

Measuring the Indian ICT Sector - An Initiative of

the
**Ministry of Statistics and Programme
Implementation**

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Payal Malik

Associate Professor of Economics, Delhi University

Lakshmi Godavarkar

**DDG, Ministry of Statistics and Programme Implementation (MoS&PI),
Government of India**

BACKGROUND

- India's ICT capabilities major driver of growth
- ICT and development linkages recognised by policy
- Pressing need for reliable data
- Reliable data on different aspects of this industry difficult to obtain
- ICT diffusion creating a demand for consistent concepts, definitions across countries and over time

STATUS

- Existing data remains sketchy
- Industry data inadequate and not representative
- Several statistics have been produced
- Not necessarily in alignment with any international classification system.
- ICT services comprise a large chunk of ICT revenue in India; hardly any robust data on Value Added
- Revenue data only from the line ministry
- Industry estimates: Indian IT and ITES exports have risen from US\$ 17.7 billion in 2004-05 to an estimated figure of US\$ 46.3 billion in 2008-09 (CAGR 27.7%)

Current institutional arrangement for ICT statistics in India

- Many Ministries and departments engaged in data collection and compilation
 - Ministry of Communication & IT (Administrative by-product)
 - Ministry of Commerce & Industry (Foreign trade)
 - Ministry of Labour & Employment (Work force, NCO)
 - RBI (Trade)
 - Others (NASSCOM, CMIE, NCAER, etc.)

Finally,

- MoS&PI (Annual Survey of Industries (ASI), Economic Census and follow-up surveys, National Accounts Statistics, NSSO)

Orbicom-MoSPI initiative

- The Impetus for this Project
 - Work on statistical compilations stumbles on data shortages.
- MoSPI attempts to formally present systematic and internationally comparable data on the ICT sector from the extant official data
- Definition and scope of ICT sector as recommended by UNSD have been adopted for the compilation (ISIC Rev.4)
 - Appropriate Concordances done to harmonize data

Project outcomes

- Broaden existing horizons in ICT research, largely focusing on telecoms
- Push the frontiers of quantification through official statistics
- Cross-fertilize and bridge research communities
- Contribute to international efforts and enhance data comparability across countries

Indicators to be compiled

- Value added in the ICT manufacturing sector
- Value added in the ICT service sector
- Employment in the ICT manufacturing sector
- Employment in the ICT service sector
- Other indicators
 - International trade
 - Export
 - Import
 - R&D

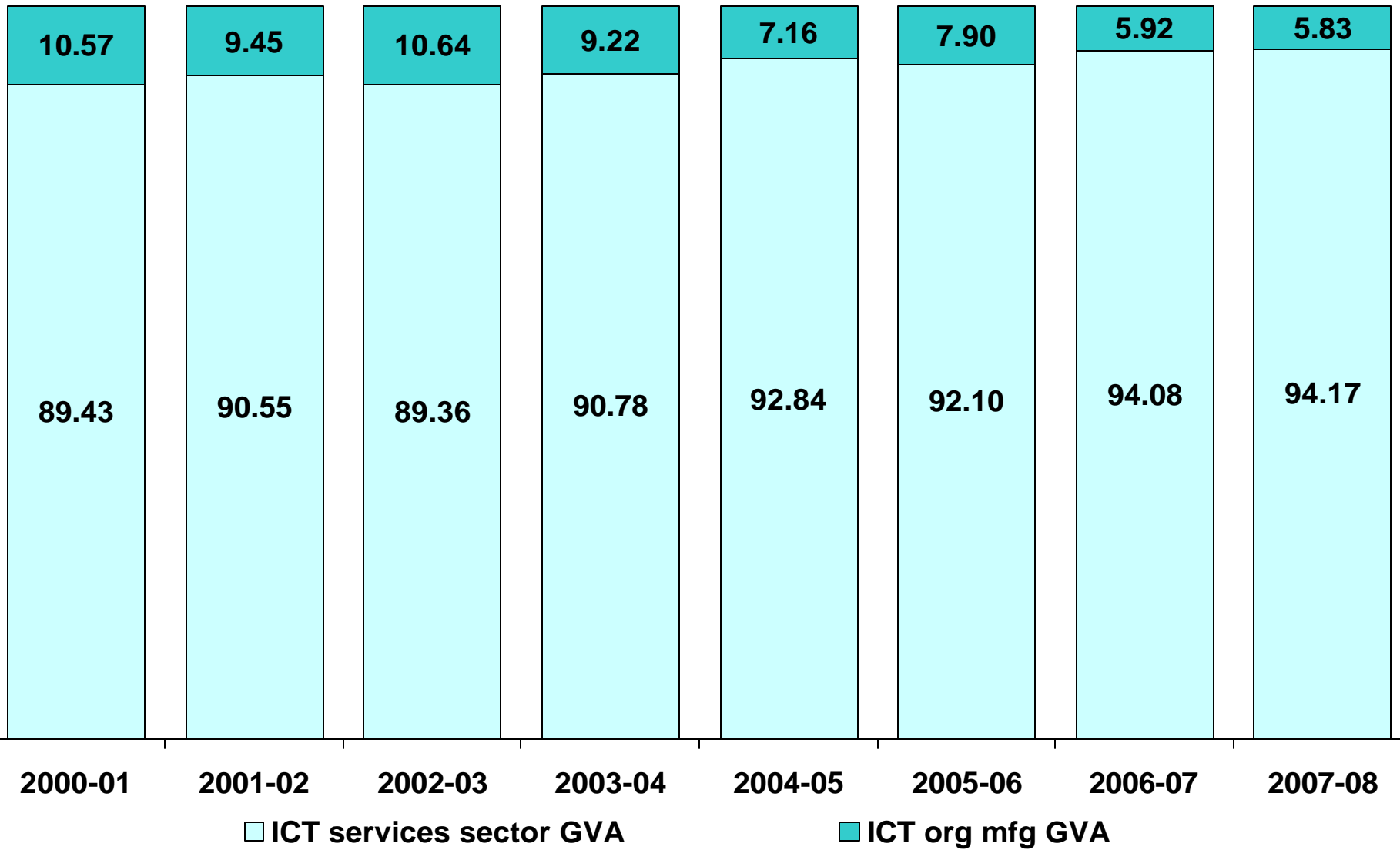
Denominators to be used...

- Total Gross Domestic Product (GDP)
- Total Services sector GDP
- Total manufacturing sector's GDP
- Total employment in service sector
- Total employment in manufacturing sector
- Total exports
- Total Imports
- Total R&D expenditure

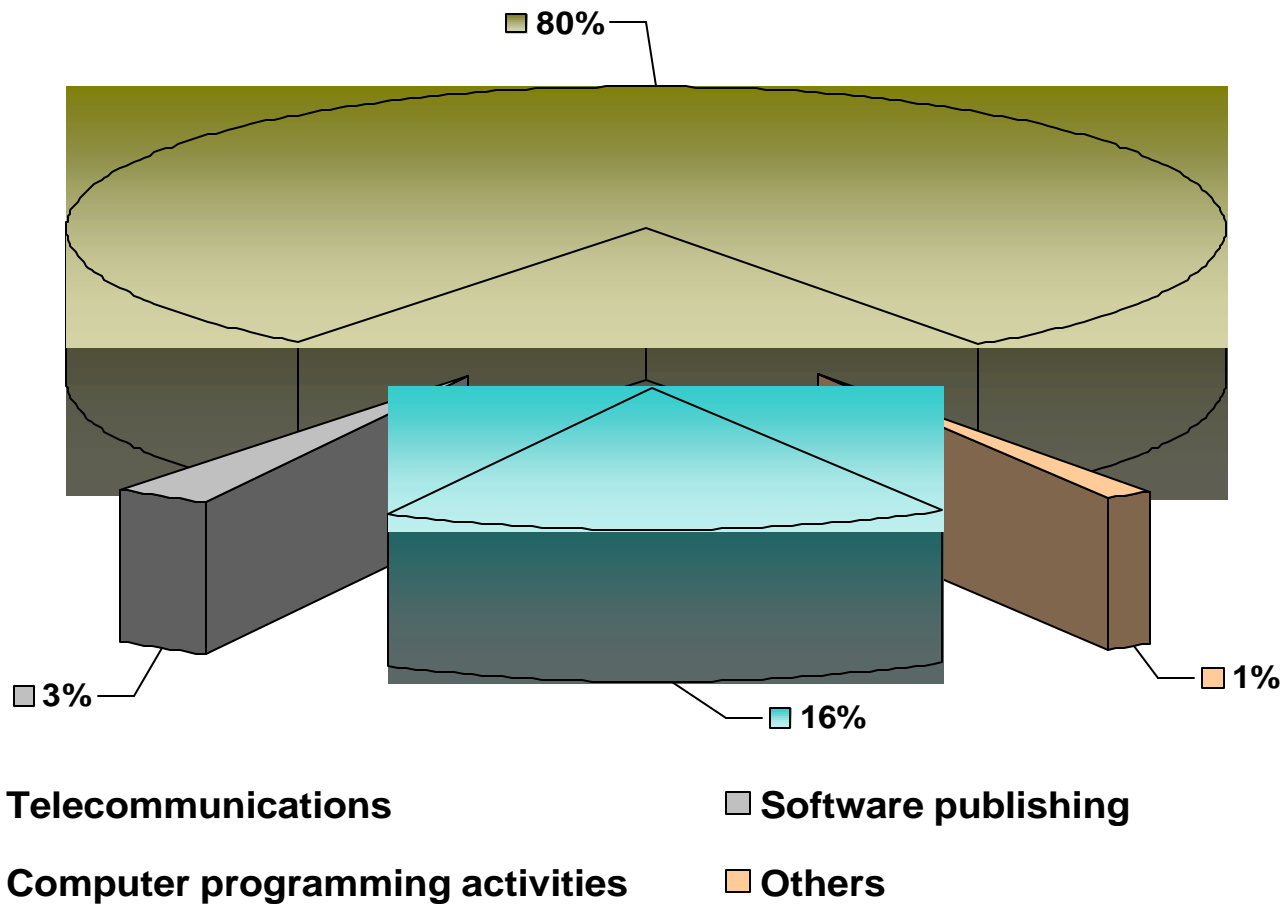
Gross Domestic Product (GDP) of ICT Sector in India

	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
A. GDP at factor cost	19250	20977	22614	25382	28777	32824	37794	43209
(i) computer related Services (in brackets: % of total ICT service)	269(46)	339(47)	414(52)	546(55)	708(57)	918(59)	1178(61)	1452(61)
(ii) Communication (in brackets: % of total ICT service)	318(54)	381(53)	376(48)	450(45)	536(43)	630(41)	763(39)	931(39)
B. Total ICT services sector GDP (i) + (ii)	587	720	790	996	1244	1548	1941	2383
C. ICT org mfg GVA	69	75	94	101	96	133	122	147
D. Total ICT Sector GDP (B) + (C)	656	795	884	1097	1340	1681	2063	2530
E. Manufacturing sector GDP	3004	3153	3460	3885	4536	5194	6180	7311
F. Services sector GDP	9713	10796	11909	13399	15142	17173	19848	24042
G. Share of ICT mfg to mfg sector GDP (in %)	2.3	2.4	2.7	2.6	2.1	2.6	2.0	2.0
H. Share of ICT services GDP to Services sector GDP (%)	6.04	6.67	6.63	7.43	8.22	9.01	9.78	9.91
I. Share of ICT sector to total GDP (in %)	3.41	3.79	3.91	4.32	4.66	5.12	5.46	5.86
J. Share of ICT services to total GDP (in %)	3.05	3.43	3.49	3.92	4.32	4.72	5.14	5.52
K. Share of ICT mfg to total GDP (in %)	0.36	0.36	0.42	0.4	0.33	0.41	0.32	0.34
L. Share of ICT mfg to total ICT GDP (in %)	10.5	9.4	10.6	9.2	7.2	7.9	5.9	5.8
M. Share of ICT services to total ICT GDP (in %)	89.5	90.6	89.4	90.8	92.8	92.1	94.1	94.2

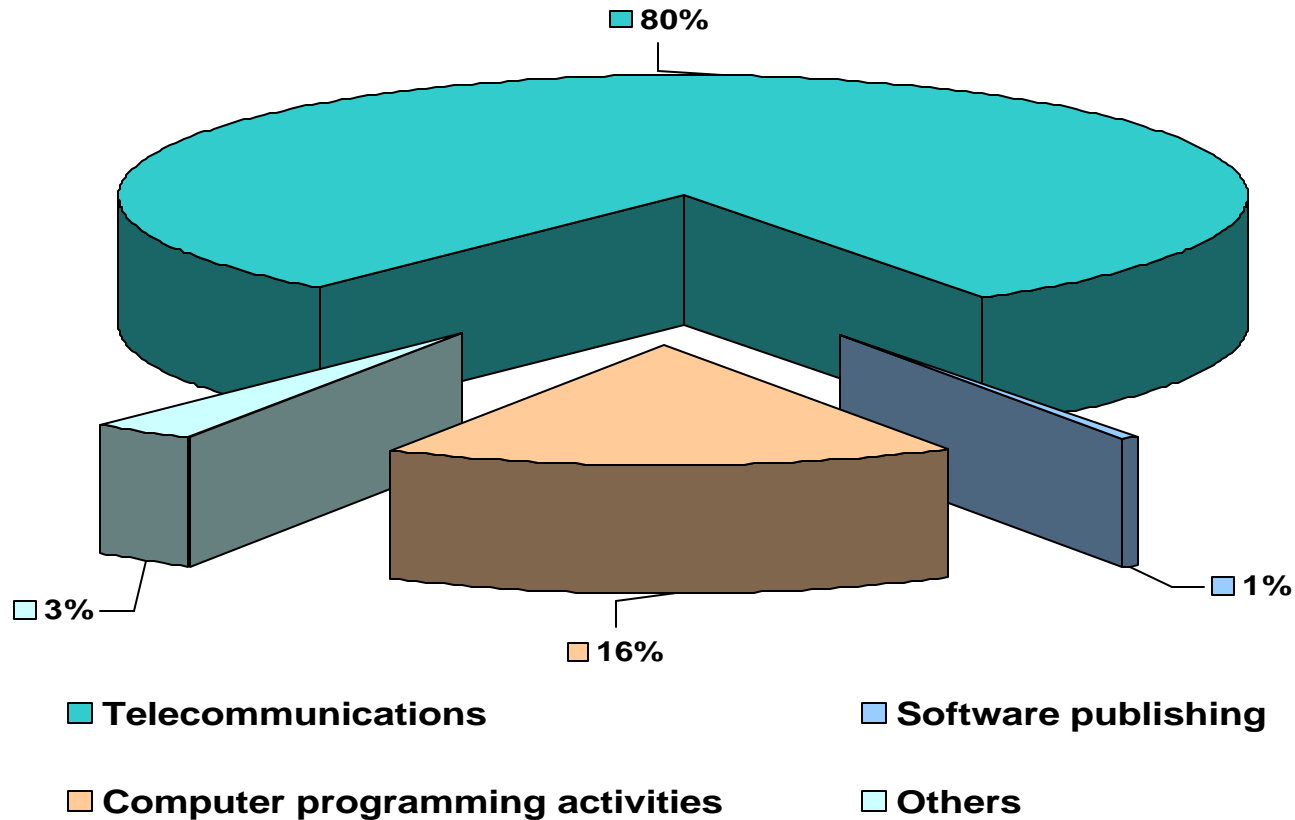
Share of ICT service & mfg in total ICT secto GVA (in %)



Distribution of ICT Services GVA 2006-07

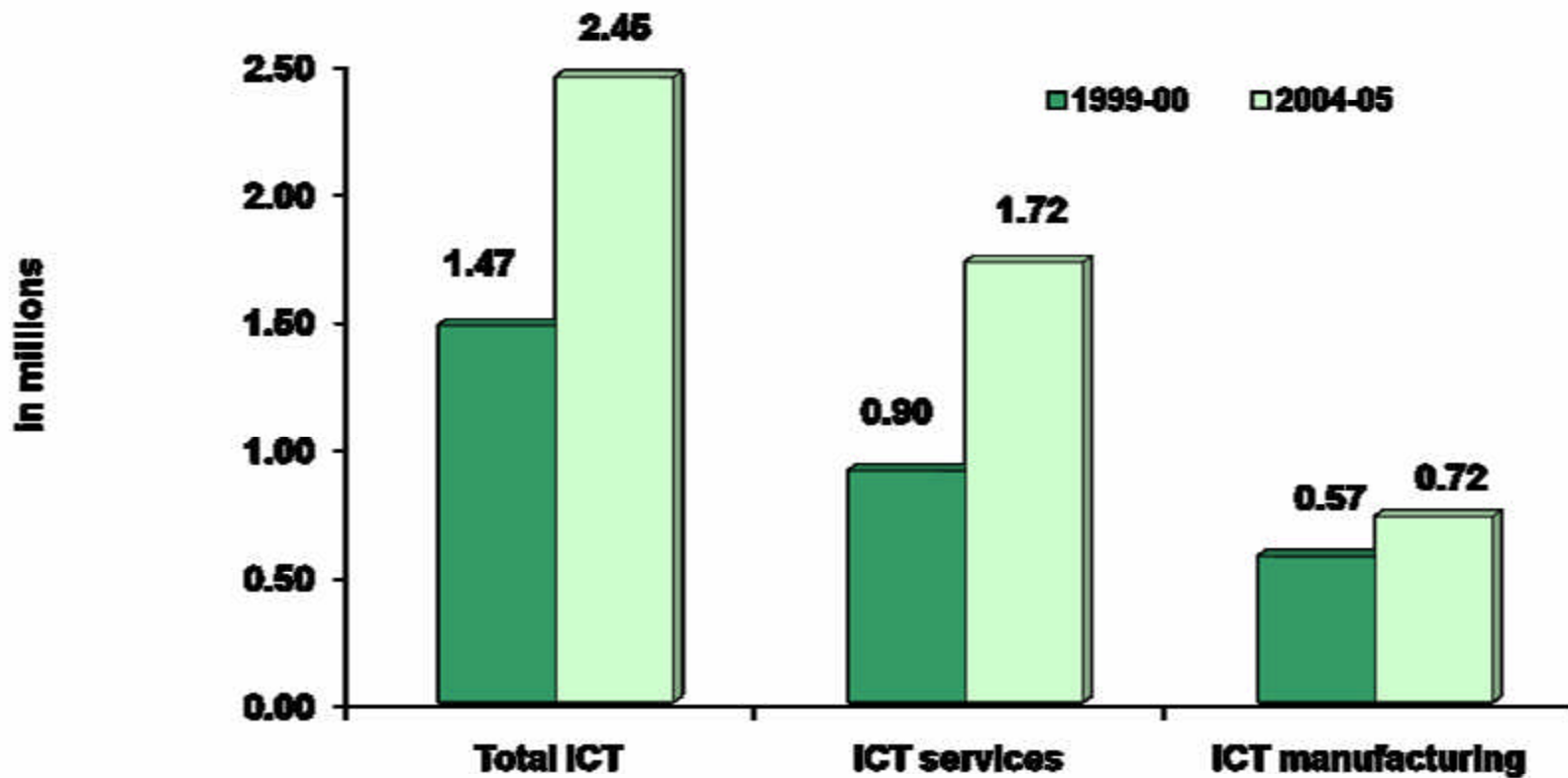


Distribution of workforce of ICT service industries 2006-07

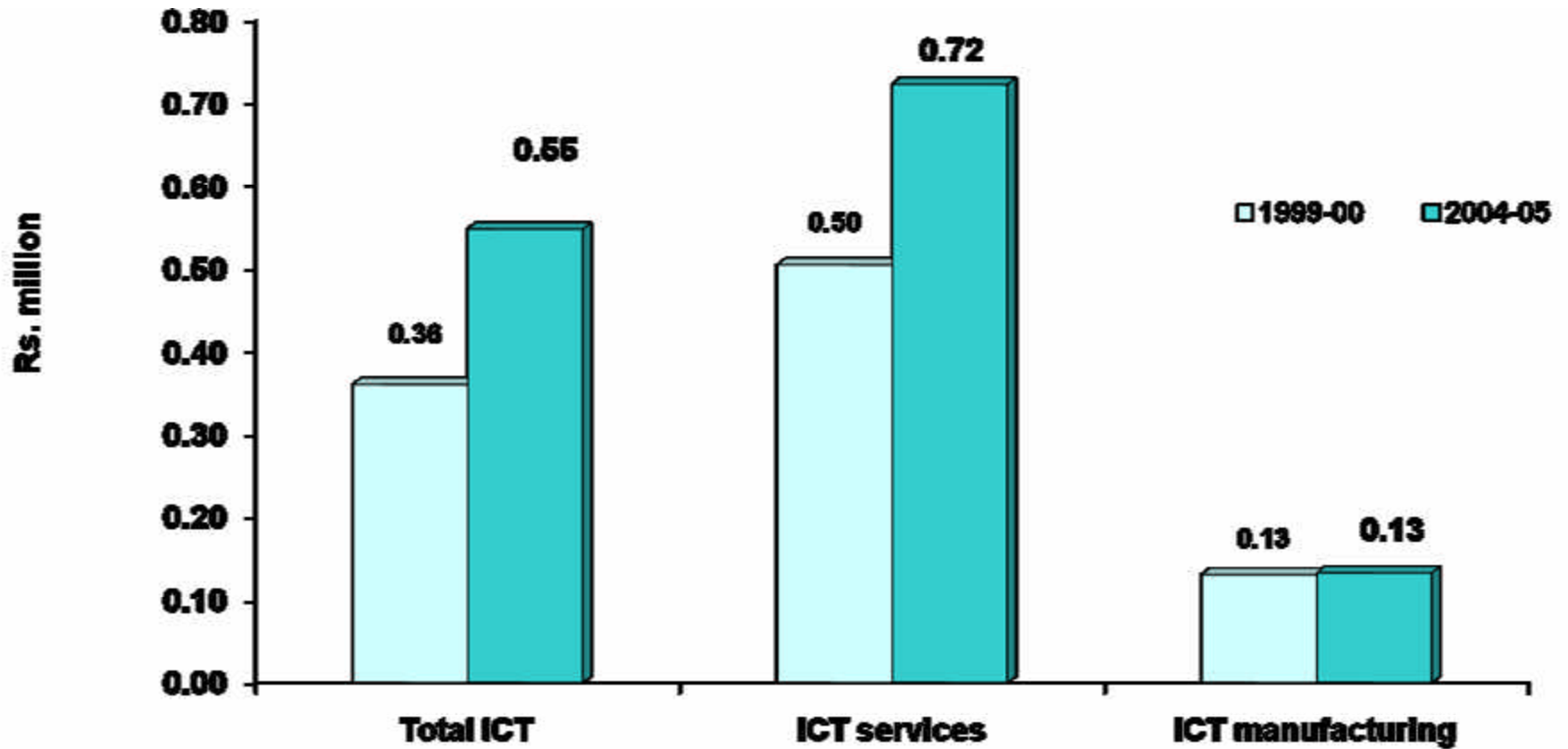


Employment

ICT Sector Employment



ICT Sector Productivity



Other initiatives

- Annual Survey of Industries (ASI) has updated its schedule to include information on ICT.
- NSSO has also updated its schedule to gather ICT related information
- Census of India will have data on telephone and computer ownership and internet access

Annual Survey of Industries (ASI)

- ASI has recently included following questions on ICT usage:
 - Is the enterprise using the computer?
 - Does the enterprise uses internet?
 - Does the enterprise has its own website?
 - Does the enterprise receive orders through internet?
 - Does the enterprise use internet for business purpose?
 - Does the enterprise access the internet through broadband?
 - Does the enterprise has a local area network?

Basic Core Indicators on Access to, and Use of, ICT by Businesses

Proportion of businesses using computers	ASI
Proportion of employees using computers	N/A
Proportion of businesses using the Internet	N/A
Proportion of employees using the Internet	N/A
Proportion of businesses with a Web presence	N/A
Proportion of businesses with an intranet	N/A
Proportion of businesses receiving orders over the Internet	N/A
Proportion of businesses placing orders over the Internet	



oAs evident quite a huge gap in the availability of these indicators; most of the extended core indicators for this category are not available

Proportion of businesses using computers by no of employees

Year	Total estimated no. of factories/enterprises	% of enterprises using computer			% of enterprises using computer with no. of employees				
		Rural	Urban	Total	0-9	10-49	50-49	250+	Total
2005-06	140160	59.21	70.31	65.83	30.75	62.05	78.67	92.82	65.83
2006-07	144710	61.50	74.72	69.26	36.04	64.37	79.60	94.31	69.26
2007-08	146385	67.26	77.71	73.21	37.05	68.57	81.93	94.76	73.21

Final Observations

- Various organizations collecting diverse set of indicators
- Robust ICT infrastructure, supply indicators; planning legacy; ministry
- Household Surveys reflect the compulsions of a developing country: DD side constraints to ICT adoption
- NSSO Household Survey propose to add questions on internet access
- Crucial role played by the private sector in collecting regular industry related data: Industry associations, NASSCOM, COAI, AUSPI
- Indian organizations have to deepen the collection of ICT indicators (especially demand and usage) in order to monitor growth and develop appropriate policy responses for improving ICT access

Thank you
payal.malik@gmail.com