

# EMPLOYMENT PROFILE OF ICT SECTOR IN INDIA

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*This paper has focused on the analysis of employment profile of ICT sector, its contribution to national income, employment, export and quality of wages and employment. The results offer evidence of the remarkable contribution of ICT sector to the national income and export of the country. It is a predominantly urban dominated sector, however in rural areas the telecommunication segment of ICT does provide employment. In this sector more than 80 per cent are employed in formal segment and completely dominated by regular workers. About one-half of these workers are involved in public and corporate sector. Education plays an important role in the ICT sector employment, where graduates & above constitute more than 40 percent. In the new emerging sector of IT & ITES has also more than 67 per cent workforce are graduates & above. The wage level of ICT workers is higher than non-ICT workers. Wage inequality is comparatively higher among others (non-ICT) sector workers than ICT workers. The return to education in ICT sector is also far more equitable in comparison to non-ICT sector. The ICT sector deserves to be further promoted, as its growth has many positive consequences. The growth of ICT sector has lead to the emergence of a “New Economy” in the country. This “New Economy” has been a creator of new jobs for technical persons; major foreign exchange earner through exports; and attractor of foreign investment. These performances are conducive for higher national and regional economic development.*

## I. INTRODUCTION

Information, Communication and Technology (ICT) has become a significant component of growth for the country, during the last one and half decade. It has been debated frequently as to what the entire sector of ICT comprises of. There is no universally accepted definition of ICT, because the concepts, methods and applications involved in ICT are constantly evolving on an almost daily basis. It is thus difficult to keep up with all the changes since they occur so fast. Over the period the term ICT has been used in a different ways in different countries. For instance in India, it has been predominantly used to denote one particular sub-sector- software and IT enable services, which employ a substantial proportion of the total employment in the ICT sector in the country. In some others countries, the term may encompass communications or hardware sector.

The two international bodies of ILO and OECD have separately defined ICT, which are widely accepted all over the globe. The OECD approved definition given in 1998, includes the activity of manufacturing and services industries. Manufacturing industry includes hardware, central processing units (CPUs), communications equipment,

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electronic components and industrial control and supervision equipment manufacturing (not including medical equipment). Service industry includes telecommunications services, computer & related services (IT and software), research & development services and also start-up companies. The ISIC (International standard classification codes) manufacturing and services industries included in the ICT sector are given in the annexure1 that correspond with our NIC 1998 classification of industries. The International Labour Organisation (ILO) define ICT in their “World Employment Report, 2001”, ICT industry is divided into manufacturing (container) industries and service (content) industries: The manufacturing of telecommunications equipment, computers, semi-conductors and other electronic equipment, and the provision of telecommunication services, computer services and software define the core ICT sector (Annexure I).

In the recent articles on ‘ICT sector and regional economic development: Evidence from Karnataka State, M.R. Narayana (2005)’ also define Information and Communication Technology (ICT) sector, comprises both manufacturing and service activities. On the manufacturing side, it includes computer hardware (i.e. personal computers, notebooks, servers, printers and other peripherals), and telecommunication equipment and networks materials. ICT services include training of persons for manufacture and operations of computer equipment; use of computers in government, health, education and research, and financial services; use of computer technology for IT (information technology)- enabled services (e.g. call centres and medical transcription services); and telecom services (i.e. basic and value added services on narrow and broad bandwidth by fixed and mobile telephony). Further, ICT and electronics sectors are mutually complementary. Thus, ICT may be broadly defined to include IT, communication and electronics in manufacturing and/or service activities (Annexure II).

Other published article on ‘Structure of Employment in ICT sector in India: Emerging issues and Prospects, R.R. Biradar (2005, IJLE, Vol 48), has classified ICT sector into four main sectors, namely, ICT industry (ICT-Producing sector), ICT occupation (ICT-Using sectors); ITES; and outsourcing (BPO and KPO) sectors.

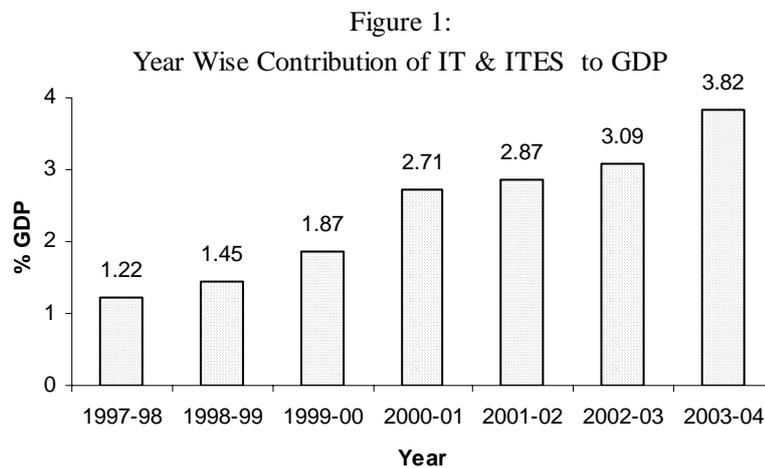
A lot of studies have done by various scholars on ICT sector. However, do not address ICT sector in a comprehensive way and have mainly focused on examining

the different aspects of India's software and services exports (Schware, 1992, Sen, 1995; Heeks, 1996, Kumar, 2001; Joseph and Harilal, 2001; Parthasarathy and Joseph, 2002, Kumar and Joseph, 2005).

This paper elaborates mainly on the employment profile of the ICT sector in India as well as its contribution to national income, employment and export of the country. It also focuses on the quality of employment and wages in this sector. The paper is divided into four major sections; section 2 focuses on ICT's contribution to the national income, Section 3 explores the sector's contribution to export, Section 4 analyses ICT's contribution to employment, Section 5 focuses on the earning of the workers, while the section concludes the paper along with some implications and insights.

## II. CONTRIBUTION TO NATIONAL INCOME

At present, contribution of ICT sector is not estimated at the national level (by the CSO) and at the State level (by the Directorate of Economics and Statistics). However, NASSCOM (National Association of Software and Service Companies) reported that the contribution of IT & ITES sector to the National Income has been growing consistently for the last one-decade.



Source: NASSCOM, India

As per the NASSCOM data, contribution of IT & ITES sector to the Indian GDP has gone up from about 1.2 per cent in 1997-98 to more than 3.8 per cent in 2003-04.

In contrast to the IT & ITES sector the share of the combined registered manufacturing industries has marginally declined. This only highlights the increasing importance of the IT & ITES sector to the Indian economy.

The coverage of ICT in our study is broader than the coverage as per NASSCOM. The contribution of different segments of ICT sector for the year 2001-02 is presented in following table 1.

Table 1: Contribution of ICT to GDP in 2001-02

Sector	GDP Originating in ICT (Rs Crores)	% Share in GDP
Manufacturing	5,357	0.39
Telecommunication	31,320	2.26
IT & ITES	21,482	1.55
ICT Sector	58,159	4.20

*Note: Detailed methodology is given in annexure III*

Compared to NASSCOM, IT & ITES sector's contribution to GDP is much smaller, only 1.55 per cent during 2001-02. The reason, to a great extent, lies in the fact that we have captured only the software segment in our calculation of IT & ITES sector contribution to GDP. However, even then the overall contribution of the ICT sector to GDP is much higher at 4.20 per cent.

### **III. CONTRIBUTION TO EXPORT**

The latest data reported by Department of Information Technology, Government of India in 2005 that the contribution of ICT in total export of the country during 2003-04 was around 21 per cent. During the year 2004-05, electronics and IT exports were estimated to be Rs. 86,230 crore, as compared to Rs. 65,940 crore in 2003-04, showing a phenomenal growth of 32 per cent.

The software and services industry continues to show a robust growth and the total value of software and services export are estimated at Rs. 78,230 crore (US\$ 17.2 billion) in the year 2004-05, as compared to Rs. 58,240 crore (US\$ 12.8 billion) in the year 2003-04, an increase of over 34 per cent in both rupee terms and dollar terms (Table 2).

Table 2: Electronic Exports (Financial Year)-Rs Cores

Item	1999-2000	2000-01	2001-02	2002-03	2003-04	2004-05
1. Consumer Electronics	300	648	700	750	825	1,150
2. Industrial Electronics	200	500	950	1,400	1,515	1,500
3. Computers	240	1,250	1,800	550	1,440	1,200
4. Comm. & Broadcast Equipments	50	550	150	500	165	350
5. Strategic Electronics	10	-	-	-	-	-
6. Components	600	1,840	2,200	2,400	3,755	3,800
Sub-Total	1,400	4,788	5,800	5,600	7,700	8,000
7. Computer Software	17,150	28,350	36,500	46,100	58,240	78,230
Total	18,550	33,138	42,300	51,700	65,940	86,230

Source: Website of Department of Information Technology, Government of India.

#### IV. CONTRIBUTION TO EMPLOYMENT

##### 1. Employment in ICT sector

The contribution of employment of ICT sector in total employment is very small, around 0.3 per cent of the total employment. The employment of ICT sector has been calculated from different data sources. Broadly there are two types of workers employed in the ICT sector, one organised and other unorganised employment. In the organised side manufacturing, ICT sector employment figure have been derived from the Annual Survey of Industries (ASI) data and unorganised from the Unorganised Manufacturing Survey data of the National Sample Survey. Similarly, services ICT data of organised sector has been calculated from Employment Review of Director General of Employment & Training (DGE&T) and unorganised services from unorganised services sector survey, 2001-02 of National Sample Surveys organisation.

The employment from different segments of the ICT sector derived from the enterprise survey of different years is presented below in table 3.

Table 3: Employment on the basis of Enterprise Survey

Sector	Organised	Unorganised	All
Manufacturing	241,199	60,502	301,701
Trade	4,143		4,143
Telecommunication	227,822	35,542	263,364
IT & Enabled Services	36,071	115,799	151,870
ICT Sector	509,235	211,843	721,078

*Note: Manufacturing refers to the year 2000-01, Organised service sector refer to the March 1998 and Unorganised Service sector refer to the year 2001-02.*

The ICT sector, according to the enterprise survey, employed around 7 lakhs persons, which constitutes a miniscule of the total employment in the economy (in 1999-2000 by Usual Principal Status there were 32.47 crores of workers in India).

As information collected from different segments of the enterprise survey refer to different years, the employment estimates cannot be referred to a certain year. So, we decided to have an alternative estimate on the basis of 55<sup>th</sup> round (1999-2000) employment survey based on household questionnaire. The employment estimates obtained from 55<sup>th</sup> round employment survey is presented in table 4.

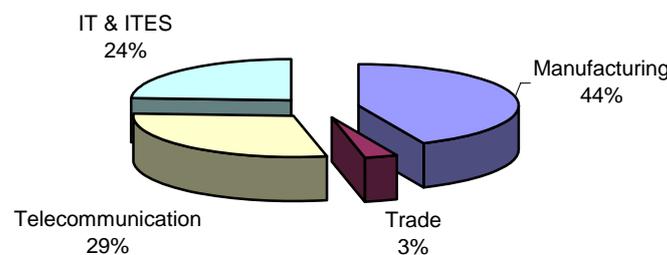
Table 4: Employment in ICT Sector on the Basis of Household Survey (1999-2000)

Sector	Rural	Urban	Total	% Share of rural
Manufacturing	54,766	416,305	471,071	11.63
Trade	1,151	34,644	35,795	3.22
Telecommunication	118,390	199,135	317,525	37.29
IT & ITES	13,688	249,393	263,081	5.20
Total	187,995	899,477	1,087,472	17.29

*Note: Employment includes that of Usual Principal Status Workers only.*

The employment figure obtained from household survey is substantially larger, which is more than ten lakhs (Table 4). The rural areas have substantial employment in telecommunication segment only. However, other segments of ICT are completely dominant in the urban areas. In the rest of the paper, we will restrict ourselves to national sample survey, employment and unemployment round database for the year 1999-2000 only.

Figure 2: Distribution of Employment within ICT



In contrast to the general perception, a substantial part of employment is in the manufacturing sector (Figure 2) of total ICT sector. Employment in IT gets captured

in industrial classification but there is no distinct industrial code specified for IT enabled services. Therefore it might not have been properly captured.

What kind of employment does ICT sector generate?. Figure 3 captures this dimension by depicting share of formal and informal sector in ICT employment. It shows that more than 80 per cent of total employment is involved in formal segment of ICT sector, which is highest in telecommunication and lowest in trade segment (Table 5).

Table 5: Employment in ICT Sector on the Basis of Household Survey (1999-2000)

Sector	Rural	Urban	Total	% share of rural
Manufacturing	54,766	416,305	471,071	11.63
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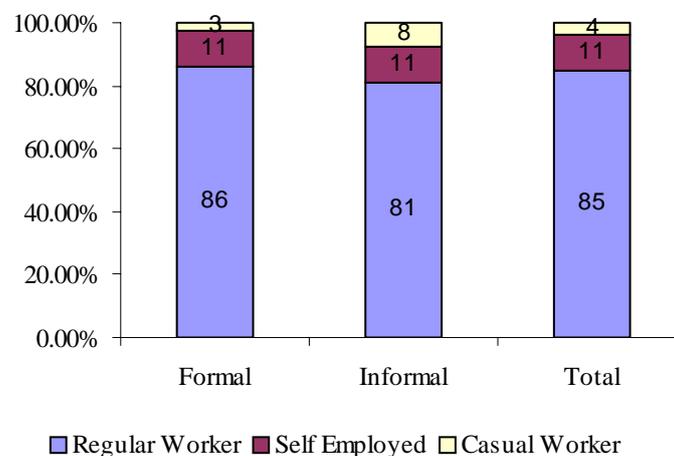
*Note: Formal Sector is defined as follows:*

1. Include all workers belonging to public & corporate sector.
2. Include all workers working in enterprises employing 10 or more workers.
3. Exclude workers in manufacturing working in enterprises employing 10-19 workers without electricity.
4. Include self-employed with degree higher secondary & above.
5. For basic telecom services (code 64201), we have included employees belonging to public and corporate sector. They all belong to formal sector.

## 2. Quality of Jobs in ICT Sector

We have seen in the earlier section that the ICT sector is overwhelmingly formal. So, it is imperative to look at the quality of jobs created in the ICT sector.

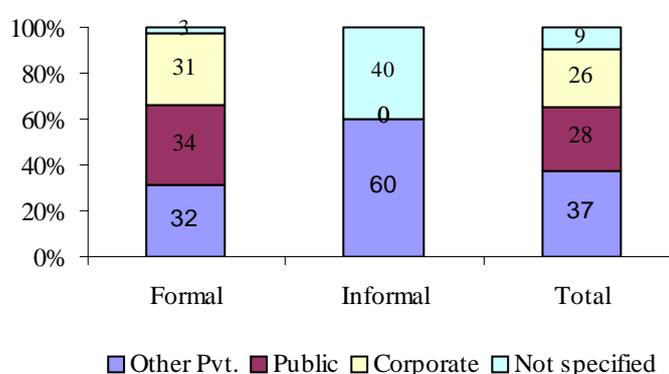
Figure 3: Employment Status in ICT Sector



ICT sector is completely dominated by regular workers. Casual workers constitute a small proportion of employment. In this respect it is quite different from any other sector in India (Figure 3).

This can be attributed to a great extent on the ownership structure of the ICT sector. Even taking ICT sector as a whole (formal and informal together) public and corporate sector constitute more than one-fourth each in total employment, thus together accounting for more than half of total employment. The presence of public and private corporate sector differs substantially in various segment of the ICT sector.

Figure 4: Distribution of Employment by Type of Ownership in ICT Sector



In the manufacturing segment both public and corporate sector have a significant presence. In telecommunication, public sector completely dominates whereas in IT & ITES, corporate sector have a substantial presence (Table 6).

Table 6: Share of Public and Corporate Sector in Employment

Sector	Pubic	Corporate
Manufacturing	34.38	24.08
Trade	0.00	0.00
Telecommunication	72.54	7.08
IT & ITES	5.14	37.27
Total	27.70	25.61

### 3. Educational Profile of ICT Sector Employees

ICT sector is basically part of the knowledge economy, where education plays an important role in employment. In the overall employment in ICT, graduates & above constitute more than 40 per cent. Secondary and higher secondary also constitute a substantial proportion (19 per cent each) in the total ICT employment.

Table 7: Employment in ICT by Educational Status

Educational Qualification	Self Employed	Regular Worker	Casual Worker	Total
Up to Primary	2.75	9.03	18.73	8.71
Middle	3.78	8.97	12.18	8.52
Secondary	13.56	19.30	40.34	19.47
Higher Secondary	27.13	17.96	17.00	18.94
Graduation & above in engineering	15.81	9.21	4.07	9.74
Graduate & above in other subjects	36.98	35.53	7.68	34.62
Total	100.00	100.00	100.00	100.00

Interestingly, self-employed personnel are relatively more qualified than regular workers with more than half of the former having graduate & above degrees.

Table 8: Share of Graduate & above in different segment of ICT

Sector	% Share of graduate & above
Manufacturing	29.58
Trade	74.77
Telecommunication	28.54
IT & ITES	67.27
Total	44.37

The trade segment, a small section of ICT, with no public and corporate sector presence has the highest proportion of educated workers – three-fourth of all workers are graduate & above. New emerging ICT segment, IT & IT enables services has also substantial share of graduate and above i.e. more than 67 per cent.

## V. EARNINGS OF THE WORKERS

### 1. Earnings of the Regular Worker

In this section comparison between daily wages of regular workers in ICT and other (non-ICT) workers has been made. To make the comparison more meaningful, we have limited the database to four groups at one-digit level NIC 1987 classification, which have an ICT sector presence. These are manufacturing, transport, storage & communication services, trade and financial, insurance & business services.

Table 9: Average Daily Wage Rate of Regular Workers in Formal & Informal Sector

	Formal	Informal	Total
Manufacturing			
ICT	182	157	178
Others	141	93	127
All	142	94	129
Services			
ICT	243	150	227
Others	201	85	146
All	202	86	149
All			
ICT	214	153	204
Others	168	88	138
All	170	89	139

It is clear from the above table (table 9) that the wage level of ICT workers is higher than other workers. The gap of wages between ICT and other workers are higher in services segment than in manufacturing. Even within the service segment, the difference of wage level is higher in the formal part of the service segment than informal.

It is widely discussed in literature that workers in the ICT sector earn much more than non-ICT sector workers. The comparative wage rate by type of enterprise ownership, public, corporate and private is presented in table below (table 10). It can be seen that workers in the corporate segment in ICT sector do not get very high wages than public sector segment. However, in the service segment of the ICT sector, corporate sector workers get much higher wages than public sector workers.

Table 10: Average Daily Wage Rate of Regular Workers across by Type of Enterprises

	Public	Corporate	Private	All
Manufacturing				
ICT	224	156	135	178
Others	232	169	94	127
All	231	169	94	129
Services				
ICT	243	304	153	227
Others	239	210	87	146
All	239	217	89	149
All				
ICT	232	236	146	204
Others	238	182	90	138
All	237	184	91	139

*Note: Non-specified is not presented.*

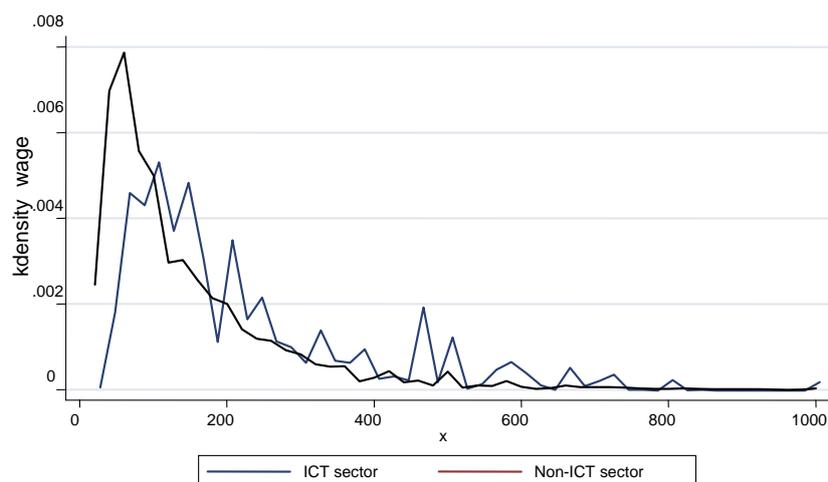
It is presumed that workers with higher qualification in ICT are reaping higher wages or salary. To get a clear idea the wage differential at different levels of education has been calculated and presented in the table below (table 11).

Table 11: Average Daily Wage of Regular Workers across Level of Education

Level of Education	Manufacture		Services	
	ICT	Other	ICT	Other
Up to Primary	103	83	108	89
Middle	115	92	136	99
Secondary	176	124	160	136
Higher Secondary	180	186	162	157
Graduate & above	227	255	281	271
Total	178	127	227	146

Contrary to the general perception, workers with graduate & above degree get only marginally higher wages in the service segment of ICT compared to other service sector workers. Rather workers with lower levels of education get relatively higher wages in ICT sector compared to other workers in the other (non-ICT) service segment. The kernel distribution of regular workers between ICT and other workers in the service segment makes this point more clear.

Figure 5: Kernel Distribution Graphs of Service Segment of Regular Workers



The modal point of wages of ICT workers lies to the right of other workers, implying higher concentration. However, we can also observe several peaks in ICT workers at higher level of wages which is not seen in the case of other workers (which is quite

flat) reflecting higher wages received by larger proportion of ICT workers. To examine this phenomenon in more detail, inequality exercise has been done.

## 2. Inequality in Wages

To measure the inequality in wages, different inequality measures are presented below:

Table 12: Inequality Measurement

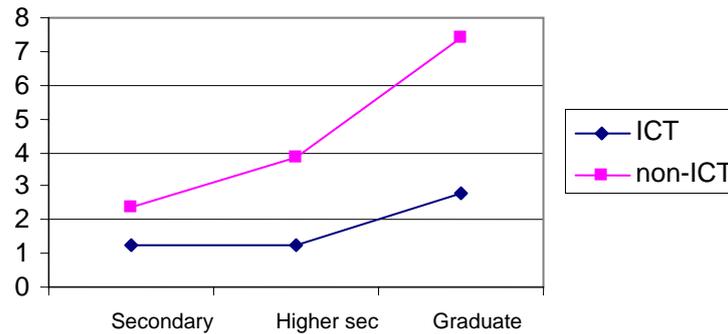
Sector	GE(0)	GE(1)	GE(2)	Gini
ICT	0.23477	0.2325	0.28042	0.37495
Others	0.31754	0.34576	0.56619	0.43574

*Note: GE(0) mean log deviation, GE(1) is Theil index, GE(2) is half squared coefficient variation and Gini is Gini coefficient.*

The Gini coefficient shows that inequality is comparatively higher among others (non-ICT) sector workers. Inequality trends according to Generalised Entropy measures depend on the measure used because of the different weights given to different parts of the wage distribution. Inequality by all three types of Generalised Entropy measures shows that inequality is higher among other workers. It is relatively higher in case of GE(2) that gives higher weightage to upper half of the distribution reflecting much higher level of inequality particularly in the upper half for workers belonging to other (non-ICT) sector. This finding is quite contrary to the general perception that a small section of ICT workers get much higher wages compared to small sections in other sectors of the Indian economy. As a whole, wage distribution is far more equitable in ICT sector than other sectors.

However, this is a very general measure. It does not control for various attributes that are likely to be quite different in different sectors. A regression analysis has been performed to see the relative return to education by controlling various attributes. After controlling sector, location, age, sex and formal sector, relative return to education is calculated (figure 6). This shows that return to education in ICT service is far more equitable in comparison to the non-ICT sector.

Figure 6: Relative Returns to Education (with respect to. middle school)



In ICT, return to graduates is 2.78 times than that of middle school, whereas in non-ICT sector it is 7.4 times than middle school. Detailed regression results are given in annexure IV.

## VI. CONCLUSION

This paper has focused on the analysis of employment profile of ICT sector, its contribution to national income, employment, export and quality of wages and employment. This analysis leads to the following conclusions and implications.

At present, contribution of ICT sector is not estimated at the national level by the CSO and at the State level by the Directorate of Economics and Statistics. However, (NASSCOM, reported only IT & ITES sector), this paper has developed a simple framework for estimation of this contribution from within the available data. This framework is useful to separate the contribution of ICT sector by manufacturing and service activities (i.e. by telecom and IT services). The results of these estimations offer evidence of the remarkable contribution of ICT sector to the national income. This underlines the importance of ICT sector to the economic development of the country.

The contribution of the ICT sector to exports in total export of the country in terms of revenue is around one-fifth, which again reflects its growing importance. So, the ICT sector deserves to be further promoted, as its growth has many positive consequences. The growth of ICT sector has led to the emergence of a “New Economy” in the country. This “New Economy” has been a creator of new jobs for technical persons; major foreign exchange earner through exports; and attractor of foreign investment.

These performances are conducive for higher national and regional economic development.

The proportion of ICT employment to total is still very minimal, which have seen by different sources. It is a predominantly urban dominated sector, however in rural areas the telecommunication segment of ICT does provide employment. In contrast to the general perception, substantial part of employment is in the manufacturing sector. In ICT sector more than 80 per cent are employed in formal segment and completely dominated by regular workers. About one-half of these workers are involved in public and corporate sector. Education plays an important role in the ICT sector employment, where graduates & above constitute more than 40 percent; interestingly self-employed workers are relatively more qualified than regular workers. The new emerging sector of IT & ITES has also more than 67 per cent workforce, who are graduates & above.

Finally earnings are the ultimate outcome, which reflect the true value of job in any sector. The wage level of ICT workers is higher than non-ICT workers. The gap of wages between ICT and other workers are higher in services segment than in manufacturing. The difference of wage level is higher in formal part of the service segment. Workers in corporate segment in ICT sector do not get very high wages than non-ICT sectors. However, in the service segment of ICT sector, the corporate sector workers get higher wages than the public sector workers. Contrary to the general perception, workers with graduate & above degree get marginally higher wages only in service segment of ICT compared to other (non-ICT) workers. Rather workers with lower level of education gets relatively higher wages in ICT sector compared to other workers in service segment. Wage inequality is comparatively higher among others (non-ICT) sector workers than ICT workers. The return to education in ICT sector is also far more equitable in comparison to non-ICT sector.

Further, growth and widespread utilization of ICT services are contributory to human development, as evident in UNDP's Human Development Report 2003 [UNDP (2003)]. Thus, growth of ICT sector is important to enhance and strengthen the international competitiveness of India.

To conclude, ICT sector has many indirect effects on economic growth, such as, growth of productivity of workers, and efficiency of ICT-using industries and services. Analysis of these effects require, among others, a disaggregate analysis at the industry and/or firm level. This is an area of our future research agenda on ICT sector.

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## Annexure I

**The OECD ICT Sector definition approved in 1998:** The principles underlying the choice of the activities included in the ICT sector definition:

**For manufacturing industries,** the products of a candidate industry: It must be intended to fulfil the function of information processing and communication including transmission and display, or must use electronic processing to detect, measure and/or record physical phenomena or to control a physical process.

**For services industries,** the products of a candidate industry: It must be intended to enable the function of information processing and communication by electronic means.

The ISIC (International standard classification) industries included in the ICT sector:

### **Manufacturing:**

3000: Office, accounting and computing machinery

3130: Insulated wire cable

3210: Electronic valves and tubes and other electronic components

3220: Television and radio transmitters and apparatus for line telephony and line telegraphy

3230: Television and radio receivers, sound or video recording or reproducing apparatus and associated goods

3312: Instruments and appliances for measuring, checking, testing, navigating and other purposes except industrial process equipment

3313: Industrial process equipment

### **Trade:**

5150: Wholesale of machinery, equipment and supplies (part only, where possible)

### **Services:**

6420: Telecommunications

7123: Renting of office machinery and equipment (including computers)

72: Computer related activities

*Source: OECD (1998), DSTI/ICCP/AH/M(98)1/REV1*

## Annexure II

In our study we have gone up to 5-digit classification and included/excluded certain activities from ICT sector. Therefore, our definition is more restrictive than OECD definition.

The following 5-digit codes have been included/excluded in our ICT definition:

*Under 4-digit code 6420 excluded:*

64201: Telephone, telex and telegraph (including STD booths)

We have excluded workers falling outside public sector and corporate sector. Most of these are private operated STD booths employing large number of people under principal and subsidiary capacity.

64204: Activities of Cable Operators. It is excluded.

*Under 4-digit code 5150 included:*

51506: Wholesale of Office Machinery & Equipment

Excluded were codes 51501, 51502, 51503, 51504, 51505 and 51507.

*Under 4-digit code 5239 included:*

52392: Retail Sale of Computer and Non-customised Software.

Excluded were codes 52391, 52393, 52394, 52395, 52396, 52397, 52398 and 52399.

### Annexure III

#### Calculation of GDP from ICT Sector for 2001-2 (Rs. Crore in constant 1993-94 prices)

1.	33,637	Gross Earnings from Public Sector Telephone & Overseas Communication Services
2.	27,948	after reducing '1' by 0.1691 per cent to account for intermediate consumption and arrive at GDP originating from this sector
3.	3,372	GDP originating from Private sector Communication
4. (2+3).	31,320	GDP originating from Telecommunication
5.	44,600	Software output at Current prices
6.	37,056	after reducing '5' by 0.1691 per cent to account for intermediate consumption and arrive at GDP originating from this sector
7.	21,482	at constant 1993-94 prices after using implicit deflator of 172.5 for financial services
8.(4+7)	52,802	GDP originating from Telecommunication & Software Services

9.	7,807	GDP originating from organised manufacturing at current prices
10.	261	GDP originating from unorganised manufacturing at current prices
11. (9+10)	8,068	GDP originating from manufacturing at current prices
12.	5,357	GDP originating from Manufacturing at constant prices after deflating by 1.506 (implicit deflator of manufacturing sector)

13.(8+12)	58,159	<b>GDP from ICT sector at Constant Prices</b>
14.	4.20	<b>Share of GDP from ICT sector after dividing ICT GDP with all-India GDP of Rs. 1383705 crores in 2001-02</b>

Source:

1. GDP originating from telecommunication is obtained from National Accounts Statistics 2005.
2. GDP originating from Software is calculated from Output of software sector obtained from website of department of Electronics, Govt. of India.
3. GDP originating from organised and unorganised manufacturing is obtained from Annual Survey of Industries (ASI) 2001-02 and Unorganised Manufacturing Survey of 2000-01 undertaken by NSS respectively.

### Annexure IV

#### ICT sector – Regression Results

Source	SS	df	MS	Number of obs	=	4.83E+05
				F( 14, 366)	=	14.29
Model	70.63	14	5.04	Prob > F	=	0
Residual	129.24	366	0.35	R-squared	=	0.3534
				Adj R-squared	=	0.3286
Total	199.87	380	0.53	Root MSE	=	0.5942

Log (wage)	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
urban areas	0.2422	0.1102	2.2	0.029	0.0255	0.4590
age in years	0.0302	0.0047	6.4	0.000	0.0210	0.0395
male	0.2100	0.0851	2.5	0.014	0.0426	0.3773
ne (region)	-0.4039	1.6556	-0.2	0.807	-3.6596	2.8519
east (region)	-0.1501	0.1236	-1.2	0.225	-0.3930	0.0929
south (region)	0.0171	0.0767	0.2	0.824	-0.1337	0.1678
nw (region)	0.1723	0.0901	1.9	0.057	-0.0049	0.3494
formal sector	0.2913	0.0845	3.5	0.001	0.1251	0.4574
middle	0.3749	0.1818	2.1	0.040	0.0174	0.7324
secondary	0.4625	0.1824	2.5	0.012	0.1038	0.8211
higher secondary	0.4639	0.1828	2.5	0.012	0.1044	0.8234
graduate	1.0399	0.1655	6.3	0.000	0.7145	1.3653
transport sector	0.3241	0.2304	1.4	0.160	-0.1290	0.7772
finance sector	0.3385	0.2250	1.5	0.133	-0.1040	0.7809
constant	2.4362	0.3172	7.7	0.000	1.8123	3.0600

#### Non-ICT Sector-Regression Results

Source	SS	df	MS	Number of obs	=	1.66E+07
				F( 14, 13285)	=	1072.68
Model	4347.82	14	310.56	Prob > F	=	0.00
Residual	3846.24	13285	0.29	R-squared	=	0.53
				Adj R-squared	=	0.53
Total	8194.06	13299	0.62	Root MSE	=	0.54

Log (wage)	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
urban areas	0.1639	0.0109	15.0	0.000	0.1424	0.1853
age in years	0.0252	0.0005	52.6	0.000	0.0243	0.0262
male	0.1120	0.0199	5.6	0.000	0.0729	0.1510
ne (region)	0.1056	0.0408	2.6	0.010	0.0255	0.1856
east (region)	-0.0700	0.0173	-4.1	0.000	-0.1039	-0.0361
south (region)	-0.1262	0.0113	-11.2	0.000	-0.1484	-0.1041
nw (region)	0.0363	0.0131	2.8	0.006	0.0106	0.0620
formal sector	0.3819	0.0105	36.3	0.000	0.3613	0.4025
middle	0.0938	0.0140	6.7	0.000	0.0664	0.1212
secondary	0.2207	0.0137	16.1	0.000	0.1938	0.2475
higher secondary	0.3624	0.0176	20.6	0.000	0.3279	0.3969
graduate	0.6956	0.0158	44.2	0.000	0.6648	0.7265
transport sector	0.2398	0.0111	21.6	0.000	0.2180	0.2615
finance sector	0.3188	0.0150	21.3	0.000	0.2895	0.3481
constant	2.9925	0.0283	105.8	0.000	2.9371	3.0480