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Organized and the Unorganized Segments
of the Non-Agricultural Sector in
India: All-India, 2000-2005**

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Abstract

*Analysing the Unit Record Data from the NSS 55th and 61st Round Employment-Unemployment Surveys, the **Organized Sector Workforce in non-agriculture** is shown to be larger than the corresponding DGE&T estimates by 16.5 million in 2004-05 and to have increased by 5.4 million between 2000 and 2005 instead of the 1.6 decrease indicated by the corresponding DGE&T estimates. Examining some features of employment contracts of the regular wage/salary workers who account for 88 percent of the organized sector workforce, it is shown that between 14 to 27 million of the 41.5 million workers in organized non-agriculture are perhaps better labeled as **Informal Workers** who are without access to a set of social security benefits though they are located in the formal sector. Also presented are our estimates of workforce in the unorganized segment of non-agriculture in the country as a whole as also those in urban India who constitute the Urban Informal Sector. An analysis of labour productivity in the organized-unorganized segments of broad industry groups for 1999-2000 and 2004-05 is followed by an examination of differences across the organized-unorganized divide in average daily earnings and in the poverty status of adult workers in non-agricultural activities for 2004-05*

Key words: *Employment in organized sector, Urban Informal Sector, Labour Productivity, Wage Differentials, Poverty status of workers.*

JEL Classification: *I32, J21, J31*

This paper presents a set of estimates of employment in the organized non-agricultural sector in India for 1999-2000 and 2004-05 based on the 55th and the 61st Round NSS Employment-Unemployment Surveys. It is shown that **in sharp contrast to the gloomy picture of a decline** (by a little under 1.6 million) in organized sector employment in non-agricultural activities emerging from the widely used estimates of the Directorate-General Employment and Training (DGE&T estimates, for short) **between (31st March) 2000 and 2005, organized sector non-agricultural work force has increased by 5.4 million** over the same period. Our estimates also indicate that **employment in the organized manufacturing sector has grown by 2.4 million between (1st January) 2000 and 2005 as against** a mere 0.25 million rise shown by the Annual Survey of Industries (ASI, for short) and a **1 million decrease as per the DGE&T estimates.**

We also examine some features of employment contracts of the regular wage/salary workers (RWS workers, for short), who account for 88 percent of the organized non-agricultural sector workforce, with a focus on their access (or, absence thereof) to range of social security benefits such as pension/provident fund, gratuity, and health care and maternity benefits.

Using our estimate of organized sector employment and estimate of total employment by rural-urban location from our earlier paper (Sundaram, 2007b), we derive estimates of the Urban Informal Sector and of the total unorganized non-agricultural workforce. A similar analysis by industry divisions combined with the NAS-based estimates of net value added (NVA, for short) at constant 1999-2000 prices, separately for the organized and the unorganized segments, we present, for broad Industry Divisions yields estimates of labour productivity (NVA per worker) in the two

segments for 1999-2000 and 2004-05. We follow this up with an examination of differences across the organized/un-organized divide in average daily earnings and in the poverty status of workers.

I Database

First, a few words about the ambit of the organized sector and its approximation in the data base used in this paper.

In terms of forms of organization, Government, Public Sector enterprises, Public Private Limited Companies and Co-operative Societies, taken together with proprietary/partnership enterprises falling within the ambit of the Factory Sector, corresponds to the coverage of the organized sector in the National Accounts Statistics (NAS, for short)¹.

The results in this paper are principally based on an analysis of the Unit Record Data from the NSS 55th Round (1999-2000) and the NSS 61st Round (2004-05) Employment-Unemployment Surveys (EUS, for short).

In both surveys, a set of questions about the forms of organization of enterprise (called enterprise type) in which a **usual (principal) status worker in non-agricultural activities** is at work^{2, 3}.

In the NSS 55th Round EUS, the codes used for the enterprise type distinguished, besides proprietary enterprises (separately by males and females) and partnership enterprises (with a distinction between those formed with members of the same household and those with members of

other households), enterprises in the public sector (Code 5), a category called ‘Semi-public’ enterprises (Code 6) and, others (including co-operative society, public limited company, private limited company and other units covered under ASI (Annual Survey of Industries) (Code 7). Correctly classified, all enterprises with Codes 5, 6 and 7, taken together, will correspond to the organized sector as per NAS⁴. In the NSS 61st Round, while enterprises in the Government/Public sector (Code 5); public/private limited companies (Code 6); and, cooperative societies, trust/other non-profit institutions (Code 7) are distinguished, other units covered under ASI are not separately coded. However, such units can be identified by the responses to industry of attachment (as per NIC 1998), use of electricity in production and the number of workers in the enterprise where the worker is working. The estimated number of workers in such units, and of workers with enterprise type Code 5, 6 or 7, taken together, will yield an estimate of organized sector workforce conforming to the coverage of the organized sector in National Accounts Statistics.

Now, as is well known, the total population as estimated by the NSS Surveys are lower (sharply lower for urban India) than the Census-based estimates of population. Consequently, the Survey-based estimates of total workers in the organized sector will need to be appropriately scaled-up and, with the extent of under estimation of survey-based estimate of population (relative to Census-based estimates) varying by gender and by rural-urban location, the scaling-up will need to be done separately for rural males, rural females, urban males and urban females and the all-areas estimate derived by aggregation. However, this will permit us to derive estimates of organized sector employment by gender and by rural-urban location. The widely-used DGE&T estimates of organized sector employment do not offer a rural-urban break-up.

Apart from the non-availability of rural-urban break-up, the DGE&T estimates carry the problems of coverage, response and of what may be called acknowledgement. Based on the employment returns which all public sector establishments and private sector establishments in non-agriculture employing 25 or more workers are obliged to file under the Employment-Exchanges (compulsory Notification of Vacancies) Act, 1959, there is, formally speaking, the issue of coverage of units in the organized sector with less than 25 workers for whom the filing of these returns is not obligatory. With little or no effort to pursue (much less prosecute and penalize) cases of non-filing of returns even in respect of larger units (including public sector units), the DGE&T employment is subject to the problem of non-responding units. And, with the significant liberalization of the regime of control and the emergence of private placement agencies and staff-selection/recruitment boards in public sector (from the perspective of notification of vacancies) there is a likelihood of this problem getting accentuated over time. Even in respect of the responding units, the prevailing set of labour laws could inhibit formal acknowledgement and reporting of its total workforce.

II Organized Sector Employment: The Aggregate Picture

The general perception of declining employment in the organized sector in India is shaped by the DGE&T estimates. As can be readily seen (Table 1), as per these estimates in the five years between (1st March) 2000 and (1st March) 2005, organized sector employment in non-agricultural activities declined by a little under 1.6 million. Almost all of this decline (1.3 million) has been in the Public Sector (including Government) with the private organized sector too recording a small (0.3 million) decline over this period.

Our first alternative estimate (Estimate 1) covers all workers in non-agricultural activities on the Usual Principal Status who report themselves to be employed in Government/Public Sector or Public/Private Limited Companies or Co-operative enterprises i.e. with enterprise type Codes 5, 6 or 7 in the two surveys. For convenience we call this aggregate the corporate segment of the organized sector. **In terms of levels, our estimate of workforce in the corporate segment of the organized sector in non-agricultural activities as on 1st January 2000** (the mid-point of the survey year July 1999-June 2000) **is higher than the DGE&T estimates for (31st March) 2000 by a little over 5.7 million. The corresponding estimate for 2005, at 36.4 million, is higher than the DGE&T estimates by nearly 11.4 million. In terms of change over the period 2000-2005, these estimates show an increase in organized sector (non-agricultural) employment of a shade under 4.1 million⁵.**

The above estimates for 2004-05 explicitly excludes workers in proprietary/partnership enterprises that fall within the ambit of the Factories Act⁶. A correction for this gives rise to our second (conservative) estimate of organized sector employment (Estimate 2). This includes, in addition to all the workers covered under Estimate 1, workers in proprietary/partnership enterprises engaged in manufacturing using electricity **and** employing 20 or more workers. For 1999-2000, this adds a little over 2.1 million to the organized sector workforce and 3.0 million for 2004-05. Consequently, under our Estimate 2, the **increase** in organized sector non-agricultural employment between 2000 and 2005 is close to 4.9 million as against a 1.6 million **decrease** as per the DGE&T estimates.

Our final NSS-based estimate of organized sector employment (Estimate 3) also brings on board workers in proprietary/partnership enterprises engaged in manufacturing using electricity and

employing 10-19 workers, in addition to all the workers covered by our Estimate 2. **As per this, organized sector employment in non-agricultural activities in 2005 was a little over 41.5 million i.e. 16.5 million more than the DGE&T estimates for that year⁷.** Also, with parallel estimates for 2000 at 36.1 million, **our NSS-based estimates indicate an increase in organized sector employment of close to 5.4 million over the 2000-2005 quinquennium.** Despite this increase in the number of workers, **the share of the organized sector in total non-agricultural employment** [placed at 159.9 million in 1999-2000 and at 199.2 million in 2004-05 (See Sundaram, 2007b)], records a decline from 22.6 percent in 2000 to 20.8 percent in 2005.

III. Structure of Organized Sector Non-Agricultural Workforce

III.1 Industrial Distribution

As a prelude to our discussion of industrial distribution of the organized sector non-agricultural workforce, let us compare briefly our NSS-based estimates of employment in the organized Manufacturing sector with the corresponding estimates as per DGE&T and the Annual Survey of Industries. (See Table 2)

In terms of **levels**, for 1999-2000, the ASI estimate of workforce in the organized manufacturing sector is **higher** than the corresponding DGE&T estimate by 1.4 million. By 2004-05, this difference nearly doubles (2.7 million) so that, instead of a 1.0 million **decrease** in organized manufacturing sector employment as per the DGE&T estimates, the ASI estimates reveal an increase, albeit small, (0.25 million), between 2000 and 2005.

For 1999-2000, our NSS Estimate 1 (formally covering ‘other units covered under ASI besides public sector enterprises, ‘semi-public’ enterprises, public/private limited companies and cooperative societies) are **lower** than the ASI estimate and closer to but still lower than the DGE&T estimate for that year. But, our estimates 2 and 3 are higher than both the DGE&T and the ASI estimates for both years. In terms of **change** over the 2000-2005 quinquennium, while the DGE&T estimates indicate a **decrease** of nearly 1 million in organized sector Manufacturing employment, ASI estimates indicate a small rise of a shade under 0.25 million. In contrast, our NSS-based estimates for manufacturing employment in the corporate segment of the organized sector show an **increase** of a little over one million over the same period. Further, taking account of manufacturing employment in proprietary/partnership enterprises in the factory sector – the non-corporate factory sector, for short - **the increase in manufacturing employment in the organized sector as per NSS estimates is close to 2.4 million in the first quinquennium of 21st century**. In terms of shares in total manufacturing employment, the organized sector share has gone down marginally - from 23.4 to 22.0 percent – between 2000 and 2005.

Comparable DGE&T and NSS-based estimates of organized sector non-agricultural workforce by broad Industry Divisions as per NIC 1987- the classification used by DGE&T – are presented for (31st March/1st January) 2000 and 2005 in Table 3. As noted previously, our final NSS-based estimate (Estimate 3) of organized sector (non-agricultural) employment for 2000, at a little over 36 million is higher than the corresponding DGE&T estimate by 9.6 million, and, this gap between the two estimates widens substantially to a little over 16.5 million in 2005. In both years, two Industry divisions, namely, Manufacturing and Social Community and Personal Services, account

for an over whelming majority of the divergence between the two estimates. In 2000, the divergence between the two estimates for employment in the organized manufacturing sector accounted for a little over 34 percent of the difference between the DGE&T and the NSS-based estimates of total organized non-agriculture employment. And the difference between the two sets of estimates for the Social, Community and Personal Services accounted for a further 53 percent of the overall difference between the DGE&T and the NSS-based estimate of organized sector non-agricultural employment. For 2005, the share of the manufacturing sector in the overall difference between the two estimate goes up to 40.4 percent while that of the Social, Community and Personal services sector comes down to 43.7 percent.

In terms of **change** over the period 2000-2005, we have already noted the contrasting trends emerging from the DGE&T estimates and NSS-based estimates in respect of organized sector manufacturing employment: an increase of a little under 2.4 million as per the NSS-based estimate compared to a decline by a little under 1 million as per DSE&T. Similar **directional difference between** the two sets of estimates also arise in respect of: Electricity, Gas and Water; Transport, Storage and Communications; and, the Social Community and Personal Services Sectors. In respect of two Industry Divisions – Mining and Quarrying and Finance, Insurance, Real Estate and Business Services – both data sets show a **rise** in organized sector employment. However, in both cases, the size of the increment is larger as per the NSS-based estimate. Surprisingly (given the robust growth in net value-added at constant 1999-2000 prices) both data sets indicate a **decline** in organized sector employment in construction. This decline is marginally sharper as per DGE&T. In respect of only one sector – Trade, Hotels and Restaurants – we have a situation where the DGE&T estimates indicate a rise in organized sector employment – albeit very small – and a **decrease** (by

about 0.25 million) as per the NSS-based estimate. This too does not gel well with the sharp rise in Net Value-Added (at 1999-2000 prices) in the organized segment of the Trade, Hotels and Restaurants sector. (See our subsequent discussion on labour productivity in the organized and the unorganized segments of the economy).

III.2 Gender and Rural-Urban Composition⁸

In terms of gender composition, organized non-agricultural employment is overwhelmingly male with less than 16 percent of them being female in 2000. Despite some rise between 2000 and 2005, the share of women in total organized sector non-agricultural employment was only marginally higher than 18 percent in 2005. Except in the case of Social, Community and Personal services (where the share of women workers in the organized segment was about 22 percent in 2000 and 26 percent in 2005), in all other industry groups the share of women workers was lower than that in the aggregate all-India organized non-agricultural employment. This share was less than 10 percent in Trade, Hotels and Restaurants; Transport, Communications and Storage; and, the Mining and Quarrying sectors; and, at a little 3 percent (5 percent) in 2000 (2005), the share was the lowest in Electricity, Gas and Water Supply.

Organized sector employment is also predominantly urban. The share of rural areas is less than 40 percent in all industry-groups except construction where a majority of organized sector workforce (as much as 71 percent in 2005) is located in rural areas. This (rural) share is about or less than one third in Manufacturing; and, the Transport, Communications and Storage Sector and 20 percent or less in Finance, Insurance, Real Estate and Business Services, and, in the Trade,

Hotels and Restaurants Sector (in 1999-2000). Rural India has a less than 36 percent share in the aggregate organized sector non-agricultural employment in India and this is true for both 2000 and 2005.

Notwithstanding the dominant share of urban areas in the total organized sector non-agricultural employment, urban organized sector non-agricultural work force, at 26.6 million in 2004-05, accounted for barely one-fourth of the total urban non-agricultural workforce on the usual (principal plus subsidiary) status. Further, despite an increase of over 5 million in the number of organized sector workers (in non-agricultural) in Urban India between 2000 and 2005, the share of organized sector in total urban non-agricultural workforce declined from 26.6 to 25.3 percent between 2000 and 2005.

It is also possible to derive from the above the number of workers in the **Urban Informal Sector** defined as non-agricultural activities carried out in the unorganized sector in Urban areas. As we have shown elsewhere (Sundaram, 2007b), the total Urban workforce on the Usual (principal plus subsidiary) status totaled a little under 95.4 million in 1999-2000 (comprising 77.0 million male workers and 18.4 million female workers). Over the period 2000-2005, the total urban workforce increased to 115.1 million (90.4 million male workers and 24.6 million female workers). Given the proportions in non-agricultural activities – roughly 94 percent of male workers and 82 percent of female workers – the total non-agricultural workforce in Urban India is estimated at 87.2 million for 1999-2000 and 105.1 million for 2004-05. A simple subtraction of our estimate of urban organized sector non-agricultural workforce (Table 4) from the above will place **the size of the**

workforce in Urban Informal Sector at a shade under 64 million for 1999-2000 and at 78.5 million for 2004-05.

Taking both the rural and the urban areas together, with an estimated 199.2 million workers in non-agriculture in 2005 (See Sundaram, 2007b), our estimate of organized sector non-agricultural employment of 41.5 million would place the size of the Unorganized Sector non-agricultural employment for 2004-05 at 157.7 million. Parallel estimates for 1999-2000 – a total non-agricultural workforce of 159.9 million, with 36.1 million in the organized segment - puts the size of the Unorganized Sector non-agricultural workforce at a little over 123.8 million as on 1st January 2000.

III.3 Activity-Status Composition of Organized Sector Workforce

In the next section we examine the nature of job contracts of workers whose self-reported characterization of the enterprise where they are at work places them in the organized sector – including proprietary/partnership enterprises coming within the ambit of the Factories Act. Specifically we examine the presence (absence) of a written job contract, the entitlement (or absence thereof) to paid leave and to one or more of the following social security benefits: Pension/Provident Fund; Gratuity; and, Health Care and Maternity Benefits. **Prima facie**, we may expect the prevalence and the terms of job contracts to vary as between regular wage/salary workers and casual labourers and as between workers in the proprietary/partnership enterprises on the one hand and those in government/public sector or public/private limited companies on the other.

As a prelude to our analysis of job contracts of organized sector workforce we examine the structure of this workforce in terms of their activity-status: the self-employed; regular wage/salary (RWS workers, for short); and casual labourers, with casual labourers in public works being differentiated from Other Casual Labourers. Table 5 presents the estimates of workers in the organized sector by activity-status categories by gender and rural-urban location. While Panel A presents the estimates of organized sector workers in Government/Public Sector, Public/Private Limited Companies and Cooperatives (the corporate segment, for short), the activity-status composition of workers in Proprietary/Partnership enterprises engaged in Manufacturing using electricity with to in more workers (and thus falling within the ambit of the Factories Act) is presented in Panel B of Table 5. An overwhelming proportion (91 percent) of the workers in the corporate segment of the organized sector are RWS workers, with the Other Casual Labourers accounting for a further 6 percent. Even in the proprietary/partnership enterprises engaged in manufacturing and forming a part of the Factory Sector, RWS workers accounted for 67 percent of the workforce, while the 'Other Casual Labourers' accounted for a little under 25 percent. Taking both segments together, RWS workers have an overwhelming 88 percent share of the total organized sector workforce, with the Other Casual Labourers accounting for a further 8.5 percent. In fact, except in respect of rural female workers in proprietary/partnership enterprises in manufacturing in the Factory Sector, in no segment is the share of RWS workers less than 55 percent. Even among the rural female workers in the specified category of enterprises the share of RWS workers is a little over 35 percent.

The dominant share of RWS workers in virtually all segments of the organized sector workforce noted above, taken together with the fact that RWS workers in the organized sector formed over 52

percent of all RWS workers, also, provides the rationale for tracking the growth of ‘jobs’ in the economy by reference to the changes in the number of RWS workers (in the organized and the unorganized sectors taken together) rather than by reference to the DGE&T estimates (See Sundaram, 2007a).

IV. Job Contracts and Access to Benefits

In this section, we examine some facets of quality of employment in the organized sector focusing on the absence of access to a range of benefits such as eligibility for Paid Leave, Provident Fund (PF)/Pension, Gratuity, and, Health Care and Maternity Benefits. From the perspective of job security, we examine the proportion of workers currently working without any written job contract and juxtapose the same against the workers’ own perception about whether their current employment is temporary or permanent.

In this analysis we focus on the RWS workers who formed 88 percent of the organized sector workforce and the Other Casual Labourers with a 8.5 percent share of the organized sector workforce⁹. We distinguish the outcomes by gender and by rural-urban location and, in each case, also distinguish between enterprises in the corporate segment of the organized sector and the proprietary/partnership enterprises in the factory sector – what we call the non-corporate factory sector¹⁰.

Consider first the proportion of organized sector workers who report themselves to be working without any written job contract. As can be readily seen from Table 6, in line with prior expectations, the absence of a written contract is near total for the Other Casual Labourers –

irrespective of whether they are located in the corporate segment or in the non-corporate factory sector. Within the corporate segment, even though the proportion of Other Casual Labourers without any written contract is somewhat smaller in the Government/Public Sector than in the other components of the Corporate Sector, except in respect of Urban males 75 percent of whom are working without a written job contract, this proportion is close to or above 90 percent.

In the case of RWS workers in the non-corporate factory sector, the proportion of such workers without a written job contract is upwards of 76 percent and, in respect of rural females this proportion is as high as 92 percent. Taking the RWS workers in the corporate segment – which houses 91 percent of all RWS workers in the organized sector – the proportion of RWS workers without a written contract ranges between 30 and 37 percent. Within the corporate sector, among RWS workers in Government/Public Sector the proportion currently working without a written job contract is lower – between 21 and 27 percent. However, for RWS workers in the Public/Private Limited companies this proportion is significantly higher: ranging from 45 percent (urban males) to as high as 79 percent (rural females).

From the perspective of perceived job security, it is important to note that, relative to the proportion of organized sector workforce without a job contract – a weighted average of 36 percent of RWS workers, 95 percent for Other Casual Labourers and 41 percent overall – a significantly smaller proportion of these workers perceive their current employment to be temporary. Thus, less than 21 percent of all RWS workers (15 percent in the corporate segment) view their current employment to be temporary. Within the corporate segment, the proportion of RWS workers perceiving their employment to be temporary is even smaller in Government/Public Sector – ranging from less than

5 percent for urban males to less than 10 percent for both rural and urban females. Significantly, even among the Other Casual Labourers only 61 percent of them perceive their employment to be temporary while 95 percent of them are working without a written job contract. Taking both RWS workers and Other Casual Labourers together – accounting for over 96 percent of the organized sector workforce – less than a quarter (24 percent) of them view their current employment to be temporary.

The proportion of RWS workers not eligible for paid leave (21.4 percent in the corporate and the non-corporate segments taken together) is only marginally higher than the proportion of such workers who view their current employment to be temporary. As one would expect, within the corporate segment, the proportion of RWS workers in Government/Public Sector who are not eligible for paid leave is even smaller: less than 8 percent.

In the case of Other Casual Labourers, the proportion not entitled to paid leave (98 percent) is even higher than the proportion of such workers who are working without any written job contract (95 percent). That the absence of entitlement paid to leave is inherent in employment as Casual Labour rather than a feature of the type of enterprise in which they are employed is clear from the fact that even for the Other Casual Labourers working in Government/Public Sector the proportion **not** entitled to paid leave is close to or above 90 percent. In fact, for urban female Other Casual Labourers in Government/Public Sector the proportion not eligible for paid leave is as high as 99.4 percent.

Entitlement to a range of social security benefits like PF//Pension, Gratuity and Health Care and Maternity Benefits is often seen as the hallmark of good quality organized sector employment. As one would expect, **close to 97 percent of the Other Casual Labourers are not receiving of the listed social security benefits.** As far as RWS workers are concerned, those employed in the non-corporate factory enterprises are distinctly worse-off than their counterparts in the corporate segment of the organized sector. Thus, close to 72 percent of the former (i.e. RWS workers in non-corporate factory enterprises) are not eligible for any of the listed social security benefits compared to 22 percent of the RWS workers in the corporate segment who are not eligible for any of the social security benefits.

Focusing on the RWS workers who are eligible for one or more of the social security benefits (78 percent in the corporate segment and 28 percent in the non-corporate factory enterprises), **a little over 51 percent of all RWS workers in the corporate segment of the organized sector** are eligible for **all** the listed social security benefits, namely PF/Pension; Gratuity; and, Health-Care and Maternity benefits. As one would expect, the proportion of RWS workers entitled to the full range of social security benefits is significantly higher for those of them who are employed in Government/Public Sector: close to 70 percent in urban India, 54 percent in rural India and 64 percent in the country as a whole.

In the non-corporate segment of the organized sector, a little over 8 percent of the RWS-workers enjoy the full range of social security benefits. Taking both the corporate and the non-corporate segments together, a little over 47 percent of the RWS workers in the organized sector are entitled to all the listed social security benefits. A little over a quarter (26.3 percent) of the RWS workers in

the organized sector have access to one or more (but not all) of the listed social security benefits leaving a further 26.5 percent of such workers who are not entitled to even one of the listed social security benefits.

In a situation where over 96 percent of the Other Casual Labourers are not entitled to any of the listed social security benefits, it should not be a surprise that only one percent of such workers in the organized sector non-agricultural activities have access to all the listed social security benefits with a further 2.5 percent of such workers having access to one or more (but not all) of the listed social security benefits.

Taking both the corporate and the non-corporate segments and RWS workers and Other Casual Labourers together, a little over 43 percent of them have access to the full range of social security benefits, with a further 24 percent being entitled to one or more (but not all) of the listed social security benefits.

If we define absence of quality employment by reference to a situation where the worker is not entitled to any of the listed social security benefits, then, about a third (32.6 percent) of the organized sector non-agricultural workforce does not enjoy good quality employment. If we use the more stringent criteria of entitlement to all of the listed social security benefits, then, this proportion will go up to 57 percent. **In absolute terms, between 13.6 and 26.6 million of the 41.5 million workers in the organized non-agricultural sector in India in 2005, are, perhaps, better labeled as informal workers (in terms of lack of access to benefits of Labour legislation) in the formal sector defined by reference to form of organization of production.**

V. Labour Productivity in the Organized and Unorganized Segments of Non-Agriculture

In this section, we present and analyze estimates of labour productivity in terms of net value-added (NVA, for short) per worker, wages of adult (15-59) workers and of the proportion of such workers located in 'below-poverty line' (BPL, for short) households. In each case, we distinguish between the organized and the unorganized segments of the non-agricultural economy.

Labour productivity estimates are presented for broad industry groups as per NIC 1998 to correspond to the classification used in the National Accounts Statistics for NVA estimates, and, for the non-agricultural sector as a whole. These estimates are presented for two years: 1999-2000 and 2004-05.

The first step in deriving the estimates of labour productivity for the organized and the unorganized segments of the identified industry groups is to derive the estimates of workforce in the two segments. Given our estimates of organized sector workforce by industry groups for the two years (Table 4), estimates of workforce in the unorganized segment of the identified industry groups are derived, by subtraction, from the estimates of total workforce by industry drawn from our earlier paper (Sundaram, 2007b).

The estimates of NVA by industry group at constant 1999-2000 prices for the two years, as also an organized-unorganized break-up of NVA by industry for 1999-2000, is directly available from National Accounts Statistics 2007 (GOI, CSO, 2007). Also available are the estimates for 2004-05 NVA (at constant 1999-2000 prices) in Registered (organized) and Unregistered (unorganized) Manufacturing; in Railways; and, in Public Administration and Defence (both entirely in the

organized sector). For other industry groups (or components thereof), a organized-unorganized division of total NVA at 1999-2000 prices is obtained by reference to a similar break-up of NVA at current prices available in NAS 2007.

Table 7 presents the estimates of workforce, NVA and of NVA per worker by industry-group and for the total non-agricultural sector for 1999-2000 (Panel A) and 2004-05 (Panel B), distinguishing, in each case, the organized and the unorganized segments.

As noted earlier, Social, Community and Personal Services, and, Manufacturing are the two largest industry-groups in terms of organized sector workforce. They are also the two largest groups in terms of value-added. Transport and Communication and Storage is the third largest Industry in terms of workforce and, in terms of NVA, it is Finance, Insurance, Real Estate and Business Services (FIREBS for short) that is the largest Industry-group in the organized segment of non-agriculture.

In the **Unorganized sector**, in terms of both work force and NVA, Trade, Hotels and Restaurants constitute the largest sector followed by Manufacturing. Social, Community and Personal Services is the third largest industry in the Unorganized non-agricultural sector in terms of workforce while in terms of NVA, Transport, Communications and Storage occupies the third place.

In terms of levels of labour productivity, the net value added per worker in the Unorganized segment of total non-agriculture sector was less than 24 percent (23.7 percent to be precise) of the NVA per worker in the organized segment in 1999-2000 with only a fractional decline in this ratio

to 23.6 percent in 2004-05. This ratio (of NVA per worker in the unorganized segment to that in the organized segment) was the lowest in the Construction Sector (14.6 percent) and the highest (37.0 percent) in Transport, Communications and Storage, with the ratio at around 17 percent in three Industry-groups – Manufacturing, Trade, Hotels and Restaurants, and, FIREBS – and at 28 percent in Social, Community and Personal Services, in 1999-2000.

Over the 2000-2005 period, only for two of the major industry groups we find an improvement (a significant one from 28 to 36 percent in Social, Community and Personal Services) in labour productivity in the unorganized segment relative to that in the organized segment. In the other industry groups we have a significant deterioration in the labour productivity in the unorganized segment relative to that in the organized segment: from 17.4 to 14.8 percent in Manufacturing; from 14.6 to 9.7 percent in Construction; from 17.5 to 10.2 percent in Trade, Hotels and Restaurants; and, from 37.0 to 31.8 percent in Transport, Communications and Storage.

In terms of growth over the period 2000-2005, workforce growth in total non-agriculture and in all industry-groups, except Electricity, Gas and Water, has been faster in the unorganized segment. More surprisingly, for all non-agricultural activities taken together and in all major industry-groups except Mining & Quarrying, Manufacturing and Trade, Hotels and Restaurants, Net Value Added (NVA) at constant 1999-2000 prices has grown faster in the unorganized than in the organized segment.¹¹

The strong growth of NVA in unorganized non-agriculture at close to 9 percent per annum also meant that, despite the workforce in this segment growing at close to 5 percent per annum, labour

productivity (in terms of NVA per worker) in unorganized non-agricultural activities grew at a little over 3.7 percent per annum over the period 1999-2000 to 2004-2005. However, the much slower growth of workforce in the organized segment of non-agriculture (2.8 percent per annum) ensures a faster growth of NVA per worker in this segment (relative to unorganized segment of non-agriculture) at a little over 3.8 percent per annum despite a slower growth in total NVA in organized non-agriculture. With labour productivity in the unorganized segment of non-agriculture being less than one-fourth the NVA per worker in organized non-agriculture, the significantly faster growth of workforce in the low-productivity unorganized segment also drags down the growth rate of over all labour productivity in non-agriculture to a little under 3.1 percent for annum over the period 2000-2005.

VI. Wages and Poverty

We begin by examining the **average daily earnings of adult RWS – workers and Other Casual Labourers** differentiated by gender, rural-urban location, and, from the perspective of this paper, by the type of enterprise in which the worker is employed – as reported by the worker. We distinguish proprietary/partnership enterprises engaged in manufacturing using electricity with 10 or more workers and thus falling within the ambit of the factory sector from other proprietary/partnership enterprises. Also, within what we have labeled (for convenience) the corporate segment of the organized sector, we distinguish employment in Government/Public Sector from that in public/private limited companies as well as those at work in co-operative societies/trust/other non-profit institutions. The estimates of average daily earnings in the survey year (July-June) 2004-05 are presented in Table 8.

In respect of RWS-workers, the structure of wage differentials by gender, rural-urban location and by enterprise type, by and large conforms to a priori expectations. Adult wages are higher for males relative to females, higher in urban areas relative to rural areas. Also as expected, wages in the corporate segment are higher than those in proprietary/partnership enterprises in the factory sector which, in turn, are higher than those in other proprietary/partnership enterprises. Also, within the corporate segment, the average daily earnings are higher in government/public sector relative to those in public/private limited companies which, in turn, are generally higher (except for rural females) than the average daily earnings of RWS workers in co-operatives/trust/non-profit institutions.

Staying with the RWS-workers, except in respect of female workers in public/private limited companies, gender-differentials, for a given enterprise type, are greater than the rural-urban differentials for a given gender. Both in rural and in urban areas, the gender differentials are the least for workers in co-operatives/trust/non-profit institutions, and, with the just noted exception of rural female workers in public/private limited companies, is the highest in proprietary/partnership enterprises outside the factory sector. Also, gender differentials in urban India are lower than those in rural India. This is true irrespective of the type of enterprise in which the workers are located.

The structure of average daily earnings of Other casual Labourers, however, does throw-up a number of surprises. Thus, for rural males, the average daily earnings in the non-factory proprietary enterprises are higher than those in the corporate segment of the organized sector. The wages of the Other Casual Labourers are the highest in the proprietary/partnership enterprises in the factory sector. This result also holds true for rural females.¹²

In Urban India the differentials across enterprise type in wages of adult casual labourers generally follow the expected pattern: the wages are the lowest in the non-factory proprietary/partnership enterprises and the highest in the corporate segment of the organized sector, with the wages in proprietary/partnership enterprises in the factory sector located in between. Within the corporate segment, there are interesting differences as between Urban males and Urban females. For urban male Other Casual Labourers the highest average earnings are reported by those working in public/private limited companies while those working in co-operatives etc. have the lowest wage in the corporate segment with those in government/public sector enterprises getting a wage closer to but less than that in public/private limited companies. In respect of urban female Other Casual Labourers, the average daily earnings are the highest for those working in co-operatives etc. and the least for those working in public/private limited companies.

Another feature of the structure of average daily earnings of Other Casual Labourers is that the rural-urban differentials are strikingly smaller than those observed for RWS workers. In fact, in three cases – male workers in proprietary/partnership enterprises in the factory sector, as well as those working in co-operatives etc., and, women workers in non-factory proprietary/partnership enterprises – the rural wages are higher.

In a situation where the all-India urban poverty line (Rs.538.60) (as per the Planning Commission) is higher than the rural poverty line (Rs.356.30) by a little over 51 percent, the wage differentials for male workers – whether RWS workers or Other Casual Labourers – is much smaller, if not negative.

In respect of female workers also, the same is generally true. The exceptions are RWS workers in public/private limited companies (and, given their large share, in corporate segment as a whole as well); and, Other Casual Labourers in co-operatives etc.

In assessing the wages of adult workers in the organized and the unorganized segments of non-agriculture, it is important to note that the all-India poverty lines of the Planning Commission for 2004-05 – Rs.356.30 for rural India and Rs.538.60 for urban India – translate to an average daily per capita consumption of a little less than Rs.12 in rural India and Rs.18 in urban India. It is noteworthy that the average daily earnings of all workers – be it RWS-workers or Other Casual Labourers, males or females – irrespective of whether they are in the organized sector or in non-factory proprietary/partnership enterprises, are significantly higher than the values of daily per capita consumption by the official poverty line.

The above leads us to assess the proportion of adult usual (principal) status workers in non-agriculture who are in ‘below poverty line’ or BPL households. We differentiate by rural-urban location and by three broad types of enterprises in which the workers report themselves to be at work: proprietary/partnership enterprises engaged in manufacturing using electricity and employing 10 or more workers and thus located in the factory sector; the residual category of the non-factory proprietary/partnership enterprises that constitute the unorganized sector; and, the corporate segment of the organized sector. The head count ratios, separately for the self-employed, the RWS-workers, and the Other Casual Labourers, are presented in Table 9.

Consider first the workers in the unorganized sector.

Taking all three types of workers together, in rural India less than one-fifth of adult workers in the unorganized segment of non-agriculture are in ‘below poverty line’ (BPL) households. In urban India the proportion of unorganized sector workers so placed is a little less than 24 percent. As one would expect, the head count ratio is the least for RWS Workers and the highest for the Other Casual Labourers. For the latter group, the proportion in BPL households is a little under 41 percent in urban India and a little less than 26 percent in rural India. The head count ratio for the self-employed (who account for a little over 59 percent of the Unorganized Sector non-agricultural workforce in both rural and urban India) is significantly higher than that for the RWS Workers, but, especially in urban India, significantly lower than the proportion of Other Casual Labourers in BPL households.

Across the three enterprise types, the head count ratios for all workers taken together is the lowest in the corporate segment and the highest in the Unorganized Sector, with the head count ratio for the workers in the non-corporate factory sector lying in between. The difference between the corporate and the non-corporate segments of the organized sector in terms of proportion of workers in BPL households is less marked in rural India than in urban India. In rural India, thanks to the higher average daily earnings of Other Casual Labourers in the non-corporate factory segment relative to the average daily earnings of such workers in the corporate segment, the proportion of Other Casual Labourers in the non-corporate factory segment who are in BPL-households is significantly lower than is the case for such workers in the corporate segment of the organized sector. In urban India, the average daily earnings of RWS workers – accounting for close

to 95 percent of the workforce in the corporate segment and 73 percent of the workforce in the non-corporate factory sector – are substantially higher in the corporate segment than in the non-corporate factory sector (140 percent higher for males and 213 percent higher for females). This results in a significantly lower proportion of RWS workers in BPL-households in the corporate segment relative to such workers in the non-corporate factory sector. This results in a wider gap in the over-all head count ratio in the two segments in urban India than in rural India.

VII. Summary and conclusions.

In terms of the size of the organized sector workforce in non-agriculture, our NSS-based estimate of a little over 41.5 million for 2005 is larger than the corresponding estimate from the Directorate General of Employment & Training (DGE&T estimate for short) by over 16.5 million. Further, our estimates show a growth of this workforce by nearly 5.4 million over the 2000-2005 period instead of a 1.6 million decline indicated by the DGE&T estimates.

An organized-unorganized break-up of non-agricultural workforce by rural-urban location yields an estimate of the Urban Informal Sector of 78.5 million for 2004-05 with an increase of 14.5 million between 2000 and 2005. In the country as a whole, with only 41.5 million workers in the organized segment of non-agriculture out of a total non-agricultural workforce of a little over 199.2 million in 2004-05 (See, Sundaram, 2007b), the number of unorganized sector workers in non-agriculture is a little over 157.7 million in 2004-05.¹³

Further, our analysis of job contracts of workers in the organized non-agricultural sector shows that, seen by reference to entitlements (or, rather, absence thereof) to a set of social security benefits, between 14 to 27 million of the 41.5 million organized sector workers in 2004-05 are perhaps better labeled as informal workers in the formal sector.

In terms of labour productivity, despite a healthy 3.7 percent per annum growth between 2000 and 2005, net value added per worker in unorganized non-agriculture in 2005 is less than a quarter of that in the organized segment.

An analysis of average daily earnings of RWS-workers and of Other Casual Labourers shows the structure of wage – differentials, by gender, rural-urban location and by enterprise type to confirm, by large to *a priori* expectations: higher in urban areas, for male workers and for workers in the corporate segment relative to the non-corporate factory sector which, in turn, are higher than the wages in the unorganized sector.

Finally, our analysis of the poverty-status of usual (principal) status workers in non-agriculture shows that, across the three broad types of enterprises analysed, the head count ratios for all workers taken together is the lowest in the corporate segment of the organized sector and the highest in the unorganized sector with the head count ratio of workers in the non-corporate factory sector lying in between.

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**Table 1: Alternative Estimates of Organised Sector Non-Agricultural Employment:
All-India, 2000-2005**

Number of Worker				('000)			
Year	DGE&T Estimates			Year	NSS-Employment Estimate 1	Survey Based Estimates	
	Public	Private	Total			Estimate 2	Estimate 3
2000	18800	7742	26542	2000	32, 267	34,466	36,145
2005	17511	7469	24980	2005	36, 359	39,361	41,529
Change	(-) 1,289	(-) 273	(-) 1,562	Change	4, 092	4,881	5,384

Notes:

1. DGE&T estimates are as on 31st March while NSS Survey-based estimates are for the mid-point of the survey years (July-June) i.e. 1st January of the reference year.
2. NSS Estimate 1: Covers all workers on the Usual Principal Status who report themselves to be employed in Government/Public Sector or Public/Private Limited Company or Co-operative enterprises.
3. NSS Estimate 2: Includes workers in proprietorship/partnership enterprises engaged in manufacturing using electricity and employing 20 or more workers besides all workers covered in Estimate 1.
4. NSS Estimate 3: All workers covered in NSS Estimate 2 **plus** workers in proprietorship/partnership enterprises engaged in manufacturing using electricity and employing 10-19 workers.
5. NSS estimates for 2000 can not be (and, therefore, to retain comparability with NSS estimates for 2000, the same for 2005 are not) made strictly comparable to DG E&T estimates which have Industry Divisions as per NIC 1987. Specifically, employment in cotton ginning, cleaning and baling, (NIC 1998 code: 01405) which forms part of Manufacturing as per NIC 1987 but not as per NIC 1998, totalling 14 thousand workers as per NSS estimates for 2005, is excluded from all NSS estimates for both 2000 and 2005.
6. All NSS estimates are computed from Unit Record Data for NS 55th (1999-2000) and 61st Round (2004-05) Employment Surveys. These estimates are built-up from separate estimates for Rural Males, Rural Females, Urban Males and Urban Females, each appropriately scaled-up to match segment specific population totals based on inter Censal interpolation (for 1999-2000) and, Population Projections (for 2004-05). See Sundaram (2007).
7. DGE&T estimates for 31st March 2000 are drawn from GoI, Ministry of Finance, Economic Survey, 2006-07. DGE&T estimates for 31st March, 2005 are from G.o.I. Ministry of Labour and Employment, Quarterly Employment Review, January-March, 2005, 2007.

Table 2: Alternative Estimates of Employment in the Organised Manufacturing Sector, All-India, 1999-2000-2004-05

Number of Persons Engaged in Manufacturing Employment					(‘000s)
Year	DGE&T	ASI	NSS Estimates 1	NSS Estimate 2	NSS Estimate 3
1999-2000	6, 616	8, 052	6,037	8,237	9,915
2004-05	5, 619	8, 301	7,147	10,149	12,317
Increase / Decrease	(-) 997	249	1,110	1,897	2,402

Notes:

1. Sources for the DGE&T and NSS estimates are as indicated in Table 1.
2. ASI estimates presented here relate to the Manufacturing Sector only and excludes the workers in NIC 1998 Industry Codes 38 or higher. These estimates are taken from Annual Survey of Industries (Factory Sector) vol. I 1999-2000 and CSO website, mospi.gov.in. (for the 2004-05 estimates).
3. For explanation of NSS estimates 1, 2 and 3, see notes to Table 1.
4. See Note 5 of Table 1.

Table 3: Alternative estimates of Organised Sector Non-Agricultural Work force by Industry Divisions (NIC 1987): All-India, 1999-2000-2004-05.

Number of Workers in the Organised Sector

(‘000s)

Industry Division	DGE&T Estimates		NSS Estimates	
	2000	2005	2000	2005
1. Mining & Quarrying	1,005	1,093	648	986
2+3. Manufacturing	6,616	5,619	9915 (8237)	12,317 (10149)
4. Electricity, Gas and Water	987	909	975	1,152
5. Construction	1,149	960	1,680	1437
6. Trade, Hotels& Restaurants	493	559	1,152	895
7. Transport, Communication & Storage	3,147	2,837	3,312	3,458
8. FIREBS	1,654	1,931	1,919	2,993
9. Social, Community and Personal Services	11,494	11,072	16,544	18,291
All	26,545	24,980	36,145 (34,466)	41,529 (39,361)

Source: See Notes to Table 1.

Notes:

1. NSS estimates are as per NIC 1987 to make them comparable to DGE&T estimates.
2. NSS Estimates for the Manufacturing Sector (and, the corresponding estimates for total non-agricultural workforce) corresponds to NSS Estimate 3 of Table 2 (Table 1). The figures within brackets against Manufacturing (all non-agriculture) are the same as NSS Estimate 2 in Table 2 (Table 1).
3. See Note 5 of Table 1.
4. FIREBS: Finance, Insurance, Real Estate and Business Services.

Table 4: Industrial Distribution of Usual (Principal) Status Workers in Govt/Public Sector, Public/Private Ltd. Companies and Cooperatives by Gender and Rural-Urban Location as per NSS Employment-Unemployment Surveys: All-India, 1999-2000-2004-2005

Industry Division	Number of Workers					('000s)				
	1999-2000					2004-2005				
	Rural	Urban	Males	Females	Persons	Rural	Urban	Males	Females	Persons
Mining & Quarrying	230	418	598	50	648	348	638	931	55	986
Manufacturing	3270 (2670)	6645 (5567)	8689 (7212)	1226 (1025)	9915 (8237)	3935 (3485)	8382 (6664)	10636 (8698)	1681 (1451)	12317 (10149)
Electricity, Gas & Water	404	571	943	32	975	465	687	1094	58	1152
Construction	971	709	1434	246	1680	1015	422	1223	214	1437
Trade, Hotels & Restaurants	187	965	1052	100	1152	305	590	806	89	895
Transport, Communication & Storage	1031	2281	3097	215	3312	1036	2422	3233	225	3458
FIREBS	395	1524	1681	238	1919	566	2427	2520	473	2993
Social Community & Personal Services	6472	10072	12890	3654	16544	7248	11013	13538	4753	18291
All	12960 (12360)	23185 (22107)	30384 (28907)	5761 (5560)	36145 (34467)	14918 (14468)	26611 (24893)	33981 (32043)	7548 (7318)	41529 (39361)

Sources: See Table 1

Note:

1. FIREBS: Finance, Insurance, Real Estate and Business Services.
2. NSS Estimates for the Manufacturing Sector (and, the corresponding estimates for total non-agricultural workforce) corresponds to NSS Estimate 3 of Table 2 (Table 1). The figures within brackets against Manufacturing (all non-agriculture) are the same as NSS Estimate 2 in Table 2 (Table 1).
3. See Note 5 of Table 1.

Table 5: Activity status composition of Organised Sector Workers in Non-Agriculture by Gender and Rural-Urban Location: All-India, 2004-05.

Panel A: Workers in Government/Public Sector, Public/Private Limited Companies and Co-operations.

Number of Workers by Activity Status					('000s)
Activity Status	Rural Males	Rural Females	Urban Males	Urban Females	Total Persons
RWS Workers	8,985	2,311	17,868	3,915	33,079
Casual Lab in Pub. Workers	256	111	79	13	459
Other Casual Labour	1,155	276	674	132	2,237
Self-Employed	204	77	266	37	584
All	10,600	2,775	18,887	4,097	36,359

Panel B: Workers in Partnership/Proprietorial Enterprises Engaged in Manufacturing Using Electricity with 10 more workers.

Number of Workers by Activity-Status					('000)
Activity Status	Rural Males	Rural Females	Urban Males	Urban Females	Total Person
RWS Workers	721	79	2,324	316	3,441
Other Casual Labourers	574	136	486	79	1,274
Self-Employed	25	8	364	58	455
All	1,320	223	3,174	453	5,170

Source: Unit Record Data, NSS 61st Rural Employment-Unemployment Survey, 2004-05.

Table 6: Job Contracts and Access To Benefits of RWS Workers and Other Casual Labourers in the Organised Non-Agricultural Sector by Gender and Rural-Urban Location and Enterprise Type: All-India, 2004-05

Panel A: Regular Wage/Salary Workers (Percentage)

Sl. No.	Benefits	Enterprise Type 5-7-all Non-Agriculture					Enterprise Type 1-4 in Manufacturing using Electricity With 10 or more workers					Total Org. Sector
		Rural Males	Rural Females	Urban Males	Urban Females	All Areas (Males & Females)	Rural Males	Rural Females	Urban Males	Urban Females	All Areas (Males & Females)	
1	No Written Contract	32.5	36.9	31.0	29.7	31.6	88.1	92.2	77.9	76.5	80.2	36.2
2	Temporary Employment	17.0	26.6	12.4	19.0	15.4	38.5	51.9	45.8	51.6	44.9	18.2
3	No Paid Leave	19.5	30.3	13.2	17.5	16.3	66.2	79.8	68.4	70.0	68.2	21.2
4	NO SSBs	25.7	46.4	16.0	24.7	21.8	71.7	77.2	72.3	68.2	71.9	26.5
5	All SSBs	47.4	31.7	55.4	52.1	51.2	4.4	11.5	9.1	9.2	8.2	47.2

Panel B: Other Casual Labourers (Percentage)												
Sl. No.		Enterprise type 5-7-all non-agriculture					Enterprise type 1-4 in Manufacturing using Electricity with 10 or more workers					Total Org. Sector
		Rural Males	Rural Females	Urban Males	Urban Females	All Areas (Male & Females)	Rural Males	Rural Females	Urban Males	Urban Females	All Areas (Male & Females)	All Areas (Male & Females)
1	No Written Contract	94.0	96.4	89.7	96.3	93.1	99.5	91.1	99.4	100.0	98.7	95.1
2	Temporary Employment	69.0	66.6	77.0	92.0	72.5	53.2	66.5	58.0	55.8	56.7	66.7
3	No Paid Leave	96.3	95.6	97.5	99.2	96.8	100.0	95.3	100.0	100.0	99.6	97.8
4	No SSBs	96.3	95.8	95.5	95.2	95.9	97.9	91.6	97.7	98.1	97.2	96.4
5	All SSBs	0.7	1.1	2.3	1.6	1.3	0.8	0.4	NIL	NIL	0.4	1.0

Notes:

1. Enterprise Type 5 Thru 7 covers Government/ Public Sector; Public/Private Limited Companies; and, Co-operatives.
2. Enterprise Type 1 Thru 4 Covers Proprietary and Partnership Enterprises.
3. Computed from Unit Record Data of NSS 61st Round Employment-Unemployment Survey, 2004-05.
4. SSBs: Social Security Benefits. These are: Pension/Provident Fund (PF); Gratuity; Health Care and Maternity Benefits.

Table 7: Employment, Net Value Added and Labour Productions in the Organised and the Unorganised Segments of Non-Agriculture by Broad Industry Divisions: All-India, 1999-2000-2004-05.

S.No.	Ind. Division (NIC 1998)	Work Force (000)			Net Value-Added (Rs. Crores)			NVA Per Worker (Rs.)		
		Total	Organised	Unorganised	Total	Organised	Unorganised	Total	Organised	Unorganised
1	Mining & Quarrying	1883	650	1233	32975	30208	2767	175119	464738	22441
2	Manufacturing	44260	9903	34357	206126	128653	77473	46572	129913	22549
3	Electricity, Gas & Water	1054	975	79	24204	23546	658	229639	241497	83291
4	Construction	17747	1680	16607	99312	40691	58621	55960	242208	35299
5	Trade, Hotels & Restaurants	41453	1305	40148	248196	38822	209374	59874	297487	52151
6	Transport, Communication & Storage	14848	3312	11536	105793	46249	59544	71251	139641	51616
7	FIREBS	4925	1977	2948	137516	110002	27514	279220	556409	93331
8	Social, Community and Personal Services	33727	16343	17384	246738	189843	56845	73157	116162	32700
9	Total Non-Agriculture	159897	36145	123752	1100860	608014	492846	68848	168215	39825

Panel B: 2004-05

Sr. No.	Ind. Division (NIC 1998)	Work Force (000)			Net Value-Added (Rs. Crores)			NVA Per Worker (Rs.)		
		Total	Organised	Unorganised	Total	Organised	Unorganised	Total	Organised	Unorganised
1	Mining & Quarrying	2548 (6.24)	996 (8.91)	1552 (4.71)	42324 (5.12)	38982 (5.23)	3342 (3.85)	166107 (-1.05)	391386 (-3.38)	21534 (-0.82)
2	Manufacturing	55900 (4.78)	12,304 (4.44)	43,596 (4.88)	277237 (6.11)	181617 (7.14)	95620 (4.30)	49595 (1.27)	147608 (2.59)	21933 (-0.55)

3	Electricity, Gas & Water	1211 (2.82)	1152 (3.39)	59 (-5.67)	28727 (3.49)	27363 (3.05)	1364 (15.70)	237217 (0.65)	237526 (-0.33)	231186 (22.65)
4	Construction	25998 (7.94)	1437 (-3.08)	24561 (8.14)	150510 (8.67)	56533 (6.80)	93977 (9.90)	57893 (0.68)	393410 (10.19)	38263 (1.63)
5	Trade, Hotels & Restaurants	49593 (3.65)	967 (-5.82)	48626 (3.91)	365739 (8.06)	59768 (9.01)	305971 (7.88)	73748 (4.26)	618077 (15.75)	62923 (3.83)
6	Transport, Communication & Storage	18587 (4.59)	3458 (0.87)	15129 (5.57)	202097 (13.82)	84580 (12.83)	117517 (14.57)	108730 (8.82)	244592 (11.86)	77677 (8.52)
7	FIREBS	7780 (9.58)	3021 (8.86)	4759 (10.04)	213974 (9.24)	165144 (8.47)	48830 (12.16)	275031 (-0.30)	546473 (-0.36)	102627 (1.91)
8	Social, Community and Personal Services	37619 (2.21)	18194 (2.17)	19425 (2.25)	316853 (5.13)	229140 (3.83)	87713 (9.06)	84227 (2.86)	125943 (1.63)	45155 (6.67)
9	Total Non-Agriculture	199236 (4.50)	41529 (2.82)	157707 (4.97)	1597461 (7.73)	843127 (6.76)	754334 (8.89)	80179 (3.09)	203021 (3.83)	47831 (3.73)

Note:

1. Workforce estimates by Industry Division are as per NIC 1998 to correspond to NIC codes used for NVA estimates.
2. See Note 2 in Table 4.
3. Estimates of NVA for the Finance, Insurance, Real Estate and Business Services (FIREBS) **exclude** Rental Income (mostly imputed) from ownership of dwellings. In the absence of estimates of capital consumption allowance (CCA) separately for dwellings, the figures for CCA for ownership of dwellings and Business Services is deducted from the GDP from ownership of dwellings to derive net value-added from ownership of dwellings and excluded from the estimates of NVA for the FIREBS sector total and for unorganized sector.
4. Workforce estimates (total) by Industry are drawn from Sundaram (2007).
5. All estimates of NVA and NVA per Worker are at constant 1999-2000 prices. For 1999-2000, the organised/unorganized break-up is directly available in NAS, 2007. For 2004-05 this is obtained by reference to a break-up available at current prices in NAS, 2007.
6. Figures within brackets below the level estimates for 2004-05 indicate the compound rate of growth (percent per annum) between 1999-2000 and 2004-05.
7. FIREBS: Finance, Insurance, Real Estate and Business Services.

Table 8: Average Daily Earnings of RWS workers and Other Casual Labourers in Non-Agricultural activities by Gender, Rural-Urban Location and by Type of Enterprise: All-India, 2004-05

**Average Daily Earnings of Adult (15-59) Workers
Rs. (0.00)**

Ent. Type	Rural Males		Rural Females		Urban Males		Urban Females	
	RWS-Workers	OCL Workers	RWS-Workers	OCL Workers	RWS-Workers	OCL Workers	OCL Workers	RWS-Workers
1-4 Non-Factory	68.20	65.82	36.79	41.87	87.97	67.49	41.64	38.92
1-4 Factory	91.76	78.70	51.32	46.17	124.74	73.96	80.08	46.57
5	238.60	65.18	136.22	43.74	324.00	72.52	277.37	64.84
6	176.41	66.13	59.11	37.33	271.94	76.86	225.41	54.40
7	160.00	64.77	93.78	43.24	178.32	59.11	171.48	99.13
5-7	220.06	65.79	120.93	40.40	300.09	75.43	250.54	58.92

Notes:

1. Computed from Unit Record Data.
2. Enterprise Type 1-4-Non-Factory: Proprietary/Partnership enterprises **excluding** such enterprises engaged in manufacturing using electrical and employing 10 or more workers i.e. those in the Factory Sector.
3. Enterprise Type 1-4-Factory: Proprietary/partnership enterprises engaged in Manufacturing in the Factory Sector.
4. Enterprise Type 5: Government/Public Sector.
5. Enterprise Type 6: Public/Private Limited Company.
6. Enterprise Type 7: Co-operative Societies/trust/other non-profit institutions.

Table 9: Percentage of Adult (15-59) Workers in Below Poverty-Line Households by Enterprise Type, Rural-Urban Location and Activity-Status: All-India, 2004-05.

Percentage of Adult (15-59) Workers in BPL Households						
Enterprise Type/Activity Status	RURAL			URBAN		
	1-4 Non-Factory	1-4 Factory	5-7	1-4 Non-Factory	1-4 Factory	5-7
Self-Employed	18.61	NIL	17.00	21.96	6.32	10.54
RWS-Workers	11.89	5.98	5.76	16.77	7.45	4.67
Other Casual Labourers	25.78	16.64	23.99	40.97	24.74	26.55
All	19.77	10.76	8.44	23.75	10.01	5.62

Notes:

1. Computed from Unit Record Data.
2. For methodology used for deriving estimates of percentage of workers in BPL-households, see Sundaram and Tendulkar (2005).
3. For description of enterprise types, see notes to Table 8.

Endnotes:

¹ All Industrial establishments with 10 (20) or more workers if using (not using) electricity are covered by the Factories Act.

² It needs to be stressed that the set of questions are addressed only to the workers on the Usual Principal Status workers in non-agriculture. In particular, it does not cover workers in non-agricultural on the subsidiary status.

³ This covered all workers in industry divisions 10-99 as per NIC 1998. Additionally, in the NSS 61st Round, workers in industry groups 012, 014 and 015 and division 02 (all as per NIC 1998) were also canvassed for these questions.

⁴ Analysis of 55th Round Unit Record data showed the presence of a sizeable number of workers in manufacturing enterprises among proprietary and partnership enterprises that fall in the factory sector i.e., those using electricity and employing 10 or more workers.

⁵ These estimates also match the estimates given in the NSS Report on Informal Sector and Conditions of Employment in India 2004-05 (GOI, NSSO, 2007) after they are scaled-up to reflect the population estimates for January 2005 in the four population segments as per the Export Group on Population Projections.

⁶ Formally, Code 7, Others, used in the 1999-2000 survey includes “other units covering under ASI”. However, our tabulation of Unit Record Data showed the presence of a substantial number of workers in proprietary/partnership enterprises engaged in manufacturing using electricity and employing 10 or more workers.

⁷ In its recent Report on Conditions of Work and Promotion of Livelihoods in the Unorganized Sector, the National Commission for Enterprises in the Unorganized Sector (NCEUS, for short) present an estimate of organized sector employment (See Table 1.1, p.4) that is much higher – 54.1 million for 1999-2000 and 62.6 million for 2004-05 – than our estimates (NCEUS, 2007). They have, however, not explained how they have arrived at these figures. As noted in footnote 5, our NSS Estimate 1 closely matches the estimates given in the published NSS Report for the number of workers in Government/public sector; public/private limited companies’ and, co-operatives etc. – all taken together - after they are adjusted for the underlying population totals. The other components underlying our final estimate for total organized sector workforce in non-agricultural activities, have been fully explained in the Text.

It needs to be stressed that our estimates for 2004-05 excludes workers in NIC groups 012, 014, 015, 02 and 05 and cover only NIC groups strictly comparable to the estimates for 1999-2000. In 2004-05, appropriately adjusted for population, workers in the above noted excluded NIC groups totaled only 230,000. So that, even if we add these workers, the NSS-based estimate of total organized sector non-agricultural workforce would be 41.7 million. Of Course, doing so would render this estimate for 2004-05 non-agriculture non-comparable the estimates for 1999-2000.

⁸ All our discussion of the composition of the organized sector non-agricultural workforce are based on our final NSS-Survey based estimate (Estimate 3).

⁹ This leaves out the Casual Labourers in Public Works (forming just a shade over 1 percent of the organized sector workforce) and the self-employed for whom the set of questions have little meaning.

¹⁰ Within the corporate sector, in rural areas, the RWS workers are overwhelmingly (72 percent for males and 76 percent for females) in the Government/Public Sector enterprises. Even in urban areas close to two-thirds of RWS workers are in Government/Public Sector. About 31 percent of urban male RWS workers

and about 22 percent of urban female RWS workers are in Public/Private Limited Companies. In respect of Other Casual Labourers, in urban areas, both for males and females, an overwhelming proportion of these (74 percent for males and 71 percent for females) are engaged by Public/Private Limited Companies, with between 23-26 percent employed in Government/Public Sector. In respect of rural male Other Casual Labourers too, public/private limited companies have the dominant share (63.5 percent) with the Government/Public Sector accounting for a little over 31 percent of such workers. In respect of female Other Casual Labourers in rural India these two components of the corporate sector have each over 40 percent share with the Public/Private Limited Companies having a 47 percent share. To avoid clutter, all estimates in Table 6 will differentiate the non-corporate factory sector from those for the corporate segment taken as a whole without separate estimates for the Government/Public Sector; the Private Limited Companies; and, the Co-operatives.

¹¹ It is possible, but perhaps not probable, that our procedure of allocating the total NVA of an Industry-group at constant 1999-2000 prices as between the organized and the unorganized segment by reference to such a break-up available for NVA at current prices – used in all cases except Manufacturing, Railways and Public Administration and Defence where constant price estimates were directly available – may have partly contributed to this result.

¹² Given that this component is restricted to enterprises engaged in Manufacturing, one needs to check whether this is true for labourers in the enterprises in the corporate segment which are engaged in Manufacturing. It turns out that the average daily earnings in Manufacturing of rural male (as also rural female) – Other Casual Labourers in the corporate segment are indeed lower – whether they are in Government/Public Sector or in Public/Private Limited Companies or in Co-operative & Trust/other non-profit institutions.

¹³ Parallel estimates for 1999-2000 – a total non-agricultural workforce of 159.9 million with 36.1 million in the organized segment – puts the size of the total unorganized sector non-agricultural workforce at a little over 123.8 million as on 1st January 2000.