### **WAGE RATE INDEX - 2005**

#### 1. Introduction

This issue of 'Economic and Social Indicators' presents the wage rate index for year 2005. It is the thirteenth of the series published annually by the Central Statistics Office since 1993.

The index, having year 2000 as base, is computed from wage data collected through the Survey of Employment, Earnings and Hours of work carried out in September 2005 among a sample of large establishments, that is, those employing 10 or more persons. Weights used are according to the occupational structure of the working population at the 2000 Population Census and distribution of earnings in large establishments at March 2000. The methodology used is described at Annex.

The wage/salary rates of specific occupations, used in the calculation of the index, are the rates paid for normal time work, comprising basic wages and salaries, cost of living allowances, and other guaranteed and regular allowances paid at the end of each pay period. Overtime payments are therefore excluded.

Current estimates are subject to revision in later issues, as additional information becomes available.

#### 2. Index 2005

## 2.1 Wage rate index by industry

The overall wage rate index, which stood at 130.4 in September 2004, rose by 6.5 points (or 5.0%) to reach 136.9 in September 2005.

The wage rate indices for the major industry groups are shown in Table 1 while percentage changes from 2004 to 2005 are given in Table 2. A general upward movement is noted in the indices of all industry groups. The index for 'Manufacturing, mining and quarrying', the most important industry group carrying 23.1% of total weight went up by 5.5% from 129.8 in September 2004 to 136.9 in September 2005. That of "Public administration and defence; compulsory social security', the second most important industry group with 17.3% of total weight, grew by 5.7% from 127.2 to 134.5.

The highest increase was registered in 'Construction' (+7.1%), followed by 'Wholesale and retail trade; repair of motor vehicles, motorcycles, personal and household goods' (+6.4%) and 'Electricity and water' (+6.2%) while the lowest increase (+1.1%) was noted in 'Education'.

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## 2.2 Contribution of the industry groups to the index

The contribution of the industry groups to the overall index is shown in Table 3. The main contributors to the increase of 6.5 points in the overall index were: 'Manufacturing, mining and quarrying' (1.6 points) and 'Public administration and defence; compulsory social security' (1.3 points). Each of the three industry groups 'Agriculture and fishing', 'Wholesale and retail trade; repair of motor vehicles, motorcycles, personal and household goods' and 'Transport, storage and communications' contributed 0.6 point to the index. Contributions of the remaining industry groups ranged from 0.1 to 0.4 point.

# 2.3 Wage rate index by sector

The wage rate index in the General Government sector, which comprises the Central Government and the Local Government, increased by 5.3 points (or 4.1%) from 130.1 in 2004 to reach 135.4 in 2005. The sector, which accounts for around one third of the total weight, contributed 1.6 points to the increase of 6.5 points in the overall index.

The wage rate index in the EPZ sector which accounts for around 15% of the total weight stood at 140.3 in September 2005, that is, an increase of 8.8 points (or 6.7%) over the 2004 figure of 131.5. The contribution of the EPZ sector to the overall increase was 1.3.

### 3. Comparison with previous indices

Table 4 gives a series of wage rate indices since 1993. Indices for the year 1993 to 2000 have been computed using September 1992 as base. As from 2001, the index has been worked out with September 2000 as base.

The two series are not strictly comparable since they are based on different weighting patterns. However, for some particular purposes, users may want to compare the old indices with the new ones. A crude method of converting an index from the new base to the old base

is by multiplying the new index by the 1.994. Conversely, an index on the old base can be converted to the new base by dividing the old index by 1.994.

The conversion factor (1.994) is obtained as the ratio of the wage rate index of year 2000 on old base (199.4) to wage rate index of year 2000 on new base (100.0).

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Table 1 - Wage rate index by industry group, 2004 and 2005 (Base : September 2000 = 100)

Industry group	Weights	Index 2004 <sup>1</sup>	Index 2005
Agriculture and fishing	92	132.6	139.1
Manufacturing, mining & quarrying	231	129.8	136.9
Electricity and water	18	144.5	153.4
Construction	49	134.4	143.9
Wholesale & retail trade; repair of motor vehicles, motorcycles, personal & household goods	68	135.0	143.7
Hotels and restaurants	47	130.9	138.5
Transport, storage & communications	83	130.1	136.9
Financial intermediation	42	120.3	126.5
Real estate, renting and business activities	38	129.9	136.1
Public administration and defence; compulsory social security	173	127.2	134.5
Education	86	130.8	132.3
Health & social work	54	131.9	135.4
Other community, social and personal services	19	131.7	137.8
All sectors	1,000	130.4	136.9
of which General Government	310	130.1	135.4
EPZ	147	131.5	140.3

Table 2 - Annual percentage change over previous year in wage rate index by industry group, 2004 and 2005

Industry group	2004 1	2005
Agriculture and fishing	7.1	4.9
Manufacturing, mining & quarrying	6.0	5.5
Electricity and water	5.4	6.2
Construction	2.7	7.1
Wholesale & retail trade; repair of motor vehicles, motorcycles, personal & household goods	10.0	6.4
Hotels and restaurants	2.1	5.8
Transport, storage & communications	8.1	5.2
Financial intermediation	4.7	5.2
Real estate, renting and business activities	7.3	4.8
Public administration and defence; compulsory social security	5.6	5.7
Education	6.9	1.1
Health & social work	6.7	2.7
Other community, social and personal services	7.2	4.6
All sectors	6.3	5.0
of which General Government	5.9	4.1
EPZ	7.0	6.7

<sup>1</sup> Revised

Table 3 - Contribution of industry groups to change in index over previous year, 2004 and 2005

	Percenta	ge change
Industry group	2004 1	2005
Agriculture and fishing	0.8	0.6
Manufacturing, mining & quarrying	1.7	1.6
Electricity and water	0.1	0.2
Construction Wholesale & retail trade; repair of motor vehicles, motorcycles, personal & household goods	0.2	0.4
Hotels and restaurants	0.1	0.3
Transport, storage & communications	0.8	0.6
Financial intermediation	0.2	0.3
Real estate, renting and business activities	0.3	0.2
Public administration and defence; compulsory social security	1.2	1.3
Education	0.7	0.1
Health & social work	0.5	0.2
Other community, social and personal services	0.2	0.1
All sectors	7.7	6.5
of which General Government	2.2	1.6
EPZ	1.3	1.3

**Table 4 - Wage rate index, 1993 - 2005** 

Year	Wage Ra	ate Index	Annual percentage change
	Base : September 1992 = 100	Base : September 2000 = 100	
1993	115.5		15.5
1994	127.6		10.5
1995	136.6		7.1
1996	144.0		5.4
1997	160.7		11.6
1998	177.5		10.5
1999	191.0		7.6
2000	199.4	100.0	4.4
2001		105.0	5.0
2002		109.9	4.7
2003		122.7	11.6
2004		130.4 1	6.3
2005		136.9	5.0

<sup>1</sup> Revised

Table 5 - Average wage per hour of selected occupations by industry group (excluding General Government), September 2004 - September 2005

Industry group	Occupation	Average wage <sup>1</sup> per hour (Rs)		Change (%) 2004 to
	•	2004	2005	2005
Agriculture				
Sugarcane plantations				
	Overseer - Grade I	66.78	69.21	3.6
	Field worker (other than special category)	52.48	55.13	5.0
Tea plantations				
	Field worker	24.99	26.22	4.9
	Sirdar/Gangman	34.20	38.85	13.6
Manufacturing				
Poultry & other meat				
	Farm worker	34.66	37.00	6.8
	Factory worker	30.11	31.37	4.2
Biscuits & confectionery				
	Machine operator	32.25	33.22	3.0
	Factory worker	20.91	21.64	3.5
Sugar				
	Fitter - Grade I	46.31	50.09	8.2
	Welder - Grade I	49.50	49.85	0.7
	Motor mechanic (Heavy Mechanical Unit)	49.20	50.58	2.8
	Factory operator - Grade I	39.98	40.89	2.3
Tea				
	Factory worker	27.67	28.02	1.3
	Factory operator	30.23	33.39	10.5
Soft drinks				
	Beverage machine operator	29.63	32.73	10.5
	Driver/Salesman	65.64	73.05	11.3
	Lorry helper	37.94	38.70	2.0

Wages include remuneration for normal time work inclusive of cost of living allowances and other guaranteed and regularly paid allowances

Table 5 (cont'd) - Average wage per hour of selected occupations by industry group (excluding General Government), September 2004 - September 2005

Industry group	Occupation		Average wage <sup>1</sup> per hour (Rs)	
		2004	2005	2004 to 2005
Textiles				
(excluding wearing apparel)				
	Factory worker	23.94	25.19	5.2
	Cleaner/Helper	19.44	21.81	12.2
	Machine operator	28.11	30.48	8.4
Wearing apparel				
(excluding footwear)				
	Machine operator	25.23	27.56	9.
	Weaver/Knitter	28.87	29.95	3.
	Cleaner/Helper	21.05	21.64	2.
Leather products				
	Machine operator	32.52 2	34.69	6.
Footwear				
	Shoemaking machine operator	27.66	28.88	4.
Paper products				
	Machine operator	33.67	37.48	11.
Printing & publishing				
	Reporter/Journalist	136.56	158.26	15.
	Photo-type setting operator	65.21	68.42	4.
Chemical products				
	Mixing/Blending machine operator	51.12	53.00	3.
	Cleaner/Helper	33.29	34.59	3.
Rubber products				
	Machine operator	33.64	34.99	4.
Plastic products				
	Machine operator/Factory operator	26.95 <sup>2</sup>	26.04	-3.

Wages include remuneration for normal time work inclusive of cost of living allowances and other guaranteed and regularly paid allowances

<sup>&</sup>lt;sup>2</sup> Revised

Table 5 (cont'd) - Average wage per hour of selected occupations by industry group (excluding General Government), September 2004 - September 2005

Industry group	Occupation	Average wage <sup>1</sup> per hour (Rs)		Change (%) 2004 to
	-	2004	2005	2005
Basic metals				
	Machine operator	38.34	38.89	1.4
	Factory worker	38.21	38.41	0.5
Fabricated metal products				
	Factory worker	49.21	49.94	1.5
Electrical machinery & apparatus				
	Electrician	38.20	43.65	14.3
Furniture (wooden)				
	Cabinet Maker/Varnisher	37.27	38.86	4.3
Jewellery & related articles				
	Diamond cutter/Polisher	28.01	30.00	7.1
Electricity				
	Lineman	81.01	88.46	9.2
	Power generating machine operator	88.01	93.93	6.7
***	Meter reader	107.95	105.69	-2.1
Water	Meter reader	74.05	87.29	17.9
	Tradesmen/Assistant tradesman	61.47	62.23	17.9
	Labourer/Unskilled worker	40.38	42.48	5.2
	Labourer/Oliskined worker	40.36	42.40	3.2
Construction				
	Mason - Grade I	47.25	50.79	7.5
	Carpenter - Grade I	47.04	48.89	3.9
	Labourer/Helper	32.52	38.20	17.5
Wholesale, retail trade, repair of motor vehicles				
Wholesale trade				
	Salesperson/Sales representative	115.23	123.17	6.9

Wages include remuneration for normal time work inclusive of cost of living allowances and other guaranteed and regularly paid allowances

Table 5 (cont'd) - Average wage per hour of selected occupations by industry group (excluding General Government), September 2004 - September 2005

Industry group	Occupation	Average wage <sup>1</sup> per hour (Rs)		Change (%) 2004 to
	•	2004	2005	2005
Retail trade	Salesperson	47.56	49.94	5.0
Repair of motor vehicles	Garage mechanic - Grade I Panel beater - Grade I	43.11 <sup>2</sup> 33.99	44.90 35.16	4.2 3.4
Hotels				
	Receptionist Waiter Cook Maid/Servant	40.24 32.07 44.50 34.54	45.13 33.14 47.72 36.13	12.2 3.3 7.2 4.6
Transport, storage & communication				
Bus Transport	Bus driver Bus conductor	42.84 38.10	43.00 38.42	0.4 0.8
Communication	Telephone installer/Servicer Telephone operator Telecom technician	76.00 112.29 124.73	87.80 133.05 150.56	15.5 18.5 20.7
Financial intermediation				
Banks	Bank teller Clerk/Senior clerk Messenger	80.93 121.67 52.83	85.79 128.97 56.00	6.0 6.0 6.0
Insurance				
	Insurance clerk Clerk/Senior clerk	62.47 89.77	64.03 100.37	2.5 11.8

Wages include remuneration for normal time work inclusive of cost of living allowances and other guaranteed and regularly paid allowances

<sup>&</sup>lt;sup>2</sup> Revised

Table 5 (cont'd) - Average wage per hour of selected occupations by industry group (excluding General Government), September 2004 - September 2005

Industry group	Occupation	Average wage <sup>1</sup> per hour (Rs)		Change (%) 2004 to
		2004	2005	2005
Real estate, renting and business activities				
Accounting & auditing services				
	Accountant/Auditor Accounts clerk	210.52 40.83	221.05 43.28	5.0 6.0
Architectural & engineering services				
	Draughtmans Engineers	92.19 192.59	94.78 215.72	2.8 12.0
Private education services				
	Pre-primary education teacher Primary education teacher	51.18 134.68	55.79 140.58	9.0 4.4
	Education officer Cleaner/Caretaker	143.85 <sup>2</sup> 41.52	147.00 44.12	2.2 6.3
Private health services	Ovelified/Desfessional sugges	59.36	61.86	4.2
	Qualified/Professional nurse Nursing aid	39.36	31.64	3.2
Cleaning Services				
	Office/Building cleaner Scavenger/Garbage collector	19.82 19.93 <sup>2</sup>	22.04 18.67	11.2 -6.3

Wages include remuneration for normal time work inclusive of cost of living allowances and other guaranteed and regularly paid allowances

<sup>&</sup>lt;sup>2</sup> Revised

Table 6 - Average wage/salary per month of selected occupations in General Government, September 2004 - September 2005

Occupation	2004 (Rs)	2005 (Rs)	Change (%) 2004 to 2005
Ministries/Departments			
Medical and Health officer	36,672	38,586	5.2
Education officer	20,395	20,843	2.2
Nursing officer	13,474	13,715	1.8
Teacher/Senior teacher	14,929	15,056	0.9
Clerical officer/Higher clerical officer	10,521	10,597	0.7
Police constable	11,349	12,757	12.4
Mason	10,403	10,904	4.8
Carpenter	10,509	11,155	6.1
Driver	9,775	10,226	4.6
Hospital servant	8,946	8,943	0.0
Labourer	8,072	8,245	2.1
Municipalities/District Councils			
Inspector/Assistant Inspector (Health)	13,328	13,233	-0.7
Clerical officer	9,807	9,743	-0.7
Gardener	8,289	8,666	4.5
Mason	10,081	10,252	1.7
Carpenter	9,636	9,759	1.3
Driver	9,250	9,626	4.1
Refuse collector	7,262	7,502	3.3
Labourer	6,917	7,296	5.5

### Methodology used for the computation of the Wage rate index

### 1. Approach adopted and limitations.

Ideally to show genuine changes in the price of labour, it would have been necessary for wages of specific individual workers at specific establishments to be measured over time. Since this is practically impossible, the next best approach has been adopted, that is, to follow changes in the wages of groups of employees performing the same jobs. This gives a measure of changes in wage rates of specific occupations.

The following limitations as regards the approach adopted are to be noted:

- (i) any change in the mix of employees within the selected occupations is bound to affect the calculated rates and hence the corresponding sectoral indices. Such changes can occur, for example, with a new intake of employees in a specific group - when the wages of the new recruits pull down the average wages for the whole group from one period to the next.
- (ii) wage adjustments resulting from changes in the tasks associated with a particular occupation, which cannot be separated from pure price changes.
- (iii) it is difficult to separate the effects of productivity from the overall change.

#### 2. Index calculation

A Laspeyres type fixed base-weighted formula is used, where the occupational structure is held constant with reference to base year 2000. The changes in average wage rates are measured at the occupational level and the magnitude of these changes are then weighted to give a combined measure of the change for a given industry group. The following formula is used

$$I_{t} = \sum \frac{W_{i} (R_{it}/R_{io})}{\sum W_{i}} X 100$$

where  $I_t$  = index for year t compared to base year o for a given industry

 $W_i$  = weight of occupation i

 $R_{io}$  = wage rate of occupation i in base year o

 $R_{it}$  = wage rate of occupation i in year t

The aggregate indices for industry groups at higher level of classification or for all economic activities as a whole, are computed by taking a weighted average of the individual industry group indices.

# 3. Weightings

- (i) Census 2000 data on employment by occupation and wage rates at base year are used to determine the weighting pattern of occupations  $(W_i)$  for given industry groups.
- (ii) Distribution of earnings by industry group obtained at the March 2000 Survey of Employment and Earnings in large establishments is used as weights in the computation of aggregate indices for higher levels of industry groups or for all economic activities.