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## CHAPTER VI

### UNORGANISED TRANSPORT, STORAGE AND WAREHOUSING, AND COMMUNICATION SERVICES

#### Introduction

In the broad aggregates of the National Accounts Statistics, transport, storage and communications are usually grouped together. The three subsectors combined account for eleven percent of gross domestic product, and four per cent of employment<sup>1</sup> as estimated by the National Accounts Statistics and the National Sample Survey respectively. Of the three subsectors transport is the largest contributor to gross domestic product, and provides employment to the largest number of people. Most of the workers in both the transport and the storage and warehousing subsectors belong to the unorganised segment – 76 percent and 60 percent of them, respectively. On the other hand unorganised communications services provides employment to only five percent of the workforce in communications services<sup>2</sup>.

Within the unorganised sectors covered in this volume, the three subsectors combined account for less than five percent of employment and just over eight per cent of gross value added. Of this transport alone accounts for about 92 percent of employment and nearly 90 per cent of gross value added by the unorganised transport, storage and communications sector.

The substantive sections of this chapter treat each of these three subsectors independently. This has been done because the reference years for the surveys of these subsectors do not match, and the coverage of each subsector differs from each of the others.

For the transport sector, the basic all India level data is available for four points in time 1979-80, 1983-84, 1988-89 and 1993-94, and regional estimates for the main magnitudes are available for the same fifteen major states covered in the earlier chapters, but only for two years: 1988-89 and 1993-94. There are other gaps. For example, even at the all India level, breakdowns by enterprise type are not given at all for 1988-89 and no cross-classification by type of transport can be done. Detailed time series data by transport type can be assembled only for three very broad categories; mechanised transport, non-mechanised transport, and services incidental to transport. This disaggregation is enough to produce some important insights-for example, on the transition to mechanised transport in the early 1980s- but more is required. To illustrate, we do not even know how much of it is transport by land, and how much by river or sea.

In the case of storage and warehousing, data is available, in principle, for three survey years; 1979-80, 1983-84 and 1992-93. However, for all practical purposes, the data from the first two surveys is unusable because the estimates come from absurdly small samples- a total of 51 enterprises, 9 rural 42 urban, on an all-India basis in 1979-80, and altogether 146 sample enterprises in 1983-84. Using the 1992-93 estimates at the all-India level, warehousing, cold storage and other storage can be distinguished as can own account, non-directory and directory establishments but, again, no cross-classification is possible. Finally, regional analysis has to be confined to seven major states plus an eighth residual category headed “other states and union territories”.

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<sup>1</sup> Employment is on a Usual Principal and Subsidiary Status basis.

<sup>2</sup> Figures for the organised sector are taken from the Directorate General of Employment and Training Employment, Employment Market Information Programme, Employment Review 1993-94

The analysis of unorganised communications services is even more constrained by the data available. The all India estimates are for one-year only- 1991-92- and no state level estimates were ever published.

Nevertheless, the organisation of the material available for each subsector follows that adopted for the other sectors covered in this report as far as possible. The main difference is in the numbering of parts and sectors. Transport is labelled part A, and is divided into two sections. Section I covers the basic magnitudes and trends in them and Section II deals with unorganised transport at the region level. The analysis of storage and warehousing, labelled Part B, is also presented in two sections, one for the all India estimates and one for the regional analysis. Part C, on communications services consists of only one section.

The substantive findings on the transport sector relate to trends. First there has been significant extension of transport facilities to rural areas. Secondly, what amounts to a technological revolution got underway in the early 1980s, which witnessed rapid motorisation of transport enterprises. Last but not least, unorganised transport provides a classic case of overcrowding taking place in response to high levels and rates of growth of gross value added in both the mechanised and non-mechanised sections of the industry. In the case of storage and warehousing, the main findings' relate to its structure, which is unlike that in any other unorganised sector activity. The typical rural enterprise is a relatively large unit, operating with regular hired workers, and not a tiny family operated business as is usually the case in other unorganised sectors. The typical urban enterprise is smaller.

The unorganised communication services sector, on the other hand, appears to be overwhelmingly concentrated in urban centres, at least in 1991-92, which is the only year for which estimates exist, but even this is far from certain, even on a qualitative level. The all-India rural sample for unorganised communications consisted of five enterprises only. Thus only the estimates for urban areas should be taken with any degree of seriousness. (In urban areas 183 enterprises were covered)

All of these subsectors are in dire need of a re-survey, which in the cases of storage and warehousing, and communications services should be done on the basis of a sample large enough to provide reliable estimates for at least fifteen major states. Other desirable disaggregations are suggested in the relevant sections which follow.

## **Part A: Unorganised Transport**

### **Introduction and Overview**

Unorganised Transport provides a classic case of over crowding. Following a dramatic shift from non-mechanised to mechanised transport in the early 1980s, mechanised transport recorded handsome rates of growth in enterprises, workers and gross value added. Productivity levels in the mechanised segment were, and still are, high relative to those in other unorganised sectors. But so many workers flooded into both mechanised and non-mechanised transport that productivity levels in both branches were pushed down. Only the minor sub category, services incidental to transport, was able to manage GVA growth rates which were higher than employment growth rates, and therefore to achieve at least some gains in labour productivity.

This Part is organised in two main sections. Section I deals with the main magnitudes and trends in them, and Section II presents the regional profile, including an analysis of regional disparities.

## Section I: The Basic Magnitudes and Trends in Them

### 6.A.1.1 Trends in the Absolute Numbers of Enterprises and Workers and Gross Value Added by Unorganised Transport.

#### (i) Enterprises and Workers

The unorganised transport sector today provides a livelihood to more than three million people, working in just under two million enterprises, most of them located in rural areas. The dramatic reduction in the number of enterprises and workers which took place during the 1979-80 to 1983-84 period was heavily concentrated in rural areas and among own account enterprises. The 'recovery' which got underway in the mid 1980s was gradual, but continuous. Table 6.A.1.1 gives estimates of the absolute number of enterprises and workers.

**Table 6.A.1.1: Enterprise and Employment Numbers in Unorganised Transport by Enterprise Type and by Rural or Urban Location: All India 1979-80, 1983-84, 1988-89 and 1993-94**

Location and Year	A: Absolute Number of Enterprises			
	OAE	NDE	DE	All Types
<b>Rural</b>				
1979-80	781,613	61,626	Na	843,239
1983-84	250,885	31,855	3,081	285,821
1988-89	474,328	43,789	5,286	523,403
1993-94	1,068,119	181,009	11,507	1,260,637
<b>Urban</b>				
1979-80	563,188	27,521	Na	590,709
1983-84	306,707	46,869	12,872	366,448
1988-89	437,745	69,762	15,701	523,208
1993-94	602,843	109,070	25,690	737,599
<b>Total (R+U)</b>				
1979-80	1,344,801	89,147	Na	1,433,948
1983-84	557,496	78,799	15,974	652,269
1988-89	912,073	113,551	20,987	1,046,611
1993-94	1,670,962	290,079	37,197	1,998,236
Location and Year	B: Absolute Number of Workers			
	OAE	NDE	DE	All Types
<b>Rural</b>				
1979-80	905,879	159,673	Na	1,065,551
1983-84	280,054	86,226	38,853	405,133
1988-89	Na	na	Na	719,400
1993-94	1,181,098	465,252	85,904	1,732,254
<b>Urban</b>				
1979-80	615,622	77,402	Na	693,024
1983-84	340,716	141,883	134,018	616,617
1988-89	Na	na	Na	888,435
1993-94	645,784	321,820	357,539	1,325,145
<b>Total (R+U)</b>				
1979-80	1,521,501	237,074	Na	1,758,575
1983-84	620,770	228,109	172,871	1,021,750
1988-89	na	na	Na	1,607,835
1993-94	1,826,882	787,072	443,443	3,057,399

Table 6.A.1.2 shows the corresponding changes in the number of enterprises and workers. That these numbers reflect the impact of a technological revolution in unorganised transport becomes obvious only when the breakdowns are shown in terms of transport type, as in tables 6.A.1.3 and 6.A.1.4.

**Table 6.A.1.2: Changes in the Absolute Numbers of Unorganised Transport Enterprises and Workers by Enterprise Type and By Rural or Urban Location: All India 1979-80 to 1983-84, 1983-84 to 1988-89, 1988-89 to 1993-94**

Location and Period	A. Change in Number of Enterprise by Enterprise Type			
	OAE	NDE	DE	All Types
<b>Rural</b>				
79-80 to 83-84	-530,728	-29,771	3,081	-557,418
83-84 to 88-89	223,443	11,934	2,205	237,582
88-89 to 93-94	593,791	137,220	6,221	737,234
<b>Urban</b>				
79-80 to 83-84	-256,481	19,348	12,872	-224,261
83-84 to 88-89	131,038	22,893	2,829	156,760
88-89 to 93-94	165,098	39,308	9,989	214,391
<b>Total (R+U)</b>				
79-80 to 83-84	-787,305	-10,348	15,974	-781,679
83-84 to 88-89	354,577	34,752	5,013	394,342
88-89 to 93-94	758,889	176,528	16,210	951,625
<b>Rural</b>				
79-80 to 83-84	-625,825	-73,447	na	-660,418
83-84 to 88-89	na	na	na	314,267
88-89 to 93-94	na	na	na	1,012,854
<b>Urban</b>				
79-80 to 83-84	-274,906	64,481	na	-76,407
83-84 to 88-89	na	na	na	271,818
88-89 to 93-94	na	na	na	436,710
<b>Total (R+U)</b>				
79-80 to 83-84	-900,731	-8,965	na	-736,825
83-84 to 88-89	na	na	na	586,085
88-89 to 93-94	na	na	na	1,449,564

**Table 6.A.1.3: Enterprise and Employment Numbers in Unorganised Transport by Transport Type and by Rural and Urban Location: All India 1979-80,1983-84,1988-89 and 1993-94**

Location and year	A. Absolute numbers of Enterprise			
	Mechanised	Non-mechanised	Services Incidental to Transport	All Types
<b>Rural</b>				
1979-80	23,078	813,159	7,002	843,239
1983-84	36,999	245,568	3,254	285,821
1988-89	66,958	451,226	5,218	523,402
1993-94	264,106	991,664	4,867	1,260,637
<b>Urban</b>				
1979-80	89,136	489,641	11,932	590,709
1983-84	86,809	257,124	22,515	366,448
1988-89	159,191	333,753	30,262	523,206
1993-94	261,807	415,116	60,676	737,599

Location and year	A. Absolute numbers of Enterprise			
	Mechanised	Non-mechanised	Services Incidental to Transport	All Types
<b>Total</b>				
1979-80	112,214	1,302,800	18,934	1,433,948
1983-84	123,808	502,692	25,769	652,269
1988-89	226,149	784,979	35,480	1,046,608
1993-94	525,913	1,406,780	65,543	1,998,236
Location and year	B. Absolute number of Workers			
Rural	Mechanised	Non-mechanised	Services Incidental to Transport	All Types
1979-80	45,251	1,010,209	10,116	1,065,576
1983-84	115,619	283,445	6,569	405,633
1988-89	176,753	531,114	11,533	719,400
1993-94	597,638	1,123,217	11,399	1,732,254
<b>Urban</b>				
1979-80	129,922	536,508	26,411	692,841
1983-84	248,446	289,296	78,875	616,617
1988-89	402,531	375,952	109,952	888,435
1993-94	662,291	443,403	219,451	1,325,145
<b>Total (R+U)</b>				
1979-80	175,173	1,546,717	36,527	1,758,417
1983-84	364,065	572,741	85,444	1,022,250
1988-89	579,284	907,066	121,485	1,607,835
1993-94	1,259,929	1,566,620	230,850	3,057,399

**Table 6.A.1.4: Change in Absolute Numbers of Enterprises and Workers in Unorganised Transport by Transport Type and Rural or Urban Location: All India 1979-80 to 83-84, 1983-84 to 88-89 and 1988-89 to 93-94**

Location and Period	A. Change in absolute number of Enterprises			
	Mechanised	Non-mechanised	Services Incidental to Transport	All Types
<b>Rural</b>				
79-80 to 83-84	13,921	-567,591	-3,748	-557,418
83-84 to 88-89	29,959	205,658	1,964	237,581
88-89 to 93-94	197,148	540,438	-351	737,235
<b>Urban</b>				
79-80 to 83-84	-2,327	-232,517	10,583	-224,261
83-84 to 88-89	72,382	76,629	7,747	156,758
88-89 to 93-94	102,616	81,363	30,414	214,393
<b>Total</b>				
79-80 to 83-84	11,594	-800,108	6,835	-781,679
83-84 to 88-89	102,341	282,287	9,711	394,339
88-89 to 93-94	299,764	621,801	30,063	951,628

Location and Period	B. Change in absolute number of Workers			
	Mechanised	Non-mechanised	Services Incidental to Transport	All type
<b>Rural</b>				
79-80 to 83-84	70,368	-726,764	-3,547	-659,943
83-84 to 88-89	61,134	247,669	4,964	313,767
88-89 to 93-94	420,885	592,103	-134	1,012,854
<b>Urban</b>				
79-80 to 83-84	118,524	-247,212	52,464	-76,224
83-84 to 88-89	154,085	86,656	31,077	271,818
88-89 to 93-94	259,760	67,451	109,499	436,710
<b>Total</b>				
79-80 to 83-84	188,892	-973,976	48,917	-736,167
83-84 to 88-89	215,219	334,325	36,041	585,585
88-89 to 93-94	680,645	659,554	109,365	1,449,564

Table 6.A.1.3 reveals that it was the non-mechanised transport units which went out of business. During the same and subsequent periods, the number of mechanised transport units grew without a break. Apparently a relatively small number of workers in mechanised transport units were able to do the same work which had previously been done by a much larger number of people working with non-mechanised equipment.

By 1993-94, in urban areas, the number of non-mechanised transport units and workers still stood below the record set fourteen years earlier. In rural areas, despite substantial displacement by mechanised transport in the early 1980s<sup>3</sup>, non-mechanised transport units and workers are now more numerous than at the end of the 1970s, although of course their relative importance has declined. Recent fieldwork experience suggests also that in some rural areas in some states, this historic changeover, characteristic of 'modern economic growth'<sup>3</sup>, has yet to take place.

In India, this switch from human and animal labour intensive, non-mechanised transport to mechanised transport is one of the most dramatic and important cases of rapid restructuring recorded by any of the unorganised sector surveys. It is quite likely that similar shifts took place in at least some states, at about the same time, in other industries and activities. Unfortunately they were not captured by the other unorganised sector surveys because appropriate questions about the use of animate versus inanimate sources of motive power were never asked. Considering the importance of this changeover in historical development processes, this is a great pity! Perhaps the situation can be retrieved in part by introducing questions about the use of motorised tools and equipment into the questionnaire design for future surveys.

## (ii) Gross Value Added

Given the relatively small size of the unorganised transport sector-(it employs only 10 percent of the number of workers engaged in unorganised manufacturing, for example) -the contribution of unorganised transport to national income is impressive. However, the high productivity enterprises seem to be concentrated in urban areas. As Table 6.A.1.5 shows, gross value added by unorganised transport in urban areas is more than twice that generated by units in rural areas, despite the fact that the majority of enterprises are located in rural areas.

<sup>3</sup> The changeover is one of those highlighted in Simon Kuznets (1966) 'Modern Economic Growth: Rate, Structure and Spread'.

**Table 6.A.1.5: Gross Value Added by Unorganised Transport by Enterprise Type and Rural or Urban Location: All India 1979-80, 1983-84, 1988-89 and 1993-94**

(In constant 1993-94 prices)

Location and Year	Gross Value Added by Enterprise type (in 000)			
	OAE	NDE	DE	All Types
<b>Rural</b>				
1979-80	5,608,085	1,125,207	na	6,733,865
1983-84	2,870,358	2,043,948	1,196,220	6,110,526
1988-89	na	na	na	9,683,924
1993-94	10,199,300	8,622,700	1,800,200	20,622,200
<b>Urban</b>				
1979-80	8,417,446	1,492,695	na	9,910,009
1983-84	5,875,262	5,286,545	6,383,860	17,545,666
1988-89	na	na	na	23,693,234
1993-94	10,093,300	8,529,600	22,436,600	41,059,500
<b>Total (R+U)</b>				
1979-80	14,025,532	2,617,902	na	16,643,874
1983-84	8,745,619	7,330,493	7,580,080	23,656,192
1988-89	na	na	na	33,370,383
1993-94	20,292,500	17,152,300	24,236,800	61,681,600

One of the reasons for this rural-urban disproportionality is clearly that most of the transport enterprises in rural areas, which are non-mechanised, earn relatively little, while a higher proportion of those located in cities are mechanised units, which on the average, earn far more. The result, shown in Table 6.A.1.6: is that the mechanised minority of rural units earns more than the non-mechanised majority. In urban areas too, the mechanised set still constitutes the minority in terms of enterprises, but they earn more than four times as much as the non-mechanised majority.

**Table 6.A.1.6: Gross Value Added by Unorganised Transport by Transport Type and Rural or Urban Location: All India 1979-80, 1983-84, 1988-89 and 1993-94**

(in constant 1993-94 prices)

Location and Year	Gross Value Added by Transport type (in 000)			
	Mechanised	Non-mechanised	Services incidental to transport	All types
<b>Rural</b>				
1979-80	822,137	5,765,919	145,461	6,733,517
1983-84	3,387,913	2,650,404	71,584	6,109,901
1988-89	5,220,006	4,295,847	169,747	9,685,599
1993-94	12,281,500	8,185,900	154,600	20,622,000
<b>Urban</b>				
1979-80	3,267,613	6,128,761	513,479	9,909,853
1983-84	10,779,422	3,978,626	2,790,819	17,548,866
1988-89	13,136,760	4,718,225	5,838,223	23,693,209
1993-94	24,198,900	5,091,400	11,769,300	41,059,600
<b>Total (R+U)</b>				
1979-80	4,089,750	11,894,680	658,941	16,643,370
1983-84	14,167,335	6,629,029	2,862,403	23,658,767
1988-89	18,357,595	9,010,267	6,008,083	33,375,945
1993-94	36,480,400	13,277,300	11,923,900	61,681,600

The superior income generating capacity of the mechanised units is one obvious reason for the switch over which took place in the early 1980s. The decline in gross value added by non-mechanised units during this period of contraction is brought out by the figures in Table 6.A.1.7.

**Table 6.A.1.7: Changes in Gross Value Added by Transport Type and Rural or Urban Location: All India 1979-80 to 83-84, 1983-84 to 88-89 and 1988-89 to 93-94**

(in constant 1993-94 prices)

Location and Period	Change in Gross Value Added by Transport type (in 000)			
	Mechanised	Non-Mechanised	Services incidental to transport	All Types
<b>Rural</b>				
79-80 to 83-84	2,565,776	-3,115,516	-73,877	-623,616
83-84 to 88-89	1,832,093	1,645,443	98,162	3,575,698
88-89 to 93-94	7,061,494	3,890,053	-15,147	10,936,401
<b>Urban</b>				
79-80 to 83-84	7,511,808	-2,150,135	2,277,339	7,639,013
83-84 to 88-89	2,357,339	739,600	3,047,405	6,144,343
88-89 to 93-94	11,062,140	373,175	5,931,077	17,366,391
<b>Total (R+U)</b>				
79-80 to 83-84	10,077,585	-5,265,651	2,203,462	7,015,396
83-84 to 88-89	4,190,261	2,381,238	3,145,680	9,717,178
88-89 to 93-94	18,122,805	4,267,033	5,915,817	28,305,655

#### 6.A.1.2 The Structure of the Unorganised Transport Sector and Changes in it

The structure of unorganised transport is defined below in four ways: first in terms of the number of workers per enterprise, secondly in terms of the rural-urban distribution of enterprises, employment and value added, thirdly in terms of the share of each enterprise type in enterprises, employment and value added, and last but not least, in terms of the composition of this sector by type of transport.

##### (i) The Employment Size Structure of Unorganised Transport by Enterprise Type and by Type of Transport

Most own account transport enterprises are clearly one-man operations regardless of rural or urban location. Non-directory establishments have between two and three workers, on the average, but are distinctly larger in urban centres. Directory establishments employ larger numbers typically in the range of 10 to 12 workers each, and in recent years, more workers per enterprise in urban units than in rural ones. Table 6.A.1.8 gives the details.



**Table 6.A.1.8: Number of Workers per Enterprise by Enterprise Type and Rural or Urban Location: All India, 1979-80, 1983-84, 1988-89 and 1993-94**

Location and Year	Number of Workers per Enterprise by Enterprise type			
	OAE	NDE	DE	All Types
<b>Rural</b>				
1979-80	1.16	2.59	na	1.26
1983-84	1.12	2.71	12.61	1.42
1988-89	na	na	na	1.37
1993-94	1.11	2.57	7.47	1.37
<b>Urban</b>				
1979-80	1.09	2.81	na	1.17
1983-84	1.11	3.03	10.41	1.68
1988-89	na	na	na	1.70
1993-94	1.07	2.95	13.92	1.80
<b>Total (R+U)</b>				
1979-80	1.13	2.66	na	1.23
1983-84	1.11	2.89	10.82	1.57
1988-89	na	na	na	1.54
1993-94	1.09	2.71	11.92	1.53

**Table 6.A.1.9: Number of Workers per Enterprise by Type of Transport and Rural or Urban Location: All India, 1979-80, 1983-84, 1988-89 and 1993-94**

Location and Year	Number of workers per Enterprise by Transport type			
	Mechanised	Non-mechanised	Services incidental to transport	All Types
<b>Rural</b>				
1979-80	1.96	1.24	1.44	1.26
1983-84	3.12	1.15	2.02	1.42
1988-89	2.64	1.18	2.21	1.37
1993-94	2.26	1.13	2.34	1.37
<b>Urban</b>				
1979-80	1.46	1.10	2.21	1.17
1983-84	2.86	1.13	3.50	1.68
1988-89	2.53	1.13	3.63	1.70
1993-94	2.53	1.07	3.62	1.80
<b>Total</b>				
1979-80	1.56	1.19	1.93	1.23
1983-84	2.94	1.14	3.32	1.57
1988-89	2.56	1.16	3.42	1.54
1993-94	2.40	1.11	3.52	1.53

The more interesting statistics, however, are produced by the mechanised, non-mechanised breakdown. Mechanised enterprises employ between two and three people, more in urban areas than in rural locations. Services incidental to transport are provided, typically, by enterprises employing slightly more people than the transport units themselves. Non-mechanised enterprises are the smallest and they have been getting smaller. This is the main story told by the workers-per-enterprise figures of Table 6.A.1.9

When large numbers of non-mechanised transport units went out of business in the early 1980s, the non-mechanised units, which persisted to this day were the smaller ones. Apparently the tiny operations run by a single self-employed worker are virtually the rule in non-mechanised unorganised transport today, in urban areas as much as in rural ones.

The size of units providing services incidental to transport has tended to rise over time.

## (ii) The Rural-Urban Distribution of Enterprises, Employment and Gross Value Added

Unorganised transport sector enterprises and employment have tended to be more or less evenly distributed as between rural and urban areas, but there are signs that things began to change in the early 1990s. This most recent period witnessed sharp increases in the share of rural areas in enterprises and workers belonging to the very small own account units and to the slightly larger non-directory establishments. The share of rural areas in directory establishments and workers remains relatively low, but it is rising.

The rise in the share of rural located units and workers is reflected in the increased contribution of rural areas to gross value added. The smaller own account and non-directory establishments account for all of this increase. Details can be seen in Table 6.A.1.10.

**Table 6.A.1.10: The Rural-Urban Distribution of Unorganised Transport by Enterprise Type, 1979-80, 1983-84, 1988-89 and 1993-94**

Year	Share of Rural Enterprises in all Enterprises				Share of Rural Employment in all Employment				Share of Rural GVA in all GVA			
	OAE	NDE	DE	All	OAE	NDE	DE	All	OAE	NDE	DE	All
1979-80	58.12	69.13	-	58.81	59.54	67.35	-	60.59	39.98	42.98	-	40.46
1983-84	45.00	40.43	19.29	43.82	45.11	37.80	22.48	39.65	32.82	27.88	15.78	25.83
1988-89	52.01	38.56	25.19	50.01	-	-	-	44.74	-	-	-	29.02
1993-94	63.92	62.40	30.94	63.09	64.65	59.11	19.37	56.66	50.26	50.27	7.43	33.43

An important feature of the rise in the rural share of very small units is revealed by the figures in Table 6.A.1.11. It shows that there has been tremendous increase in the proportion of non-mechanised transport units and workers, which are rural located. Today, more than 70 percent of non-mechanised transport units operate in rural areas. At the same time, the rural share of mechanised transport has also gone up sharply. The only activity covered by the unorganised transport surveys, which is contracting in rural areas, is services incidental to transport. As is evident from the figures in Table 6.A.1.11 the rural contribution to GVA of units engaged in providing such services is rapidly approaching the vanishing point.

In short, what is happening is that the very small human and animal labour intensive transport units are tending to concentrate in rural areas. At the same time, in rural areas the unorganised transport sector is becoming increasingly mechanised. In the early 1990s, in particular, the share of rural areas in mechanised transport jumped up sharply, suggesting that a kind of rural catching up process had gotten underway.

**Table 6.A.1.11: The Rural-Urban Distribution of Unorganised Transport by Transport Type, All India 1979-80, 1983-84, 1988-89 and 1993-94**

Location and Year	Share of Rural Enterprises in all Enterprises				Share of Rural Workers in all Workers				Share of Rural GVA in all GVA			
	Mecha-nised	Non-mecha-nised	Services incidental to transport	All types	Mecha-nised	Non-mechani-sed	Services incidental to transport	All types	Mecha-nised	Non-mecha-nised	Services incidental to transport	All types
1979-80	20.57	62.42	36.98	58.81	25.83	65.31	27.69	60.60	20.10	48.47	22.08	40.46
1983-84	29.88	48.85	12.63	43.82	31.76	49.49	7.69	39.68	23.91	39.98	2.50	25.83
1988-89	29.61	57.48	14.71	50.01	30.51	58.55	9.49	44.74	28.44	47.68	2.83	29.02
1993-94	50.22	70.49	7.43	63.09	47.43	71.70	4.94	56.66	33.67	61.65	1.30	33.43

**(iii) The Changing Share of Own Account, Non Directory and Directory Establishments in the Unorganised Transport Sector**

Own account enterprises still dominate the structure of unorganised transport in both rural and urban areas, although the relative importance of these tiny family operated units has been declining gradually, as the share of the only slightly larger non-directory establishment have moved up. In employment terms, however the own account enterprises no longer account for the majority of workers in urban areas, although their pre-eminence in rural locations appears to have stabilised in the neighbourhood of two thirds of all workers. The main difference between rural and urban areas today lies in the substantial share of the larger directory establishment in the cities and towns. In rural areas relatively few workers find jobs in directory establishments, which now account for less than one percent of all rural transport units.

In rural areas, a disproportionately large share of gross value added is accounted for by the non-directory and directory establishments. In urban locations this is true also for directory establishments which in the towns and cities account for more than half of all gross value added, but less than five percent of all urban unorganised transport enterprises.

**Table 6.A.1.12: Share of Specified Enterprise Types in the Total Number of Transport, Enterprises, Employment, and Gross Value Added by Rural and Urban Location: 1979-80, 1983-84, 1988-89 and 1993-94**

Location and Year	Share in All types by Enterprise Type								
	Share in Enterprise			Share in Employment			Share in GVA		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
<b>Rural</b>									
1979-80	92.69	7.31	na	85.02	14.98	na	83.28	16.71	na
1983-84	87.78	11.15	1.08	69.13	21.28	9.59	46.97	33.45	19.58
1988-89	90.62	8.37	1.01	na	na	na	na	na	na
1993-94	84.73	14.36	0.91	68.18	26.86	4.96	49.46	41.81	8.73
<b>Urban</b>									
1979-80	95.34	4.66	na	88.83	11.17	na	84.94	15.06	na
1983-84	83.70	12.79	3.51	55.26	23.01	21.73	33.49	30.13	36.38
1988-89	83.67	13.33	3.00	na	na	na	na	na	na
1993-94	81.73	14.79	3.48	48.73	24.29	26.98	24.58	20.77	54.64
<b>Total(R+U)</b>									
1979-80	93.78	6.22	na	86.52	13.48	na	84.27	15.73	na
1983-84	85.47	12.08	2.45	60.76	22.33	16.92	36.97	30.99	32.04
1988-89	87.15	10.85	2.01	na	na	na	na	na	na
1993-94	83.62	14.52	1.86	59.75	25.74	14.50	32.90	27.81	39.29

**(iv) The relative importance of mechanised and non-mechanised transport and services incidental to transport**

The technological revolution, which is underway in the unorganised transport sector, is only one of two transformations, which are taking place in this sector. The other is the rapid growth in the relative importance of services incidental to transport, most marked in urban centres.

The share of workers engaged in mechanised transport has grown faster than the share of enterprises. Although mechanised transport units are less prevalent in rural areas, their *relative* importance has risen much faster than in the towns and cities- further evidence of the ‘catching up’ process in progress in rural areas.

In gross value added terms, this ‘catching up’ process has been so rapid that today, in rural areas gross value added by mechanised units accounts for about the same share of gross value added by all transport types as they do in urban units-close to 60 per cent.

**Table 6.A.1.13: Share of Specified Enterprise Types in the Total Number of Transport Enterprises, Workers and Gross Value Added, by Rural and Urban Location: 1979-80, 1983-84, 1988-89 and 1993-94**

Location and Year	Share of Specified Transport Types in:								
	Enterprises			Workers			GVA		
	Mechanised	Non-mechanised	Services Incidental to Transport	Mechanised	Non-mechanised	Services Incidental to Transport	Mechanised	Non-mechanised	Services Incidental to Transport
<b>Rural</b>									
1979-80	2.74	96.43	0.83	4.25	94.80	0.95	12.21	85.63	2.16
1983-84	12.94	85.92	1.14	28.50	69.88	1.62	55.45	43.38	1.17
1988-89	12.79	86.21	1.00	24.57	73.83	1.60	53.89	44.35	1.75
1993-94	20.95	78.66	0.39	34.50	64.84	0.66	59.56	39.69	0.75
<b>Urban</b>									
1979-80	15.09	82.89	2.02	18.75	77.44	3.81	32.97	61.85	5.18
1983-84	23.69	70.17	6.14	40.29	46.92	12.79	61.43	22.67	15.90
1988-89	30.43	63.79	5.78	45.31	42.32	12.38	55.45	19.91	24.64
1993-94	35.49	56.28	8.23	49.98	33.46	16.56	58.94	12.40	28.66
<b>Total(R+U)</b>									
1979-80	7.83	90.85	1.32	9.96	87.96	2.08	24.57	71.47	3.96
1983-84	18.98	77.07	3.95	35.61	56.03	8.36	59.88	28.02	12.10
1988-89	21.61	75.00	3.39	36.03	56.42	7.56	55.00	27.00	18.00
1993-94	26.32	70.40	3.28	41.21	51.24	7.55	59.14	21.53	19.33

However, as shown in section 6.A.1.3 of this part, following, there is a catch. Mechanised units in rural areas used to earn about as much as their counterparts in urban centres. Today they only earn half as much. Thus in productivity terms, discussed subsequently, rural mechanised units are not catching up, they are falling behind. This suggests that ‘overcrowding’ has had a greater negative impact on productivity in rural areas than in urban centres.

### 6.A.1.3 The Performance of the Unorganised Transport Sector

This section is arranged in three sub-sections: The first assesses performance in terms of growth rates in enterprises, employment and gross value added. The unanticipated results presented in sub-section (ii) on productivity levels and productivity growth are implicit in these growth rates of sub-sectors. Because employment (and enterprises) have quite commonly grown faster than gross value added, productivity has fallen especially in non-mechanised transport in own account enterprises and in rural areas. Short and longer term estimates of employment elasticity are presented in sub-section (iii)

#### (i) Growth Rates of Enterprises, Employment and Gross Value Added by Unorganised Transport

In the mechanised transport segment employment and gross value added growth rates are invariably positive, high and handsome. All non-mechanised transport growth rates are negative and run to two digits in the early 1979-80 to 1983-84 period. In rural areas only, there were also cutbacks in services incidental to transport, in both the early and the most recent period. The outcome during the most recent decade for all branches of transport combined looks pretty good on the face of it. A closer inspection, however, reveals that most of the gross value added growth rates are lower than the corresponding rates of growth in enterprises and workers. This disturbing fact can be confirmed by a glance at the estimates in the last column of Table 6.A.1.14.

**Table 6.A.1.14: Growth Rates: Absolute Numbers of Unorganised Transport Enterprises, Employment and Gross Value Added by Transport Type all India, Rural Urban and Total (R+U)**  
Location: All India 1979-80 to 83-84, 1983-84 to 88-89 and 1988-89 to 93-94

(in constant 1993-94 Prices)

Location and year	A: Enterprise Growth rates by Transport Type			
	Mechanised	Non-mechanised	Services incidental	All types
<b>Rural</b>				
79-80 to 83-84	12.52	-25.87	-17.43	-23.70
83-84 to 88-89	12.60	12.94	9.90	12.86
88-89 to 93-94	31.58	17.06	-1.38	19.22
<b>Urban</b>				
79-80 to 83-84	-0.66	-14.87	17.20	-11.25
83-84 to 88-89	12.89	5.36	6.09	7.38
88-89 to 93-94	10.46	4.46	14.93	7.11
<b>Total (R+U)</b>				
79-80 to 83-84	2.49	-21.19	8.01	-17.88
83-84 to 88-89	12.81	9.32	6.60	9.92
88-89 to 93-94	18.39	12.38	13.06	13.81
Location and year	B: Employment Growth rates by Transport Type			
	Mechanised	Non-mechanised	Services incidental	All types
<b>Rural</b>				
79-80 to 83-84	26.43	-27.22	-10.23	-21.45
83-84 to 88-89	8.86	13.38	11.92	12.14
88-89 to 93-94	27.59	16.16	-0.23	19.21
<b>Urban</b>				
79-80 to 83-84	17.59	-14.31	31.46	-2.87
83-84 to 88-89	10.13	5.38	6.87	7.58
88-89 to 93-94	10.47	3.36	14.82	8.32

<b>Total (R+U)</b>				
79-80 to 83-84	20.07	-21.99	23.67	-12.68
83-84 to 88-89	9.73	9.63	7.29	9.48
88-89 to 93-94	16.81	11.55	13.70	13.72
<b>Location and Year</b>	<b>C: Gross Value Added by Transport type (in 000)</b>			
	<b>Mechanised</b>	<b>Non-mechanised</b>	<b>Services incidental</b>	<b>All types</b>
<b>Rural</b>				
79-80 to 83-84	42.48	-17.66	-16.24	-2.40
83-84 to 88-89	9.03	10.14	18.85	9.65
88-89 to 93-94	18.66	13.76	-1.85	16.32
<b>Urban</b>				
79-80 to 83-84	34.77	-10.24	52.69	15.36
83-84 to 88-89	4.03	3.47	15.91	6.19
88-89 to 93-94	13.00	1.53	15.05	11.62
<b>Total (R+U)</b>				
79-80 to 83-84	36.43	-13.60	44.37	9.19
83-84 to 88-89	5.32	6.33	15.98	7.12
88-89 to 93-94	14.72	8.06	14.69	13.07

**Table 6.A.1.15: Growth rate Absolute Number of Unorganised Transport Enterprise by Enterprise Type All India, Rural, Urban and Total(R+U) : 79-80 to 83-84, 83-84 to 88-89, 88-89 to 93-94 and 83-84 to 93-94**

<b>Location and Year</b>	<b>A: Growth Rate of Enterprises by Enterprise Type</b>		
	<b>OAE</b>	<b>NDE</b>	<b>DE</b>
<b>Rural</b>			
79-80 to 83-84	- 24.73	- 15.21	na
83-84 to 88-89	13.58	8.28	14.45
88-89 to 93-94	17.63	42.59	21.47
83-84 to 93-94	- 13.49	- 15.95	- 12.35
<b>Urban</b>			
79-80 to 83-84	- 14.10	14.24	na
83-84 to 88-89	7.37	8.28	4.05
88-89 to 93-94	6.61	9.35	10.35
83-84 to 93-94	- 6.53	- 8.10	- 6.68
<b>Total (R+U)</b>			
79-80 to 83-84	- 19.76	-3.04	na
83-84 to 88-89	10.35	7.58	5.61
88-89 to 93-94	12.87	20.63	12.13
83-84 to 93-94	11.60	13.92	8.82
<b>Location and Year</b>	<b>B: Growth Rate of Employment by Enterprise Type</b>		
	<b>OAE</b>	<b>NDE</b>	<b>DE</b>
<b>Rural</b>			
79-80 to 83-84	-25.43	-14.28	na
83-84 to 93-94	15.48	18.36	8.26
<b>Urban</b>			
79-80 to 83-84	-13.75	16.36	na
83-84 to 93-94	6.60	8.53	10.31
<b>Total (R+U)</b>			
79-80 to 83-84	-20.08	-0.96	na
83-84 to 93-94	11.40	13.18	9.88

Location and Year	Gross Value Added by Enterprise Type		
	OAE	NDE	DE
<b>Rural</b>			
79-80 to 83-84	-15.42	16.09	na
83-84 to 93-94	13.52	15.48	4.17
<b>Urban</b>			
79-80 to 83-84	-8.60	37.18	na
83-84 to 93-94	5.56	4.90	13.39
<b>Total (R+U)</b>			
79-80 to 83-84	-11.14	29.36	na
83-84 to 93-94	8.78	8.87	12.33

The same information can be arranged by enterprise type. Since there is no employment or GVA data for 1988-89 by enterprise type, the longer period growth rates for 1983-84 to 1993-94 are presented to capture the trends for this most recent decade. What we see here is that enterprise and employment growth rates have exceeded the corresponding GVA growth rates recorded by both the own account enterprises and the non-directory establishments in both rural and urban areas. In rural areas only, the directory establishments managed to expand their earnings faster than their employment.

In short, handsome positive growth rates in the unorganised transport sector conceal the

### (iii) Productivity levels and Productivity Trends

The big surprise which turned up in the unorganised transport sector data, was the evidence that in the most recent decade, both enterprise and labour productivity levels have tended to decline, regardless of rural or urban location. The only other sector where this has happened on a significant scale is unorganised manufacturing.

Notwithstanding this depressing trend, productivity levels for all branches of transport combined are quite respectable. Labour productivity levels are twice those in unorganised manufacturing and about the same as those in unorganised trade. But in unorganised transport the aggregation across the three distinct branches of transport is somewhat misleading. While the per enterprise earnings of non-mechanised transport units resemble the low returns per unit in own account manufacturing enterprises, labour productivity in non-mechanised transport is distinctly higher than in own account manufacturing enterprises.

Mechanised transport units however earn far more - close to four times what the typical manufacturing units does, and double the level of gross value added by unorganised restaurants. Labour productivity in mechanised transport is also decidedly superior to that in most other unorganised sectors.

Both per enterprise and per worker income generated by services incidental to transport are very high by any standard. These observations may be confirmed by reference to the figures in Table 6.A.1.16

**Table 6.A.1.16: Enterprise and Labour productivity: Absolute Numbers in Constant 1993-94 prices by Transport Type: Rural, Urban and Total: 1979-80, 1983-84, 1988-89 and 1993-94**

Location and Year	GVA per Enterprise (Rs.)				GVA per Worker(Rs.)			
	Mechanised	Non-mechanised	Services incidental to transport	All types	Mechanised	Non-mechanised	Services incidental to transport	All types
<b>Rural</b>								
1979-80	35,624	7,091	20,774	7,985	18,168	5,708	14,379	6,319
1983-84	91,568	10,793	21,999	21,377	29,302	9,351	10,897	15,063
1988-89	77,959	9,520	32,531	18,505	29,533	8,088	14,718	13,463
1993-94	46,502	8,255	31,765	16,358	20,550	7,288	13,563	11,905
<b>Urban</b>								
1979-80	36,659	12,517	43,034	16,776	25,151	11,423	19,442	14,303
1983-84	124,174	15,474	123,954	47,889	43,387	13,753	35,383	28,460
1988-89	82,522	14,137	192,923	45,285	32,635	12,550	53,098	26,668
1993-94	92,430	12,265	193,970	55,667	36,538	11,483	53,631	30,985
<b>Total</b>								
1979-80	36,446	9,130	34,802	11,607	23,347	7,690	18,040	9,465
1983-84	114,430	13,187	111,079	36,271	38,914	11,574	33,500	23,144
1988-89	81,175	11,478	169,337	31,890	31,690	9,933	49,455	20,758
1993-94	69,366	9,438	181,925	30,868	28,954	8,475	51,652	20,175

Rearranged by enterprise type the same basic information is given in Table 6.A.1.17. From this it is clear that the earnings of rural own account enterprises are roughly the same as their own account manufacturing counterparts, while those of urban units are somewhat higher. Gross value added per own account worker, however, stands substantially above the productivity of workers in own account manufacturing units.

**Table 6.A.1.17: Levels of Enterprise and Labour Productivity by Enterprise type: Rural, Urban and Total, 1979-80, 1983-84 and 1993-94**

Location and Year	GVA per Enterprise (Rs.)				GVA per Worker (Rs.)			
	OAE	NDE	DE	All Types	OAE	NDE	DE	All Types
<b>Rural</b>								
1979-80	7,175	18,259	-	7,986	6,191	7,047	-	6,320
1983-84	11,441	64,163	388,267	21,379	10,249	23,705	30,788	15,083
1988-89	-	-	-	18,502	-	-	-	13,461
1993-94	9,549	47,637	156,444	16,359	8,635	18,533	20,956	11,905
<b>Urban</b>								
1979-80	14,946	54,238	-	16,776	13,673	19,285	-	14,300
1983-84	19,156	112,794	495,951	47,880	17,244	37,260	47,634	28,455
1988-89	-	-	-	45,285	-	-	-	26,669
1993-94	16,743	78,203	873,359	55,666	15,630	26,504	62,753	30,985



Location and Year	GVA per Enterprise (Rs.)				GVA per Worker (Rs.)			
	OAE	NDE	DE	All Types	OAE	NDE	DE	All Types
<b>Total (R+U)</b>								
1979-80	10,429	29,366	-	11,607	9,218	11,043	-	9,464
1983-84	15,687	93,028	474,521	36,268	14,088	32,136	43,848	23,153
1988-89	-	-	-	31,884	-	-	-	20,755
1993-94	12,144	59,130	651,579	30,868	11,108	21,793	54,656	20,175

The direction of recent trends comes out even more clearly when the evidence is presented in terms of growth rates, as in Table 6.A.1.18 below. In recent years all branches of unorganised transport suffered negative productivity growth in rural areas. In urban areas, the only difference is that productivity in services incidental to transport rose continuously. This was enough to produce positive growth rates for these services for rural and urban areas combined. But for both mechanised and non-mechanised transport, all recent period productivity growth rates are negative.

**Table 6.A.1.18: Growth rates of Employment and Labour Productivity in Unorganised Transport by Type of Transport and Rural and Urban Location: 1979-80 to 1983-84, 1983-84 to 1988-89 and 1988-89 to 1993-94**

(in Constant 1993-94 prices)

Location and Period	Growth Rates of GVA per Enterprise				Growth Rates of GVA per workers			
	Mechanised	Non-mechanised	Services incidental to transport	All types	Mechanised	Non-mechanised	Services incidental to transport	All types
<b>Rural</b>								
79-80 to 83-84	26.62	11.07	1.44	27.91	12.69	13.13	-6.70	24.25
83-84 to 88-89	-3.17	-2.48	8.14	-2.84	0.16	-2.86	6.20	-2.22
88-89 to 93-94	-9.82	-2.81	-0.48	-2.44	-7.00	-2.06	-1.62	-2.43
<b>Urban</b>								
79-80 to 83-84	35.66	5.44	30.28	29.98	14.61	4.75	16.15	18.77
83-84 to 88-89	-7.85	-1.79	9.25	-1.11	-5.54	-1.81	8.46	-1.29
88-89 to 93-94	2.29	-2.80	0.11	4.21	2.28	-1.76	0.20	3.05
<b>Total (R+U)</b>								
79-80 to 83-84	33.11	9.63	33.66	32.96	13.62	10.76	16.74	25.05
83-84 to 88-89	-6.64	-2.74	8.80	-2.54	-4.02	-3.01	8.10	-2.15
88-89 to 93-94	-3.10	-3.84	1.44	-0.65	-1.79	-3.13	0.87	-0.57

The figures in Table 6.A.1.19 reveal another dimension of the overcrowding problem in unorganised transport. In rural areas, productivity growth for all branches of transport combined was negative during the most recent decade, for each enterprise type. In urban centres the directory establishments recorded positive productivity growth but the performance of the smaller own account and non-directory establishments deteriorated.

In short, overcrowding is taking place in rural areas in all enterprise types. In urban areas, excessive additions to the workforce are pushing down productivity in the two smaller enterprise types only.

**Table 6.A.1.19: Growth Rates: Enterprise and Labour Productivity in Unorganised Transport by Enterprise type and Rural and Urban Location: 1979-80, 1983-84, 1988-89 and 1993-94**

(in Constant 1993-94 prices)

Location and Period	Growth Rates of GVA per Enterprise			Growth Rates of GVA per Workers		
	OAE	NDE	DE	OAE	NDE	DE
<b>Rural</b>						
79-80 to 83-84	12.37	36.92	na	13.43	35.43	na
83-84 to 93-94	-1.79	-2.93	-8.69	-1.7	-2.43	-3.77
<b>Urban</b>						
79-80 to 83-84	6.4	20.09	na	5.97	17.9	na
83-84 to 93-94	-1.34	-3.6	5.82	-0.98	-3.35	2.79
<b>Total (R+U)</b>						
79-80 to 83-84	10.74	33.41	na	11.19	30.61	na
83-84 to 93-94	-2.53	-4.43	3.22	-2.35	-3.81	2.23

**(iii) Employment Elasticities with respect to Gross Value Added by Unorganised Transport**

Economic policy planners prefer employment elasticities in the range of 0.40 to 0.60, because this range implies a healthy balance of employment growth and labour productivity gains. When elasticity estimates appear with values greater than one, which persist for as long as a decade, as in unorganised transport, it means that so many workers have come into the sector that productivity levels have been pushed down. This is a situation, which cannot last indefinitely but it could, conceivably continue as long as productivity levels in the industry are significantly higher than in alternative lines of activity.

In recent years, the worst effects of overcrowding have been felt in non-mechanised transport. Elasticities substantially greater than one indicate the severity of the situation. In urban areas, during the most recent five years, mechanised transport enjoyed at least some gains in labour productivity, but rural areas did not. Services incidental to transport was the only segment to escape the depressing effects of an excess of employment growth rates over gross value added growth. However, even in this small segment urban and overall employment elasticities are very high, leaving very little room for productivity improvement. Urban, non-mechanised transport appears to be the worst loser on the productivity front.

**Table 6.A.1.20: Employment Elasticities with Respect to Gross value Added by Type of Transport and Rural or Urban Location: 1979-80 to 1983-84, 1983-84 to 1988-89, 1988-89 to 1993-94**

Location and Year	Employment Elasticity w.r.t GVA			
	Mechanised	Non-mechanised	Services incidental	All Types
<b>Rural</b>				
79-80 to 83-84	0.62	1.54	0.63	8.94
83-84 to 88-89	0.98	1.32	0.63	1.26
88-89 to 93-94	1.48	1.17	0.13	1.18
<b>Urban</b>				
79-80 to 83-84	0.51	1.40	0.60	-0.19
83-84 to 88-89	2.51	1.55	0.43	1.22
88-89 to 93-94	0.81	2.19	0.98	0.72
<b>Total</b>				
79-80 to 83-84	0.55	1.62	0.53	-1.38
83-84 to 88-89	1.83	1.52	0.46	1.33
88-89 to 93-94	1.14	1.43	0.93	1.05

**Notes:** 1. The negative employment elasticities in the period 1979-80 to 1983-84 for all branches of urban transport and for rural and urban areas combined arise because employment growth was negative while GVA growth was positive  
2. Positive employment elasticities for non-mechanised transport for the period 1979-80 to 1983-84 for rural, urban and all areas are the product of both negative employment and negative GVA growth, similarly for services incidental to transport in rural areas in both the 1979-80 to 1983-84 and the 1988-89 to 1993-94 periods positive elasticities result from negative growth rates in both employment and GVA

Table 6.A.1.21 brings out the additional fact that in own account enterprises elasticities have been excessively high from the very beginning at the start of the 1980s, while non-directory establishments initially fared better.

Further, rural directory establishments are in at least equally as bad shape as the smaller rural units. In urban areas only, do the directory establishment record elasticity figures below unity. These urban directory establishments are the only ones to make positive gains on both the employment and the labour productivity fronts.

**Table 6.A.1.21: Employment Elasticities with respect to Gross Value Added by Unorganised Transport by Enterprise Type and Rural or Urban Location: 1979-80 to 1983-84 and 1983-84 to 1993-94**

Location and period	Employment Elasticities w.r.t GVA		
	OAE	NDE	DE
<b>Rural</b>			
79-80 to 83-84	1.65	-0.89	na
83-84 to 93-94	1.15	1.19	1.98
<b>Urban</b>			
79-80 to 83-84	1.60	0.44	na
83-84 to 93-94	1.19	1.74	0.77
<b>Total (R+U)</b>			
79-80 to 83-84	1.80	-0.03	na
83-84 to 93-94	1.30	1.49	0.80

**Notes:** 1. The negative employment elasticities in the period 1979-80 to 1983-84 for all branches of urban transport and for rural and urban areas combined arise because employment growth was negative while GVA growth was positive  
2. Positive employment elasticities for non-mechanised transport for the period 1979-80 to 1983-84 for rural, urban and all areas are the product of both negative employment and negative GVA growth, similarly for services incidental to transport in rural areas in both the 1979-80 to 1983-84 and the 1988-89 to 1993-94 periods positive elasticities result from negative growth rates in both employment and GVA

## **Section II: The Unorganised Transport Sector at the Regional Level**

This section consists of four subsections. The first presents the results of regional analysis including estimates of absolute numbers of enterprises and workers, regional share in these magnitudes, and an analysis of the determinants of inter-state differences, subsections 2 gives an account of the changing rural-urban distribution of unorganised transport activities. Subsection 3 examines structure and structural change in the industry at the region level. Finally, in sub section 4, interstate variations in the performance of unorganised transport and interstate productivity disparities are measured.

### **6.A.2.1 Enterprises, Employment and Gross Value Added: Absolute Numbers, Regional Shares and The Determinants of Inter regional Differences**

This section is presented in two parts. The first subsection deals with interstate variations in the absolute number of transport enterprises and workers and in the gross value added by them. The second part reports the results of a series of regression exercises designed to find out what factors account for the observed interstate contrasts in the number of unorganised transport enterprises and workers and the level of gross value added by the industry.

#### **(i) Interstate Variations in the Number of Enterprises and Workers, and in Gross Value Added by Unorganised Transport:**

Unorganised transport in Andhra Pradesh and West Bengal today, appears to be much more extensively developed than in other states. The share of these two states in all Indian transport enterprises and workers is roughly double their share in population. At the other extreme stand Bihar, Madhya Pradesh and Uttar Pradesh, where the number of units and workers is about half what you might expect on the basis of their shares in population. In Madhya Pradesh this is because of the very meagre presence of transport activities in rural areas.

Although Bihar and Madhya Pradesh were relatively backward on the transport front even in 1988-89, Uttar Pradesh has fallen behind only recently as the number of transport units in other states has surged ahead, leaving Uttar Pradesh with close to the same number of workers and enterprises as they had before. Unorganised transport did expand in Uttar Pradesh, but not nearly as fast as in most other states. All other states are characterised by spectacular increases in the number of transport units and workers. One result of this uneven growth from state to state is that population size has ceased to be a significant factor in determining the size of the industry and its workforce in different states.

The evidence in terms of absolute numbers and state shares is presented in tables 6.A.2.1 and 6.A.2.2 below. The regression results are set out in subsection (ii)

**Table 6.A.2.1: Absolute Number of Enterprises in Unorganised Transport of Fifteen States and Share in the Total Number of Enterprises in India as a Whole: Rural, Urban and All Locations, 1988-89 and 1993-94**

State (Share in all India Population)	Year	No of Enterprises			Share in All-India Enterprises		
		Rural	Urban	All Locations	Rural	Urban	All Locations
Andhra Pradesh (7.43)	1988-89	50,911	66,984	117,895	9.73	12.80	11.26
	1993-94	210,798	122,050	332,848	16.72	16.55	16.66
Bihar (10.63)	1988-89	29,528	27,050	56,578	5.64	5.17	5.41
	1993-94	82,088	34,019	116,107	6.51	4.61	5.81
Delhi (1.31)	1988-89	5,700	22,125	27,825	1.09	4.23	2.66
	1993-94	149	18,410	18,559	0.01	2.50	0.93
Gujarat (4.92)	1988-89	37,220	28,728	65,948	7.11	5.49	6.30
	1993-94	45,072	50,080	95,152	3.58	6.79	4.76
Haryana (2.04)	1988-89	4,518	18,379	22,897	0.86	3.51	2.19
	1993-94	37,381	6,888	44,269	2.97	0.93	2.22
Karnataka (5.15)	1988-89	11,267	25,245	36,512	2.15	4.83	3.49
	1993-94	44,063	27,856	71,919	3.50	3.78	3.60
Kerala (3.14)	1988-89	14,406	12,308	26,714	2.75	2.35	2.55
	1993-94	69,591	7,204	76,795	5.52	0.98	3.84
Madhya Pradesh (7.89)	1988-89	9,063	37,725	46,788	1.73	7.21	4.47
	1993-94	15,193	64,944	80,137	1.21	8.80	4.01
Maharashtra (9.41)	1988-89	23,985	59,241	83,226	4.58	11.32	7.95
	1993-94	53,201	124,266	177,467	4.22	16.85	8.88
Orissa (3.59)	1988-89	15,533	18,557	34,090	2.97	3.55	3.26
	1993-94	57,236	19,605	76,841	4.54	2.66	3.85
Punjab (2.37)	1988-89	11,467	17,568	29,035	2.19	3.36	2.77
	1993-94	41,620	27,530	69,150	3.3	3.73	3.46
Rajasthan (5.46)	1988-89	16,159	22,904	39,063	3.09	4.38	3.73
	1993-94	67,326	19,257	86,583	5.34	2.61	4.33
Tamil Nadu (6.10)	1988-89	22,266	30,348	52,614	4.25	5.80	5.03
	1993-94	62,064	33,601	95,665	4.92	4.56	4.79
Uttar Pradesh (16.93)	1988-89	117,193	51,502	168,695	22.39	9.84	16.12
	1993-94	122,466	60,263	182,729	9.71	8.17	9.14
West Bengal (7.84)	1988-89	73,436	59,183	132,619	14.03	11.31	12.67
	1993-94	269,564	94,451	364,015	21.38	12.81	18.22

**Table 6.A.2.2: Absolute Number of Workers in Unorganised Transport in Fifteen States and Share in the Total Number of Workers in India as a Whole: Rural, Urban and All Locations, 1988-89 and 1993-94**

State (Share in all India)	Year	Number of Workers			Share in All-India Employment		
		Rural	Urban	All	Rural	Urban	All
Andhra Pradesh (7.43)	1988-89	66,327	98,726	165,053	9.22	11.11	10.27
	1993-94	296,510	175,598	472,108	17.12	13.25	15.44
Bihar (10.63)	1988-89	39,771	42,001	81,772	5.53	4.73	5.09
	1993-94	109,384	47,272	156,656	6.31	3.57	5.12
Delhi (1.31)	1988-89	6,332	43,528	49,860	0.88	4.90	3.10
	1993-94	220	156,435	156,655	0.01	11.81	5.12
Gujarat (4.92)	1988-89	49,219	42,638	91,857	6.84	4.80	5.71
	1993-94	68,985	109,470	178,455	3.98	8.26	5.84
Haryana (2.04)	1988-89	7,353	24,314	31,667	1.02	2.74	1.97
	1993-94	50,157	11,812	61,969	2.90	0.89	2.03
Karnataka (5.15)	1988-89	18,219	40,082	58,301	2.53	4.51	3.63
	1993-94	71,523	42,572	114,095	4.13	3.21	3.73
Kerala (3.14)	1988-89	24,416	18,368	42,784	3.39	2.07	2.66
	1993-94	117,932	11,853	129,785	6.81	0.89	4.24
Madhya Pradesh (7.89)	1988-89	12,963	81,910	94,873	1.80	9.22	5.90
	1993-94	24,040	94,595	118,635	1.39	7.14	3.88
Maharashtra (9.41)	1988-89	35,838	120,304	156,142	4.98	13.54	9.71
	1993-94	80,071	212,318	292,389	4.62	16.02	9.56
Orissa (3.59)	1988-89	22,657	26,265	48,922	3.15	2.96	3.04
	1993-94	75,951	29,117	105,068	4.38	2.20	3.44
Punjab (2.37)	1988-89	24,976	26,636	51,612	3.47	3.00	3.21
	1993-94	61,902	51,638	113,540	3.57	3.90	3.71
Rajasthan (5.46)	1988-89	20,845	36,704	57,549	2.90	4.13	3.58
	1993-94	101,142	34,960	136,102	5.84	2.64	4.45
Tamil Nadu (6.10)	1988-89	51,568	74,686	126,254	7.17	8.41	7.85
	1993-94	90,129	73,959	164,088	5.20	5.58	5.37
Uttar Pradesh (16.93)	1988-89	148,944	79,543	228,487	20.70	8.95	14.21
	1993-94	146,485	90,388	236,873	8.46	6.82	7.75
West Bengal (7.84)	1988-89	85,685	81,130	166,815	11.91	9.13	10.38
	1993-94	330,075	143,220	473,295	19.05	10.81	15.48

The contribution of individual states to gross value added has never been quite so heavily influenced by sheer population size. Moreover the ranking of states by the size of their contribution to all India gross value added differs noticeably from that produced by data on enterprises and workers. Delhi and Maharashtra now top the list of contributors to national gross value added by unorganised transport. Populous states like Uttar Pradesh, Bihar and Madhya Pradesh appear conspicuously lower down in the ranking.

Although it is far from intuitively obvious from the figures in Table 6.A.2.3, population size does wield a positive influence on the magnitude of gross value added. The significance of this relationship is revealed by the regression results, which are presented next.

**Table 6.A.2.3: Value of Gross Value Added in Unorganised Transport in Fifteen States and Share in Gross Value Added in India as a Whole: Rural, Urban and All Locations, 1988-89 and 1993-94**

(at Constant 93-94 prices)

State (Share in all India)	Year	Gross Value Added (in 000')			Share in All-India GVA		
		Rural	Urban	All	Rural	Urban	All
Andhra Pradesh (7.43)	1988-89	539,269	1,894,652	2,433,921	5.57	8.00	7.29
	1993-94	2,557,147	2,644,258	5,201,405	12.40	6.44	8.43
Bihar (10.63)	1988-89	461,236	1,140,262	1,601,498	4.76	4.81	4.80
	1993-94	1,423,191	720,293	2,143,484	6.90	1.75	3.48
Delhi (1.31)	1988-89	87,173	1,149,831	1,237,004	0.90	4.85	3.71
	1993-94	5,697	8,055,774	8,061,471	0.03	19.62	13.07
Gujarat (4.92)	1988-89	587,207	1,174,288	1,761,495	6.06	4.96	5.28
	1993-94	1,371,513	3,453,241	4,824,754	6.65	8.41	7.82
Haryana (2.04)	1988-89	188,137	513,002	701,139	1.94	2.17	2.10
	1993-94	701,943	221,016	922,959	3.40	0.54	1.50
Karnataka (5.15)	1988-89	233,724	925,824	1,159,547	2.41	3.91	3.47
	1993-94	573,352	798,786	1,372,138	2.78	1.95	2.22
Kerala (3.14)	1988-89	634,757	673,440	1,308,197	6.55	2.84	3.92
	1993-94	2,524,205	211,753	2,735,958	12.24	0.52	4.44
Madhya Pradesh (7.89)	1988-89	244,534	2,426,093	2,670,627	2.53	10.24	8.00
	1993-94	353,330	2,287,125	2,640,455	1.71	5.57	4.28
Maharashtra (9.41)	1988-89	573,009	5,225,364	5,798,373	5.92	22.05	17.37
	1993-94	1,386,717	12,007,755	13,394,472	6.72	29.24	21.72
Orissa (3.59)	1988-89	329,316	525,689	855,004	3.40	2.22	2.56
	1993-94	662,405	526,914	1,189,319	3.21	1.28	1.93
Punjab (2.37)	1988-89	274,376	645,567	919,943	2.83	2.72	2.76
	1993-94	805,901	1,099,534	1,905,435	3.91	2.68	3.09
Rajasthan (5.46)	1988-89	335,057	509,289	844,345	3.46	2.15	2.53
	1993-94	1,212,386	809,402	2,021,788	5.88	1.97	3.28
Tamil Nadu (6.10)	1988-89	364,070	2,466,451	2,830,521	3.76	10.41	8.48
	1993-94	753,113	2,173,002	2,926,115	3.65	5.29	4.74
Uttar Pradesh (16.93)	1988-89	811,414	1,453,839	2,265,252	8.38	6.14	6.79
	1993-94	1,775,810	1,832,540	3,608,350	8.61	4.46	5.85
West Bengal (7.84)	1988-89	1,194,254	1,564,449	2,758,703	12.33	6.60	8.27
	1993-94	2,979,891	3,310,644	6,290,535	14.45	8.06	10.20

**(ii) The Factors which Account for Interstate Differences in the Number of Transport Enterprises and Workers and Gross Value Added by Them**

As recently as 1988-89, the population size factor was the only one which provided any explanation for interstate contrasts in the number of unorganised transport enterprises. Only five years later, the relative positions of states have changed so much that none of the explanatory variables provides any clue to the causes of interstate differences.

Since the introduction of the third explanatory variable –the rural share in total state population–depresses the  $R^2$  somewhat in all three of the regression sets, the regression results are presented only for the first regression set which includes only the two explanatory variables, population, and per capita state domestic product. Table 6.A.2.4. gives the regression statistics for enterprises, and Table 6.A.2.5 for the number of workers in each state.

**Table 6.A.2.4: Regression Results: Dependent Variable: Number of Unorganised Transport Enterprises in Each of Fifteen States 1988-89 and 1993-94**

Independent Variable	Statistics	Year	
		1988-89	1993-94
<b>First Regression Set</b>	$\overline{R^2}$	<b>0.657</b>	<b>0.147</b>
1. Population	Beta Coefficient	0.941	0.482
	t-value	4.817	1.648
	Significance	HHH	-
2. SGDP	Beta Coefficient	0.193	-0.63
	t-value	0.99	0.217
	Significance	-	-

*Note:* Stars, HHH, HH,H indicate levels of significance of 99 percent, 97.5 percent and 95 percent respectively. A dot . , identifies a significance level of more than 90 percent but less than 95 percent. A dash, \_ indicates not significant.

**Table 6.A.2.5: Regression Results: Dependent Variable: Number of Unorganised Transport Workers in Each of Fifteen States 1988-89 and 1993-94**

Independent Variable	Statistics	Year	
		1988-89	1993-94
<b>First Regression Set</b>	$\overline{R^2}$	<b>0.748</b>	<b>0.070</b>
1. Population	Beta Coefficient	1.025	0.515
	t-value	4.817	1.687
	Significance	HHH	-
2. SGDP	Beta Coefficient	0.281	0.160
	t-value	1.681	0.524
	Significance	-	-

*Note:* Stars, HHH, HH,H indicate levels of significance of 99 percent, 97.5 percent and 95 percent respectively. A dot . , identifies a significance level of more than 90 percent but less than 95 percent. A dash, \_ indicates not significant.

The corresponding statistics for gross value added, set out in Table 6.A.2.6, tell a more interesting story. What seems to have changed in the brief five-year period between 1988-89 and 1993-94 is the impact of differences in state level per capita incomes on gross value added by unorganised transport.

**Table 6.A.2.6: Regression Results: Dependent Variable- Gross Value Added by Unorganised Transport in Each of Fifteen States 1988-89 and 1993-94**

Independent Variable	Statistics	Year	
		1988-89	1993-94
<b>First Regression Set</b>	$\overline{R^2}$	<b>0.265</b>	<b>0.495</b>
1. Population	Beta Coefficient	0.756	0.656
	t-value	2.643	2.918
	Significance	HH	HH
2. SGDP	Beta Coefficient	0.281	0.861
	t-value	1.681	3.826
	Significance	-	HHH

*Note:* Stars, HHH, HH,H indicate levels of significance of 99 percent, 97.5 percent and 95 percent respectively. A dot . , identifies a significance level of more than 90 percent but less than 95 percent. A dash, \_ indicates not significant.

In 1988-89, sheer population size provided the best explanation for the observed differences in gross value added as between states. In 1993-94 the population factor is still positive and significant, but



per capita incomes have become even more important. Thus the level of state-wise gross value added by unorganised transport is now determined not only by the number of people who may potentially demand transport services in each state, but even more importantly by how much money they have to spend on it. Relatively high per capita incomes in any state tend to produce higher levels of gross value added by unorganised transport enterprises in that state.

### 6.A.2.2 The Rural-Urban Distribution of Unorganised Transport in Each State

In this section the rural –urban distribution of unorganised transport in each of 15 states is examined at three levels. First there is an overview table which shows the rural share in enterprises, employment and GVA for two years, 1988-89 and 1993-94. This is followed by a breakdown by enterprise type, which reveals the extent of ruralisation of own account enterprises, non-directory and directory establishments in each state. Finally, the rural component in each of these three branches of transport is calculated. In most states the rural share in non-mechanised transport is higher than in mechanised transport. However in many states including some of those commonly considered backward, more than 60 percent of transport enterprises are located in rural areas.

#### (i) The Rural Share in All Enterprises, Employment and Gross Value Added

In the vast majority of states unorganised transport is becoming, increasingly, a rural phenomenon. In all but three states the rural share in unorganised transport enterprises and employment has gone up between 1988-89 and 1993-94. The three exceptional states are Delhi, Gujarat and Uttar Pradesh.

The highest rural shares in enterprises are now recorded by Kerala, Haryana, Rajasthan and Orissa and the lowest by Delhi, Madhya Pradesh and Orissa.

In the case of gross value added, the relative contribution of rural areas has increased in all states except Delhi and Gujarat. The share of rural areas in gross value added by unorganised transport is highest in Kerala, Haryana, Bihar and Rajasthan.

Together, this evidence presented in Table 6.A.2.7, suggests an important conclusion. It is that unorganised transport is moving into rural areas in a big way. It is expanding more slowly in urban locations.

**Table 6.A.2.7: The Share of Rural Areas in Unorganised Transport Enterprises, Employment and Gross Value Added in fifteen Major States: 1988-89, 1993-94**

State	Year	Enterprise (%)	Employment (%)	GVA (%)
Andhra Pradesh	1988-89	43.18	40.19	22.16
	1993-94	63.33	62.81	49.16
Bihar	1988-89	52.19	48.64	28.80
	1993-94	70.70	69.82	66.40
Delhi	1988-89	20.49	12.70	7.05
	1993-94	0.80	0.14	0.07
Gujarat	1988-89	56.44	53.58	33.34
	1993-94	47.37	38.66	28.43
Haryana	1988-89	19.73	23.22	26.83
	1993-94	84.44	80.94	76.05

State	Year	Enterprise (%)	Employment (%)	GVA (%)
Karnataka	1988-89	30.86	31.25	20.16
	1993-94	61.27	62.69	41.79
Kerala	1988-89	53.93	57.07	48.52
	1993-94	90.62	90.87	92.26
Madhya Pradesh	1988-89	19.37	13.66	9.16
	1993-94	18.96	20.26	13.38
Maharashtra	1988-89	28.82	22.95	9.88
	1993-94	29.98	27.39	10.35
Orissa	1988-89	45.56	46.31	38.52
	1993-94	74.49	72.29	55.70
Punjab	1988-89	39.49	48.39	29.83
	1993-94	60.19	54.52	42.29
Rajasthan	1988-89	41.37	36.22	39.68
	1993-94	77.76	74.31	59.97
Tamil Nadu	1988-89	42.32	40.84	12.86
	1993-94	64.88	54.93	25.74
Uttar Pradesh	1988-89	69.47	65.19	35.82
	1993-94	67.02	61.84	49.21
West Bengal	1988-89	55.37	51.37	43.29
	1993-94	74.05	69.74	47.37

Although non-mechanised transport is generally more ruralised than mechanised transport there has been a tremendous increase in the share of mechanised transport which is located in rural areas. The only two states where this did not take place are Delhi and Tamil Nadu, where the share of rural areas in mechanised transport continues to be very low. Mechanised transport enterprises are now predominantly rural in 9 out of 15 major states.

In the majority of states, however, most of the gross value added by mechanised units is attributable to urban enterprises, while most of the gross value added by non-mechanised enterprises comes from those located in rural areas.

Thus, the rise of mechanised transport in rural areas is a general phenomenon and not one confined to only the most developed states. Moreover, in rural areas it has grown more rapidly than in urban centres in all but two or three states.

**Table 6.A.2.8: The Share of Rural Areas in Unorganised Transport by Transport Type in Fifteen major States: 1988-89, 1993-94**

(GVA at constant 1993-94 prices)

State	Year	Rural Share in Enterprises			Rural Share in Employment			Rural Share in GVA		
		Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	1988-89	21.73	48.10	2.85	32.06	48.06	8.97	13.28	40.97	2.56
	1993-94	59.53	65.80	14.65	59.97	68.43	16.71	55.97	48.91	11.32
Bihar	1988-89	15.32	57.71	29.06	17.76	62.71	17.30	11.52	53.79	1.02
	1993-94	69.86	71.83	0.00	63.49	73.86	0.00	76.44	58.72	0.00
Delhi	1988-89	11.21	29.08	0.00	6.71	28.46	0.00	8.02	13.82	0.00
	1993-94	0.62	2.84	0.00	0.11	2.47	0.00	0.07	3.57	0.00
Gujarat	1988-89	40.88	69.42	3.84	41.10	70.17	2.72	33.98	49.29	0.40
	1993-94	53.19	49.64	3.19	48.52	49.28	2.12	37.94	50.90	1.38
Haryana	1988-89	40.98	15.21	51.88	38.46	15.16	28.62	47.77	14.11	7.54
	1993-94	76.73	89.64	0.00	75.98	89.34	0.00	75.78	83.62	0.00
Karnataka	1988-89	19.11	46.21	22.90	26.28	45.92	11.96	18.96	34.56	9.98
	1993-94	42.34	76.01	5.18	46.06	82.08	5.99	41.90	56.82	5.31
Kerala	1988-89	42.48	72.65	71.24	52.15	70.68	52.82	55.43	62.59	8.84
	1993-94	90.51	94.30	51.60	90.64	96.55	41.90	92.52	97.26	22.62
Madhya Pradesh	1988-89	16.16	20.03	26.39	7.66	19.25	41.21	5.99	15.94	51.14
	1993-94	29.66	12.29	1.57	27.61	12.00	2.30	16.63	3.72	1.79
Maharashtra	1988-89	19.95	44.68	1.98	20.18	42.27	1.10	16.81	26.60	0.11
	1993-94	23.45	52.03	5.18	27.79	51.20	4.26	14.00	41.42	1.06
Orissa	1988-89	50.33	45.85	6.63	50.57	46.55	8.38	43.52	40.53	1.83
	1993-94	62.23	76.32	0.00	60.27	77.49	0.00	47.49	65.61	0.00
Punjab	1988-89	19.42	44.38	6.74	36.91	58.08	3.28	30.83	35.74	3.12
	1993-94	34.69	71.44	0.00	43.35	70.42	0.00	40.47	57.34	0.00
Rajasthan	1988-89	32.43	43.44	38.43	33.11	39.30	25.43	33.65	46.98	40.86
	1993-94	79.98	82.50	1.45	81.65	82.01	1.13	74.01	75.65	1.03
Tamil Nadu	1988-89	29.59	58.21	13.46	32.97	68.58	8.92	20.12	27.87	0.57
	1993-94	20.28	79.15	8.29	25.79	80.58	3.25	14.86	71.29	0.82
Uttar Pradesh	1988-89	22.50	73.58	15.40	21.60	73.43	17.86	24.87	46.66	12.05
	1993-94	68.21	68.02	0.68	64.15	67.01	0.23	64.60	61.53	0.08
West Bengal	1988-89	38.22	56.97	4.87	37.43	56.52	3.92	29.88	56.62	5.99
	1993-94	57.86	76.50	21.72	61.26	76.59	5.00	36.96	70.84	0.62

The prevalence of rural units among non-directory establishments is, unexpectedly, higher than among own account enterprises in eight out of fifteen in states. This makes the unorganised transport sector unique among the unorganised sectors covered in this report. The share of rural areas in directory establishments, although it has risen in most states, has not increased to the levels reached in non-directory establishments in most states. Punjab and Haryana are the outstanding exceptions.

Aside from this evidence on the prevalence of rural non-directory establishments, the main finding which emerges from Table 6.A.2.9 is that rural areas' share in all enterprise types, and employment in them, is rising in almost all states.

The increasingly dominant numerical position of rural located enterprises and employment regardless of enterprise type is in some respects replicated in the figures on the share of gross value added by rural units. In thirteen out of fifteen states, the rural contribution to gross value added by own account enterprises has increased in percentage terms. In twelve out of fifteen states the rural share in gross value added by non-directory establishments has gone up and finally in nine of the fifteen states the rural share of gross value added by directory establishments has risen. Moreover, the rural share in the gross value added by non-directory establishments is larger than the rural share of gross value added by own account enterprises in seven out of fifteen states.

**Table 6.A.2.9: The share of Rural areas in Unorganised Transport by Enterprise Type in Fifteen major States: 1988-89, 1993-94**

State	Year	Rural share in Enterprises			Rural share in Employment			Rural share in GVA		
		OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	1988-89	42.42	54.03	23.72	39.33	50.30	25.90	30.64	18.33	12.66
	1993-94	62.48	70.45	46.58	63.62	65.77	47.68	44.95	56.35	43.12
Bihar	1988-89	55.41	17.70	26.40	60.46	16.78	19.93	49.23	10.61	8.59
	1993-94	69.51	81.45	34.17	70.96	80.88	24.44	55.14	82.16	44.50
Delhi	1988-89	22.52	0.84	0.00	20.54	0.99	0.00	12.48	0.36	0.00
	1993-94	1.38	0.56	0.00	1.48	0.55	0.00	1.22	0.71	0.00
Gujarat	1988-89	56.45	61.34	0.00	57.86	57.67	0.00	38.77	44.91	0.00
	1993-94	47.97	47.21	29.67	48.74	35.27	17.60	49.05	26.93	7.81
Haryana	1988-89	17.80	40.19	18.00	18.01	40.32	27.58	19.68	19.60	77.89
	1993-94	87.56	68.17	72.18	87.13	70.45	66.50	80.63	71.82	70.10
Karnataka	1988-89	30.67	36.69	41.57	31.51	30.26	31.67	17.05	29.64	17.26
	1993-94	59.79	69.83	32.80	66.20	63.69	29.58	40.32	50.70	24.71
Kerala	1988-89	53.52	56.00	31.34	57.06	53.88	67.76	44.56	42.14	71.50
	1993-94	90.00	91.79	61.13	90.43	92.81	47.18	89.60	95.25	52.41
Madhya Pradesh	1988-89	20.82	12.91	11.79	20.66	14.70	5.52	16.98	12.86	5.22
	1993-94	16.78	30.87	26.83	16.79	29.47	18.99	14.75	11.82	12.88
Maharashtra	1988-89	30.32	25.66	3.76	31.24	24.03	5.04	16.44	17.43	1.22
	1993-94	28.51	39.77	5.41	28.60	39.21	3.40	16.48	34.84	1.47
Orissa	1988-89	45.37	42.20	68.37	45.17	39.49	62.46	39.35	23.01	70.67
	1993-94	74.69	76.41	43.47	75.52	77.16	35.36	63.70	64.01	21.64
Punjab	1988-89	41.87	9.80	42.91	54.76	6.26	50.94	30.22	7.39	38.86
	1993-94	68.17	29.12	57.01	67.96	33.31	55.02	50.31	27.80	50.42
Rajasthan	1988-89	46.60	21.33	0.00	45.33	24.52	0.00	47.50	38.60	0.00
	1993-94	79.00	75.94	52.13	79.38	73.93	47.63	70.57	56.47	44.21
Tamil Nadu	1988-89	41.37	51.45	11.18	52.40	48.64	10.06	17.20	24.71	3.00
	1993-94	68.65	55.99	24.76	70.24	52.43	20.78	50.03	29.72	10.89
Uttar Pradesh	1988-89	72.05	19.20	32.95	73.28	15.05	21.31	44.59	15.42	50.80
	1993-94	67.26	69.34	11.95	66.52	63.93	7.75	61.66	65.79	2.97
West Bengal	1988-89	56.86	32.76	44.65	55.96	32.47	41.76	55.86	37.08	11.89
	1993-94	75.42	59.71	55.30	75.74	60.34	38.16	67.26	40.52	14.85

Further light is thrown on these developments by the evidence on structural change presented in the next section.

### 6.A.2.3 Structure and Structural Change in the Unorganised Transport Sector

Two ways of looking at structure and structural change are considered here. The first classifies transport activities in terms of three categories of transport: mechanised transport, non-mechanised transport, and services incidental to transport. The second set of structural categories is that defined by enterprise type where the distinction is made between the own account enterprises and the larger non-directory and directory establishments, which employ hired workers.

**(i) Structure and Structural Change: Mechanised Transport, Non-mechanised Transport and Services Incidental to Transport**

Although mechanised transport has been growing by leaps and bounds, there are really only four states where mechanised units are in the majority. They are Kerala, Delhi, Maharashtra and Gujarat. These are all states where the share of mechanised transport is high, even in rural areas. However, in most states the share of mechanised units is greater in the towns and cities than it is in the countryside. In rural areas, Madhya Pradesh is an unusual case of a very high degree of mechanisation in rural areas combined with a lesser degree of mechanisation in urban centres.

In all states except Maharashtra the share of workers in mechanised transport is higher than the share of mechanised units in all units. One result is that there are states where the number of workers employed in mechanised units is greater than the number engaged in non-mechanised transport activities. Judging by the share of workers in non-mechanised transport, the most technologically backward states are Uttar Pradesh, Bihar, West Bengal, Orissa, Andhra Pradesh and Tamil Nadu, and because of the high share of non-mechanised transport workers in rural areas, Karnataka as well.

Services incidental to transport account for less than five percent of all enterprises in most states. States where their numbers are more substantial include Delhi, Gujarat, Maharashtra, Tamil Nadu and Rajasthan. These units, however, typically earn a disproportionately large share of the gross value added by the industry—close to twenty percent or even more in Delhi, Gujarat, Maharashtra, Rajasthan and Uttar Pradesh.

Gross value added by mechanised transport is invariably higher than gross value added by the non-mechanised units except in Uttar Pradesh and West Bengal. There are, however, two other states where gross value added by rural non-mechanised units is greater than that generated by the mechanised enterprises. Orissa and Tamil Nadu are the exceptional states. Details for rural and urban areas separately are given in tables 6.A.2.11 and 6.A.2.12.

Unexpectedly, there are states where the shares of non-mechanised units and workers have both gone up. These states where it appears that some kind of technological retrogression has taken place are: Bihar, Karnataka, Orissa and Tamil Nadu. In all of these states this has happened because the share of non-mechanised units and workers in rural areas has increased. In urban centres, the share of non-mechanised units and workers has gone up also in Bihar, Karnataka and Tamil Nadu. In urban Madhya Pradesh the share of workers in these units has risen and in Uttar Pradesh also, the non-mechanised segment has expanded faster than the mechanised segment. The proliferation of non-mechanised units in these states suggests that work in non-mechanised transport may be the last resort of people who have been unable to find a niche in more remunerative lines of work. The productivity figures in some of these states indicate that this is indeed the case. (More will be said on this point later)

**Table 6.A.2.10: The Share of each Transport Type in (Rural+Urban) Enterprises, Employment and Gross Value Added by Unorganised Transport within each of Fifteen Major States: 1988-89 and 1993-94**

State	Year	Shares of Specified Branches in Transport in:								
		Enterprises			Employment			GVA		
		Mechanised	Non-mechanised	Services Incidental to transport	Mechanised	Non-mechanised	Services Incidental to transport	Mechanised	Non-mechanised	Services Incidental to transport
Andhra Pradesh	1988-89	11.24	84.45	4.31	23.17	66.17	10.66	44.06	38.72	17.22
	1993-94	16.37	80.82	2.81	30.31	63.76	5.92	53.64	36.95	9.40
Bihar	1988-89	10.94	85.97	3.09	27.65	68.72	3.63	44.53	43.78	11.69
	1993-94	11.99	86.76	1.25	26.92	71.39	1.69	53.01	44.07	2.93
Delhi	1988-89	37.82	55.87	6.31	51.01	32.60	16.39	48.77	22.67	28.56
	1993-94	64.79	14.06	21.15	85.72	1.96	12.32	74.71	0.47	24.82
Gujarat	1988-89	39.40	57.95	2.65	44.68	49.99	5.33	66.50	21.69	11.81
	1993-94	60.67	29.81	9.52	60.70	17.76	21.54	65.24	6.44	28.31
Haryana	1988-89	15.88	82.96	1.16	33.42	64.55	2.03	40.06	48.36	11.59
	1993-94	32.36	66.50	1.14	49.44	48.55	2.01	65.25	31.82	2.93
Karnataka	1988-89	51.25	42.47	6.28	62.59	30.40	7.01	84.30	10.59	5.10
	1993-94	38.02	59.24	2.74	44.63	51.01	4.36	78.53	15.03	6.45
Kerala	1988-89	61.71	30.75	7.54	64.55	26.22	9.23	71.68	11.69	16.63
	1993-94	74.23	23.73	2.04	74.37	23.28	2.35	86.40	12.39	1.21
Madhya Pradesh	1988-89	19.86	78.37	1.77	55.60	40.48	3.91	79.45	17.36	3.19
	1993-94	40.50	56.08	3.42	55.25	41.04	3.71	75.50	20.08	4.42
Maharashtra	1988-89	52.71	40.67	6.61	52.56	28.73	18.72	45.31	8.33	46.37
	1993-94	61.16	29.09	9.75	60.90	18.73	20.37	61.07	3.44	35.49
Orissa	1988-89	12.96	84.83	2.21	35.29	60.36	4.34	49.90	41.05	9.05
	1993-94	12.75	87.19	0.05	29.44	70.39	0.17	54.15	45.69	0.16
Punjab	1988-89	13.50	82.47	4.04	29.70	64.10	6.20	57.49	33.03	9.49
	1993-94	27.89	70.70	1.40	51.45	45.75	2.80	62.14	29.90	7.96
Rajasthan	1988-89	16.93	78.95	4.12	30.79	60.76	8.45	48.33	37.76	13.90
	1993-94	27.24	67.76	5.00	43.47	47.20	9.32	53.27	26.88	19.85
Tamil Nadu	1988-89	34.59	52.02	13.39	45.55	35.16	19.30	52.57	7.38	40.05
	1993-94	17.56	76.88	5.56	34.00	56.91	9.08	59.99	23.41	16.60
Uttar Pradesh	1988-89	6.69	92.13	1.19	13.87	84.24	1.89	44.66	52.13	3.21
	1993-94	10.70	87.79	1.52	18.71	74.36	6.93	29.32	49.17	21.51
West Bengal	1988-89	6.10	93.03	0.87	17.66	78.95	3.39	37.08	56.18	6.74
	1993-94	10.05	88.90	1.05	24.26	71.37	4.37	32.06	49.98	17.95

**Table 6.A.2.11: The Share of each Transport Type in Rural Enterprises, Employment and Gross Value Added by Unorganised Transport within Each of in Fifteen Major States: 1988-89 and 1993-94**

State	Year	Shares of Specified Branches in Transport in:								
		Enterprises			Employment			GVA		
		Mechanised	Non-mechanised	Services Incidental to transport	Mechanised	Non-mechanised	Services Incidental to transport	Mechanised	Non-mechanised	Services Incidental to transport
Andhra Pradesh	1988-89	5.65	94.06	0.28	18.49	79.14	2.38	26.42	71.60	1.99
	1993-94	15.39	83.96	0.65	28.95	69.48	1.58	61.07	36.77	2.17
Bihar	1988-89	3.21	95.07	1.72	10.10	88.61	1.29	17.82	81.77	0.41
	1993-94	11.85	88.15	0.00	24.48	75.52	0.00	61.02	38.98	0.00
Delhi	1988-89	20.70	79.30	0.00	26.96	73.04	0.00	55.54	44.46	0.00
	1993-94	50.34	49.66	0.00	65.45	34.55	0.00	76.30	23.70	0.00
Gujarat	1988-89	28.53	71.29	0.18	34.27	65.46	0.27	67.79	32.07	0.14
	1993-94	68.12	31.24	0.64	76.18	22.64	1.18	87.09	11.53	1.38
Haryana	1988-89	32.98	63.97	3.05	55.35	42.15	2.50	71.32	25.43	3.25
	1993-94	29.40	70.60	0.00	46.42	53.58	0.00	65.01	34.99	0.00
Karnataka	1988-89	31.74	63.60	4.66	52.64	44.67	2.68	79.31	18.17	2.53
	1993-94	26.28	73.49	0.23	32.80	66.79	0.42	78.75	20.43	0.82
Kerala	1988-89	48.62	41.43	9.95	58.98	32.47	8.55	81.90	15.07	3.03
	1993-94	74.15	24.69	1.16	74.18	24.73	1.08	86.64	13.06	0.30
Madhya Pradesh	1988-89	16.56	81.02	2.42	31.17	57.03	11.80	51.96	30.23	17.81
	1993-94	63.36	36.36	0.28	75.27	24.31	0.42	93.83	5.58	0.59
Maharashtra	1988-89	36.49	63.06	0.45	46.20	52.91	0.89	77.08	22.41	0.51
	1993-94	47.84	50.48	1.69	61.81	35.02	3.17	82.60	13.76	3.64
Orissa	1988-89	14.31	85.37	0.32	38.54	60.67	0.79	56.38	43.19	0.43
	1993-94	10.66	89.34	0.00	24.54	75.46	0.00	46.18	53.82	0.00
Punjab	1988-89	6.64	92.67	0.69	22.66	76.92	0.42	59.43	39.58	0.99
	1993-94	16.08	83.92	0.00	40.90	59.10	0.00	59.47	40.53	0.00
Rajasthan	1988-89	13.27	82.90	3.82	28.15	65.92	5.93	40.98	44.70	14.31
	1993-94	28.02	71.89	0.09	47.77	52.09	0.14	65.74	33.92	0.34
Tamil Nadu	1988-89	24.18	71.56	4.26	36.76	59.03	4.21	82.23	16.00	1.78
	1993-94	5.49	93.80	0.71	15.97	83.50	0.54	34.62	64.85	0.53
Uttar Pradesh	1988-89	2.17	97.57	0.26	4.60	94.88	0.52	31.01	67.91	1.08
	1993-94	10.89	89.10	0.02	19.41	80.57	0.03	38.49	61.48	0.03
West Bengal	1988-89	4.21	95.71	0.08	12.87	86.87	0.26	25.59	73.47	0.93
	1993-94	7.85	91.84	0.31	21.31	78.38	0.31	25.02	74.75	0.23



**Table 6.A.2.12: The Share of each Transport Type in Urban Enterprises, Employment and Gross Value Added by Unorganised Transport within each of Fifteen Major States: 1988-89 and 1993-94**

State	Year	Shares of Specified Branches in Transport in:								
		Enterprises			Employment			GVA		
		Mechanised	Non-mechanised	Services Incidental to transport	Mechanised	Non-mechanised	Services Incidental to transport	Mechanised	Non-mechanised	Services Incidental to transport
Andhra Pradesh	1988-89	15.48	77.15	7.37	26.32	57.46	16.22	49.08	29.37	21.55
	1993-94	18.06	75.39	6.55	32.62	54.11	13.26	46.46	37.14	16.40
Bihar	1988-89	19.38	76.04	4.58	44.28	49.88	5.84	55.34	28.41	16.25
	1993-94	12.33	83.40	4.26	32.57	61.84	5.59	37.16	54.13	8.70
Delhi	1988-89	42.23	49.84	7.93	54.51	26.71	18.78	48.26	21.02	30.72
	1993-94	64.91	13.77	21.32	85.75	1.92	12.34	74.71	0.45	24.84
Gujarat	1988-89	53.47	40.68	5.85	56.70	32.12	11.18	65.86	16.49	17.64
	1993-94	53.96	28.52	17.52	50.95	14.68	34.37	56.57	4.42	39.01
Haryana	1988-89	11.68	87.63	0.70	26.79	71.33	1.89	28.59	56.76	14.64
	1993-94	48.39	44.28	7.33	62.30	27.16	10.54	66.01	21.77	12.23
Karnataka	1988-89	59.95	33.04	7.00	67.11	23.92	8.98	85.56	8.68	5.75
	1993-94	56.59	36.70	6.71	64.51	24.50	10.99	78.37	11.15	10.48
Kerala	1988-89	77.04	18.26	4.70	71.95	17.91	10.15	62.06	8.49	29.45
	1993-94	75.07	14.42	10.51	76.25	8.80	14.95	83.47	4.39	12.14
Madhya Pradesh	1988-89	20.65	77.73	1.62	59.47	37.86	2.67	82.22	16.07	1.72
	1993-94	35.15	60.70	4.15	50.16	45.30	4.54	72.67	22.32	5.01
Maharashtra	1988-89	59.28	31.61	9.11	54.45	21.52	24.02	41.82	6.78	51.39
	1993-94	66.87	19.93	13.21	60.56	12.59	26.86	58.58	2.25	39.17
Orissa	1988-89	11.82	84.38	3.79	32.49	60.10	7.41	45.84	39.70	14.45
	1993-94	18.88	80.91	0.20	42.21	57.17	0.63	64.18	35.46	0.36
Punjab	1988-89	17.98	75.80	6.22	36.31	52.07	11.62	56.66	30.24	13.10
	1993-94	45.76	50.72	3.52	64.09	29.76	6.15	64.10	22.10	13.80
Rajasthan	1988-89	19.51	76.17	4.32	32.29	57.82	9.88	53.17	33.20	13.63
	1993-94	24.52	53.31	22.17	31.06	33.06	35.89	34.58	16.35	49.07
Tamil Nadu	1988-89	42.23	37.69	20.08	51.61	18.67	29.72	48.19	6.11	45.70
	1993-94	39.85	45.63	14.52	55.98	24.52	19.50	68.78	9.05	22.17
Uttar Pradesh	1988-89	16.98	79.74	3.29	31.24	64.30	4.46	52.28	43.33	4.39
	1993-94	10.31	85.12	4.57	17.58	64.29	18.13	20.44	37.25	42.31
West Bengal	1988-89	8.44	89.71	1.85	22.72	70.58	6.70	45.85	42.97	11.18
	1993-94	16.31	80.50	3.18	31.05	55.22	13.73	38.41	27.69	33.90

**(ii) Structure and Structural Change: Own Account Enterprises, Non-Directory and Directory Establishments**

Own account enterprises are the dominant enterprise type. They account for the majority of enterprises in all states. The share of these tiny units ranges from 51 per cent in Delhi to more than 90 per cent in Uttar Pradesh and West Bengal. In all states except Delhi and Kerala, more than three-quarters of all enterprises belong to the own account enterprise category. Directory establishments are rare, accounting for less than four percent of all units everywhere except in Delhi.

The share of own account enterprise workers, however, is invariably much below the share of own account enterprises. In Delhi, Gujarat, Kerala and Punjab they account for less than half of all unorganised transport workers.

The picture with respect to gross value added is as expected. There are only two states where more than half of all gross value added is generated in these very small units. There are several states where the bulk of gross value added is contributed by the non-directory establishments, and three where gross value added by directory establishments accounts for more than half of all GVA. The three states are Delhi, Maharashtra and Tamil Nadu. Further details can be seen in Table 6.A.2.13.

**Table 6.A.2.13: The Share of each Enterprise Type in (Rural+Urban) Enterprises, Employment and Gross value Added by Unorganised Transport in fifteen Major states: 1988-89 and 1993-94: (All Locations)**

State	Year	Shares of Specified Enterprise Types in:								
		Enterprises			Employment			GVA		
		OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	1988-89	88.78	9.42	1.80	68.52	20.84	10.63	45.34	23.70	30.96
	1993-94	84.74	13.74	1.53	65.26	26.12	8.62	45.98	39.32	14.70
Bihar	1988-89	91.02	7.02	1.96	72.07	15.95	11.98	48.38	27.17	24.45
	1993-94	87.72	11.70	0.58	69.85	22.83	7.32	46.52	45.00	8.48
Delhi	1988-89	90.69	6.88	2.43	61.24	11.93	26.83	56.05	14.31	29.64
	1993-94	50.90	18.20	30.90	6.87	7.03	86.10	3.10	4.64	92.26
Gujarat	1988-89	89.04	10.07	0.89	73.57	19.10	7.33	49.68	31.34	18.98
	1993-94	76.13	21.47	2.41	46.02	38.07	15.92	29.33	44.57	26.11
Haryana	1988-89	89.15	8.62	2.23	69.42	17.95	12.63	54.19	33.49	12.33
	1993-94	83.76	15.64	0.60	63.56	33.51	2.93	49.07	45.81	5.12
Karnataka	1988-89	85.19	11.37	3.44	57.79	23.26	18.95	48.05	24.20	27.75
	1993-94	80.48	18.22	1.30	63.26	29.15	7.59	45.41	38.43	16.16
Kerala	1988-89	73.05	25.89	1.06	50.70	37.97	11.33	37.54	43.83	18.63
	1993-94	58.37	41.22	0.42	36.22	61.42	2.36	25.92	70.52	3.55
Madhya Pradesh	1988-89	82.26	13.88	3.86	42.46	18.68	38.85	20.04	20.66	59.30
	1993-94	83.86	13.82	2.32	60.62	24.88	14.51	46.54	34.93	18.52
Maharashtra	1988-89	83.48	13.20	3.33	53.52	20.48	26.00	30.43	24.88	44.69
	1993-94	80.00	17.71	2.29	53.08	29.62	17.30	20.96	17.19	61.86
Orissa	1988-89	85.75	11.72	2.53	60.61	24.69	14.70	41.94	39.90	18.16
	1993-94	86.90	11.80	1.30	68.57	22.46	8.97	47.23	33.50	19.28

State	Year	Shares of Specified Enterprise Types in:								
		Enterprises			Employment			GVA		
		OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Punjab	1988-89	89.00	7.52	3.47	68.66	11.57	19.77	40.15	17.69	42.17
	1993-94	76.47	19.20	4.33	49.27	31.67	19.06	34.93	35.76	29.31
Rajasthan	1988-89	79.78	19.65	0.57	59.76	37.24	2.99	45.22	47.15	7.63
	1993-94	77.91	19.70	2.39	56.31	33.48	10.20	39.26	44.10	16.63
Tamil Nadu	1988-89	65.66	28.10	6.24	40.31	35.49	24.20	16.29	34.76	48.96
	1993-94	79.80	16.30	3.91	53.02	25.02	21.96	28.72	19.17	52.11
Uttar Pradesh	1988-89	95.02	4.57	0.41	85.79	11.32	2.89	55.58	32.58	11.84
	1993-94	90.33	8.90	0.77	76.08	16.69	7.22	53.96	23.19	22.84
West Bengal	1988-89	93.46	5.77	0.77	78.13	16.00	5.87	56.82	25.46	17.72
	1993-94	91.62	7.20	1.17	74.38	16.35	9.27	54.03	16.37	29.60

The picture is rather different in rural areas. There, more than half of all gross value added is generated by the own account units in 8 out of 15 states, and the majority of workers are employed in them in all states except Kerala.

It may be noted also that even in urban areas most unorganised transport sector workers are employed in own account enterprises in many states, including Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and West Bengal.

Thus from the employment point of view the role of the tiny own account transport activities is crucial. In rural and urban areas combined, these self-employed workers constitute the majority in eleven out of fifteen major states.

Table 6.A.3.14 and 6.A.3.15 provide the state-wise estimates for rural and urban areas respectively.

**Table 6.A.2.14: The Share of each Enterprise Type in Rural Enterprises, Employment and Gross Value Added by Unorganised Transport in fifteen Major states: 1988-89 and 1993-94**

State	Year	Shares of Specified Enterprise Type in:								
		Enterprises			Employment			GVA		
		OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	1988-89	87.23	11.78	0.99	67.06	26.09	6.85	62.71	19.61	17.69
	1993-94	83.60	15.28	1.12	66.10	27.35	6.54	42.04	45.07	12.90
Bihar	1988-89	96.63	2.38	0.99	89.59	5.50	4.91	82.70	10.01	7.29
	1993-94	86.24	13.48	0.28	70.99	26.45	2.56	38.63	55.69	5.69
Delhi	1988-89	99.72	0.28	0.00	99.07	0.93	0.00	99.27	0.73	0.00
	1993-94	87.25	12.75	0.00	72.27	27.73	0.00	53.50	46.50	0.00
Gujarat	1988-89	89.05	10.95	0.00	79.44	20.56	0.00	57.78	42.22	0.00
	1993-94	77.10	21.40	1.51	58.03	34.73	7.24	50.61	42.22	7.18
Haryana	1988-89	80.41	17.55	2.04	53.83	31.17	15.00	39.75	24.46	35.79
	1993-94	86.86	12.62	0.51	68.43	29.16	2.41	52.03	43.26	4.72
Karnataka	1988-89	82.35	13.14	4.51	58.27	22.53	19.20	40.65	35.58	23.77
	1993-94	78.54	20.77	0.69	66.80	29.62	3.58	43.81	46.63	9.56
Kerala	1988-89	72.50	26.89	0.62	50.70	35.85	13.45	34.48	38.07	27.45
	1993-94	57.97	41.75	0.28	36.04	62.73	1.23	25.17	72.81	2.02

State	Year	Shares of Specified Enterprise Type in:								
		Enterprises			Employment			GVA		
		OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Madhya Pradesh	1988-89	88.40	9.25	2.35	64.21	20.10	15.69	37.16	29.01	33.83
	1993-94	74.22	22.50	3.28	50.23	36.17	13.59	51.31	30.86	17.83
Maharashtra	1988-89	87.82	11.75	0.43	72.85	21.44	5.71	50.62	43.87	5.51
	1993-94	76.09	23.49	0.41	55.44	42.41	2.15	33.37	57.83	8.80
Orissa	1988-89	85.36	10.85	3.80	59.12	21.05	19.83	42.85	23.83	33.32
	1993-94	87.14	12.11	0.76	71.64	23.98	4.39	54.01	38.50	7.49
Punjab	1988-89	94.36	1.87	3.78	77.70	1.50	20.80	40.68	4.38	54.94
	1993-94	86.61	9.29	4.10	61.41	19.35	19.23	41.56	23.50	34.94
Rajasthan	1988-89	89.87	10.13	0.00	74.79	25.21	0.00	54.13	45.87	0.00
	1993-94	79.16	19.24	1.60	60.15	33.31	6.54	46.21	41.53	12.26
Tamil Nadu	1988-89	64.19	34.16	1.65	51.74	42.29	5.97	21.78	66.78	11.44
	1993-94	84.45	14.06	1.49	67.81	23.88	8.31	55.82	22.14	22.04
Uttar Pradesh	1988-89	98.54	1.26	0.19	96.44	2.61	0.95	69.18	14.02	16.80
	1993-94	90.65	9.21	0.14	81.84	17.26	0.91	67.61	31.01	1.38
West Bengal	1988-89	95.97	3.41	0.62	85.11	10.12	4.77	73.33	21.80	4.87
	1993-94	93.32	5.81	0.88	80.78	14.15	5.07	76.72	14.00	9.28

**Table 6.A.2.15: The Share of each Enterprise Type in Urban Enterprises, Employment and Gross Value Added by Unorganised Transport in fifteen Major states: 1988-89 and 1993-94**

State	Year	Shares of Specified Enterprise Type in:								
		Enterprises			Employment			GVA		
		OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	1988-89	89.96	7.62	2.42	69.51	17.32	13.17	40.40	24.86	34.74
	1993-94	86.70	11.07	2.23	63.84	24.04	12.12	49.79	33.76	16.45
Bihar	1988-89	84.89	12.09	3.02	55.49	25.84	18.67	34.50	34.12	31.39
	1993-94	91.28	7.40	1.31	67.21	14.47	18.32	62.11	23.89	14.01
Delhi	1988-89	88.37	8.58	3.06	55.74	13.53	30.73	52.77	15.33	31.89
	1993-94	50.61	18.24	31.15	6.78	7.00	86.22	3.07	4.61	92.32
Gujarat	1988-89	89.01	8.94	2.05	66.80	17.42	15.78	45.63	25.90	28.47
	1993-94	75.25	21.53	3.22	38.45	40.17	21.38	20.88	45.50	33.62
Haryana	1988-89	91.30	6.42	2.28	74.13	13.95	11.91	59.48	36.79	3.73
	1993-94	66.95	31.98	1.07	42.90	51.95	5.15	39.70	53.91	6.39
Karnataka	1988-89	86.51	10.54	2.94	57.57	23.60	18.83	49.92	21.32	28.76
	1993-94	83.55	14.20	2.25	57.31	28.37	14.33	46.55	32.54	20.91
Kerala	1988-89	73.69	24.72	1.58	50.71	40.78	8.51	40.43	49.26	10.31
	1993-94	62.19	36.09	1.72	37.97	48.38	13.65	34.84	43.30	21.86
Madhya Pradesh	1988-89	80.79	14.99	4.22	39.02	18.46	42.52	18.31	19.82	61.87
	1993-94	86.12	11.79	2.10	63.25	22.00	14.74	45.81	35.56	18.63
Maharashtra	1988-89	81.72	13.78	4.50	47.76	20.20	32.04	28.22	22.80	48.98
	1993-94	81.68	15.23	3.09	52.19	24.80	23.01	19.52	12.49	67.99
Orissa	1988-89	86.09	12.44	1.47	61.89	27.83	10.28	41.37	49.96	8.66
	1993-94	86.21	10.92	2.87	60.57	18.52	20.92	38.69	27.21	34.10
Punjab	1988-89	85.51	11.21	3.28	60.19	21.02	18.79	39.92	23.34	36.74
	1993-94	61.14	34.18	4.68	34.71	46.44	18.85	30.08	44.74	25.18
Rajasthan	1988-89	72.66	26.37	0.97	51.23	44.07	4.69	39.36	48.00	12.64
	1993-94	73.55	21.32	5.14	45.21	33.98	20.80	28.86	47.96	23.18

State	Year	Shares of Specified Enterprise Type in:								
		Enterprises			Employment			GVA		
		OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Tamil Nadu	1988-89	66.74	23.66	9.61	32.42	30.80	36.78	15.48	30.03	54.50
	1993-94	71.22	20.42	8.37	35.00	26.41	38.59	19.33	18.14	62.53
Uttar Pradesh	1988-89	87.00	12.10	0.90	65.85	27.61	6.53	47.99	42.93	9.08
	1993-94	89.67	8.28	2.05	66.75	15.78	17.47	40.74	15.62	43.64
West Bengal	1988-89	90.36	8.69	0.95	70.75	22.22	7.03	44.22	28.24	27.53
	1993-94	86.79	11.18	2.02	59.63	21.43	18.94	33.61	18.50	47.89

#### 6.A.2.4 The Performance of Unorganised Transport at the State Level

##### (i) Growth Rates in Enterprises, Employment and Gross Value Added

Rural enterprise growth rates are generally huge, running to two figures in all states except Delhi, (where they are negative), and Gujarat and Uttar Pradesh, where they are modest, but positive. Urban enterprise growth rates, on the other hand, are negative in four states-Delhi, Haryana, Kerala and Rajasthan- and positive but below ten percent in seven other states. In short, the really big expansion in the number of unorganised transport units has taken place in rural areas. Gujarat and Uttar Pradesh are the only states where the major increases in the number of enterprise occurred in the towns and cities.

The rural employment growth rates follow a very similar pattern, and are of the same order of magnitude as the rural enterprise growth rates, which is hardly surprising given the overwhelming dominance of own account enterprises run by a single self employed person in the rural areas of most states. All rural employment growth rates are positive and above ten percent compound except in Delhi, Gujarat and Uttar Pradesh.

Urban employment growth is substantial in Andhra Pradesh, Delhi, Gujarat, Maharashtra, Punjab and West Bengal; modest in Bihar, Karanataka, Madhya Pradesh and Uttar Pradesh and negative in the remaining four states- Haryana, Kerala, Rajasthan and Tamil Nadu.

There is an intuitively obvious relationship between GVA growth rates and employment growth<sup>4</sup>. In general wherever gross value added has grown rapidly, employment growth rates run into two figures. But where GVA growth is slow or negative, so also is employment growth. The problem is that in so many states employment expansion has been more rapid than GVA growth. The states where this has taken place can be readily identified from Table 6.A.2.16. They are: Andhra Pradesh, Bihar, Haryana, Karnataka, Kerala, Madhya Pradesh, Orissa, Punjab, Tamil Nadu and West Bengal. Similar lists can be compiled for rural and urban areas separately. The implications for labour productivity are discussed in some detail, subsequently.

<sup>4</sup> In cross section, where employment growth depends on the GVA growth,  $R^2$  is 0.83 for rural areas and 0.85 for urban areas, t-values are 8.08 and 8.71 for rural and urban areas respectively and the results are highly significant at better than the 99.5 percent level.

**Table 6.A.2.16: The performance of Unorganised Transport in Fifteen Major states in terms of Growth Rates in Employment and GVA Growth Rates, Rural, Urban and Total (Rural+Urban): 1988-89 to 1993-94**

State	Enterprise			Employment			GVA		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	32.88	12.75	23.07	34.92	12.21	23.39	36.52	6.89	16.40
Bihar	22.69	4.69	15.46	22.43	2.39	13.89	25.28	-8.78	6.00
Delhi	-51.75	-3.61	-7.78	-48.93	29.16	25.73	-42.05	47.60	45.48
Gujarat	3.90	11.76	7.61	6.99	20.75	14.20	18.49	24.08	22.33
Haryana	52.60	-17.82	14.10	46.82	-13.44	14.37	30.13	-15.50	5.65
Karnataka	31.36	2.82	15.16	31.46	1.21	14.37	19.66	-2.91	3.42
Kerala	37.03	-10.16	23.52	37.02	-8.39	24.85	31.80	-20.66	15.90
Madhya Pradesh	10.89	11.48	11.36	13.15	2.92	4.57	7.64	-1.17	-0.23
Maharashtra	17.27	15.97	16.35	17.44	12.03	13.37	19.33	18.11	18.23
Orissa	29.79	1.11	17.64	27.37	2.08	16.52	15.00	0.05	6.82
Punjab	29.41	9.40	18.95	19.90	14.16	17.08	24.05	11.24	15.68
Rajasthan	33.03	-3.41	17.26	37.15	-0.97	18.79	29.33	9.71	19.08
Tamil Nadu	22.76	2.06	12.70	11.81	-0.20	5.38	15.65	-2.50	0.67
Uttar Pradesh	0.88	3.19	1.61	-0.33	2.59	0.72	16.96	4.74	9.76
West Bengal	29.10	9.80	22.38	30.96	12.04	23.19	20.07	16.17	17.92

The number of mechanised transport units grew faster than the non-mechanised ones in all but two states- Karnataka and Orissa. The most dramatic increase in mechanised transport units took place in Punjab, followed by West Bengal, Andhra Pradesh and Haryana, in that order.

However there are a number of states where employment in non-mechanised transport grew faster than employment in mechanised units. The list includes Bihar, Karnataka, Madhya Pradesh, Orissa and Tamil Nadu. The relatively slower growth of the mechanised transport workforce compared to the workforce employed in the non-mechanised units in these five states identifies them as states where, in recent years, the mechanisation process may have slowed down. This is certainly the case in Tamil Nadu where both mechanised units and the number of workers in them have gone down.

Judged by the gross value added growth rates, in most states the performance of the mechanised units has been better than that of the non-mechanised ones. Indeed, in four states the non-mechanised units appear to be losing ground even in absolute terms, as indicated by the negative GVA growth rates in non-mechanised transport in Delhi, Gujarat, Haryana and Maharashtra. But there are a significant number of exceptions. In six states the non-mechanised units have performed better than the mechanised units. The states in question are Karnataka, Madhya Pradesh, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal. In all of them GVA growth has been more rapid in the non-mechanised units than in the mechanised units. A part of the reason for this is that unorganised transport generally has expanded much more rapidly in rural areas than in urban centres, and in rural areas non-mechanised transport is still the dominant transport type. For details see Table 6.A.2.17.

**Table 6.A.2.17: Growth Rates of Enterprises, Employment and Gross Value Added by Transport type: All Locations: 1989-90 to 1993-94**

State	Enterprise			Employment			Gross Value Added		
	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	32.69	21.99	12.99	30.21	22.48	9.71	21.07	15.32	3.14
Bihar	17.60	15.67	-3.67	13.27	14.76	-2.27	9.76	6.14	-19.65
Delhi	2.70	-30.02	17.47	39.48	-28.31	18.74	58.44	-33.01	41.46
Gujarat	17.31	-5.79	38.99	21.42	-7.15	50.99	21.86	-4.04	45.70
Haryana	31.55	9.16	13.68	23.69	8.04	14.13	16.48	-2.83	-19.76
Karnataka	7.88	22.40	-2.99	6.89	26.84	4.01	1.97	10.91	8.37
Kerala	28.16	17.28	-4.92	28.44	21.92	-5.04	20.31	17.26	-31.32
Madhya Pradesh	28.43	4.15	26.96	4.44	4.86	3.44	-1.24	2.72	6.48
Maharashtra	19.86	8.81	25.75	16.76	4.07	15.30	25.50	-0.93	12.07
Orissa	17.28	18.30	-44.42	12.37	20.15	-38.76	8.58	9.14	-52.45
Punjab	37.54	15.35	-3.73	30.67	9.45	-0.14	17.49	13.40	11.70
Rajasthan	28.95	13.72	21.92	27.27	12.94	21.14	21.42	11.26	27.87
Tamil Nadu	-1.59	21.86	-5.46	-0.60	16.04	-9.36	3.36	26.81	-15.59
Uttar Pradesh	11.61	0.63	6.77	6.93	-1.76	30.63	0.90	8.48	60.59
West Bengal	35.22	21.27	27.29	31.27	20.73	29.62	14.54	15.20	43.44

In most states, enterprises, workers and gross value added by both mechanised and non-mechanised transport have all grown far faster in rural areas than in urban areas. Moreover, as is shown in tables 6.A.2.18 and 6.A.2.19, in rural areas non-mechanised transport is growing from two times to five times as fast as in urban centres. In urban areas, seven states record negative growth in gross value added by non-mechanised units, whereas in rural areas only three states seem to have faced any decline in the earnings of non-mechanised units. Similar rural-urban contrasts characterise the recent performance of mechanised units.

Thus on balance, in growth rate terms, rural units outperformed urban units in almost all states and for all types of unorganised transport. (Their performance in productivity terms is a different story as will be seen later.) This state level evidence, however, throws up two kinds of questions. First, why have the urban units turned in such mediocre or downright poor growth rate performances as compared to their rural counterparts in so many states? Secondly, why is non-mechanised transport growing faster than mechanised transport in several states?

One possibility is that in the urban centres of many states organised transport is increasingly providing services to people who previously relied more on unorganised transport, while this has not been happening in the rural areas of most states. This could account for the relatively poor performance of urban units as compared to rural ones. Another is that non-mechanised transport activities may offer an acceptable livelihood to many would-be self-employed work seekers who cannot afford the costs of setting up an enterprise in mechanised transport, or in other, completely different lines of business requiring a similar background of experience and /or skills.

**Table 6.A.2.18: Growth Rates of Rural Enterprises, Employment and Gross Value Added by Transport Type: 1989-90 to 1993-94**

State	Enterprise			Employment			Gross Value Added		
	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	62.32	29.88	56.75	47.58	31.45	24.25	61.43	19.48	38.88
Bihar	59.30	20.85	-100.00	46.14	18.58	-100.00	60.25	8.02	-100.00
Delhi	-42.37	-56.06	-	-39.01	-56.03	-	-38.25	-48.90	-
Gujarat	23.66	-11.90	33.96	25.52	-13.48	43.63	24.58	-3.42	86.47
Haryana	49.13	55.64	-100.00	41.74	54.04	-100.00	27.74	38.70	-100.00
Karnataka	26.49	35.21	-27.94	19.59	42.47	-9.43	19.49	22.50	-4.50
Kerala	49.09	23.56	-10.86	43.45	29.76	-9.34	33.29	28.07	-17.13
Madhya Pradesh	45.02	-5.53	-27.79	34.97	-4.59	-41.93	21.14	-23.22	-45.51
Maharashtra	23.80	12.17	52.43	24.48	8.14	51.29	21.00	8.25	76.70
Orissa	22.37	30.99	-100.00	16.38	33.05	-100.00	10.50	20.18	-100.00
Punjab	54.46	26.87	-100.00	34.94	13.75	-100.00	24.06	24.64	-100.00
Rajasthan	54.47	29.29	-36.66	52.45	30.84	-34.96	42.15	22.38	-38.80
Tamil Nadu	-8.75	29.58	-14.19	-5.36	19.84	-25.94	-2.72	53.01	-9.28
Uttar Pradesh	39.33	-0.93	-42.72	32.94	-3.54	-45.52	22.12	14.65	-41.29
West Bengal	46.91	28.64	71.63	44.86	28.29	36.06	19.52	20.48	-8.97

**Table 6.A.2.19: Growth Rates of Urban Enterprises, Employment and Gross Value Added by Transport Type: 1989-90 to 1993-94**

State	Enterprises			Employment			Gross Value Added		
	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	16.29	12.23	10.10	17.13	10.87	7.78	5.73	12.03	1.22
Bihar	-4.35	6.65	3.18	-3.71	6.89	1.51	-15.76	3.78	-19.48
Delhi	5.04	-25.47	17.47	41.40	-23.73	18.74	61.08	-31.49	41.46
Gujarat	11.96	4.10	39.18	18.20	3.25	51.18	20.36	-4.66	45.42
Haryana	9.20	-28.31	31.59	2.47	-28.64	22.09	-0.11	-30.24	-18.49
Karnataka	0.82	4.15	1.11	0.42	1.70	5.39	-4.60	2.06	9.48
Kerala	-10.62	-14.30	5.51	-7.32	-20.52	-1.01	-15.81	-30.47	-33.54
Madhya Pradesh	24.00	6.09	34.56	-0.52	6.68	14.50	-3.58	5.55	22.43
Maharashtra	18.80	5.75	24.91	14.44	0.63	14.56	26.34	-5.29	11.86
Orissa	11.03	0.26	-43.65	7.57	1.07	-37.68	7.01	-2.19	-52.27
Punjab	31.88	0.95	-2.38	27.89	2.07	0.52	14.02	4.47	12.41
Rajasthan	1.11	-10.06	33.95	-1.74	-11.45	28.16	0.66	-4.78	41.74
Tamil Nadu	0.88	6.04	-4.36	1.44	5.39	-8.26	4.69	5.48	-15.63
Uttar Pradesh	-6.61	4.55	10.25	-8.55	2.59	35.81	-13.20	1.62	64.75
West Bengal	25.26	7.45	22.42	19.26	6.67	29.33	12.13	6.40	45.05



Another, unexpected, feature of the growth rate evidence is that in most states the non-directory establishments, (which employ at least one hired worker), have grown faster than the own account units. Three states are exceptions to this rule. In Madhya Pradesh, Orissa and Tamil Nadu, the number of enterprises, the number of workers and gross value added by own account enterprises have all grown faster than in the non-directory establishments. Even more remarkable is the fact that there are three states where the fastest growth rates of all are recorded by the largest size group, the directory establishments. In Delhi, Gujarat and Rajasthan both the number of enterprises and the number of workers have grown at a breakneck pace. Moreover, there are as many as five states where gross value added by these largest size units has grown more rapidly than in any of the smaller enterprise types. Except in Rajasthan gross value added growth rates in these five states has grown faster than the number of enterprises This suggests the prevalence of increasing returns to scale.

The growth rate evidence is presented in Table 6.A.2.20.

**Table 6.A.2.20: Growth Rates of Rural plus Urban Enterprises, Employment and Gross Value Added by Enterprise Type 1988-89 to 1993-94**

State	Enterprises			Employment			GVA		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	21.93	32.73	19.06	22.19	29.09	18.31	16.73	28.81	0.30
Bihar	14.61	27.87	-9.36	13.17	22.36	3.20	5.17	17.25	-14.22
Delhi	-17.84	12.03	53.36	-18.82	13.11	58.75	-18.44	16.14	82.57
Gujarat	4.29	25.19	31.27	3.97	31.09	33.38	10.09	31.25	30.38
Haryana	12.68	28.53	-12.24	12.37	29.57	-14.59	3.58	12.48	-11.38
Karnataka	13.85	26.56	-5.25	16.46	19.65	-4.75	2.26	13.45	-7.17
Kerala	18.10	35.55	2.35	16.72	37.46	-8.77	7.63	27.47	-16.78
Madhya Pradesh	11.79	11.27	0.59	12.29	10.73	-14.13	18.09	10.82	-20.94
Maharashtra	15.37	23.40	7.98	13.18	22.05	4.50	9.73	9.80	26.17
Orissa	17.96	17.82	2.91	19.43	14.34	5.55	9.39	3.15	8.11
Punjab	15.39	43.47	24.32	9.56	43.20	16.23	12.50	33.16	7.56
Rajasthan	16.70	17.32	56.09	17.38	16.28	51.80	15.76	17.50	39.18
Tamil Nadu	17.19	1.06	2.63	11.33	-1.73	3.36	12.76	-10.63	1.93
Uttar Pradesh	0.59	16.09	15.33	-1.67	8.87	20.97	9.11	2.55	25.17
West Bengal	21.89	27.93	33.23	21.99	23.72	34.98	16.74	7.95	30.66

The separate evidence for rural and urban areas shows that enterprise and employment growth rates are maximum in non-directory establishments, in all states except Tamil Nadu for enterprises, and in all states except Haryana, Orissa and Tamil Nadu in the case of employment. In all of these states except Tamil Nadu, employment growth in own account enterprises exceeds employment growth in non-directory establishments. In Tamil Nadu alone, workforce growth in the large directory establishments has been the most rapid.

Rural gross value added growth rates follow a similar regional pattern, except that in Maharashtra and West Bengal the directory establishments achieved higher GVA growth rates than any of the smaller enterprise types.

Thus even in rural areas there are regions where the slightly larger enterprises are performing better, in growth rate terms, than the smallest own account enterprises.

In urban areas in several states, the directory establishments have a clear advantage. Growth rates in GVA are the highest for directory establishments units in Delhi, Maharashtra, Orissa, Rajasthan, Uttar Pradesh and West Bengal. The regional pattern is similar for enterprise and employment growth rates. In most of the remaining states, the highest growth rates are recorded by the non-directory establishments.

There are only five states where it appears that the best urban growth performances have been turned in by own account enterprises. They are Bihar, Madhya Pradesh, Tamil Nadu and on the employment front only, Orissa and in terms of GVA growth only, Uttar Pradesh and West Bengal.

The rural and the urban growth rate figures are given in tables 6.A.2.21 and 6.A.2.22 respectively.

**Table 6.A.2.21: Growth Rates of Rural Enterprises, Employment and Gross Value Added by Enterprise Type 1988-89 to 1993-94**

State	Enterprises			Employment			GVA		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	31.75	39.96	36.27	34.53	36.20	33.67	26.02	61.24	28.16
Bihar	19.93	73.53	-4.56	16.86	67.58	7.49	7.58	76.58	19.20
Delhi	-53.03	3.50	-	-52.05	0.67	-	-48.79	33.10	-
Gujarat	0.95	18.81	-	0.47	18.81	-	15.39	18.49	-
Haryana	54.97	42.86	15.85	54.03	44.88	1.85	37.33	45.84	-13.23
Karnataka	30.12	43.94	-9.64	35.10	38.85	-6.04	21.47	26.31	-0.27
Kerala	31.03	49.63	16.98	27.98	53.25	-15.15	23.76	50.05	-21.79
Madhya Pradesh	7.07	32.47	18.56	7.72	27.26	9.95	14.81	8.98	-5.30
Maharashtra	13.96	34.71	16.17	11.20	34.61	-3.40	9.79	26.12	31.04
Orissa	30.32	32.67	-6.00	32.36	30.72	-5.81	20.45	26.58	-14.68
Punjab	27.21	78.39	31.58	14.39	100.04	18.04	24.58	73.56	13.31
Rajasthan	29.69	51.25	-	31.30	45.00	-	25.30	26.79	-
Tamil Nadu	29.68	2.79	20.31	18.05	-0.24	19.49	39.60	-7.27	31.86
Uttar Pradesh	-0.79	50.08	-5.84	-3.55	45.38	-1.19	16.42	37.07	-29.05
West Bengal	28.98	44.25	39.05	29.60	40.05	32.56	21.16	9.89	36.60

**Table 6.A.2.22: Growth Rates of Urban Enterprises, Employment and Gross Value Added by Enterprise Type 1988-89 to 1993-94**

State	Enterprises			Employment			GVA		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	11.92	21.51	10.87	10.31	19.81	10.36	11.46	13.64	-7.95
Bihar	6.22	-5.08	-11.36	6.40	-8.83	2.01	2.61	-15.06	-22.37
Delhi	-13.78	12.09	53.36	-15.26	13.20	58.75	-16.44	16.06	82.57
Gujarat	8.06	33.24	22.35	8.12	42.72	28.31	6.11	38.88	28.27
Haryana	-22.76	13.30	-29.30	-22.41	12.58	-26.80	-22.06	-8.79	-5.87
Karnataka	2.10	9.12	-2.57	1.12	5.01	-4.17	-4.26	5.66	-8.91
Kerala	-13.16	-3.10	-8.66	-13.54	-5.21	0.69	-22.98	-22.68	-7.79
Madhya Pradesh	12.91	6.24	-3.10	13.36	6.60	-16.73	18.72	11.09	-22.26
Maharashtra	15.96	18.31	7.60	14.04	16.73	4.85	9.72	4.72	26.11
Orissa	1.14	-1.51	15.58	1.64	-5.91	17.67	-1.28	-11.40	31.58
Punjab	2.30	36.71	17.46	2.25	33.77	14.23	5.12	26.70	3.15
Rajasthan	-3.17	-7.43	34.70	-3.42	-5.99	33.38	3.11	9.69	23.85
Tamil Nadu	3.39	-0.90	-0.72	1.35	-3.22	0.77	1.93	-11.85	0.22
Uttar Pradesh	3.82	-4.36	21.79	2.87	-8.27	24.88	1.36	-14.44	43.38
West Bengal	8.92	15.47	27.66	8.27	11.23	36.61	9.97	6.75	29.77

Together, the evidence suggests what the directions of further development are likely to be. First, the mechanised units are likely to grow faster than non-mechanised transport in both rural and urban areas. Secondly in the evolution of unorganised transport, the own account units will become less and less important, as the somewhat larger, and much larger, enterprises which operate with at least some hired workers expand faster than the smaller scale own account units. Thirdly in the cities, there is a possibility that even larger units in the organised segment are already taking over, at the expense of the units in the unorganised segment in a number of states. Finally the very rapid opening up of new unorganised sector transport units in rural areas, will provide rural residents with greater access to low cost commercial transport services than they ever had before.

## **(ii) Performance in Terms of Employment Generation**

Most of the additional employment in unorganised transport has been generated in rural areas, with the states of West Bengal, Andhra Pradesh and Kerala leading the rest. There are a few states, however where more additional employment was generated in urban centres. Delhi, Gujarat, Madhya Pradesh, Maharashtra and Uttar Pradesh belong to this set.

Unorganised transport employment contracted in rural areas only in Delhi and Uttar Pradesh, but the absolute numbers of workers employed in urban unorganised transport went down in Haryana, Kerala, Rajasthan and Tamil Nadu.

**Table 6.A.2.23: Changes in Absolute Number of Workers in Unorganised Transport in Rural, Urban and All Locations: 1988-89 to 1993-94**

State	Rural	Urban	Total
Andhra Pradesh	230183	76871	307054
Bihar	69614	5271	74885
Delhi	-6111	112908	106797
Gujarat	19767	66834	86601
Haryana	42804	-12500	30304
Karnataka	53304	2491	55795
Kerala	93514	-6517	86997
Madhya Pradesh	11076	12685	23761
Maharashtra	44233	92014	136247
Orissa	53296	2853	56149
Punjab	36927	25003	61930
Rajasthan	80297	-1746	78551
Tamil Nadu	38610	-725	37885
Uttar Pradesh	-2458	10846	8388
West Bengal	244392	62088	306480

In rural areas, employment in mechanised transport expanded in all states except Delhi and Tamil Nadu. In non-mechanised transport, reductions in the workforce took place in Delhi, Gujarat, Madhya Pradesh and Uttar Pradesh. In eight out of 15 states, the employment increases in mechanised transport were larger than the gains (or losses) in the non-mechanised group.

In urban centres, negative employment growth in unorganised transport is more common than in rural areas. Five states recorded negative growth in employment in mechanised transport units, and four in non-mechanised transport. However substantial workforce expansion in mechanised transport is more common than substantial employment gains in the non-mechanised segment. Table 6.A.2.24 supplies further details.

**Table 6.A.2.24: Changes in the Absolute Number Employed in Unorganised Transport by Transport Type and Rural or Urban Location: 1988-89 to 1993-94**

State	Enterprises			Employment			Gross Value Added		
	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	73571	153517	3095	31305	38289	7278	104876	191806	10373
Bihar	22759	47367	-513	-3200	8280	191	19559	55647	-322
Delhi	-1563	-4549	0	110410	-8626	11123	108847	-13175	11123
Gujarat	35686	-16600	680	31595	2376	32861	67281	-14224	33541
Haryana	19211	23777	-184	846	-14134	786	20057	9643	602
Karnataka	13865	39630	-191	567	844	1079	14432	40474	888
Kerala	73085	21240	-809	-4177	-2246	-92	68908	18994	-901
Madhya Pradesh	14055	-1549	-1429	-1265	11836	2114	12790	10287	685
Maharashtra	32934	9083	2216	63066	832	28116	96000	9915	30332
Orissa	9907	43565	-178	3755	861	-1764	13662	44426	-1942
Punjab	19661	17370	-105	23422	1498	82	43083	18868	-23
Rajasthan	42444	38946	-1093	-996	-9666	8918	41448	29280	7825
Tamil Nadu	-4565	44815	-1689	2857	4189	-7773	-1708	49004	-9462
Uttar Pradesh	21582	-23307	-734	-8958	6964	12839	12624	-16343	12105
West Bengal	59309	184268	813	26040	21820	14230	85349	206088	15043

In the rural areas of most states, (9 out of 15), the largest number of fresh jobs were created in the tiny, own account enterprises. The contraction of the own account workforce is rare; there are only two states where this happened-Delhi and Uttar Pradesh. Job expansion, rather than contraction is also the rule among the rural non-directory establishments. Only Tamil Nadu recorded a decline in the non-directory establishment workforce. Workforce cutbacks are slightly more common in directory establishments, with five states reporting the contraction of employment in directory establishments.

In urban areas, the directory establishments do better than in rural areas, with only three states showing a decline in the workforce. In the other two enterprise types, workforce reductions are far more common in urban than in rural areas. Four states witnessed cut backs in urban own account enterprise employment, and six states saw a fall in the workforce engaged in urban non-directory establishments. Absolute figures for employment gains and losses are given by state in Table 6.A.2.25.

**Table 6.A.2.25: Changes in the Absolute Number Employed in Unorganised Transport by Enterprise Type and Rural or Urban Locations: 1988-89 to 1993-94**

State	Rural			Urban			(Rural+Urban)		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	151529	63802	14852	43481	25107	8283	195010	88909	23135
Bihar	42020	26745	849	8468	-4017	820	50488	22728	1669
Delhi	-6113	2	0	-13658	5059	121507	-19771	5061	121507
Gujarat	930	13839	4998	13610	36547	16677	14540	50386	21675
Haryana	30362	12336	106	-12956	2744	-2288	17406	15080	-2182
Karnataka	37161	17079	-936	1323	2617	-1449	38484	19696	-2385
Kerala	30125	65229	-1840	-4814	-1758	55	25311	63471	-1785
Madhya Pradesh	3751	6091	1234	27873	5693	-20881	31624	11784	-19647
Maharashtra	18282	26276	-325	53346	28356	10312	71628	54632	9987
Orissa	41017	13440	-1161	1381	-1918	3390	42398	11522	2229
Punjab	18610	11606	6711	1890	18383	4730	20500	29989	11441
Rajasthan	45247	28434	6616	-2999	-4297	5550	42248	24137	12166
Tamil Nadu	34460	-263	4413	1677	-3470	1068	36137	-3733	5481
Uttar Pradesh	-23763	21387	-82	7955	-7699	10590	-15808	13688	10508
West Bengal	193715	38027	12650	27999	12659	21430	221714	50686	34080

**(iii) Productivity, Productivity Growth and Decline, and the Rise of Regional Productivity Inequalities**

While it may be the most important immediate policy objective, employment generation is not everything. In the development process in the long run what counts is improvements in per enterprise and labour productivity. One hopes also for some measure of convergence across states; that is, in the interests of reducing regional inequalities, states suffering from exceptionally low labour productivity levels should tend to catch up to the states which have already achieved high productivity levels.

**(a) Productivity Levels in Unorganised Transport in Fifteen States**

The states which have achieved the highest productivity levels in India are Delhi, Maharashtra and Gujarat, in that order. These three are among the set of only five states (out of 15), where both enterprise and labour productivity improved over time. In the other ten states it contracted. The states at the bottom of the per enterprise productivity hierarchy are Tamil Nadu, Orissa and Andhra Pradesh. Andhra Pradesh recorded the lowest labour productivity, followed by Orissa, Karnataka, West Bengal and Bihar.

In most states urban labour productivity is about double rural labour productivity. But there are states where the rural-urban productivity gap is smaller, or non-existent. These include Bihar, Haryana, Madhya Pradesh and Punjab, and in a case apart, Kerala, where the rural labour productivity estimate is higher than the urban one. The odd mix of very poor and very rich agricultural states in this list is worth a few words of comment, because we know something about why it happens. The reasons differ from state to state. Rural and urban income levels generally are more equal in Haryana and Punjab than anywhere else mainly because of high farm income levels and partly because the earnings of many rural non-farm workers are related to what they can earn if they work in agriculture instead. In Bihar and Madhya Pradesh, rural workers are known to be among the most geographically

mobile in the country. It is plausible that migration both from and within these states, helps to equalise rural and urban labour productivity in unorganised transport.

The disturbing feature of the figures in Table 6.A.2.26 below, however, is that both GVA per enterprise and GVA per worker have gone down recently in 10 out of 15 states. The five remaining states which escaped this fate are Delhi, Gujarat, Maharashtra, Rajasthan and Uttar Pradesh. In some of them labour productivity was already exceptionally high.

When rural and urban areas are examined separately, a more complex picture emerges. In rural areas labour productivity went up in eight states, while in urban areas it rose in six. Thus while it is still true that in the majority of states the typical worker faced declining labour productivity in rural areas, many improved their lot. There are four states where rural labour productivity improved while urban labour productivity declined. They are Andhra Pradesh, Bihar, Punjab and Tamil Nadu. Table 6.A.2.26 gives additional details.

**Table 6.A.2.26: Per Enterprise and Per Worker Productivity in Unorganised Transport in Rural, Urban and All Locations in Fifteen Major States: 1988-89 and 1993-94**

(Rs in Constant 1993-94 prices)

State	Year	GVA Per Enterprise			GVA per Worker		
		Rural	Urban	All Locations	Rural	Urban	All Locations
Andhra Pradesh	1988-89	10,592	28,285	20,645	8,130	19,191	14,746
	1993-94	12,131	21,665	15,627	8,624	15,059	11,017
Bihar	1988-89	15,620	42,154	28,306	11,597	27,148	19,585
	1993-94	17,337	21,173	18,461	13,011	15,237	13,683
Delhi	1988-89	15,293	51,970	44,457	13,767	26,416	24,810
	1993-94	38,235	437,576	434,370	25,895	51,496	51,460
Gujarat	1988-89	15,777	40,876	26,710	11,930	27,541	19,176
	1993-94	30,429	68,954	50,706	19,881	31,545	27,036
Haryana	1988-89	41,642	27,912	30,621	25,586	21,099	22,141
	1993-94	18,778	32,087	20,849	13,995	18,711	14,894
Karnataka	1988-89	20,744	36,674	31,758	12,829	23,098	19,889
	1993-94	13,012	28,676	19,079	8,016	18,763	12,026
Kerala	1988-89	44,062	54,716	48,970	25,998	36,664	30,577
	1993-94	36,272	29,394	35,627	21,404	17,865	21,081
Madhya Pradesh	1988-89	26,982	64,310	57,079	18,864	29,619	28,149
	1993-94	23,256	35,217	32,949	14,698	24,178	22,257
Maharashtra	1988-89	23,890	88,205	69,670	15,989	43,435	37,135
	1993-94	26,066	96,629	75,476	17,319	56,556	45,810
Orissa	1988-89	21,201	28,328	25,081	14,535	20,015	17,477
	1993-94	11,573	26,877	15,478	8,721	18,096	11,320
Punjab	1988-89	23,927	36,747	31,684	10,986	24,237	17,824
	1993-94	19,363	39,939	27,555	13,019	21,293	16,782
Rajasthan	1988-89	20,735	22,236	21,615	16,074	13,876	14,672
	1993-94	18,008	42,032	23,351	11,987	23,152	14,855
Tamil Nadu	1988-89	16,351	81,272	53,798	7,060	33,024	22,419
	1993-94	12,134	64,671	30,587	8,356	29,381	17,833
Uttar Pradesh	1988-89	6,924	28,229	13,428	5,448	18,277	9,914
	1993-94	14,500	30,409	19,747	12,123	20,274	15,233
West Bengal	1988-89	16,263	26,434	20,802	13,938	19,283	16,538
	1993-94	11,054	35,051	17,281	9,028	23,116	13,291

The mechanised-non-mechanised transport distinction produces a clear perspective on relative productivity levels. In all states except Bihar, rural mechanised units earn more than their non-mechanised counterparts, usually by a very large margin. In urban areas the mechanised units do better than non-mechanised units in all states without exception.



**Table 6.A.2.27: Gross Value Added per Enterprise in Unorganised Transport by Transport Type in Rural, Urban and All Location in fifteen Major States: 1988-89 and 1993-94**

State	Year	Rural			Urban			Rural+Urban		
		Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	1988-89	49,496	8,063	73,908	89,695	10,766	82,689	80961	9466	82439
	1993-94	48,151	5,312	40,360	55,726	10,672	54,287	51216	7145	52246
Bihar	1988-89	86,698	13,435	3,759	120,379	15,750	149,426	115221	14414	107093
	1993-94	89,314	7,665	-	63,794	13,742	43,242	81621	9377	43242
Delhi	1988-89	41,027	8,575	-	59,387	21,917	201,289	57328	18038	201289
	1993-94	57,960	18,243	-	503,644	14,388	509,747	500864	14497	509747
Gujarat	1988-89	37,482	7,097	12,494	50,348	16,574	123,333	45089	9995	119082
	1993-94	38,902	11,237	65,304	72,292	10,683	153,549	54532	10958	150735
Haryana	1988-89	90,049	16,554	44,374	68,354	18,081	586,815	77244	17849	305398
	1993-94	41,521	9,306	-	43,770	15,774	53,509	42044	9976	53509
Karnataka	1988-89	51,834	5,925	11,250	52,340	9,637	30,125	52244	7922	25803
	1993-94	38,998	3,617	46,000	39,708	8,709	44,834	39407	4839	44894
Kerala	1988-89	74,220	16,033	13,412	44,076	25,455	342,513	56883	18610	108072
	1993-94	42,385	19,183	9,315	32,682	8,945	33,970	41465	18599	21248
Madhya Pradesh	1988-89	84,651	10,066	198,881	256,092	13,292	68,112	228392	12646	102616
	1993-94	34,440	3,570	48,651	72,799	12,952	42,483	61423	11799	42580
Maharashtra	1988-89	50,468	8,491	26,846	62,227	18,925	497,692	59881	14263	488369
	1993-94	45,009	7,107	56,200	84,658	10,902	286,602	75361	8928	274661
Orissa	1988-89	83,523	10,726	28,310	109,845	13,328	107,926	96598	12135	102646
	1993-94	50,151	6,972	-	91,353	11,779	47,050	65713	8110	47050
Punjab	1988-89	214,274	10,218	34,471	115,831	14,661	77,346	134947	12689	74456
	1993-94	71,625	9,352	-	55,948	17,402	156,563	61386	11651	156563
Rajasthan	1988-89	64,014	11,181	77,604	60,594	9,692	70,125	61703	10339	72999
	1993-94	42,254	8,496	65,381	59,273	12,891	93,037	45661	9265	92635
Tamil Nadu	1988-89	55,592	3,655	6,829	92,748	13,175	184,923	81755	7633	160951
	1993-94	76,534	8,389	9,020	111,605	12,830	98,768	104491	9315	91327
Uttar Pradesh	1988-89	99,112	4,819	28,432	86,916	15,340	37,761	89661	7599	36324
	1993-94	51,268	10,005	32,158	60,286	13,307	281,357	54135	11061	279651
West Bengal	1988-89	98,851	12,484	198,972	143,545	12,663	159,968	126461	12561	161869
	1993-94	35,239	8,997	8,353	82,516	12,056	373,530	55161	9716	294197

However, in both rural and urban areas, gross value added per mechanised transport enterprise declined in eleven out fifteen states. Falling per enterprise productivity also characterised rural non-mechanised units in ten states, and urban non-mechanised units in 13 of the 15 states covered here. Thus the unwelcome phenomenon of falling labour productivity is not confined to the technologically more backward transport enterprises. It has affected the unorganised segment of the industry across the board.

The labour productivity record is somewhat, but not much, better. There are four states where rural labour productivity in mechanised transport has risen, and six states where rural labour productivity in non-mechanised transport has gone up. Only in Delhi and Tamil Nadu did it improve in both mechanised and non-mechanised transport.

In urban centres the tally is much the same. There are five states which enjoyed increasing labour productivity in mechanised transport and the same number in non-mechanised transport, but only two states enjoyed labour productivity improvements in both types of transport. These are Rajasthan and Tamil Nadu. For further state level details, Table 6.A.2.28 may be consulted

**Table 6.A.2.28: Labour Productivity in Unorganised Transport by Transport type in Rural Urban and All Location in Fifteen Major States: 1988-89 and 1993-94**

State	Year	Rural			Urban			Rural+Urban		
		Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	1988-89	11618	7356	6791	35794	9807	25496	28043	8629	23818
	1993-94	18194	4564	11850	21446	10335	18622	19496	6385	17490
Bihar	1988-89	20460	10702	3722	33932	15461	75566	31539	12476	63136
	1993-94	32435	6715	-	17385	13339	23723	26941	8446	23723
Delhi	1988-89	28361	8381	-	23388	20783	43218	23722	17253	43218
	1993-94	30188	17763	-	44869	12150	103682	44853	12288	103682
Gujarat	1988-89	23599	5845	6294	31990	14142	43484	28541	8320	42474
	1993-94	22728	10129	23214	35025	9495	35806	29059	9807	35540
Haryana	1988-89	32966	15438	33280	22522	16792	163643	26539	16586	126339
	1993-94	19602	9138	-	19824	14997	21704	19655	9762	21704
Karnataka	1988-89	19326	5217	12078	29451	8386	14803	26790	6931	14477
	1993-94	19249	2452	15745	22793	8536	17907	21161	3543	17777
Kerala	1988-89	36098	12069	9216	31625	17391	106392	33957	13629	55062
	1993-94	24999	11302	5882	19556	8911	14512	24489	11219	10896
Madhya Pradesh	1988-89	31451	9998	28467	40947	12568	19064	40220	12073	22939
	1993-94	18321	3375	20713	35029	11915	26645	30416	10890	26508
Maharashtra	1988-89	26674	6774	9144	33362	13684	92919	32013	10763	92002
	1993-94	23144	6806	19878	54711	10101	82490	45937	8414	79824
Orissa	1988-89	21263	10346	7952	28240	13223	39024	24712	11884	36421
	1993-94	16410	6221	-	27520	11225	10284	20824	7347	10284
Punjab	1988-89	28815	5652	25935	37820	14077	27315	34496	9184	27270
	1993-94	18927	8929	-	21298	15812	47753	20271	10965	47753
Rajasthan	1988-89	23404	10901	38771	22846	7966	19135	23031	9120	24128
	1993-94	16499	7804	28604	25779	11451	31657	18202	8460	31623
Tamil Nadu	1988-89	15792	1913	2979	30837	10805	50786	25877	4707	46523
	1993-94	18119	6490	8219	36095	10847	33411	31459	7336	32593
Uttar Pradesh	1988-89	36747	3899	11358	30585	12316	18013	31916	6136	16824
	1993-94	24042	9250	16514	23571	11746	47322	23873	10074	47253
West Bengal	1988-89	27723	11788	50191	38920	11740	32170	34729	11767	32877
	1993-94	10600	8610	6730	28592	11591	57079	17569	9308	54562

## (b) Enterprise and Labour Productivity Growth Rates

In ten out of 15 states recent enterprise and labour productivity growth rates were negative. The tally of positive and negative growth rates does not look quite so bad if rural and urban areas are examined separately. Although gross value added per enterprise went down in the majority of states, regardless of rural or urban location, the figures for labour productivity, which is the bottom line, are somewhat better. In rural areas in eight states labour productivity growth was positive. Rural Uttar Pradesh, Delhi and Gujarat workers enjoyed the greatest gains in productivity. In urban areas, labour productivity gains were recorded in only six states, with Delhi, Rajasthan and Maharashtra achieving the highest growth rates. Figures for other states can be seen on Table 6.A.2.29.

**Table 6.A.2.29: Enterprise and Labour Productivity Growth Rates in Unorganised Transport in fifteen Major states by Rural and Urban Location: 1988-89 to 1993-94**

State	GVA Per Enterprise			GVA per Worker		
	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	2.75	-5.19	-5.42	1.19	-4.73	-5.66
Bihar	2.11	-12.87	-8.19	2.33	-10.91	-6.92
Delhi	20.11	53.13	57.76	13.47	14.28	15.71
Gujarat	14.04	11.02	13.68	10.75	2.75	7.11
Haryana	-14.72	2.83	-7.40	-11.37	-2.37	-7.62
Karnataka	-8.91	-4.80	-9.69	-8.98	-4.07	-9.57
Kerala	-3.82	-11.69	-6.16	-3.81	-13.39	-7.17
Madhya Pradesh	-2.93	-11.35	-10.41	-4.87	-3.98	-4.59
Maharashtra	1.76	1.84	1.61	1.61	5.42	4.29
Orissa	-11.40	-1.05	-9.20	-9.71	-1.99	-8.32
Punjab	-4.14	1.68	-2.75	3.45	-2.56	-1.20
Rajasthan	-2.78	13.58	1.56	-5.70	10.78	0.25
Tamil Nadu	-5.79	-4.47	-10.68	3.43	-2.31	-4.47
Uttar Pradesh	15.93	1.50	8.02	17.35	2.10	8.97
West Bengal	-7.43	5.81	-3.64	-8.32	3.69	-4.28

The disaggregation of the unorganised transport productivity data by transport type reveals that very few states escaped the rigours of falling enterprise productivity altogether. Only Delhi, Gujarat and Tamil Nadu can claim this distinction in rural areas. In urban areas all states suffered declining GVA per enterprise in either mechanised or non-mechanised transport, or both. Non-mechanised units fared better than mechanised units in rural areas; mechanised transport did a shade better than non-mechanised units in urban areas, and urban services incidental to transport did better than any other subcategory. But the results were dismal overall, with only a small minority of all states, mainly the industrially advanced ones, registering any increase in productivity per enterprise at all.

**Table 6.A.2.30: Growth Rate in Gross Value Added per Enterprise in Unorganised Transport by Transport Type in Rural, Urban and All Locations in Fifteen Major States: 1988-89 to 1993-94**

State	Rural			Urban			Rural+Urban		
	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	-0.55	-8.01	-11.40	-9.08	-0.18	-8.07	-8.75	-5.47	-8.72
Bihar	0.60	-10.62	-100.00	-11.93	-2.69	-21.96	-6.66	-8.24	-16.59
Delhi	7.15	16.30		53.35	-8.07	20.42	54.27	-4.28	20.42
Gujarat	0.75	9.63	39.20	7.50	-8.41	4.48	3.88	1.86	4.83
Haryana	-14.34	-10.88	-100.00	-8.53	-2.69	-38.06	-11.45	-10.98	-29.42
Karnataka	-5.53	-9.40	32.53	-5.37	-2.00	8.28	-5.48	-9.39	11.71
Kerala	-10.60	3.65	-7.03	-5.81	-18.87	-37.01	-6.13	-0.01	-27.77
Madhya Pradesh	-16.46	-18.72	-24.54	-22.24	-0.52	-9.01	-23.10	-1.38	-16.13
Maharashtra	-2.26	-3.50	15.92	6.35	-10.44	-10.45	4.71	-8.94	-10.87
Orissa	-9.70	-8.25	-100.00	-3.62	-2.44	-15.30	-7.42	-7.74	-14.45
Punjab	-19.68	-1.76	-100.00	-13.54	3.49	15.15	-14.58	-1.69	16.03
Rajasthan	-7.97	-5.35	-3.37	-0.44	5.87	5.82	-5.84	-2.17	4.88
Tamil Nadu	6.60	18.08	5.72	3.77	-0.53	-11.79	5.03	4.06	-10.71
Uttar Pradesh	-12.35	15.73	2.49	-7.06	-2.80	49.43	-9.60	7.80	50.41
West Bengal	-18.64	-6.34	-46.96	-10.48	-0.98	18.48	-15.29	-5.01	12.69

When the disaggregation is done by enterprise type instead, the extent of the productivity decline only becomes more apparent. All enterprise types in all locations have been severely affected by it, except directory establishments in urban centres in nine states.

**Table 6.A.2.31: Growth Rates of Gross Value Added per Enterprise in Unorganised Transport by Enterprise Type in Rural, Urban and All Location in fifteen Major states: 1988-89 to 1993-94**

State	Rural			Urban			Rural+Urban		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	-4.35	15.21	-5.95	-0.41	-6.48	-16.98	-4.27	-2.96	-15.76
Bihar	-10.29	1.76	24.89	-3.40	-10.51	-12.42	-8.24	-8.31	-5.36
Delhi	9.02	28.61	-	-3.09	3.54	19.04	-0.73	3.67	19.04
Gujarat	14.31	-0.27	-	-1.81	4.24	4.84	5.56	4.84	-0.68
Haryana	-11.39	2.08	-25.11	0.91	-19.50	33.15	-8.08	-12.49	0.98
Karnataka	-6.65	-12.25	10.37	-6.23	-3.18	-6.51	-10.18	-10.36	-2.03
Kerala	-5.55	0.28	-33.15	-11.31	-20.21	0.95	-8.86	-5.97	-18.69
Madhya Pradesh	7.23	-17.73	-20.13	5.14	4.56	-19.78	5.63	-0.40	-21.41
Maharashtra	-3.66	-6.38	12.80	-5.38	-11.49	17.20	-4.89	-11.02	16.85
Orissa	-7.58	-4.59	-9.24	-2.39	-10.05	13.85	-7.27	-12.45	5.05
Punjab	-2.07	-2.70	-13.89	2.75	-7.33	-12.19	-2.51	-7.18	-13.48
Rajasthan	-3.39	-16.17	-	6.49	18.50	-8.06	-0.80	0.15	-10.83
Tamil Nadu	7.65	-9.78	9.60	-1.42	-11.05	0.95	-3.78	-11.57	-0.68
Uttar Pradesh	17.35	-8.67	-24.65	-2.36	-10.53	17.72	8.48	-11.67	8.53
West Bengal	-6.06	-23.82	-1.76	0.96	-7.56	1.66	-4.23	-15.61	-1.92

In general, the negative growth rates for labour productivity are not quite as large as the corresponding negative figures for per enterprise productivity growth, but that is about all that can be said in favour of the arrays of negative figures for most states in tables 6.A.2.32 and 6.A.2.33.

In short, in both enterprise and labour productivity growth terms the performance of unorganised transport has been a disaster. The only redeeming feature is that at least the initial levels of productivity were better than in most of the other unorganised sectors.

**Table 6.A.2.32: Growth Rate of GVA per Worker in Unorganised Transport by Transport Type in Rural, Urban and All Locations in fifteen Major States: 1988-89 and 1993-94**

State	Rural			Urban			Rural+Urban		
	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport	Mechanised	Non-mechanised	Services incidental to transport
Andhra Pradesh	9.39	-9.11	11.78	-9.74	1.05	-6.09	-7.01	-5.85	-5.99
Bihar	9.65	-8.90	-100.00	-12.52	-2.91	-20.68	-3.10	-7.51	-17.78
Delhi	1.26	16.21		13.92	-10.18	19.13	13.59	-6.56	19.13
Gujarat	-0.75	11.63	29.83	1.83	-7.66	-3.81	0.36	3.34	-3.50
Haryana	-9.87	-9.96	-100.00	-2.52	-2.24	-33.24	-5.83	-10.06	-29.69
Karnataka	-0.08	-14.01	5.45	-5.00	0.36	3.88	-4.61	-12.56	4.19
Kerala	-7.08	-1.30	-8.59	-9.17	-12.52	-32.86	-6.33	-3.82	-27.68
Madhya Pradesh	-10.24	-19.52	-6.16	-3.07	-1.06	6.92	-5.43	-2.04	2.93
Maharashtra	-2.80	0.10	16.80	10.40	-5.89	-2.35	7.49	-4.81	-2.80
Orissa	-5.05	-9.67	-100.00	-0.52	-3.22	-23.41	-3.37	-9.17	-22.35
Punjab	-8.06	9.58	-100.00	-10.85	2.35	11.82	-10.09	3.61	11.86
Rajasthan	-6.75	-6.46	-5.90	2.45	7.53	10.59	-4.60	-1.49	5.56
Tamil Nadu	2.79	27.67	22.50	3.20	0.08	-8.03	3.98	9.28	-6.87
Uttar Pradesh	-8.14	18.86	7.77	-5.08	-0.94	21.31	-5.64	10.42	22.94
West Bengal	-17.49	-6.09	-33.09	-5.98	-0.26	12.15	-12.74	-4.58	10.66

**Table 6.A.2.33: Growth Rate GVA per Worker in Unorganised Transport by Enterprise Type in Rural, Urban and All Locations in fifteen Major states: 1988-89 and 1993-94**

State	Rural			Urban			Rural+Urban		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Andhra Pradesh	-6.33	18.39	-4.12	1.04	-5.15	-16.59	-4.47	-0.22	-15.23
Bihar	-7.94	5.37	10.89	-3.56	-6.83	-23.90	-7.07	-4.17	-16.88
Delhi	6.80	32.22	-	-1.40	2.52	15.00	0.47	2.69	15.00
Gujarat	14.85	-0.27	-	-1.86	-2.69	-0.03	5.88	0.12	-2.25
Haryana	-10.85	0.67	-14.81	0.45	-18.99	28.59	-7.83	-13.19	3.75
Karnataka	-10.09	-9.04	6.14	-5.32	0.62	-4.94	-12.19	-5.18	-2.55
Kerala	-3.30	-2.09	-7.83	-10.92	-18.43	-8.43	-7.79	-7.27	-8.78
Madhya Pradesh	6.58	-14.37	-13.87	4.72	4.21	-6.65	5.17	0.08	-7.94
Maharashtra	-1.27	-6.31	35.65	-3.79	-10.29	20.27	-3.05	-10.04	20.74
Orissa	-9.00	-3.17	-9.42	-2.88	-5.84	11.83	-8.41	-9.78	2.42
Punjab	8.90	-13.23	-4.01	2.80	-5.29	-9.70	2.69	-7.01	-7.46
Rajasthan	-4.57	-12.56	-	6.75	16.68	-7.15	-1.38	1.05	-8.31
Tamil Nadu	18.25	-7.04	10.35	0.57	-8.92	-0.54	1.28	-9.06	-1.38
Uttar Pradesh	20.71	-5.72	-28.19	-1.46	-6.72	14.81	10.96	-5.81	3.47
West Bengal	-6.52	-21.53	3.05	1.57	-4.03	-5.00	-4.30	-12.74	-3.20

**(c) The Rise of Regional Productivity Inequalities in the Early 1990s**

The story in unorganised transport, as in all other unorganised sectors is that interstate disparities have increased. The main difference between this and other sectors is that the big increases in interstate inequalities have been heavily concentrated in urban areas, and in the mechanised transport group. These increases are not only truly gigantic, they also demonstrate that all the rapid restructuring, including the huge increase in the number of enterprises and workers and the consequent fall in per unit productivity failed to produce a more equitable regional balance. Instead they created even larger regional disparities. Coefficients of variation are given by transport and by enterprise type in tables 6.A.2.34 and 6.A.2.35.

**Table 6.A.2.34: Interstate Inequalities in Gross Value Added per Enterprise by Transport Type and Rural or Urban Location**

Location and Year	Coefficient of Variation by Transport Type			
	Mechanised	Non-Mechanised	Services incidental to transport	All Types
<b>Rural</b>				
1988-89	54.42	38.39	120.36	47.48
1993-94	31.89	48.55	29.28	44.40
<b>Urban</b>				
1988-89	57.01	28.92	92.08	46.52
1993-94	120.46	18.92	96.26	155.10
<b>All Locations</b>				
1988-89	51.56	29.86	82.25	46.05
1993-94	129.54	30.70	96.47	189.83

**Table 6.A.2.35: Interstate Inequalities in Gross Value Added per Enterprise by Enterprise Type and Rural or Urban Location: 1988-89 to 1993-94**

Location and year	Coefficient of Variation by Enterprise type			
	OAE	NDE	DE	All Types
<b>Rural</b>				
1988-89	38.19	37.86	120.99	47.68
1993-94	43.58	56.03	60.38	43.41
<b>Urban</b>				
1988-89	34.27	28.65	55.29	46.33
1993-94	23.03	38.21	96.05	152.39
<b>All Locations</b>				
1988-89	35.83	25.98	52.05	45.94
1993-94	37.23	37.59	106.43	186.32

The corresponding inter regional inequalities in labour productivity, though large by the usual standards, are much less alarming. Again, the situation in rural areas has improved over time; moreover the rural coefficients for labour productivity in mechanised transport are low by any standard, as are the urban coefficients for labour productivity in non-mechanised transport. Thus in the case of labour productivity, within both rural and urban areas, considerable equalisation of labour productivity levels across states was in fact going on. It appears also that the rise in the relative

importance of the larger directory establishments in urban areas was the main destabilising factor, which produced much of the observed increases in interstate labour productivity disparities not only in urban areas but also in rural and urban areas combined.

Thus although the high and rising figures for inter state disparity for gross value added per enterprise are rather startling, the ground reality where it counts, in terms of labour productivity, is not so bad. It shows, moreover, that all that restructuring did produce some measure of convergence, not only within rural areas but also within the smaller transport units in urban centres, the own account and non-directory establishments.

Tables 6.A.2.36 and 6.A.2.37 give the estimates of the degree of interstate inequality for labour productivity by transport and enterprise type.

**Table 6.A.2.36: Interstate Inequalities in Labour Productivity by Transport type and Rural and Urban Location**

Location and year	Coefficient of Variation by Transport Type			
	Mechanised	Non-mechanised	Services incidental to transport	All Types
<b>Rural</b>				
1988-89	28.22	42.90	84.93	41.55
1993-94	26.52	45.90	48.02	38.91
<b>Urban</b>				
1988-89	18.00	25.94	81.18	30.53
1993-94	36.31	17.73	68.61	48.52
<b>All Locations</b>				
1988-89	16.40	33.67	68.20	32.99
1993-94	33.97	24.75	69.71	59.56

**Table 6.A.2.37: Interstate Inequalities in Labour Productivity by Enterprise type and Rural or Urban Location: 1988-89 to 1993-94**

Location and Year	Coefficient of Variation by Enterprise type			
	OAE	NDE	DE	All Types
<b>Rural</b>				
1988-89	42.73	37.10	75.94	41.55
1993-94	41.85	47.29	55.35	37.93
<b>Urban</b>				
1988-89	32.40	32.27	42.77	30.52
1993-94	20.90	27.82	84.66	47.54
<b>All Locations</b>				
1988-89	35.58	27.11	28.91	32.99
1993-94	36.50	30.40	87.10	58.41

The question remains: what accounts for the growth of regional productivity disparities?

In the case of interstate differences in productivity per enterprise, state per capita incomes are the key factor, but this factor comes into play only in the most recent year, 1993-94. However, in the first regression set,  $t^2$  are low, even in 1993-94. The introduction of the third explanatory variable has a huge effect in 1993-94, vastly improving the explanatory power of the regression, and virtually



obliterating the effects of interstate differences in per capita incomes. Details can be seen in Table 6.A.2.38.

Interstate labour productivity differences are accounted for in large part by differences in state per capita incomes. The explanatory power of the three variable regression as a whole is good, but the impact of each of the three explanatory variables taken individually falls just short of minimum acceptable significance levels. The statistics are given in table 6.A.2.39.

**Table 6.A.2.38: Regression Results: Dependent Variable Gross Value Added per Unorganised Transport Enterprises in Each of Fifteen States: 1988-89 and 1993-94**

Independent Variable	Statistics	Year	
		1988-89	1993-94
<b>First Regression Set</b>	$\bar{R}^2$	<b>0.071</b>	<b>0.425</b>
1. Population	Beta Coefficient	0.004	0.042
	t-value	0.012	0.176
	Significance	-	-
2. SGDP per Capita	Beta Coefficient	0.288	0.734
	t-value	0.835	3.060
	Significance	-	HHH
<b>Second Regression Set</b>	$\bar{R}^2$	<b>0.126</b>	<b>0.881</b>
1. Population	Beta Coefficient	-0.034	0.515
	t-value	0.094	0.392
	Significance	-	-
2. SGDP per Capita	Beta Coefficient	0.019	-0.307
	t-value	0.036	1.642
	Significance	-	-
3. Rural Areas Share in Total Population	Beta Coefficient	-0.309	-1.181
	t-value	0.649	6.852
	Significance	-	HHH

*Note:* 1. Stars, HHH, HH,H indicate levels of significance of 99 percent, 97.5 percent and 95 percent respectively. A dot ., identifies a significance level of more than 90 percent but less than 95 percent. A dash, - indicates not.  
2. In the second regression set, SGDP is 'significant' at the 87.1 percent level

**Table 6.A.2.39: Regression Results: Dependent Variables Gross Value Added per Worker in unorganised Transport Enterprises in Each of Fifteen Major States: 1988-89 and 1993-94**

Independent Variable	Statistics	Year	
		1988-89	1993-94
<b>First Regression Set</b>	<b><math>\bar{R}^2</math></b>	<b>0.052</b>	<b>0.625</b>
1. Population	Beta Coefficient	-0.110	0.334
	t-value	0.321	1.722
	Significance	-	-
2. SGDP per Capita	Beta Coefficient	0.236	0.953
	t-value	0.689	4.920
	Significance	-	HHH
<b>Second Regression Set</b>	<b><math>\bar{R}^2</math></b>	<b>0.129</b>	<b>0.682</b>
1. Population	Beta Coefficient	-0.134	0.297
	t-value	0.374	1.656
	Significance	-	-
2. SGDP per Capita	Beta Coefficient	0.060	0.513
	t-value	0.109	1.676
	Significance	-	-
3. Rural Areas Share in Total Population	Beta Coefficient	-0.202	-0.499
	t-value	0.424	1.772
	Significance	-	HHH

*Note:* 1. Stars, HHH, HH, H indicate levels of significance of 99 percent, 97.5 percent and 95 percent respectively. A dot ., identifies a significance level of more than 90 percent but less than 95 percent. A dash, \_ indicates not significant.  
2. In the three variables regression the significance levels for each of the three explanatory variables are as follows: population 87.4, SGDP per capita 87.8 and rural share in total population 89.6 per cent

## PART B: UNORGANISED STORAGE AND WAREHOUSING

Three surveys have been undertaken on unorganised storage and warehousing. The National Sample Survey Organisation in its 34<sup>th</sup> Round (July 1979 to June 1980) covered own account enterprises and non-directory establishments while the CSO conducted the survey for the directory establishments during October 1979 to September 1980. The CSO enterprise survey of 1983-84 then covered all three types of enterprises. Subsequently, the 1992-93 CSO enterprise survey collected similar data during a third survey conducted during October 1992 to September 1993.

Unfortunately, for all practical purposes, only the 1992-93 data is useable, and even that is subject to serious limitations.

In brief, there are two big problems with the storage and warehousing data. Number one, is that its coverage is restricted to what appears to be a relatively small subset of the warehousing and storage enterprises covered by the Economic Census<sup>5</sup>. This problem applies to all three surveys. Number two, the estimates for 1979-80 and 1983-84 come from absurdly small samples—a total of 51 enterprises, (9 rural and 42 urban), on an all India basis in 1979-80, and 146 sample enterprises altogether in 1983-84.

The 1992-93 survey data analysed here mainly covers private sector storage facilities, with or without refrigeration, let out on hire. It includes also co-operative warehousing of products belonging to the private sector, and as a special case, warehousing run by local bodies such as community grain *golas* run by panchayats. What it excludes constitutes one of its major limitations. Excluded is a very large subset of all private warehousing and storage facilities where the owner of the farm produce, the trading commodities or the manufactured goods is himself the owner of the godown. This leaves a major gap in any overview of the private provision of storage and warehousing facilities. Of course, all enterprises managed by the public sector or state and central governments are excluded from the coverage of the unorganised storage and warehousing surveys, as are facilities provided by marketing societies or statutory bodies. However, a firm engaged mainly in, say, manufacturing or transport, which also provides storage facilities to others on hire is included.

The usual definitions of enterprise types apply. Own account units are operated by family members without the help of hired workers. An establishment having less than 6 workers, of which at least one is hired is a non-directory establishment and those which have six or more, (of which one or more is hired), are directory establishments. There is no ceiling on size.

At the all-India level in the 1992-93 survey, 2,156 sample units were covered – a perfectly respectable number. Even then the sample size for many states, including some large ones like Rajasthan, Tamil Nadu and Uttar Pradesh, turned out to be too small “to work out any reliable estimates at state level...”.<sup>6</sup> Thus, in the regional analysis of storage and warehousing, only seven states are covered individually. They are: Andhra Pradesh, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra and West Bengal. An eighth composite category, “other states/union territories” covers the remaining states as a combined group.

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<sup>5</sup> See page 7 of the CSO [Enterprise Survey 1992-93: Report on Storage and Warehousing](#) or page 3 of NSS report No 313 (34<sup>th</sup> Round) [Tables with Notes on Storage and Warehousing : Non-Directory Establishments and Own Account Enterprises \(1985\)](#)

<sup>6</sup> Page 6, [Enterprise Survey 1992-93](#), In Tamil Nadu, for example, there was only one rural enterprise in the sample and only two in urban areas. See statement 3 on page 5 for other state level details.

Thus in this part on unorganised storage and warehousing, the analysis of section one gives an overview of all India magnitudes and some information on the structure of this segment. It provides no insights into trends, employment elasticities or structural change in this sector over time. Section two, which looks at regional issues, is confined to an analysis of seven states plus the combined group, “other states and union territories ”. Interstate productivity inequalities are measured for 1992-93, and possible factors behind interstate disparities explored.

### **Section I: Enterprises, Employment, Gross Value Added and Productivity in unorganised Storage and Warehousing**

This section has three subsections. The first deals with absolute magnitudes; the second with some aspects of structure, and the final subsection gives an account of performance defined in the limited sense of enterprise and labour productivity during 1992-93.

#### **6.B.1.1 Storage and Warehousing: Some Absolute Magnitudes**

Storage and warehousing is not a labour intensive activity. Roughly sixty eight thousand unorganised storage and warehousing units employ only two hundred thousand workers in the entire country. Their contribution to gross value added, however, is substantial - roughly six hundred and seventy four crores (at, 1993-94 constant prices) in 1992-93.

Most of the workers in rural areas are engaged in warehousing and “other storage” which includes bonded warehouses, community grain *golas* and a miscellaneous category labelled “other” which accounts for two thirds of the “other storage” group. In rural areas more than twice as many workers are employed in cold storage as in urban areas, and the number of rural workers with jobs in “other storage” out numbers the urban set by about seven to one. Urban areas account for about sixty percent of warehousing employment. Urban areas also account for well over sixty percent of gross value added by unorganised storage and warehousing, mostly because of the contribution of the warehousing segment. Rural areas generate most of the gross value added by cold storage units and “other storage” enterprises. Details are set out in table 6.B. 1.1.

**Table 6.B.1.1: Number of Enterprises and Workers and Gross Value Added by Unorganised Storage and Warehousing by Storage Type and Rural or Urban Location: All India 1992-93**

Location	Number of Enterprises				Number of Workers				Gross Value Added (000)			
	Ware housing	Cold Storage	Other Storage	All Storage	Ware housing	Cold Storage	Other Storage	All Storage	Ware housing	Cold Storage	Other Storage	All Storage
Rural	24,520	1,394	5,355	31,269	59,990	16,140	23,395	99,525	932,870	446,513	1,122,612	2,501,995
Urban	33,444	1,257	2,137	36,838	88,282	6,722	3,316	98,320	3,944,669	256,827	34,329	4,235,825
All Locations	57,964	2,651	7,492	68,107	148,272	22,862	26,711	197,845	4,877,538	703,340	1,156,941	6,737,820

In most unorganised sector activities, the largest number of enterprises and workers belong to the small own account enterprise category. This is not the case in rural areas for unorganised storage and warehousing. Instead, most of the rural enterprises are non-directory establishments while the smaller own account enterprises account for an absolute majority of the units located in urban centres. In terms of workers and gross value added also, in rural areas the larger establishments, which employ at least one hired worker constitute the overwhelmingly dominant enterprise type. Directory establishments in rural areas employ more people than any other group. In urban areas the biggest employers are the somewhat smaller non-directory establishments.

**Table 6.B.1.2: Number of Enterprises and Workers and Gross Value Added by Unorganised Storage and Warehousing by Enterprise type and Rural and Urban Location, All India 1992-93**

Location	Number of Enterprises			Number of Workers			Gross Value Added(000)		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Rural	9,191	17,129	4,949	12,106	42,038	45,381	63,992	1,430,280	1,007,723
Urban	20,120	14,488	2,230	28,759	46,637	22,924	489,707	1,787,718	1,958,400
All Locations	29,311	31,617	7,179	40,865	88,675	68,305	553,698	3,217,998	2,966,123

Thus it appears that what is stored in rural areas is often handled in large quantities by medium sized and larger units. One tends to think immediately of farm produce, but storage by unorganised sector enterprises, including co-operatives, of bulky fertilizers and pesticides possibly constitutes another factor contributing to the prevalence of larger units in rural areas.

### **6.B.1.2 Storage and Warehousing: Some Aspects of Structure**

Three structural dimensions are considered here: (i) the size structure of enterprises, (ii) the rural-urban distribution of unorganised storage and warehousing and (iii) the share of different types of storage and specified enterprise types in all enterprises, workers, and gross value added.

#### **(i) The Size Structure of Unorganised Storage and Warehousing Units**

By the standards of most other unorganised sector activities, directory establishments in unorganised storage are large units, typically employing between 9 and 10 workers. Non-directory establishments are of about the same size as in other sectors, and own account enterprises are as small, or possibly even smaller than the average. Thus, particularly in rural areas, we seem to be dealing with two very different kinds of operations in terms of scale and organisational sophistication- the very small family operated enterprises at one extreme, and the large operations which operate mainly with hired labour, at the other.

**Table 6.B. 1.3: Number of Workers per Storage and Warehousing Enterprise by Enterprise Type, All India, 1992-93**

Location and year	No of Workers per Enterprise By Enterprise type			
	OAE	NDE	DE	All Types
Rural	1.32	2.45	9.17	3.18
Urban	1.43	3.22	10.28	2.67
All Locations	1.39	2.80	9.51	2.90

That the large scale operations are typically more sophisticated also in technological terms in borne out by the fact that the rural cold storage units hire far more workers than any one else and employ regularly twice as many workers as the urban cold storage units. "Other storage" units in rural areas are also much bigger than the same category in urban centres, indicating more sophisticated forms of organisation in the typical unit. Ordinary warehousing enterprises in rural areas employ slightly fewer workers than urban units. The details are shown in table 6.B.1.4.

**Table 6.B.1.4. Number of Workers per Enterprise by Type of Storage: All India 1992-93**

Location and Year	No of Workers per Enterprise By Enterprise type			
	Ware housing	Cold-storage	Other storage	All Types
Rural	2.45	11.58	4.38	3.18
Urban	2.64	5.35	1.55	2.67
All Locations	2.56	8.62	3.57	2.90

**(ii) The Rural-Urban Distribution of Unorganised Storage and Warehousing by Type of Storage and by Enterprise Type**

Rural areas account for more than half of all cold storage enterprises and more than seventy percent of "other storage". Ordinary warehousing is the most important group in towns and cities.

Even more significant are the findings that most cold storage employment and the bulk of gross value added by cold storage units is generated by the rural units. This applies with even greater force to "other storage," which appears to be an overwhelmingly rural phenomenon. Details are given in table 6.B.1.5

**Table 6.B.1.5: The Rural-Urban Distribution of Unorganised Storage and Warehousing by Type of Storage: All India 1992-93**

(GVA at constant 1993-94 prices)

Share of Rural Enterprises in all Enterprises				Share of Rural Employment in all Employment				Share of Rural GVA in All GVA			
Ware housing	Cold storage	Other Storage	All types	Ware housing	Cold storage	Other storage	All type	Ware housing	Cold storage	Other storage	All types
42.30	52.58	71.48	45.91	40.46	70.60	87.62	50.30	19.13	63.48	97.04	37.13

The pattern of rural dominance by enterprise type conforms to the picture by kinds of storage. Rural enterprises are in the majority in the larger establishment units, while the majority of family operated own account units are located in urban areas. In an even greater departure from the usual pattern in other unorganised sector activities, rural employment in directory establishments accounts for two thirds of all employment in this largest size enterprise type. However, in one respect, the rural-urban breakdown conforms to the distribution found for other unorganised sector activities: the bulk of gross value added by all enterprise types is generated in the urban units.

**Table 6.B.1.6: The Rural-Urban Distribution of Unorganised Storage and Warehousing by Enterprise Type: Rural, Urban and All Locations: All India 1992-93**

(GVA at constant 1993-94 prices)

Share of Rural Enterprises in all Enterprises				Share of Rural Employment in all Employment				Share of Rural GVA in All GVA			
OAE	NDE	DE	All Types	OAE	NDE	DE	All Types	OAE	NDE	DE	All Types
31.36	54.18	68.94	45.91	29.62	47.41	66.44	50.30	11.56	44.45	33.97	37.13

**(iii) The Distribution of Unorganised Storage and Warehousing by Kind of Storage and Enterprise Type**

Ordinary warehousing accounts for 78 percent of all storage enterprises in rural areas and more than 90 percent in urban centres. "Other storage" is the next most important group but its share in rural areas is far greater than in urban centres.

The distribution of employment by kind of storage in rural areas differs sharply from that of urban areas. In rural areas only 60 per cent of workers are employed in ordinary warehouses, in urban areas the figure is close to 90 per cent. In rural areas, "other storage" and cold storage, in that order, both employ significant shares of workers. In urban areas, the contribution of these more specialised forms of storage to employment is relatively unimportant.

Even more striking are the gross value added figures. In rural areas, "other storage" makes the single most important contribution to gross value added. In urban areas, its contribution is negligible; ordinary warehousing produces more than 93 percent of gross value added by all units located in urban areas.

Details can be seen in table 6.B.1.7

**Table 6.B.1.7: The Share of Specified Kinds of Storage in All Storage Enterprises, Employment and Gross Value Added by Rural or Urban Location: All India 1992-93**  
(GVA at constant 1993-94 prices)

Location	Share in Enterprises			Share in Employment			Share in GVA		
	Ware housing	Cold storage	Other storage	Ware housing	Cold storage	Other storage	Ware housing	Cold storage	Other storage
Rural	78.42	4.46	17.13	60.28	16.22	23.58	37.29	17.85	44.95
Urban	90.79	3.41	5.80	89.79	6.84	3.37	93.13	6.06	0.81
All Locations	85.11	3.89	11.00	74.94	11.56	13.54	72.39	10.44	17.20

Non directory establishments constitute the single largest group in rural areas, accounting for more than half of all enterprises, but directory establishments provide the most employment with the non directory establishments only a few points behind. The non-directory establishments also generate the majority share of gross value added by rural units.

Thus the typical rural enterprise in unorganised storage is a relatively large unit, operating with regular hired workers, and not a tiny family operated business as is usually the case in other unorganised sector activities.

In urban areas, the family operated enterprises are in the majority; the largest number of workers are employed in non-directory establishments, and the bulk of gross value added is generated by a relatively small number of directory establishments.

**Table 6.B.1.8: Share of Specified Enterprise Types in Unorganised Storage and Warehousing Enterprises, Employment and Gross Value Added by Rural or Urban Location: All India 1992-93**  
(GVA in Constant at 1993-94 prices)

Location	Share in Enterprises			Share in Employment			Share in GVA		
	OAE	NDE	DE	OAE	NDE	DE	OAE	NDE	DE
Rural	29.39	54.78	15.83	12.16	42.24	45.60	2.56	57.17	40.28
Urban	54.62	39.33	6.05	29.25	47.43	23.32	11.56	42.20	46.23
All Locations	43.04	46.42	10.54	20.66	44.82	34.52	8.22	47.76	44.02

### 6.B.1.3 The Performance of Unorganised Storage and Warehousing

Productivity in all branches of storage is high. Cold storages are more productive in rural areas than any other kind of storage, coming ahead of “other storage” by roughly one lakh. Cold storages in urban centres also do well but per enterprise gross value added by them is a little less than gross value added by “other storage” units in rural locations.

Labour productivity, even in rural areas is higher than in any other unorganised sector activity taken as a whole, and compares favourably with gross value added per worker in the “hotels and other lodging places” sub sector. Labour productivity in “other storage” is the highest of all sub sectors covered in this study.



**Table 6.B.1.9: Enterprise and Labour Productivity by Kind of Storage in Rural and Urban Areas All India 1992-93**

(Rs. in Constant 1993-94 prices)

Location	GVA per Enterprise				GVA per Worker			
	Ware housing	Cold-Storage	Other storage	All Types	Ware housing	Cold storage	Other storage	All types
Rural	38,045	320,311	210,020	80,015	15,550	27,665	47,927	25,139
Urban	117,948	204,318	16,064	114,985	44,683	38,207	10,353	43,082
Total (R+U)	84,148	265,311	154,696	98,930	32,896	30,765	43,275	34,056

Unfortunately the same cannot be said for enterprises and workers in each enterprise type taken separately. In rural areas only, the small own account storage enterprises earn less for their owner operators than what would be required to maintain a family. Presumably some of these enterprise are run as seasonal or sideline activities by people who have other income sources to fall back upon. Own account enterprises in the towns and cities earn enough to constitute the main income source of their owners, and the typical worker in non-directory and directory establishments is doing alright. In rural areas, however, one suspects that some of the workers in directory establishments may not be productive enough to generate the equivalent of a living wage. The evidence is presented in table 6.B.1.10

**Table: 6.B.1.10: Enterprise and Labour Productivity by Enterprise Type: Rural, Urban and All India 1992-93**

(Rs. In Constant 1993-94 prices)

Location	GVA per Enterprise				GVA per Worker			
	OAE	NDE	DE	All Types	OAE	NDE	DE	All Types
Rural	6,962	83,501	203,622	80,015	5,286	34,024	22,206	25,139
Urban	24,339	123,393	878,206	114,985	17,028	38,333	85,430	43,082
All Locations	18,890	101,781	413,167	98,930	13,549	36,290	43,425	34,056

## Section II: On Regional Issues

The regional analysis of this section is confined to the seven major states for which data is available for the reference year 1992-93. The results are presented in two subsections, one dealing with the main magnitudes and the other focussing on interstate productivity differences.

### 6.B.2.1 Absolute Magnitudes, States Shares and the Rural-urban Distribution of Enterprises, Workers and Gross Value Added by Unorganised Storage and Warehousing in Seven Major States

West Bengal, Maharashtra and Bihar, in that order, account for the largest number of unorganised storage and warehousing enterprises and West Bengal, Andhra Pradesh and Maharashtra for the largest number of workers. In terms of gross value added West Bengal and Maharashtra completely dominate.

Table 6.B.2.1 gives the absolute figures while table 6.B.2.2 provides the same state level information in terms of the percentage share of each state.

**Table 6.B.2.1: Absolute Number of Enterprises, Employment and Gross Value Added in Unorganised Storage and Warehousing in Seven Major States, Rural, Urban and Total (Rural+Urban), 1992-93**

(In Constant 1993-94 prices)

State	Enterprise			Employment			GVA( in 000)		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	4,464	3,135	7,599	28,935	3,978	32,913	462,018	74,460	536,478
Bihar	8,339	1,056	9,395	9,345	2,990	12,335	236,704	42,226	278,930
Gujarat	213	4,763	4,976	1,004	12,026	13,030	52,219	627,055	679,274
Karnataka	199	4,342	4,541	228	5,024	5,252	2,579	120,984	123,563
Madhya Pradesh	258	640	898	807	1,872	2,679	34,060	47,921	81,981
Maharashtra	8,308	5,948	14,256	13,506	18,030	31,536	417,535	1,170,409	1,587,945
West Bengal	4,059	14,432	18,491	18,809	44,649	63,458	626,625	1,727,409	2,354,035
Other states/UT	5,429	2,522	7,951	26,591	9,751	36,342	670,248	425,271	1,095,520

The disproportionately large share of West Bengal in urban enterprises and of Bihar and Maharashtra in rural units is conspicuous. West Bengal also records very high shares in urban workers and gross value added in urban unit. Clearly, the rural-urban distribution of storage activities differs greatly from state to state.

**Table 6.B.2.2: Share of Specified States in All India Unorganised Storage and Warehousing Enterprises, Employment and Gross Value Added in Seven Major States: Rural, Urban and Total (Rural+Urban) 1992-93**

State	Share of Enterprises			Share of Employment			Share of GVA( in 000')		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andhra Pradesh	14.28	8.51	11.16	29.16	4.05	16.66	18.47	1.76	7.96
Bihar	26.67	2.87	13.79	9.42	3.04	6.24	9.46	1.00	4.14
Gujarat	0.68	12.93	7.31	1.01	12.23	6.60	2.09	14.80	10.08
Karnataka	0.64	11.79	6.67	0.23	5.11	2.66	0.10	2.86	1.83
Madhya Pradesh	0.83	1.74	1.32	0.81	1.90	1.36	1.36	1.13	1.22
Maharashtra	26.57	16.15	20.93	13.61	18.34	15.96	16.69	27.63	23.57
West Bengal	12.98	39.18	27.15	18.96	45.41	32.12	25.05	40.78	34.94
Other states/UT	17.36	6.85	11.67	26.80	9.92	18.40	26.79	10.04	16.26

This unexpected characteristic of the unorganised storage and warehousing industry is brought out more explicitly in table 6.B.2.3.

Here it becomes obvious that storage and warehousing activities are overwhelmingly concentrated in urban centres in Gujarat and Karnataka, and in rural areas in Andhra Pradesh and Bihar. Maharashtra has a relatively high share of enterprises and workers in rural areas, while in Madhya Pradesh much of gross value added is contributed by rural units.

These interstate differences in the rural-urban distribution of storage activities are striking, but the limited data available provides no means of finding out what factors might account for these regional contrasts.

**Table 6.B.2.3: The Share of Rural Areas in Enterprises, Employment and Gross Value Added by Unorganised Storage and Warehousing in Seven Major States: 1992-93**

State	Rural Share of Enterprises	Rural Share of Workers	Rural Share of GVA
Andhra Pradesh	58.74	87.91	86.12
Bihar	88.76	75.76	84.86
Gujarat	4.28	7.71	7.69
Karnataka	4.38	4.34	2.09
Madhya Pradesh	28.73	30.12	41.55
Maharashtra	58.28	42.83	26.29
West Bengal	21.95	29.64	26.62
Other states/UT	68.28	73.17	61.18

### 6.B.2.2 The Performance of Unorganised Storage and Warehousing: Gross Value Added per Enterprise and Labour Productivity in Seven Major States

Gross value added per enterprise is highest in Gujarat, West Bengal and Maharashtra, in that order, with both Gujarat and West Bengal recording exceptionally high earnings in rural areas.

Labour productivity levels are highest in Gujarat, Maharashtra and West Bengal. Urban labour productivity in Maharashtra stands out, partly because it is twice as high as in rural Maharashtra. In other states the differences between rural and urban labour productivity are not quite so stark, and in some states, particularly Gujarat, there is virtually no difference.

Table 6.B.2.4 gives the details along with the coefficients of variation, which measure interstate productivity disparities.

**Table 6.B.2.4: The Performance of Unorganised Storage and Warehousing in Seven Major States, in terms of Levels of Enterprise and Labour Productivity, Rural, Urban and Total (Rural+Urban): 1992-93**

State	GVA per Enterprise (Rs.)			GVA per Worker (Rs.)		
	Rural	Urban	Total	Rural	Urban	Total
AP	103,499	23,751	70,598	15,967	18,718	16,300
Bihar	28,385	39,987	29,689	25,329	14,123	22,613
Gujarat	245,158	131,651	136,510	52,011	52,142	52,132
Karnataka	12,958	27,864	27,211	11,310	24,081	23,527
MP	132,017	74,876	91,293	42,206	25,599	30,601
Maharashtra	50,257	196,774	111,388	30,915	64,915	50,353
WB	154,379	119,693	127,307	33,315	38,689	37,096
Other states/UT	123,457	168,625	137,784	25,206	43,613	30,145
<b>Coefficient of Variation</b>	<b>71.56</b>	<b>67.62</b>	<b>49.30</b>	<b>44.97</b>	<b>50.14</b>	<b>39.43</b>

From these statistics it is clear that inter state differences in gross value added per enterprise are large, and greater in rural areas than in urban centres. Inter state disparities in labour productivity are comparatively moderate in rural areas, and just a little higher in the towns and cities.

Regression analysis was not expected to reveal very much about the factors behind the observed interstate differences because of the small number of states covered in the exercise, and this is in fact what happened in the case of gross value added per enterprise. However interstate variations in labour productivity are accounted for, in part, by interstate differences in per capita incomes in the regression with only two explanatory variables, as is shown in table 6.B.2.5.

**Table 6.B.2.5: Regression Results: Dependent Variables-Gross Value Added per Enterprise and Gross value Added per Worker 1992-93 (seven + one state)**

Independent Variable	Statistics	GVA per Worker
<b>First Regression Set</b>	$\bar{R}^2$	<b>0.338</b>
1. Population	Beta Coefficient	-0.054
	t-value	0.174
	Significance	-
2. SGDP per Capita	Beta Coefficient	0.720
	t-value	2.336
	Significance	.

*Note* Stars HHH, HH, and H indicate levels of significance at 99 percent, 97.5 percent and 95 percent respectively. A dot . , identifies a significance level of more than 90 percent but less than 95 percent. A dash, \_ indicates not significant.

## **PART C: UNORGANISED COMMUNICATION SERVICES**

Unorganised communication service enterprises include units belonging to four three-digit National Industrial Classification categories, coded 750, 751, 752 and 759 in the 1987 National Industrial Classification. Public sector units belonging to these categories, which are owned by Central or State governments, local bodies or corporations are excluded. These codes cover postal, telegraphic, wireless and signals communications, courier activities other than post, telephone communication services and a miscellaneous group, communication services not elsewhere classified. In the 1991-92 Enterprise Survey publications, there are no breakdowns of communication services by 3-digit group. No statewise data is published. Worst of all, these were only five units in the rural sample.

Thus the limitations of the data base are obvious. The estimates relate to a single year, and that is at the start of the 1990s, when a number of types of communication activities now carried out by private enterprises hardly existed. Cell phone services are one example. Within these constraints, this part is divided into three sections. The first of these presents estimates for absolute numbers of enterprises, workers and gross value added by the industry. The second looks at structure, defined in terms of size of enterprise, rural or urban location, and enterprise type. Productivity estimates are presented in the final sector.

### **6.C.1.1 The Key Magnitudes**

In 1991-92, there were very few unorganised communications services enterprises –only sixteen thousand or so- and the number of workers involved in them was less than thirty-nine thousand. However they generated well over fifty crores by way of gross value added, roughly 49 crores from enterprises units in urban centres and just one crore in rural areas.

Despite the relatively small role these unorganised enterprises played in the larger economy, the estimates presented in table 6.C.1.1 are important as benchmark figures against which future magnitudes can be compared. Casual observation suggests that a great deal has changed in the ten years since these estimates were generated. A fresh survey to update these figures is needed, and it should give not only the regional estimates, but also separate figures for each of the important 3-digit categories.

**Table 6.C.1.1: Number of Enterprises and Workers in Unorganised Communication Services and Gross Value Added by Enterprise Type and Rural or Urban Location: All India 1991-92**

(GVA in constant 1993-94 prices)

Locations	Number of Enterprises			Number of Workers			Gross Value Added( 000)		
	OAE	NDE +DE	All types	OAE	NDE +DE	All types	OAE	NDE +DE	All types
<b>Rural</b>	1,943	325	2,268	2,566	649	3,215	7,024	3,181	10,205
<b>Urban</b>	6,287	7,783	14,070	9,127	26,256	35,383	77,375	417,971	495,346
<b>All Locations</b>	8,230	8,108	16,338	11,693	26,905	38,598	84,399	421,152	505,551

### 6.C.1.2 Aspects of Structure

Three ways of looking at structure are considered here: first, the size structure of enterprises, secondly, the rural-urban distribution of enterprises, workers, and gross value added by the industry and, finally, size structure defined in terms of the relative importance of own account enterprises on the one hand, and the larger non-directory and directory establishments on the other.

#### (i) Size Structure

In 1991-92, the typical enterprise operated with less than three workers. Urban enterprises were not much bigger than rural ones, and the only subset employing more than three workers was the urban establishment group, wherein at least one worker was regularly hired, Figures are given in table 6.C.1.2.

**Table 6.C.1.2: The Number of Workers per Enterprise by Enterprise Type, and Rural or Urban Location: Unorganised Communication Services 1991-92**

Location	Workers per Enterprise		
	OAE	NDE+DE	All Types
Rural	1.32	2.00	1.42
Urban	1.45	3.37	2.51
All Locations	1.42	3.32	2.36

#### (ii) The Rural Share in Enterprises, Employment and Gross Value Added

The unorganised communications service sector is overwhelmingly concentrated in urban centres, which account for 86 percent of the enterprises, nearly 92 percent of employment and 98 percent of gross value added. Rural non-directory and directory establishments account for less than five percent of all enterprises and workers and less than one percent of gross value added by establishments. Even the very small family operated enterprise in rural areas account for less than a quarter of all employment and less than ten percent of gross value added by own account enterprises in rural and

urban areas combined. In short, by 1991-92, unorganised communications services had not yet made their presence much felt in rural areas. The industry was overwhelmingly oriented to providing services in urban centres. Table 6.C.1.3. gives details .

**Table 6.C.1.3. The Rural Share in all Enterprises, Employment and Gross Value Added by Unorganised Communication Services, by Enterprise Type, All India, 1991-92**

Share of Rural Enterprises in								
All Enterprises			Employment			Gross Value Added		
OAE	NDE+DE	All Types	OAE	NDE+DE	All Types	OAE	NDE+DE	All Types
23.61	4.01	13.88	21.94	2.41	0.76	13.88	8.33	2.02

**(iii) The Structure of Unorganised Communication Services by Enterprise Type**

In rural areas, the vast majority of enterprises and workers belong to the small family operated own account enterprise group. The minority which belong to the larger establishment set, however, account for close to one third of gross value added by rural units.

In urban centres the larger establishments which employ-hired workers constitute the majority, and account for the bulk of gross value added by urban units.

In short, unorganised communication services is not only still a mainly urban phenomenon. Within urban areas it is an activity which is typically carried out by units hiring in at least some labour rather than by family operated businesses.

**Table 6.C.1.4. The Structure of Unorganised Communication Services by Enterprise Type 1991-92**

Locations	Enterprises		Workers		Gross Value Added	
	OAE (%)	NDE+DE (%)	OAE (%)	NDE+DE (%)	OAE (%)	NDE+DE (%)
<b>Rural</b>	85.7	14.3	79.8	20.2	68.8	31.2
<b>Urban</b>	44.7	55.3	25.8	74.2	15.6	84.4
<b>All Locations</b>	50.4	49.6	30.3	69.7	16.7	83.3

It is clear from the figures in table 6.C.1.4. that although own account units account for half the total number of enterprises, they employ only 30 per cent of the workers and account for less than 17 per cent of gross value added by the industry. Most workers are employed in the larger establishments, which generate the overwhelming bulk of gross value added by the industry.

**6.C.1.3 The Performance of Unorganised Communications Services**

In the rural own account enterprises, which account for most of the rural units, workers, and gross value added, productivity levels are too low to justify the existence of such units as a full time activity. The larger establishments do not fare very much better. It is only in urban areas that minimally acceptable earnings levels are achieved , and that mainly thanks to the distinctly superior performance of the urban units which hire in at least some labour.

Because of the respectable performance of the dominant category, the urban non-directory and directory establishments, the productivity levels for rural and urban areas combined approach respectable levels. The rural productivity figures taken alone are as bad as those for any other unorganised sector activity, which generates below poverty line incomes for the workers involved in them.

The productivity evidence for rural and urban areas respectively is presented in table 6.C. 1.5 below.

**Table 6.C.1.5: Enterprise and Labour Productivity Levels in Unorganised Communications Services by Rural or Urban Location and Enterprise Type: All India 1991-92**

**(Rs. In Constant 1993-94 prices)**

Locations	GVA per Enterprises (Rs.)			GVA per Worker (Rs.)		
	OAE	NDE+DE	All Type	OAE	NDE+DE	All Types
Rural	3,615	9,787	4,500	2,738	4,901	3,174
Urban	12,307	53,703	35,206	8,478	15,919	14,000
All Locations	10,255	51,943	30,943	7,218	15,653	13,098