households;
- ii. the child-women ratio or the ratio of the number of children in the 0-4 age-group to the number of women in the reproductive age-group 15-49 – typically used as a fertility measure but which constrains women's work-participation rate as the primary burden of child-rearing falls on them – is again significantly higher (by about 28 percentage points) in poor relative to non-poor households; and that,
- iii. despite (i) and (ii) above, in rural India the female work force participation rates in poor households is close to that in non-poor households, with only 2 or 3 points per 1000 separating the two sets of households, while in urban India, female work force participation rates are higher – by close to 6 percentage points – in the poor households relative to that in the non-poor households.

It is clear from the above that, in poor households at least, women's participation in the work force is driven by a compelling need arising from their low levels of income and consumption. In such a situation a reduction in the incidence of poverty and, more generally, a rise in income levels would tend to lower the female work force participation rates. This is a likely outcome in a situation where the women have to bear the primary burden of child rearing which is demanding of time in competition with the time requirements of participation in economic activity¹. In rural India, given the relatively small difference in the female WPRs in poor and non-poor households in 1993-94 (330 per 1000 in poor households compared to 327 per 1000 in non-poor households) the decline in the proportion of women in poor households – from 35 percent in 1993-94 to 30 percent in 1999-2000 - per se, will alter the overall WPRs very little. In urban areas, (with a difference of 57 points per 1000) the decline in the proportion of women in poor households would reduce WPRs by 2 points per 1000.

In an earlier paper (Sundaram (2001a)), the fairly sharp increases in the student-population ratios in the 5-9, 10-14 and 15-19 age-groups – especially in the case of rural females – was highlighted as a factor beneficially lowering the worker-population ratios in these age-groups and thereby contributing to the lower overall female work participation rates in 1999-2000 relative to 1993-94.

Our analysis of the age-structure of the female population in the poor and non-poor households for 1993-94 and 1999-2000 highlights, for rural India an increase in the share of the age-group 5-19 alongside a fall in the share of the 20-64 age-group in both the poor and the non-poor households. In the poor households the share of the 5-19 age-group increases from 34.3 percent in 1993-94 to 36.9 percent in 1999-2000. Along with the reduction in WPRs in the 5-9, 10-14 and 15-19 age-group arising from a shift to participation in schooling, this age structure shift would reduce women's WPRs in poor households by 6 points per 1000. The parallel reduction in the share of the 20-64 age-group in total female population from 45.7 percent in 1993-94 to 44.1 percent in 1999-2000, **even in the absence of any reduction in the WPR in this age-group**, would have reduced the overall female WPRs by a further 9 points per 1000. So that, in poor

¹For an early exploration of the relationship between female labour force participation rates, fertility-burden, average level of living and asset base, see Sundaram (1989).

households, close to 61 percent of the reduction in female WPRs would be accounted for by the changes in the age structure of the population and by reduction in WPRs in the 5-9, 10-14 and the 15-19 age-groups following a rise in participation in schooling.

For the rural non-poor households too, this combination of age-structure shifts and reduction in WPRs induced by the beneficial shift to schooling in the 5-9, 10-14 and the 15-19 groups, would together account for 50 percent of the observed decline in WPRs from 327 per 1000 in 1993-94 to 299 per 1000 in 1999-2000.

In urban India, in poor households the share of the 5-19 age-group goes up from 36.9 per cent in 1993-94 to 38.3 per cent in 1999-2000 while the share of the 20-64 age-group goes down from 44.80 per cent to 44.09 per cent over the same period. With unchanged WPRs in the 20-64 age-group, the reduction in the share of this age-group would have reduced the overall WPR for women in poor households by 3 points per 1000. The changes in population-shares and the “shift-to-schooling” induced reduction in WPR in the 5-9, 10-14 and 15-19 age-groups would reduce the overall female WPRs in poor households by a further 8 points per 1000. And together, these two factors would account for nearly half (48 per cent) of the observed decline in overall female WPRs in poor households of 23 points per 1000 between 1993-94 and 1999-2000.

Unlike in both poor and non-poor households in rural India and in the poor households in urban India, for non-poor households in urban India, we have a rise in the share of the 20-64 age-group, which, ceteris paribus would have resulted in a rise in overall female WPR in urban non-poor households by 3 points per 1000. The reduction in WPRs for women in urban non-poor households can not be attributed to the changes in the demographic characteristics or the changes in school participation ratios in the 5-19 age-group.

However, with the just noted exception of urban women in non-poor households, close to or above 50 per cent of the observed decline in overall WPRs of women, especially in rural areas, are seen to be the result of changes in the age-structure and the reductions in WPRs in the 5-19, 10-14 and 15-19 age-groups induced by a beneficial shift to greater participation in schooling.

IV. The self-employed: The Issue of Productive Absorption of Labour

In terms of activity-status categories, as noted above, it is the self-employed as a group that has experienced the sharpest slow-down in terms of average annual increments in the 1990s relative to the 1980 with two segments – the rural population and women (rural plus urban) - experiencing a decline in the number of self-employed workers. In an economic environment that is characterised by a general oversupply of labour with sizeable annual increments to labour force generated by the size and structure of population, self-employment offers a mechanism of residual absorption of labour. In households with some asset base this can take the form of work-sharing or work-spreading or, elsewhere, it could take the shape of overcrowding in low-productivity self-employment occupations with little or no barriers to entry. In such a situation it becomes necessary to make an assessment of the quality of self-employment that should in turn inform the assessments made purely in terms of the increments to the number of self-employed workers.

At the outset it is possible to rule out further quantification in terms of number of days worked in a year (on the basis of the self-reported activity status on the 7-days preceding the data of survey that forms the basis of daily-status measures) as a useful route to assessment of the quality of self-employment.

This assessment is based on the results of a “usual x daily-status” cross-tabulation carried out by us on the basis of unit record data for the 50th and the 55th Rounds of the NSS Employment-Unemployment Survey. For self-employed males, starting from a level of 340 days at work in a year in 1993-94, we have a marginal rise (to 342 days) in 1999-2000, while for self-employed males in urban India we have a small decline from 349 days in 1993-94 to 346 days in 1999-2000. In respect of women self-employed workers we have a rise in the number of days at work in a year in both rural and urban areas of the country: in rural India, the observed increase is from 237 days in 1993-94 to 246 days in 1999-2000 and in urban India from 251 days to 259 days over the same period. Standardisation of the number of self-employed women workers in 1999-2000 by reference to the days at work in a year of such workers in 1993-94 would, of course, raise the average annual increments to female self-employed

workers in the 1994-2000 period. Nevertheless, “days worked in a year” is a poor measure of quality of employment of the self-employed workers. For, a disaggregation of self-employed workers as between those located in poor households and non-poor households reveals that hardly 4 days separate the poor from the non-poor with male workers in poor households reporting to be at work for 4 days less and women workers 4 days more of work relative to their counterparts in “above-poverty-line” (or non-poor) households in rural India in 1999-2000. In urban India, self-employed males in poor households work 5 days less while the women among the self-employed in poor households work 14 days more than their counterparts in the non-poor households. These results are based on our tabulations from unit record data.

The fact that the self-employed males report themselves to be at work for 342 days in a year in rural India and for 346 days in urban India should also induce us to rethink our notions of under-employment among the self-employed workers. Alternatively, can we use income received/receivable by the self-employed as a means of assessing the quality of self-employment?

Note that we do not have any estimate of income received/receivable by the self-employed coming out of the Employment-Unemployment Surveys. And this is so for a set of very good reasons. First and foremost is the fact that the income of the enterprise in which the self-employed are at work is in the nature of mixed income (consisting of rents, profits and returns to labour input). And, this accrues to the entire enterprise with income sharing arrangements across the different self-employed workers in the enterprise being governed by unwritten, informal arrangements. So that, even in a single-enterprise household, the labour income from self-employment is not well-defined. This problem will get compounded if the self-employed workers in a household are engaged in multiple enterprises including some in partnership with members of other households.

Secondly, even for a given enterprise run by the self-employed, the flow of income from the activities in which they are engaged is often lumpy and accrues with inevitable irregularity because of their dependence on changing market conditions with respect to both prices and the quantum of demand. So that, the income stream of the enterprise (and hence of the self-employed workers in those enterprises) is not spread

evenly across the weeks and months in a year and is subject to a fair measure of intra-year variation. This, added to the fact that a large proportion of the self-employed work in own-account enterprises that do not maintain regular book of accounts, renders unviable the collection of data on income from household enterprises as a part of the Employment-Unemployment Surveys characterised by a single visit per household.

The follow-up unorganised sector Enterprise Surveys carried out by the National Sample Survey Organisation (as a follow-up on Economic Census) also do not serve the purpose as they too face the problem of own-account enterprises not maintaining accounts. Also, even in respect of larger establishments, the survey-based estimates of value-added have tended to be rather on the low side. Further, with different segments of non-agricultural activities surveyed in different years, we do not have value-added estimates for entire non-agricultural sector for the same year.

There is also the more basic problem of linking an individual self-employed worker to a single enterprise if the household members work in more than one enterprise including those with partners from other households. So that, unless we track all the enterprises in which the members of a household have a share in labour input and income therefrom, we can not get an estimate of the income from self-employment even of a household taken as a whole – much less that of an individual self-employed worker in that household – through the own-account enterprise survey route.

An even more compelling problem, from the perspective of self-employment in rural India, is the exclusion of self-employed agricultural enterprises from the scope of the follow-up surveys.

Given the above noted problems in seeking to assess the quality of employment through the “earnings per worker” route, it is possible to suggest (and implement) a more tractable alternative. This consists of classifying the self-employed workers by reference to the per capita total consumer expenditure (PCTE, for short) of the households in which they are located. The rationale is that PCTE is a good indicator of the living standard of a household and can plausibly be taken to be a surrogate for the self-employment income (normalised for household size) accruing to that household from the work-participation of the self-employed workers located in that household. If

this rationale is accepted, then, at a broad level, we can divide the self-employed as between those located in the “below-poverty-line” (BPL) or the poor households and those located in the non-poor households. As a first approximation, being located in non-poor households may be viewed as signalling an acceptable quality of employment in terms of the “returns from self-employment“ being adequate to enable the household enjoy a living standard captured in an ‘above-poverty-line’ level of PCTE.

Drawing on our recent paper (Sundaram and Tendulkar (2004)) and extending the analysis backwards to 1983, we present the estimates of self-employed workers in “above-poverty-line” (APL for short) households in line 4 of Tables 1 through 5. **Cast in terms of the number of workers in APL-households, the reduction in the average annual increments of the self-employed in the 1990s, while still present, is smaller for the total, rural, male and female population and these increments are actually higher in the 1990s for the self-employed workers in APL-households in urban India.**

V. Casual Labourers and Adjustments for Days at Work and Quality of Employment

In respect of those engaged in daily-wage Casual Labour (the agricultural and non-agricultural rural labour, and the casual labour in urban India), they are located in the most competitive segment of the labour market. As such, variations over time in the number of such workers, and, where data permits, in the average number of days worked in the year by such workers, would indeed be good indicators of the demand for labour generated by the level and pattern of economic activity in the economy.

Estimates of the number of casual labourers for the three time points – 1983, 1993-94 and 1999-2000 – taken as they are (see line 7 in Tables 1 through 5) also suggest the presence of a slow down in the average annual increments in the 1990s relative to the 1980s. The percentage deficit (of the average annual increments in the 1990s relative to that in the 1980s) ranged between 78 per cent for women workers to just over 10 per cent for male workers, with a 21 per cent deficit in urban areas and close to 33 per cent deficit in rural areas and a 31 per cent deficit for the country as whole.

Given the year-to-year variability in the number of days in a year for which the casual labourers find work during a year, the average number of days at work during the reference week) need to be factored in. Table 6 presents the estimates of the average number of days at work by the casual labourers in the five segments distinguished in Tables 1 through 5, for 1983, 1993-94 and 1999-2000 (Panel A) and the adjusted estimates of the number of casual labourers (for 1983 and 1999-2000) using the days worked in a year in 1993-94 as the standard (Panel B).

As between 1993-94 and 1999-2000, the casual labourers generally worked fewer days in the year in 1999-2000 (except in urban India). For the total population this difference was 4 days, while for women casual labourers as a group, the difference was just one day. However, in all the segments the days worked in 1993-94 was substantially higher – by close to 20 days – relative to 1983. While for males this difference was 20 days, for females, this difference was just 5 days. This pattern of change in the average number of days worked in a year as between 1983 and 1993-94 on the one hand and that between 1993-94 and 1999-2000, results in a significant widening of the gap between the two periods in terms of the average annual increments when we use the adjusted estimates relative to the unadjusted estimates –primarily due to a sharp reduction in the adjusted estimates for 1983.

Here again caution needs to be exercised in inferring a deterioration in the quality of employment of the casual labourers between 1993-94 and 1999-2000 simply by reference to the fall in the average number of days worked. As we have shown elsewhere (Sundaram and Tendulkar 2004), thanks to a significant rise in real wage rates (See Sundaram (2001 (a) 2001 (b)), casual labourers as a group experience a sharp decline in head count ratio between 1993-94 and 1999-2000. And, this sharp decline in HCR brings about a decline in the absolute number of such workers in poor households (by a little over 4 million) despite a rise by over 10 million in the total number of casual labourers in rural India between 1993-94 and 1999-2000.

In view of the foregoing, one measure of the order of increase in “quality employment” for casual labourers would be the increments to the number of casual labourers in “above-poverty-line” or APL-households. (see line 8 in Tables 1 through 5). It is significant to note that Prof. Raj, in his Cairo Lectures (Raj (1957)) had used “the

proportion of agricultural labour families living on less than Rs. 100 per consumption unit” as the indicator to characterise and differentiate the labour market outcomes in different parts of the country (*Ibid*, footnote on p.16). This shift of focus to the number of casual labourers in ‘above-poverty-line’ households alters the picture totally. **In all the five population segments distinguished in this paper, the average annual increments to the number of casual labourers in APL-households turns out to be higher in the 1990s relative to the 1980s: by 170 per cent in urban India, by 19 per cent in rural India and by 28 per cent in the country as a whole.** The average annual increments to the number of casual labourers in APL households between 1993-94 and 1999-2000 is 39 per cent higher than that realised between 1983 and 1993-94 for males, but only 4 per cent higher for females.

VI. On ‘Jobless Growth’ and Growth in Regular Wage/Salaried Employment

In this section, we examine the oft-expressed concerns about ‘jobless growth’ alongside our estimates of the growth in regular wage/salary earning workers – and not merely because receipt of regular wage/salary is indeed a key characteristic of a ‘job’. It emerges that, even in respect of organised sector employment, tracking growth in regular wage/salaried employment from the NSS Employment-Unemployment surveys could be a better option than relying solely on the DGE and T estimates. For this purpose, let us scrutinise more closely the evidence from the DGE and T estimates of number of workers in the public sector and the larger private sector establishments (voluntary returns from establishment with 10-24 workers and mandatory returns required to be furnished under the Employment Exchanges Act for establishment with 25 or more workers).

As noted in the introductory section, the DGE and T estimates indicate that the ‘organised sector’ employment increased at an average annual rate 0.32 million between 31st March 1984 and 31st March 1994 while it declined at an average annual rate of 0.02 million between 1994-2002². At the level of a contrast between increasing

² Figures for 1984 are from Economic Survey while the figures for 31st March 1994 and 31st March 2002 are drawn from Monthly Abstract of Statistics, December 2003.

employment between 1984 and 1994 and declining employment in the 1990s, a public sector-private sector break-up shows that the public sector accounted for close to 82 per cent of the increase in the first period, while **all of the decline that took place in the second period has been in public sector employment**. Employment in the organised private sector increased in the second period (as well as in the first period) and, if anything, the average annual increment in such employment was fractionally higher in the second period.

The public-private sector distinction is important in assessing the contrasting trends in organised sector employment (as per DGE and T estimates) in the two periods. The expansion in public sector employment in the 1980s, and earlier, took place in an economic environment where there was no competitive pressure on public sector unit to perform and has been an important factor in leading to the present situation where there is significant - and widely acknowledged - over-manning in the public sector. And, as pressures to perform come into play, shedding of excess manpower by the public sector enterprises is likely to continue, and with fiscal pressures limiting the ability of the Government to add significantly to its already bloated staff-strength, negative growth in public sector employment promises to be a part of the organised-sector employment scene for some years to come. And, such a development should be welcomed rather than bemoaned as “jobless growth”.

But the real issue is how well does the DGE and T capture employment in the organised sector? It is generally recognised that with returns from private sector enterprise employing between 10-24 being purely voluntary and with little or no effort to pursue (much less prosecute and penalise) cases of non filing of returns even in respect of larger units (including public sector units) where filing of returns is mandatory under the provisions of the Employment Exchange (compulsory notification of vacancies) Act, DGE and T employment data is subject to the problem of non-responding units. Since there does not appear to be any system of tracking individual non-responding units in any given year, it is not possible to isolate the effect of non-responding units on the year-to-year variations in the employment numbers released by DGE and T.

Is it possible to have a cross-check on the DGE and T employment estimates? Fortunately, in the NSS 55th Round Employment-Unemployment Survey (July-June 1999-2000), a question was canvassed among all Usual Status Workers (both on principal and the subsidiary statuses) in non-agricultural activities, about the type of enterprise to which each of them was affiliated. From our immediate perspective, three types of enterprises are relevant. They are:

- I. Public sector;
- II. Semi-public; and,
- III. Others (includes co-operative society, public limited company, private limited company and other units covered under the Annual Survey of Industries).

As is readily seen, the three-types of enterprises listed above, taken together, corresponds exactly to the coverage of the organised sector in our National Accounts.

A special tabulation of the self-reported affiliation of workers by type of enterprise carried out by the Central Statistical Organisation³ brings out an interesting comparison of the estimates of organised sector employment based on the NSS 55th Round Survey (by reference to attachment to one or the other of the three types of enterprises listed above) and the DGE and T estimates of organised sector employment – excluding employment in the agricultural sector – by broad NIC categories. Two results are of particular interest.

First, in the aggregate, the NSS 55th Round Survey based estimate of organised-sector employment in non-agricultural activities are substantially higher than the DGE and T estimates: 31.85 million (NSS-based estimate) compared to 26.54 million as on 31st March 2000 as per the DGE and T. Secondly, the shortfall is almost entirely in respect of the organised services sector (NIC 1998 categories) with NSS-based estimates placed at 16.8 million compared to 11.5 million as per DGE and T⁴.

With the rapid growth of the services sector (within the organised sector) in the 1990s, it is likely that the inability of the DGE and T to capture fully the employment in the organised services sector is understating not only the level but also the growth of the

³ See, GOI, Central Statistical Organisation, 2004.

⁴ The comparison by broad NIC categories is approximate as the DGE and T estimates relate to NIC 1987 while the 55th Round results are based on NIC 1998 categories with a conscious attempt at establishing a broad concordance. (See *Ibid*, Table 4.10, p.37).

total organised sector employment. To that extent, and, once we allow for labour-shedding in the over-manned public sector, the problem of “jobless growth” may well reflect the weaknesses of the data generating system in general and of the DGE and T in particular.

Our own tabulation of the unit record data on the enterprise-affiliation of the Usual Status workers in the 55th Round was focused on the activity-status categorisation – as opposed to NIC categorisation in the CSO tabulation. This yields a slightly larger total for organised sector employment – at 31.97 million by reference to population totals as on 1st January 2000 (rather than those for 1st October 1999 underlying the CSO-estimate). Two results are of relevance here.

First, not surprisingly, close to 88 percent of workers in the organised sector are regular wage/salary earners. Secondly, in each and all of the four population segments (rural/urban x male-female), 50 percent or more of the RWS-workers are located in the organised sector, with this proportion being as high as 57 percent for RWS-workers among rural female workers.

Given this result and given that receipt of a regular wage or a salary is indeed one of the key facets of a “job”, and given the limitations of DGE and T as a data base to track growth in organised sector employed discussed above, tracking the growth in the number of RWS-workers over the different rounds of the NSS Employment-Unemployment Surveys would seem to provide a better basis for assessing the growth in “jobs” over time.

Estimates of number of RWS-workers for 1983, 1993-94 and 1999-2000 (line 5 in Tables 1 through 5) and the estimates of the average annual increments in the number of such workers in the two periods yields a striking result: in each and all of the five population segments distinguished in the paper, the average annual increments in the 1990s are unambiguously larger than those realised between 1983 and 1993-94. So that, far from being a period of “jobless growth” the 1990s marks a clear acceleration in the number of jobs added annually. This conclusion holds equally good even when we focus on the sub-set of RWS-workers in ‘above-poverty-line’ APL-households. (line 6 in Table 1 through 5).

VII. Main Findings

Estimates of total work force on the Usual (principal plus subsidiary) status for 1983, 1993-94 and 1999-2000, taken as they are, reveal a sharp slow down in the average annual increments to work force (from 6.8 to 3.8 million) in the 1990s relative to that realised between 1983 and 1993-94. Disaggregation by broad activity-status, gender and rural-urban location, however, reveals that two partially overlapping categories, of women and the self-employed, account for the entire slow-down. Thus, the slow down in the average annual increments to the number of female workers (by 1.6 million) accounted for 54 percent of the 3 million difference in the average annual increments in the total work force as between the two periods, with the difference in the annual average increments among male self-employed workers (1.4 million) accounting for the balance.

The decline (by 1.6 million) in the average annual increments to female work force in the 1990s (relative to the average annual increments between 1983 and 1993-94) was due to a 33 points (per 1000) decline in female work force participation rates (WFRs) in rural India and a 16 points (per 1000) decline in female WFRs in Urban India. In fact, the decline in the average annual additions to the number of female workers in rural India alone accounted for 44 percent of the difference in the average annual increments to the total work force between the two periods. It is shown that changes in the age-structure of rural female population (as between the 1993-94 and 1999-2000 Surveys) and the beneficial 'shift-to-schooling' – induced reductions in work participation rates in the 5-9, 10-14 and the 15-19 age-groups, taken together, accounted for more than half of the decline in the female WFRs in rural India over this period. These changes also explain nearly half the decline in WFRs among women located in poor households (but not in respect of those located in non-poor households) in urban India. Examining the demographic characteristics of poor and non-poor households, the poverty-driven (higher) participation in work of women in poor households despite the significantly greater child-dependency and child-women ratios, is brought out. In this situation, the reduction in the proportion of women in poor households, by itself, would account for about 10 percent of the reduction in female WFRs in urban India.

Taking both rural and urban segments together, close to half (49 percent) of the slow-down in the average annual increments to female workers in the 1990s can be accounted for by age-structure shifts, by beneficial shifts to schooling in the 5-19 age-group and the reduction in the proportion of women in poor households.

As regards the self-employed it is argued that an assessment of the quality of self-employment is necessary in an environment of general over supply of labour with self-employment serving as a mechanism of residual absorption of labour. Arguing that the location of the self-employed in non-poor households can be viewed as signalling an acceptable quality of employment – in terms of the ‘returns from self-employment’ being adequate for such households to afford an ‘above-poverty-line’ (APL) level of living – estimates of self-employed workers in APL households are presented for the three years. Cast in terms of the number of workers in APL-households, the slow-down in the average annual increments of the self-employed in the 1990s, while still present, is much less severe for the total, rural, male and female workers while it is reversed in Urban India.

In respect of casual wage labourers, an adjustment for days worked in a year is shown to widen the gap between the two periods in terms of the average annual increments – primarily due to a sharp reduction in the adjusted estimates for 1983. A shift of focus to casual labourers in APL-households alters the picture radically: in all the five segments of workers, the average annual increments to the number of casual labourers in APL-households turns out to be higher (by 28 percent) in the 1990s relative to the 1980s.

Finally, on the issue of “jobless growth”, the inability of the DGE and T estimates to capture the level of (and, plausibly, also the trends in) organised sector employment is brought out by tabulations of the self-reported enterprise affiliation of usual status workers in the 55th Round Employment-Unemployment Survey. The estimates of RWS-workers is argued to offer a basis for tracing the growth of “jobs” and, it is shown that, in terms of the growth in RWS workers, the 1990s is a period of acceleration rather than of stagnation or decline in the growth of jobs.

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Table 1: Number of Usual (principal plus subsidiary) Status Workers (Rural plus Urban) by Broad Activity Status and Poverty Status: All-India, 1983 – 1999-2000

Number of Workers							
(000)							
S. No	Activity Status and Poverty Status	1983	1993-94 (URP)	Avg. Annual Increment (1983-1994)	1993-94 (MRP)	1999-2000	Avg. Annual Increment (1994-2000)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<u>Work Force</u>						
1.	Total	302,620	374,240	6821	374,240	397,246	3834
2.	in APL-Hhlds	168,014	239,264	6786	259,392	294,966	5929
	<u>Self-Employed</u>						
3.	Total	173,348	204,128	2931	204,128	207,381	542
4.	In APL-Hhlds	103,222	140,975	3596	152,310	163,421	1852
	<u>RWS- Workers</u>						
5.	Total	41,903	51,112	877	51,112	58,383	1212
6.	In APL-Hhlds	31,436	42,233	1028	43,883	51,754	1312
	<u>Casual Labourers</u>						
7.	Total	87,369	119,000	3012	119,000	131,481	2080
8.	In APL-Hhlds	33,356	56,055	2162	63,198	79,790	2765

Notes:

1. All estimates are based on Unit Record Data for the NSS 38th, 50th and 55th Round Employment-Unemployment Surveys.
2. Estimates of "RWS (Regular Wage/Salary Earners)" for 1983 include "those working under obligation" totalling 993(000) in all households and 501(000) in above-poverty-line (APL) households i.e. the non-poor.
3. Estimates of workers in APL-households for 1993-94 under Uniform Reference Period are comparable with the estimates for 1983, while the mixed-reference period (MRP) estimates for 1993-94 are comparable with those for 1999-2000.
4. The underlying estimates of population at the mid-points of the Survey Years (January-December 1983 and July-June for 1993-94 and 1999-2000) are adjusted for the Population Census counts in the 1981, 1991 and the 2001 Censuses. The estimates for 1st July 1983 are drawn from Visaria (2000), while those for 1st January 1984 and 1st January 2000 are drawn from Sundaram (2001(c)).

Table 2: Number of Usual (ps+ss) Status Workers in Rural Areas by Broad Activity Status and Poverty Status: All-India, 1983 – 1999-2000

Number of Rural Workers

(000)

S.No	Activity and Status	Status Poverty	1983	1993-94 (URP)	Avg. Annual Increment (1983-1994)	1993-94 (MRP)	1999-2000	Avg. Annual Increment (1994-2000)
	(1)		(2)	(3)	(4)	(5)	(6)	(7)
	<u>Work Force</u>							
1.	Total		243,850	292,481	4632	292,481	303,648	1861
2.	in APL-Hhlds		125,645	181,765	5345	198,560	221,862	3884
	<u>Self-Employed</u>							
3.	Total		148,712	169,559	1985	169,559	168,093	-244
4.	In APL-Hhlds		85,963	117,281	2983	126,842	133,204	1060
	<u>RWS- Workers</u>							
5.	Total		18,398	18,878	46	18,878	20,982	351
6.	In APL-Hhlds		11,838	15,273	327	15,978	18,384	401
	<u>Casual Labourers</u>							
7.	Total		76,740	104,044	2600	104,044	114,573	1755
8.	In APL-Hhlds		27,844	49,210	2035	55,739	70,274	2423

Notes:

1. All estimates are based on Unit Record Data for the NSS 38th, 50th and 55th Round Employment-Unemployment Surveys.
2. The number of Rural workers “working under obligation” included in the estimates of “RWS-Workers” (regular wage/salary earners) in all households and in ‘above-poverty line households’ (or the non-poor among them) for 1983 are, respectively, 915(000) and 452(000).
3. Estimates of workers in APL-households for 1993-94 under Uniform Reference Period are comparable with the estimates for 1983, while the mixed-reference period (MRP) estimates for 1993-94 are comparable with those for 1999-2000.
4. The underlying estimates of population at the mid-points of the Survey Years (January-December 1983 and July-June for 1993-94 and 1999-2000) are adjusted for the Population Census counts in the 1981, 1991 and the 2001 Censuses. The estimates for 1st July 1983 are drawn from Visaria (2000), while those for 1st January 1984 and 1st January 2000 are drawn from Sundaram (2001(c)).

Table 3: Number of Usual (ps+ss) Status Workers in Urban Areas by Broad Activity Status and Poverty Status: All-India, 1983 – 1999-2000

Number of Urban Workers

(000)

S. No.	Activity Status and Poverty Status	1983	1993-94 (URP)	Avg. Annual Increment (1983-1994)	1993-94 (MRP)	1999-2000	Avg. Annual Increment (1994-2000)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<u>Work Force</u>						
1.	Total	58,770	81,759	2189	81,759	93,598	1973
2.	in APL-Hhlds	42,369	57,499	1441	60,832	73,104	2045
	<u>Self-Employed</u>						
3.	Total	24,636	34,569	946	34,569	39,288	787
4.	In APL-Hhlds	17,259	23,694	613	25,468	30,217	792
	<u>RWS- Worker</u>						
5.	Total	23,505	32,234	831	32,234	37,401	861
6.	In APL-Hhlds	19,598	26,960	701	27,904	33,370	911
	<u>Casual Labourers</u>						
7.	Total	10,629	14,956	412	14,956	16,908	325
8.	In APL-Hhlds	5512	6845	127	7459	9516	343

Notes:

1. All estimates are based on Unit Record Data for the NSS 38th, 50th and 55th Round Employment-Unemployment Surveys.
2. For 1983, a total of 78(000) in all-households and 49(000) in APL-households of those “working under obligation” are included among “Regular Wage/Salary Earners”.
3. Estimates of workers in APL-households for 1993-94 under Uniform Reference Period are comparable with the estimates for 1983, while the mixed-reference period (MRP) estimates for 1993-94 are comparable with those for 1999-2000.
4. The underlying estimates of population at the mid-points of the Survey Years (January-December 1983 and July-June for 1993-94 and 1999-2000) are adjusted for the Population Census counts in the 1981, 1991 and the 2001 Censuses. The estimates for 1st July 1983 are drawn from Visaria (2000), while those for 1st January 1984 and 1st January 2000 are drawn from Sundaram (2001(c)).

Table 4: Number of Usual (ps+ss) Status Male Workers (Rural plus Urban) by Broad Activity Status and Poverty Status: All-India, 1983 – 1999-2000

Number of Male Workers

(000)

S. No	Activity Status and Poverty Status	1983	1993-94 (URP)	Avg. Annual Increment (1983-1994)	1993-94 (MRP)	1999-2000	Avg. Annual Increment (1994-2000)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<u>Work Force</u>						
1.	Total	200,122	252,357	4975	252,357	273,997	3607
2.	in APL-Hhlds	116,709	167,083	4798	180,463	208,322	4643
	<u>Self-Employed</u>						
3.	Total	111,849	134,977	2203	134,977	139,711	789
4.	In APL-Hhlds	68,390	94,685	2504	102,087	111,607	1587
	<u>RWS- Workers</u>						
5.	Total	36,212	43,309	676	43,309	48,947	940
6.	In APL-Hhlds	27,437	36,104	825	37,513	43,595	1014
	<u>Casual Labourers</u>						
7.	Total	52,061	74,072	2096	74,072	85,339	1878
8.	In APL-Hhlds	20,882	36,295	1468	40,862	53,120	2043

Notes:

1. All estimates are based on Unit Record Data for the NSS 38th, 50th and 55th Round Employment-Unemployment Surveys.
2. The number of male workers" working under obligation" included in the estimates of "RWS-workers" (i.e. regular wage/salary earners) in all-households and in the above-poverty-line households (or the non-poor among them) for 1983 are, respectively, 887(000) and 443(000).
3. Estimates of workers in APL-households for 1993-94 under Uniform Reference Period are comparable with the estimates for 1983, while the mixed-reference period (MRP) estimates for 1993-94 are comparable with those for 1999-2000.
4. The underlying estimates of population at the mid-points of the Survey Years (January-December 1983 and July-June for 1993-94 and 1999-2000) are adjusted for the Population Census counts in the 1981, 1991 and the 2001 Censuses. The estimates for 1st July 1983 are drawn from Visaria (2000), while those for 1st January 1984 and 1st January 2000 are drawn from Sundaram (2001(c)).

Table 5: Number of Usual (ps+ss) Status Female Workers (Rural plus Urban) by Broad Activity Status and Poverty Status: All-India, 1983 – 1999-2000

Number of Women Workers

(000)

S. No	Activity Status and Poverty Status	1983	1993-94 (URP)	Avg. Annual Increment (1983-1994)	1993-94 (MRP)	1999-2000	Avg. Annual Increment (1994-2000)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<u>Work Force</u>						
1.	Total	102,498	121,883	1846	121,883	123,249	228
2.	in APL-Hhlds	51,305	72,181	1988	78,929	86,644	1286
	<u>Self-Employed</u>						
3.	Total	61,499	69,151	729	69,151	67,670	-247
4.	In APL-Hhlds	34,832	46,290	1091	50,223	51,814	265
	<u>RWS-Worker</u>						
5.	Total	5691	7803	201	7803	9436	272
6.	In APL-Hhlds	3999	6129	203	6370	8159	298
	<u>Casual Labourers</u>						
7.	Total	35,308	44,928	916	44,928	46,142	202
8.	In APL-Hhlds	12,474	19,760	694	22,336	26,670	722

Notes:

1. All estimates are based on Unit Record Data for the NSS 38th, 50th and 55th Round Employment-Unemployment Surveys.
2. The number of female workers "working under obligation" included in the estimates of "Regular Wage/Salary Earners" for 1983 in all households and in APL-Households are, respectively, 106(000) and 58(000).
3. Estimates of workers in APL-households for 1993-94 under Uniform Reference Period are comparable with the estimates for 1983, while the mixed-reference period (MRP) estimates for 1993-94 are comparable with those for 1999-2000.
4. The underlying estimates of population at the mid-points of the Survey Years (January-December 1983 and July-June for 1993-94 and 1999-2000) are adjusted for the Population Census counts in the 1981, 1991 and the 2001 Censuses. The estimates for 1st July 1983 are drawn from Visaria (2000), while those for 1st January 1984 and 1st January 2000 are drawn from Sundaram (2001(c)).

Table 6: Average Number of Days Worked in a year by Casual Labourers and Adjusted Estimates of Number of Casual Labourers by Gender and Rural-Urban Location: All-India 1982 – 1999-2000.

Panel A

Average Number of Days Worked in a year of Casual Labourer

Population Group	1983	1993-94	1999-2000
Total Persons	264	283	279
Rural Persons	265	283	279
Urban Persons	258	286	290
Total Males	282	308	299
Total Females	238	243	242

Panel B

Unadjusted and Adjusted Estimate of Casual Labourers

(000)

Population Segment	1983		1993-94	Average Annual Increment 1983-94		1999-2000		Average Annual Increment 1994-2000	
	Unadjusted	Adjusted		Unadjusted	Adjusted	Unadjusted	Adjusted	Un-adjusted	Adjusted
Total Person	87,369	77,924	119,000	3012	3493	131,481	129,000	2080	1667
Rural Person	76,740	68,315	104,044	2600	2984	114,573	112,057	1755	1336
Urban Person	10,629	9,609	14,956	412	509	16,908	16,943	325	331
Males	52,061	47,158	74,072	2096	2508	85,339	82,954	1878	1480
Females	35,308	30,766	44,928	916	985	46,142	46,046	202	187

Notes:

1. Estimates of average number of days worked in a year by casual labourers for the three survey years are based a "Usual x Daily-status" cross tabulation carried out by us from the unit record data for the 38th, 50th and the 55th Round Employment-Unemployment Surveys.
2. The adjusted estimates for 1983 and 1999-2000 are derived through a scalar correction given by the ratio of days worked in 1983 (in 1999-2000 as the case may be) to the days worked in 1993-94. It needs to be noted that both the number of days worked (Panel A) and the adjusted numbers for 1983 and 1999-2000 for the five listed categories are derived from a more disaggregated table by gender and rural-urban location. So that the ratios of adjusted figures to actuals for the listed categories may not exactly match the ratio of days worked in 1983 (or 1999-2000) to the days worked in 1993-94.

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