

ANNUAL SURVEY ON INFOCOMM MANPOWER FOR 2009



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CONTENTS

PART I: SURVEY COVERAGE AND METHODOLOGY	3
1. INTRODUCTION	4
2. SURVEY OBJECTIVES	4
3. METHODOLOGY	4
PART II: SURVEY FINDINGS	5
1. HIGHLIGHTS	6
2. EMPLOYMENT	7
2.1. Employment in segments / sectors	7
2.2. Residential status	8
2.3. Job category	9
3. JOB VACANCIES	11
4. TOTAL JOBS	14
4.1 Total Jobs	14
5. DEMOGRAPHIC PROFILE	15
PART III: ANNEX	17

LIST OF TABLES

Table 2.1: Infocomm manpower in Singapore	7
Table 2.2: Infocomm manpower in infocomm organisations by market segment	8
Table 2.3: Infocomm manpower in end-user organisations by economic sector	8
Table 3.1: Total infocomm manpower (employed and vacancies) by job category	12
Table 3.2: Total infocomm manpower (employed and vacancies) by segment / sector	13

LIST OF CHARTS

Chart 2.1: Infocomm manpower by organisation type	7
Chart 2.2: Infocomm manpower by residential status.....	9
Chart 2.3: Infocomm manpower by job category	10
Chart 3.1: Infocomm job vacancies by organisation type	11
Chart 3.2: Infocomm job vacancies by job category	11
Chart 4.1: Total infocomm jobs, employed and vacancies	14
Chart 5.1: Infocomm manpower by gender.....	15
Chart 5.2: Infocomm manpower by age	15
Chart 5.3: Infocomm manpower by highest qualification attained	16
Chart 5.4: Infocomm manpower by discipline of study	16

ANNEX

PART III: ANNEX.....	17
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PART I:

SURVEY COVERAGE AND METHODOLOGY

1. INTRODUCTION

Infocomm manpower surveys have been carried out by IDA annually since 1999. This is the 11th in the series.

An infocomm manpower is a person engaged primarily in infocomm-related work either in an IT or telecommunication equipment and/or services provider, or user organisation. He/She must be employed by the Singapore-based organisation on a full-time/part-time basis either as a permanent or direct contract staff to work in Singapore or to station overseas. The work of the person:

- a. may include the development, distribution, implementation, support, operation, sales or marketing of telecommunication, computer hardware/software, IT services or multimedia contents; and
- b. is classified under one of the job categories listed in [Annex A](#).

The definition does not include infocomm manpower under the employment of contractors and subcontractors.

2. SURVEY OBJECTIVES

To determine the demographic and employment profiles of Singapore's infocomm manpower covering the period **1 Jun 08 to 31 May 09**.

3. METHODOLOGY

The sample, covering all industrial sectors, was selected from the Establishment Sampling Frame maintained by the Department of Statistics. The sample was stratified by the Singapore Standard Classification of Industrial Codes (SSIC). Data collection (via self-administered questionnaires by mail/email/Internet submission) and processing for the Survey was carried out from Aug to Dec 09.

PART II:
SURVEY FINDINGS

1. HIGHLIGHTS

- The number of employed infocomm manpower grew by 1.3% to reach 140,800 as at Jun 09¹. Together with 2,700 infocomm job vacancies, the total infocomm jobs reached 143,500 in Jun 09 compared to 145,500 in Jun 08. This represented a decline of 1.4%, or 2,000 infocomm jobs created.
- 84% of employed infocomm manpower were local residents i.e. citizens and permanent residents.
- More than half (55%) of infocomm manpower worked in infocomm organisations and the rest were in end-user organisations. *Infocomm Sales & Marketing, Infrastructure Support* and *Software Development* were the three largest infocomm job categories in Jun 09.
- 64% of infocomm job vacancies were in infocomm organisations and the rest were in end-user organisations. *Software Development, Infocomm Sales & Marketing* and *CIOs, CTOs and IT Managers* were the top three job categories with the highest vacancies, accounting for more than half the number of vacancies.
- The profile of infocomm manpower was substantially unchanged. The male to female ratio of infocomm manpower employed remained at 2 to 1. About 7 in 10 infocomm manpower employed were below 40 years old. About 8 in 10 infocomm manpower possessed tertiary education (i.e. diploma and above).

¹ All manpower figures in this report are as at 1 Jun of the respective years (unless otherwise specified).

2. EMPLOYMENT

Moderate infocomm employment growth

The number of employed infocomm manpower grew by 1.3% to reach 140,800 in Jun 09 ([Table 2.1](#)).

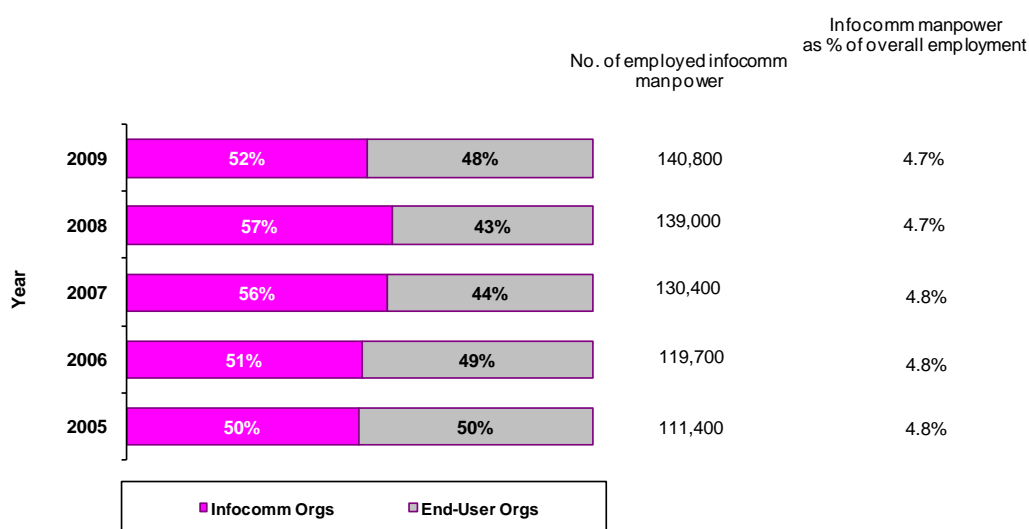
Table 2.1: Infocomm manpower in Singapore²

	2005	2006	2007	2008	2009
Infocomm manpower ('000)	111.4	119.7	130.4	139.0	140.8
- Annual growth (%)	3.1	7.5	8.9	6.6	1.3

2.1. Employment in segments / sectors

In Jun 09, 52% of the infocomm manpower worked in infocomm organisations and the rest worked in end-user organisations ([Chart 2.1](#)). Employment in infocomm organisations (*by infocomm market segment*) and in end-user organisations (*by economic sector*) are shown in [Tables 2.2](#) and [2.3](#).

Chart 2.1: Infocomm manpower by organisation type



² As at 1 Jun of the respective years.

Table 2.2: Infocomm manpower in infocomm organisations by market segment

Segment	2005	2006	2007	2008	2009
IT Services	22%	23%	35%	33%	32%
Software	20%	19%	25%	21%	24%
Hardware	26%	28%	22%	27%	22%
Telecommunication Services	23%	22%	16%	18%	21%
Content Services	9%	8%	2%	1%	1%
Total	100%	100%	100%	100%	100%

Base: Infocomm manpower in infocomm organisations

Table 2.3: Infocomm manpower in end-user organisations by economic sector

Sector	2005	2006	2007	2008	2009
Wholesale and Retail Trade	21%	18%	18%	18%	21%
Real Estate, Renting and Business Activities ³	13%	13%	20%	18%	21%
Manufacturing	12%	14%	22%	17%	19%
Financial Services	20%	37%	11%	12%	10%
Construction	1%	2%	6%	7%	5%
Transport and Storage	10%	3%	5%	4%	4%
Education	11%	4%	5%	5%	3%
Others ⁴	12%	10%	11%	18%	17%
Total	100%	100%	100%	100%	100%

Base: Infocomm manpower in end-user organisations

2.2. Residential status

Residents (Singapore citizens and permanent residents) made up more than 80% of infocomm manpower.

³ "Real Estate, Renting and Business Activities" include Real Estate, Rental and Leasing Activities; Administrative and Support Service Activities; and Professional, Scientific and Technical Activities.

⁴ "Others" include Agriculture, Fishing, Mining and Quarrying; Arts, Entertainment and Recreation; Electricity and Gas Supply; Extra-Territorial Organisations and Bodies; Health and Social Work; Hotels and Restaurants; Other Service Activities; Public Sector; and Water Supply, Sewerage and Waste Management.

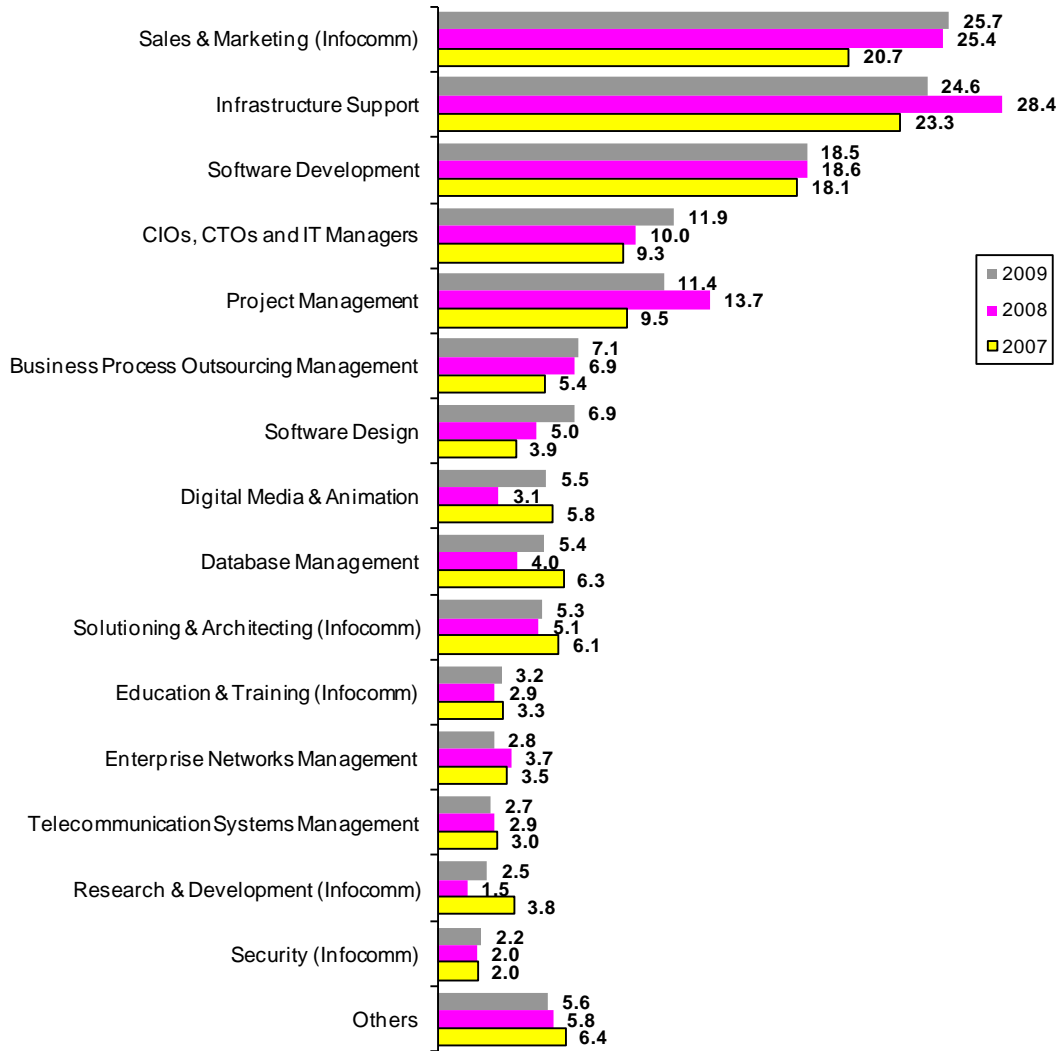
Chart 2.2: Infocomm manpower by residential status



2.3. Job category

In Jun 09, the top three job categories with the highest number of employed infocomm manpower were *Infocomm Sales & Marketing*, *Infrastructure Support* and *Software Development* (Chart 2.3).

Chart 2.3: Infocomm manpower by job category (in thousands)⁵



⁵ "Others" here include Telecommunication Systems Design; Quality Assurance (Infocomm); Enterprise Networks Design; Technical Writing; and Games Development.

3. JOB VACANCIES

More vacancies in infocomm organisations

In Jun 09, the number of infocomm job vacancies stood at 2,700 (Chart 3.1), with 6 out of 10 from infocomm organisations. As compared to the previous year, there was a drop in the number of infocomm job vacancies, which reflected the economic downturn. Chart 3.2 shows the distribution of the vacancies among the job categories.

Chart 3.1: Infocomm job vacancies by organisation type

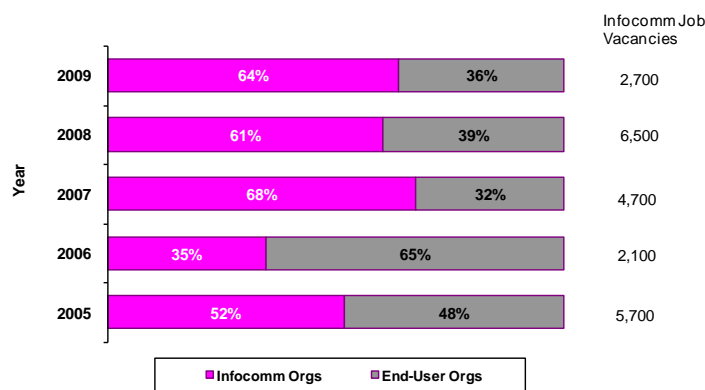
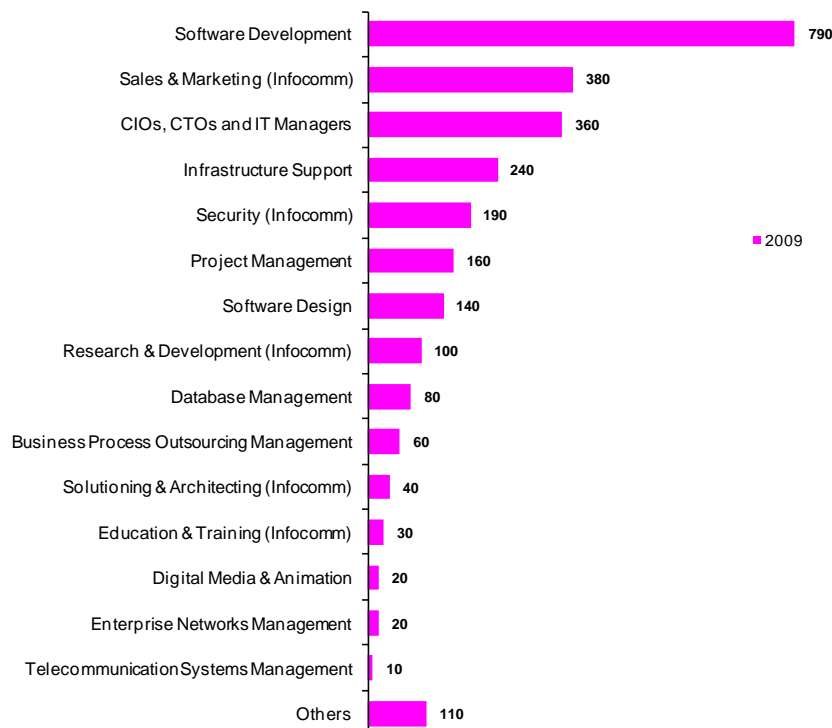


Chart 3.2: Infocomm job vacancies by job category (nearest ten)⁶



⁶ “Others” here include Telecommunication Systems Design; Quality Assurance (Infocomm); Enterprise Networks Design; Technical Writing; and Games Development.

Tables 3.1 and 3.2 show the infocomm manpower (employed and vacancies) as grouped by job category, infocomm market segment and economic sector.

Table 3.1: Total infocomm manpower (employed and vacancies) by job category⁷

Job Category	Infocomm Manpower in 2009		
	Total	Employed	Vacancies
Overall	100%	100%	100%
Sales & Marketing (Infocomm)	18%	18%	14%
Infrastructure Support	17%	17%	9%
Software Development	13%	13%	29%
CIOs, CTOs and IT Managers	9%	8%	13%
Project Management	8%	8%	6%
Business Process Outsourcing Management	5%	5%	2%
Software Design	5%	5%	5%
Digital Media & Animation	4%	4%	1%
Database Management	4%	4%	3%
Solutioning & Architecting	4%	4%	1%
Education & Training (Infocomm)	2%	2%	1%
Enterprise Networks Management	2%	2%	1%
Telecommunication Systems Management	2%	2%	0%
R&D (Infocomm)	2%	2%	4%
Security (Infocomm)	2%	2%	7%
Others	4%	4%	4%

Base: Total – 143,500; Employed – 140,800; Vacancies – 2,700

⁷ Numbers may not add up due to rounding. “Others” here include Telecommunication Systems Design; Quality Assurance (Infocomm); Enterprise Networks Design; Technical Writing; and Games Development.

Table 3.2: Total infocomm manpower (employed and vacancies) by segment / sector⁸

Segment / Sector	Infocomm Manpower in 2009		
	Total	Employed	Vacancies
Overall	100%	100%	100%
Infocomm Organisations (Segment)			
IT Services	17%	17%	17%
Software	13%	12%	17%
Hardware	12%	11%	17%
Telecommunication Services	11%	11%	13%
Content Services	0%	0%	0%
Infocomm Organisations Overall	52%	52%	64%
End-User Organisations (Sector)			
Real Estate, Renting and Business Activities ⁹	10%	10%	2%
Wholesale and Retail Trade	10%	10%	2%
Manufacturing	9%	9%	9%
Financial and Insurance Activities	5%	5%	3%
Construction	2%	2%	3%
Transport and Storage	2%	2%	1%
Education	1%	1%	1%
Others ¹⁰	8%	8%	15%
End-User Organisations Overall	48%	48%	36%

Base: Total – 143,500; Employed – 140,800; Vacancies – 2,700

⁸ Numbers may not add up due to rounding.

⁹ “Real Estate, Renting and Business Activities” include Real Estate, Rental and Leasing Activities; Administrative and Support Service Activities; and Professional, Scientific and Technical Activities.

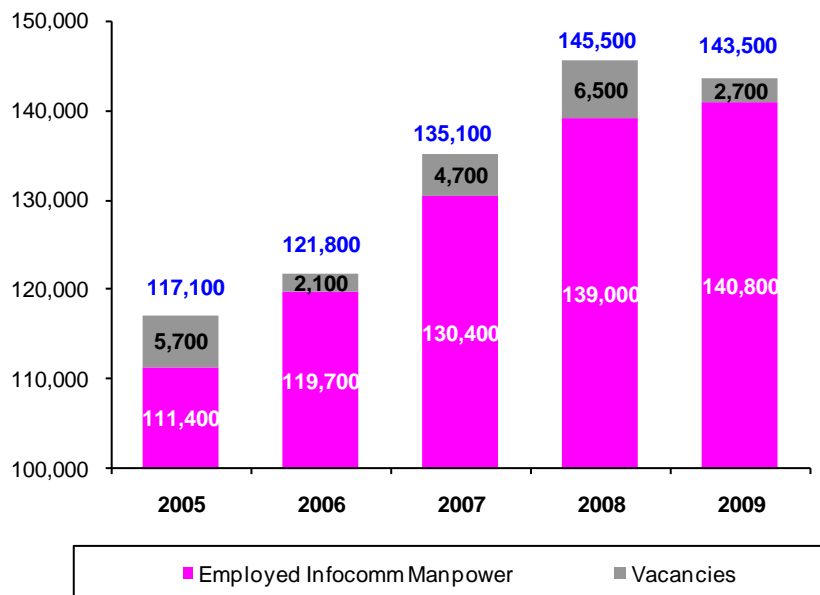
¹⁰ “Others” include Agriculture, Fishing, Mining and Quarrying; Arts, Entertainment and Recreation; Electricity and Gas Supply; Extra-Territorial Organisations and Bodies; Health and Social Work; Hotels and Restaurants; Other Service Activities; Public Sector; and Water Supply, Sewerage and Waste Management.

4. TOTAL JOBS

4.1. Total jobs

Notwithstanding the positive growth of employed infocomm manpower, total infocomm manpower demand¹¹ fell by 1.4% (2,000) in Jun 09 (Chart 4.1), due to decrease in the number of infocomm job vacancies.

Chart 4.1: Total infocomm jobs, employed and vacancies



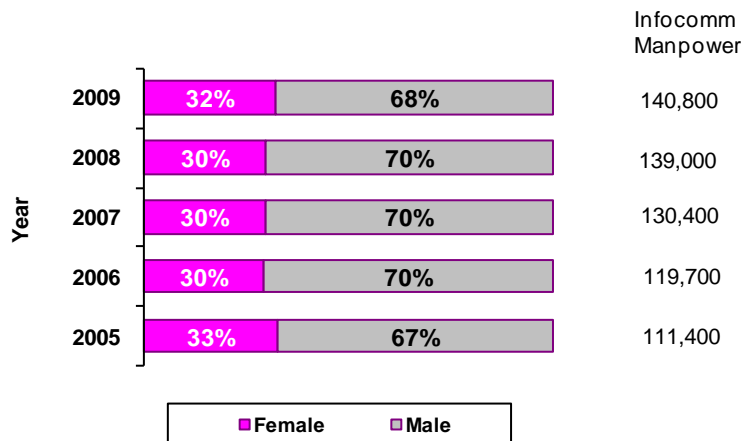
¹¹ Total manpower demand is the sum of employed manpower and job vacancies.

5. DEMOGRAPHIC PROFILE

Male to female ratio of infocomm manpower remained unchanged

The proportion of male to female infocomm manpower remained fairly constant at the ratio of 2 males to 1 female employed in Jun 09 ([Chart 5.1](#)).

Chart 5.1: Infocomm manpower by gender

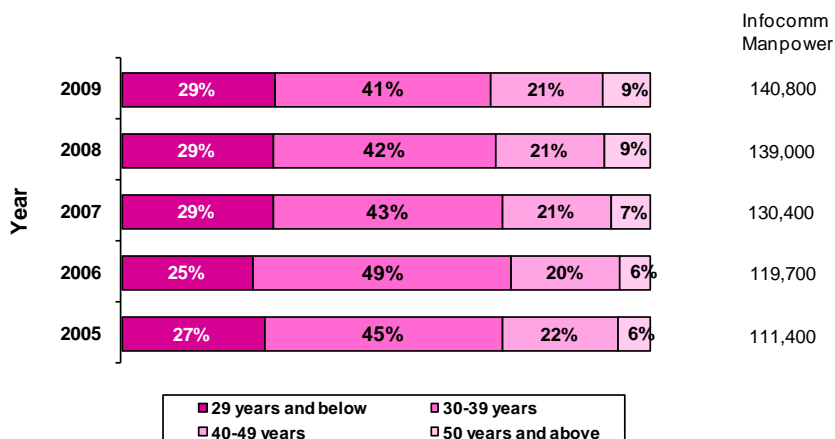


Base: Employed infocomm manpower

7 in 10 infocomm manpower were below 40 years old

70% of the infocomm manpower were aged 39 years old and below ([Chart 5.2](#)) in Jun 09. The largest proportion of infocomm manpower continued to be those aged between 30 to 39 years.

Chart 5.2: Infocomm manpower by age

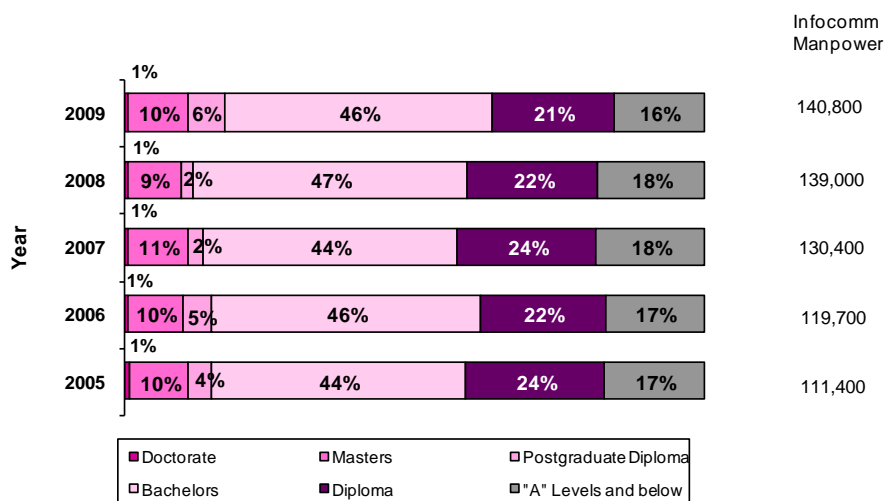


Base: Employed infocomm manpower

Highly qualified infocomm manpower

About 8 in 10 of the infocomm manpower were tertiary qualified (i.e. having at least diploma qualifications) in Jun 09 (Chart 5.3).

Chart 5.3: Infocomm manpower by highest qualification attained

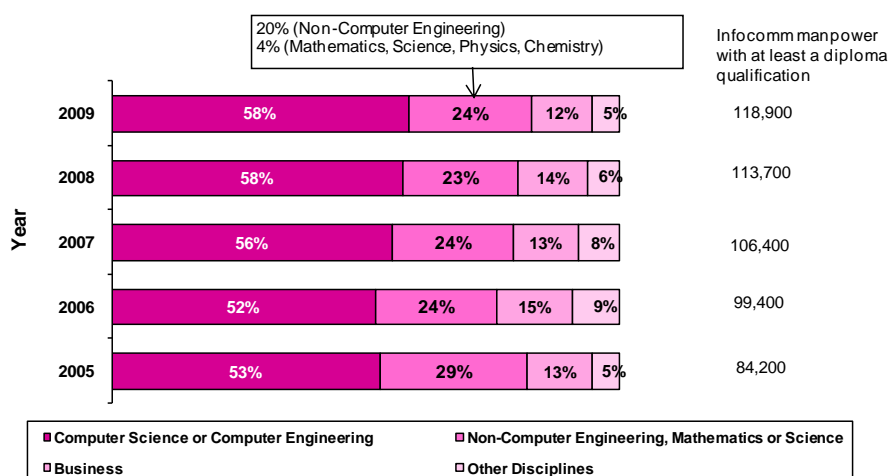


Base: Employed infocomm manpower

Computer studies still the dominant discipline

Computer studies continued to be the dominant discipline, with almost 6 in 10 (58%) of infocomm manpower with at least a diploma qualification, who were trained in this discipline (Table 5.4).

Chart 5.4: Infocomm manpower by discipline of study¹²



Base: Employed infocomm manpower with at least a diploma qualification

¹² "Other Disciplines" include Humanities, Design, etc.

PART III: ANNEX

ANNEX A: Infocomm Job Categories

- 1. Business Process Outsourcing Management**
- 2. Chief Information Officers, Chief Technology Officers and IT Managers**
- 3. Database Management**
- 4. Digital Media & Animation**
- 5. Education and Training (Infocomm)**
- 6. Enterprise Networks Design**
- 7. Enterprise Networks Management**
- 8. Games Development**
- 9. Infrastructure Support**
- 10. Project Management**
- 11. Quality Assurance (Infocomm)**
- 12. Research & Development (Infocomm)**
- 13. Sales & Marketing (Infocomm)**
- 14. Security (Infocomm)**
- 15. Software Design**
- 16. Software Development**
- 17. Solutioning and Architecting (Infocomm)**
- 18. Telecommunication Systems Design**
- 19. Telecommunication Systems Management**
- 20. Technical Writing**