香港—資訊社會 Hong Kong as an Information Society

2014 年版 2014 Edition



香港特別行政區 政府統計處

Census and Statistics Department Hong Kong Special Administrative Region



香港—資訊社會

Hong Kong as an Information Society

2014 年版 2014 Edition

有關本刊物的查詢,請聯絡:

政府統計處 北角城中心分處 科技統計組

地址:香港北角英皇道 250 號北角城中心 6 樓 電話:(852)28879634 圖文傳真:(852)28875117

電郵:itsurvey@censtatd.gov.hk

Enquiries about this publication can be directed to:

Science and Technology Statistics Section Fortress Tower Sub-office

Census and Statistics Department

Address: 6/F Fortress Tower, 250 King's Road, North Point, Hong Kong.

Tel.: (852) 2887 9634 Fax: (852) 2887 5117

E-mail: itsurvey@censtatd.gov.hk

政府統計處網站 Website of the Census and Statistics Department www.censtatd.gov.hk

2014年5月出版 Published in May 2014

本刊物只備有下載版

This publication is available in download version only

目錄 Contents

						頁數 Page
統計	表一	跨 見	List o	of Tables	:	ii
統計	圖一	跨 見	List o	of Charts	3	v
緒言			Introd	duction		vii
概要			Overv	view		ix
第 1	章	資訊及通訊科技業的營運特徵	Chapt	ter 1	Operating Characteristics of the Information and Communication Technology Sector	1
第 2	章	資訊及通訊科技貨品的進出口 情況	Chapt	ter 2	Imports and Exports of Information and Communication Technology Goods	11
第 3	章	資訊及通訊科技的接達及使用 情況	Chapt	ter 3	Access To and Use of Information and Communication Technology	23
第 4	章	資訊科技的人力資源及教育	Chapt	ter 4	Human Resources and Education in Information Technology	41
附錄			Appe	ndices		
甲	用語	語及定義	A	Terms	and Definitions	55
Z	查詢	洵電話	В	Enquir	y Telephone Numbers	67
丙	獲耳	取政府統計處刊物的方法	C		of Obtaining Publications of the and Statistics Department	69

List of Tables

					頁數 Page
1. 資訊及	通訊科技業的營運特徵	1.		g Characteristics of the Information munication Technology Sector	
表1.1	有關資訊及通訊科技業的主要 統計數字		Table 1.1	Key statistics on the information and communication technology (ICT) sector	5
表1.2	資訊及通訊科技業的研究及發 展(研發)活動		Table 1.2	Research and development (R&D) activities in the information and communication technology (ICT) sector	7
表1.3	電訊業營辦商的數目		Table 1.3	Number of operators in telecommunications industry	8
表1.4	接所提供的服務類別劃分的互聯網服務公司的業務收益		Table 1.4	Business receipts of Internet service providers (ISPs) by type of services provided	9
2. 資訊及	通訊科技貨品的進出口情況	2.	-	and Exports of Information and ication Technology Goods	
表2.1	整體資訊及通訊科技貨品的進 口及出口		Table 2.1	Imports and exports of all information and communication technology goods	16
表2.2	電訊設備按主要供應地劃分的 進口及按主要目的地劃分的出 口		Table 2.2	Imports by main supplier and exports by main destination of telecommunications equipment	17
表2.3	電腦及相關設備按主要供應地 劃分的進口及按主要目的地劃 分的出口		Table 2.3	Imports by main supplier and exports by main destination of computer and related equipment	18
表2.4	電子組件按主要供應地劃分的 進口及按主要目的地劃分的出 口		Table 2.4	Imports by main supplier and exports by main destination of electronic components	19
表2.5	影音設備按主要供應地劃分的 進口及按主要目的地劃分的出 口		Table 2.5	Imports by main supplier and exports by main destination of audio and video equipment	20
表2.6	其他資訊及通訊科技貨品按主要供應地劃分的進口及按主要目的地劃分的出口		Table 2.6	Imports by main supplier and exports by main destination of other information and communication technology goods	21

						頁數 Page
3.	資訊及通	通訊科技的接達及使用情況	3.		o and Use of Information and cation Technology	
	表3.1	資訊及通訊科技的接達情況主 要統計數字		Table 3.1	Key statistics on access to information and communication technology (ICT)	28
	表3.2	有線電話服務		Table 3.2	Wireline telephone services	30
	表3.3	公共流動電話服務		Table 3.3	Public mobile services	31
	表3.4	對外電訊通訊量		Table 3.4	External telecommunications traffic	33
	表3.5	互聯網服務		Table 3.5	Internet services	34
	表3.6	資訊及通訊科技於住戶及個人 的使用情況的統計數字		Table 3.6	Statistics on use of information and communication technology (ICT) by households and individuals	36
	表3.7	資訊及通訊科技於工商機構的 使用情況的統計數字		Table 3.7	Statistics on use of information and communication technology (ICT) by businesses	37
	表3.8	工商業的資訊科技總開支相對於本地生產總值的比率		Table 3.8	Total information technology (IT) expenditure in the business sector as a ratio to Gross Domestic Product (GDP)	38
	表3.9	政府機構的電腦化		Table 3.9	Computerisation in the Government	39
	表3.10	政府資訊科技人員		Table 3.10	Government information technology (IT) staff	39
	表3.11	政府的資訊科技開支		Table 3.11	Government spending on information technology (IT)	40
4.	資訊科技	技的人力資源及教育	4.		Resources and Education in on Technology	
	表4.1	2002至2012年按技能類別劃分 的資訊科技業人力結構		Table 4.1	Manpower structure of the information technology (IT) sector by job category, 2002-2012	45
	表4.2	按行業組別分類的資訊科技僱 員分布		Table 4.2	Distribution of information technology (IT) employees by industry grouping	47
	表4.3	按修課程度劃分的大學教育資助委員會(教資會)資助的資訊科技課程的畢業生人數		Table 4.3	Graduates of information technology (IT) programmes funded by University Grants Committee (UGC) by level of study	49
	表4.4	按課程類別劃分的教育局為小學及中學教師而設的資訊科技 培訓課程數目		Table 4.4	Number of information technology (IT) courses offered by Education Bureau for primary and secondary school teachers by course type	50

				頁數 Page
表4.5	按課程類別劃分的教育局為小 學及中學教師而設的資訊科技 培訓參與教師人數	Table 4.5	Number of teachers attending information technology (IT) courses offered by Education Bureau for primary and secondary school teachers by course type	51
表4.6	小學及中學的資訊科技統籌員 /資訊科技主任人數	Table 4.6	Information technology (IT) coordinators/IT in-charge of primary and secondary schools	52
表4.7	任教資訊科技/電腦科目的中 學教師人數	Table 4.7	Secondary school teachers teaching information technology (IT)/computer studies	52
表4.8	按學校類別及開支類別劃分的 政府在資訊科技教育及電腦科 目方面的開支	Table 4.8	Government spending on information technology (IT) education and computer subjects by type of schools and type of expenditure	53

List of Charts

						頁數 Page
概	要		Ov	erview		
	圖甲	2012年資訊及通訊科技業的研發情況		Chart A	R&D in ICT sector, 2012	x
	圖乙	2008及2013年資訊及通訊科技貨品 的對外貿易情況		Chart B	External trade for ICT goods, 2008 and 2013	X
	圖丙	2003至2013年按每百名人口計算的 固定電話線及公共流動電話用戶數 目		Chart C	Number of fixed telephone lines and public mobile subscriptions per 100 population, 2003-2013	
	圖丁	2008及2013年住戶連接互聯網的百分比		Chart D	Proportion of Internet connection in households, 2008 and 2013	xii
1.	資訊及	通訊科技業的營運特徵	1.		g Characteristics of the Information munication Technology Sector	
	圖1.1	2012年按經濟活動劃分的資訊及通訊科技業增加價值分布		Chart 1.1	Distribution of value added of the information and communication technology (ICT) sector by economic activity in 2012	
	圖1.2	2012年按經濟活動劃分的資訊及通訊科技業就業人數分布		Chart 1.2	Distribution of number of persons engaged in the information and communication technology (ICT) sector by economic activity in 2012	
4.	資訊科	技的人力資源及教育	4.	Human Informati	Resources and Education in on Technology	
	圖4.1	2012年按技能類別劃分的資訊科技業人力結構		Chart 4.1	Manpower structure of the information technology (IT) sector by job category, 2012	
	圖4.2	2012年按行業組別分類的資訊科技僱員分布		Chart 4.2	Distribution of information technology (IT) employees by industry grouping, 2012	

Introduction

在過去二十年,我們見證了資訊及通訊科技 前所未有的演變,以及在工商機構、家居及 社會廣泛使用與這類科技有關的產品及服 務(例如個人電腦、互聯網和流動電話)。 本刊展示資訊及通訊科技在各方面發展的 統計指標,有助量度香港邁向資訊社會的進 程。

本刊所採用量度資訊社會的統計架構主要是參考聯合國及經濟合作與發展組織所倡議的國際指引。資訊社會的統計範疇涉及資訊及通訊科技的供應、資訊及通訊科技產品、資訊及通訊科技的基礎設施,以及工商機構、住戶/個人和政府使用資訊及通訊科技的情況。本刊內容的結構如下:

- 第1章載列香港資訊及通訊科技業的 增加價值和就業人數。資訊及通訊科 技業是由一組從事供應資訊及通訊科 技貨品和服務的行業所組成;
- 第2章展示資訊及通訊科技貨品的進口及出口貿易的情況;
- 第3章描述資訊及通訊科技的基礎設施,以及工商機構、住戶和政府連接與使用資訊及通訊科技的情況;及
- 第4章描述資訊科技的人力資源情況。

Over the last two decades, we have witnessed a period of unprecedented changes in information and communication technology (ICT) and the pervasive adoption of an increasing number of ICT-related products/services such as personal computer, Internet and mobile phone in business, home and community. This publication presents statistical indicators on the developments in various aspects of ICT for gauging the progress of Hong Kong towards an information society.

statistical framework adopted this the international publication mainly follows on measuring information society guidelines promulgated by the United Nations and the Organisation for Economic Co-operation and Development. The statistical dimensions of an information society cover such aspects as ICT supply, ICT products, ICT infrastructure, and use of ICT by businesses, households/individuals and government. The organisation of the contents of this publication is as follows:

- Chapter 1 highlights the value added and employment in respect of the ICT sector, comprising a cluster of industries engaged in the supply of ICT goods and services in Hong Kong;
- Chapter 2 presents the situation about the import and export trade of ICT goods;
- Chapter 3 portrays the ICT infrastructure as well as the accessibility and use of ICT in the business, household and government sectors; and
- Chapter 4 describes the situation of human resources in respect of information technology.

代號

本刊內各代號的含意如下:

- 不適用

N.A. 沒有數字

數字的進位

由於四捨五入關係,個別數字或百分比之和可能不等於其總數。

變動百分率的計算

變動百分率是以未經進位的數字計算。

財政年度

除另有說明外,財政年度以「-」為代號。 例如2012-13年的財政年度是由2012年4月1 日至2013年3月31日止。

Symbols

The following symbols are used throughout the publication:

- Not applicable

N.A. Not available

Rounding of figures

Figures or percentages of components may not add up to the respective totals owing to rounding.

Calculation of percentage changes

Percentage changes are derived from unrounded figures.

Financial year

Unless otherwise specified, the symbol "-" represents financial year. For example, 2012-13 means the financial year starting from 1 April 2012 and ending on 31 March 2013.

概要 Overview

- 1. 資訊社會的特徵是工商機構、家居及 社會廣泛使用資訊及通訊科技。這對提升一 個經濟體系的競爭力和發展為知識型經濟 非常重要。
- 2. 量度資訊社會的統計數字可歸納為三 大類別,即資訊及通訊科技的供應、資訊及 通訊科技的基礎設施,以及資訊及通訊科技 的使用情況。資訊及通訊科技業是一組從事 供應資訊及通訊科技貨品及服務的行業,有 關產品的特點主要是透過電子方式達致資 訊處理和通訊(包括傳輸及顯示)的功能。
- 3. 資訊及通訊科技基礎設施的統計指標 (例如固定電話線路、流動電話用戶,以及 互聯網用戶數目等)顯示一個經濟體系邁向 成為一個資訊社會的就緒程度。
- 4. 要量度資訊及通訊科技貨品和服務的需求,主要是透過工商機構、住戶/個人及政府使用資訊及通訊科技貨品和服務的情況,以及就提供相關貨品和服務而採用的技術所涉及的統計數字來反映。
- 5. 在 2012 年,香港的資訊及通訊科技業的增加價值為 1,241 億元,佔以基本價格計算的本地生產總值的 6.2%。資訊及通訊科技業對本地生產總值的貢獻,與運輸及倉庫業 (5.7%)、地產業 (5.8%)和專業及商用服務業 (5.7%)的經濟貢獻相若。在就業方面,在 2012 年,約 129 500 人從事資訊及通訊科技業,佔總就業人數的 3.5%。

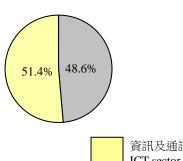
- 1. An information society is featured by the widespread adoption of information and communication technology (ICT) in business, home and the community at large. This is crucial for an economy to enhance its competitiveness and develop towards a knowledge economy.
- 2. Statistics on measuring the information society can be categorised into three main aspects, viz., ICT supply, ICT infrastructure and ICT use. The ICT sector comprises a cluster of industries engaged in the supply of ICT goods and services which are primarily intended to fulfill or enable the function of information processing and communication by electronic means, including transmission and display.
- 3. Statistical indicators on ICT infrastructure (such as fixed telephone lines, mobile telephone subscribers and Internet subscribers) reveal the degree of readiness of an economy in moving towards an information society.
- 4. Demand for ICT goods and services is measured mainly by statistics on the use of ICT by businesses, households/individuals and government as well as the technology for adoption of ICT goods and services.
- 5. In 2012, the value added of the ICT sector amounted to \$124.1 billion, representing 6.2% of the Gross Domestic Product (GDP) at basic prices. The contribution of the ICT sector to GDP was comparable to that of the transport and storage sector (5.7%), real estate sector (5.8%) and professional and business services sector (5.7%). In terms of the employment size, some 129 500 persons were engaged in ICT sector in 2012, accounting for 3.5% of the total employment.

- 6. 資訊及通訊科技業屬技術密集型的行業。在 2012 年,資訊及通訊科技業的研究與發展(研發)開支達 34 億元,佔本港工商機構研發總開支的 51.4%。資訊及通訊科技業亦聘用大量的研究人員。在 2012 年,55.7%工商機構的研究人員(以相當於全日制的人數計算)從事資訊及通訊科技業。
- 6. Industries in the ICT sector are technology intensive. In 2012, expenditure on research and development (R&D) in the ICT sector amounted to \$3.4 billion, accounting for 51.4% of the total R&D expenditure in the business sector of Hong Kong. The ICT sector also has the highest concentration of R&D personnel. In 2012, 55.7% of the total number of R&D personnel (measured in terms of full-time equivalent) in the business sector were engaged in the ICT sector.

圖甲: 2012 年資訊及通訊科技業的研發情況 Chart A: R&D in ICT sector, 2012

2012 年資訊及通訊科技業的研發開支 佔工商機構的研發總開支的百分比 R&D expenditure in ICT sector as % of total R&D expenditure in the business sector in 2012 2012 年資訊及通訊科技業的研究人員數目 佔工商機構的研究人員總數的百分比 R&D personnel in ICT sector as % of total R&D

personnel in the business sector in 2012



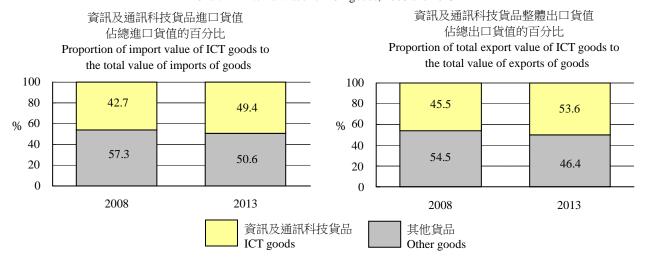
55.7% 44.3%

資訊及通訊科技業 ICT sector

其他工商業
Other business sectors

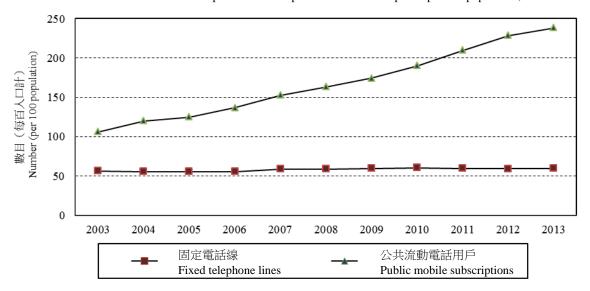
- 7. 資訊及通訊科技貨品的進出口在本港對外貿易中亦佔極重要的地位。在 2013 年,資訊及通訊科技貨品的進口貨值佔總進口貨值的 49.4%。而資訊及通訊科技貨品整體出口(包括港產品出口及轉口)貨值的相應比例為 53.6%。
- 7. The imports and exports of ICT goods also play an important role in the external trade of Hong Kong. In 2013, the import value of ICT goods accounted for 49.4% of the total value of imports of goods. The corresponding proportion for the total exports (including domestic exports and re-exports) of ICT goods was 53.6%.

圖乙:2008 及 2013 年資訊及通訊科技貨品的對外貿易情況 Chart B: External trade for ICT goods, 2008 and 2013



- 8. 香港的固網電話市場經歷長時間的持續增長後,於近年已趨飽和。自 2000 年以來,每百名人口中維持約有 60 條固定電話線。相比之下,公共流動電話用戶數目自 2000 年起已超越固定電話線數目,並且按年續有顯著增長。在 2013 年,每百名人口中有 238 個公共流動電話用戶。
- 8. After a long period of sustained growth, the fixed line telephony market in Hong Kong has become saturated in recent years, maintaining a level of around 60 fixed telephone lines per 100 population since 2000. In contrast, the number of public mobile subscriptions has surpassed that of the fixed telephone lines since 2000 and continued to grow remarkably, attaining a level of 238 public mobile subscribers per 100 population in 2013.

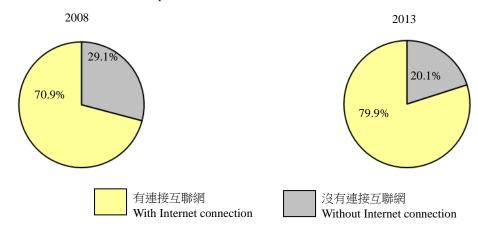
圖丙:2003 至 2013 年按每百名人口計算的固定電話線及公共流動電話用戶數目 Chart C: Number of fixed telephone lines and public mobile subscriptions per 100 population, 2003-2013



- 9. 互聯網使用率在香港正不斷上升。家中有個人電腦接駁互聯網的住戶百分比從2003年的60.0%上升至2013年的79.9%。互聯網市場的強勁增長主要基於日趨普及的寬頻接達服務,以及流動寬頻服務的廣泛使用。在2013年,每百名人口中有31名固定寬頻互聯網用戶,而相應的流動寬頻訂戶數目則更高,達164戶。
- 9. Internet usage is on the rise in Hong Kong. The proportion of households having personal computers (PCs) at home connected to Internet went up from 60.0% in 2003 to 79.9% in 2013. The robust growth in the Internet market is largely attributable to the popularity of broadband access services and the widespread use of mobile broadband services. In 2013, the number of fixed broadband Internet subscribers reached 31 per 100 population in Hong Kong. The corresponding figure for mobile broadband subscribers was much higher, being 164.

圖丁: 2008 及 2013 年住戶連接互聯網的百分比 Chart D: Proportion of Internet connection in households, 2008 and 2013

10. Education



- 10. 資訊科技的教育與培訓能提供合適的人才以支援發展和應用資訊及通訊科技。在2007/08 學年至 2012/13 學年期間,大學教育資助委員會資助的資訊科技課程的畢業生總人數每學年約2300至2400人。
- 11. 整體而言,具效率的資訊及通訊科技基礎設施,以及廣泛使用資訊及通訊科技的商業社會是促成香港發展為知識型經濟的一些利好因素。
- technology (IT) enable the supply of human resources with the right skills in support of the ICT development and application. From 2007/08 to 2012/13 academic year, the total number of graduates of the information technology programmes funded by the University Grants Committee was around 2 300 to 2 400 in each academic year.

training in

information

and

11. Overall speaking, the availability of an efficient ICT infrastructure and the widespread use of ICT in the business community are some of the enabling factors in shaping the development of Hong Kong towards a knowledge economy.

第 1 章 資訊及通訊科技業的營運特徵

Chapter 1 Operating Characteristics of the Information and Communication Technology Sector

緒言

- 1.1 「電子經濟」的出現對資訊及通訊科技貨品和服務的需求開創一個新浪潮。各工商機構紛紛利用新科技引發的優勢,捕捉這新興市場所帶來的發展機遇。在嶄新經濟活動出現的同時,很多現有的公司為抓緊這些新機遇而將其業務策略重新定位。
- 1.2 資訊及通訊科技產品是指那些主要透 過電子方式(包括傳輸和顯示)達致資訊處 理和通訊功能的貨品和服務。「資訊及通訊 科技業」是一組從事製造與經銷資訊及通訊 科技貨品(例如:電訊設備及電腦,以及這 些設備的組件及零件),以及提供資訊及通 訊科技服務(例如:電訊網絡營運及互聯網 接達服務)的行業的統稱。
- 1.3 本章描述香港資訊及通訊科技業的營 運特徵。當中的分析主要根據政府統計處的 經濟活動按年統計調查所搜集得的資料進 行。

Introduction

- 1.1 Emergence of the "e-Economy" has opened up a new wave of demand for information and communication technology (ICT) goods and services. Businesses taking advantage of the new technology come forth to capture the opportunities brought about by this emerging market. New economic activities take form, while many existing companies re-orientate their business strategies to capitalise on these new opportunities.
- 1.2 ICT products refer to goods and services that are primarily intended to fulfill or enable the function of information processing and communication by electronic means, including transmission and display. The "ICT sector" represents a cluster of industries engaged in the manufacture of and distribution of ICT goods (e.g. telecommunication equipment and computer as well as their parts and components) as well as the supply of ICT services (e.g. telecommunication network operation and Internet access services).
- 1.3 This Chapter describes the operating characteristics of the ICT sector in Hong Kong. Analyses are mainly based on data collected through the Annual Survey of Economic Activities conducted by the Census and Statistics Department.

資訊及通訊科技業的營運特徵

- 1.4 在 2012 年,資訊及通訊科技業約有 16 800 間商業機構。資訊及通訊科技業的就 業人數約 129 500 人,佔 2012 年總就業人 數的 3.5%。讀者須注意,資訊及通訊科技 業就業人數的數字中,包括了專業及技術人 員(例如:網絡工程師、技術員、程式員、網站設計師、資訊科技專業人員等)及其他 職系的人員(例如:文書和會計人員)。同樣地,資訊及通訊科技業的機構雖然是以供應資訊及通訊科技商品及服務為主,但亦可能同時供應小量的非資訊及通訊科技的產品或服務。(表 1.1)
- 1.5 在 2012 年,資訊及通訊科技業的增加價值達 1,241 億元,佔以基本價格計算的本地生產總值的 6.2%。資訊及通訊科技的增加價值在 2012 年錄得 7.6%的升幅。
- 1.6 在 2012 年,從事經銷資訊及通訊科技產品的行業佔資訊及通訊科技業的整體增加價值的 56.0%,有關百分比高於提供資訊及通訊科技服務的行業(43.3%)。以就業人數而言,相應的比重分別為 48.4%及49.1%。(圖 1.1 及 1.2)

資訊及通訊科技業的研究與發展(研發)

1.7 資訊及通訊科技業由技術密集的行業 所組成,而這些行業用於研究與發展(研發) 活動的開支十分龐大。在 2012 年,資訊及 通訊科技業的工商機構在研發方面的總開 支(包括經常開支和資本開支)達 34 億元, 佔工商機構研發總開支的比例達 51.4%。(表 1.2)

Operating Characteristics of the ICT Sector

- 1.4 In 2012, there were some 16 800 business establishments engaged in the ICT sector. Around 129 500 persons were engaged in the sector, representing 3.5% of the total employment in 2012. It should be noted that figures on the number of persons engaged in the ICT sector include professional and technical personnel (e.g. network engineer, technician, programmer, web portal designer, IT professional etc.) and personnel in other occupations (e.g. clerical and accounting staff). By the same token, establishments in the ICT sector may also supply a small amount of non-ICT products or services so long as ICT goods and services are their main line of business. (Table 1.1)
- 1.5 In 2012, the value added of the ICT sector amounted to \$124.1 billion, representing 6.2% of the Gross Domestic Product (GDP) at basic prices. The growth of the value added of the ICT sector in 2012 was 7.6%.
- 1.6 In 2012, industries engaged in the distribution of ICT products accounted for 56.0% of the total value added of the ICT sector, higher than the 43.3% for those engaged in providing ICT services. The corresponding shares in terms of employment were 48.4% and 49.1% respectively. (Charts 1.1 and 1.2)

Research and Development (R&D) in the ICT Sector

1.7 The ICT sector comprises technology-intensive industries with substantial expenditure on research and development (R&D) activities. In 2012, business establishments in the ICT sector incurred a total expenditure of \$3.4 billion (including current and capital expenditure) on R&D. This represented a substantial proportion of 51.4% of the total R&D expenditure in the business sector as a whole. (Table 1.2)

1.8 在 2012 年,資訊及通訊科技業的研究 人員數目(以「相當於全日制的人數」計算) 約有 6 300 人,佔工商業整體研究人員數目 的 55.7%。(表 1.2)

電訊服務

1.9 完善的電訊基礎設施對提供本港高效 能及可靠的電訊服務尤其重要。香港的電訊 服務正朝著以互聯網為基礎而建立的固定 和流動網絡提供服務。傳統的話音通訊服務 正不斷被互聯網通訊服務所取代。

1.10 在 2013 年,香港有 21 間本地固定網絡營辦商 1 和 5 間流動網絡營辦商。另外,本港亦有 282 間電訊持牌機構獲授權提供對外電訊服務。(表 1.3)

1.11 在 2013 年,香港有 197 間電訊持牌機 構獲授權提供互聯網接達服務。根據經濟活 動按年統計調查的結果,互聯網服務供應商 於 2012 年的互聯網相關業務收益為 121 億 元,當中 69.5%的業務收益來自其所提供的 基本互聯網接駁服務。(表 1.3 及 1.4) 1.8 In 2012, the number of R&D personnel (expressed in terms of full-time equivalent) in the ICT sector was about 6 300, accounting for 55.7% of the total number of R&D personnel in the business sector as a whole. (Table 1.2)

Telecommunications Services

1.9 The availability of sound telecommunications infrastructure is crucial to the provision of efficient and reliable telecommunications services to the Hong Kong economy. The telecommunications services in Hong Kong are moving towards an Internet-based environment in both fixed and mobile networks. Conventional voice communications services are increasingly being replaced by Internet-based communications.

1.10 In 2013, there were 21 local fixed network operators ¹ and 5 mobile network operators. There were also 282 telecommunications licensees authorised to provide external telecommunications services. (Table 1.3)

1.11 In 2013, there were 197 telecommunications licensees authorised to provide Internet access service in Hong Kong. According to the results of Annual Survey of Economic Services, the ISPs generated \$12.1 billion of business receipts from Internet related services in 2012, of which 69.5% were generated from the provision of basic Internet connection services. (Tables 1.3 and 1.4)

包括所有按固定電訊網絡服務牌照、固定傳送者牌照,或 綜合傳送者牌照獲准提供設施為本的有線或無線本地固 定電訊服務的營辦商。

Include all licensees authorised to provide facility-based local fixed telecommunications services under fixed telecommunications network services licence, fixed carrier licence or unified carrier licence using wireline or wireless technology.

其他有關刊物

工業的業務表現及營運特色的主要統計數字

進出口貿易、批發及零售業以及住宿及膳食 服務業的業務表現及營運特色的主要統計 數字

資訊及通訊、金融及保險、專業及商用服務 業的業務表現及營運特色的主要統計數字

香港創新活動統計

Further references

Key Statistics on Business Performance and Operating Characteristics of the Industrial Sector

Key Statistics on Business Performance and Operating Characteristics of the Import/Export, Wholesale and Retail Trades, and Accommodation and Food Services Sectors

Key Statistics on Business Performance and Operating Characteristics of the Information and Communications, Financing and Insurance, Professional and Business Services Sectors

Hong Kong Innovation Activities Statistics

表 1.1 有關資訊及通訊科技業的主要統計數字(1)

Table 1.1 Key statistics (1) on the information and communication technology (ICT) sector

	2008	2009	2010	2011	2012
機構單位數目	14 458	15 338	15 366	17 244	16 804
Number of establishments	-	(+6.1)	(+0.2)	(+12.2)	(-2.5)
就業人數	103 107	114 230	122 383	133 101	129 495
Number of persons engaged	-	(+10.8)	(+7.1)	(+8.8)	(-2.7)
每間機構單位的平均就業人數 Average number of persons engaged per establishment	7.1	7.4	8.0	7.7	7.7
就業人數相對於工作人口的百分比(%) Number of persons engaged as a percentage of employed population (%)	2.9	3.3	3.5	3.7	3.5
業務收益及其他收入(十億港元)	913.9	996.9	1,260.6	1,458.4	1,253.8
Business receipts and other income (HK\$ billion)	-	(+9.1)	(+26.4)	(+15.7)	(-14.0)
增加價值(十億港元)(2)	80.8	70.2	95.0	115.4	124.1
Value added (HK\$ billion) (2)	-	(-13.1)	(+35.3)	(+21.4)	(+7.6)
以基本價格計算的本地生產總值內所佔比率 ⁽³⁾ (%) Contribution to Gross Domestic Product (GDP) at basic prices ⁽³⁾ (%)	5.0	4.4	5.5	6.1	6.2
僱員薪酬(十億港元)	30.8	33.9	37.5	42.9	45.8
Compensation of employees (HK\$ billion)	-	(+9.9)	(+10.8)	(+14.2)	(+6.8)
盈餘總額(十億港元)	49.2	41.7	61.5	73.2	80.0
Gross surplus (HK\$ billion)	-	(-15.3)	(+47.5)	(+19.0)	(+9.2)
固定資產的買賣淨值(十億港元)	15.2	6.1	10.9	11.3	10.3
Gross additions to fixed assets (HK\$ billion)	-	(-60.1)	(+79.0)	(+4.1)	(-8.7)

註釋: 括號內的數字是與上年比較的變動百分率。

- (1) 資訊及通訊科技業的統計數字由 2008 年開始編製。
- (2) 數字已就 2012 年 9 月完成的本地生產總值統計修訂工作作出修訂。
- (3) 本地生產總值的數字是 2014 年 5 月發表的最新數據。

Notes: Figures in brackets denote percentage changes over the preceding year.

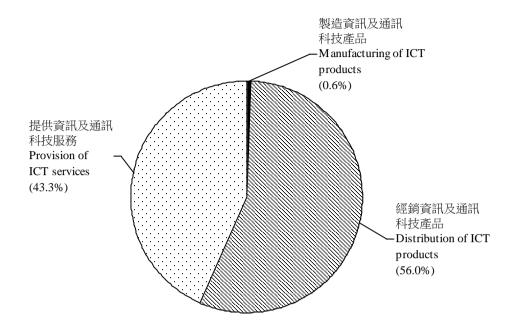
- (1) Statistics on ICT sector are available as from 2008.
- (2) Figures have been revised to take into account the Gross Domestic Product (GDP) revision exercise completed in September 2012.
- (3) Figures on GDP refer to the latest statistics released in May 2014.

資料來源: 政府統計處科技統計組

Source: Science and Technology Statistics Section, Census and Statistics Department

圖 1.1 2012年按經濟活動劃分的資訊及通訊科技業增加價值分布

Chart 1.1 Distribution of value added of the information and communication technology (ICT) sector by economic activity in 2012

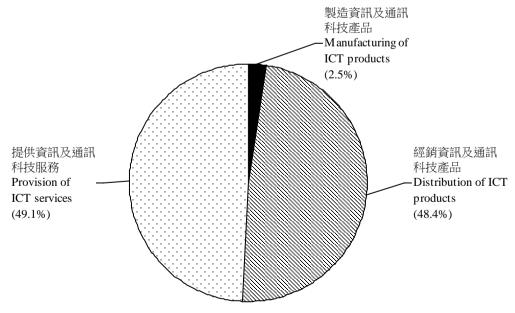


資料來源: 政府統計處科技統計組

Source: Science and Technology Statistics Section, Census and Statistics Department

圖 1.2 2012年按經濟活動劃分的資訊及通訊科技業就業人數分布

Chart 1.2 Distribution of number of persons engaged in the information and communication technology (ICT) sector by economic activity in 2012



資料來源: 政府統計處科技統計組

Source: Science and Technology Statistics Section, Census and Statistics Department

表 1.2 資訊及通訊科技業的研究及發展(研發)活動(1)

Table 1.2 Research and development (R&D) activities ⁽¹⁾ in the information and communication technology (ICT) sector

	2008	2009	2010	2011	2012
資訊及通訊科技業的研發總開支 ⁽²⁾ (百萬港元)	2,697	2,576	2,932	3,100	3,416
Total R&D expenditure (2) in ICT sector (HK\$ million)	-	(-4.5)	(+13.8)	(+5.7)	(+10.2)
佔工商機構的研發總開支的百分比	51.2	47.1	50.8	50.1	51.4
As a % of total R&D expenditure in the business					
資訊及通訊科技業的研究人員數目 ⁽³⁾	5 770	5 209	5 907	5 911	6 344
Number of R&D personnel (3) in ICT sector	-	(-9.7)	(+13.4)	(+0.1)	(+7.3)
佔工商機構的研究人員數目的百分比	56.2	49.7	54.2	53.4	55.7
As a % of total number of R&D personnel in the					
business sector					

註釋: 括號內的數字是與上年比較的變動百分率。

- (1) 資訊及通訊科技業的研發活動統計數字由 2008 年開始編製。
- (2) 包括本地機構為本身及/或為其他機構進行的研發活動開支。
- (3) 為了反映投放予研發活動的實際人力資源,研究人員的數字是以「相當於全日制的人數」計算,並根據有關統計年 投放在研發活動的工作年總數作估算。

Notes: Figures in brackets denote percentage changes over the preceding year.

- (1) Statistics on R&D in ICT sector are available as from 2008.
- (2) Including expenditure on in-house R&D activities conducted by a local party for itself and/or for other organisations.
- (3) In depicting the actual amount of manpower resources deployed to R&D activities, figures on R&D personnel are expra full-time equivalent (FTE), which is estimated on the basis of the total number of man-years devoted to R&D activities du reference year.

資料來源: 政府統計處科技統計組

Source: Science and Technology Statistics Section, Census and Statistics Department

表 1.3 電訊業營辦商的數目

Table 1.3 Number of operators in telecommunications industry

	2003	2008	2009	2010	2011	2012	2013
本地固定網絡營辦商數目 ⁽¹⁾ Number of local fixed network operators ⁽¹⁾	5	12	12	14	17	18	21
流動網絡營辦商 Number of mobile network operators	6	5	5	5	5	5	5
對外電訊服務營辦商數目 ⁽²⁾⁽³⁾ Number of external telecommunications service operators ⁽²⁾⁽³⁾	250 (+3.7)	295 (-1.0)	309 (+4.7)	320 (+3.6)	301 (-5.9)	286 (-5.0)	282 (-1.4)
持牌互聯網服務供應商數目 ⁽⁴⁾ Number of licensed Internet service providers (ISPs) ⁽⁴⁾	214 (-13.0)	192 (+0.5)	189 (-1.6)	184 (-2.6)	185 (+0.5)	186 (+0.5)	197 (+5.9)

註釋: 括號內的數字是與上年比較的變動百分率。

- (1) 包括所有按固定電訊網絡服務牌照、固定傳送者牌照,或綜合傳送者牌照獲准提供設施為本的有線或無線本地固定 電訊服務的營辦商。
- (2) 對外電訊服務營辦商包括設施為本的對外固定網絡營辦商及服務為本的對外電訊營辦商。前者是指經營者建立自己的網絡,用於提供對外電訊服務。而後者則指電訊服務供應商,依靠設施為本的對外固定網絡營辦商所提供的固定網絡來提供電訊服務。服務為本的對外電訊營辦商可設立一些設施,如建築物及租用土地內的斷路器或伺服器以提供電訊服務。
- (3) 因應對外電訊服務營辦商涵蓋範圍的轉變,數字有所修正。
- (4) 互聯網持牌供應商的數目因供應商要求重新分類其服務而有所調整。

Notes: Figures in brackets denote percentage changes over the preceding year.

- (1) Include all licensees authorised to provide facility-based local fixed telecommunications services under fixed telecommunications network services licence, fixed carrier licence or unified carrier licence using wireline or wireless technology.
- (2) The external telecommunications service operators include facility-based external fixed network operators and service-based external telecommunications service operators. The former refer to operators which establish their own networks for the provision of external telecommunications services. As for the latter, they refer to telecommunications service providers which rely on the fixed networks established by facility-based operators to provide their own telecommunications services. Service-based external telecommunications operators may establish some facilities such as switches, routers, servers within buildings and leased land for the provision of telecommunications services.
- (3) Figures on number of external telecommunications service operators were revised due to change of coverage.
- (4) The number of ISPs were adjusted due to reclassification of service requested by some licensees.

資料來源: 通訊事務管理局辦公室

Source: Office of the Communications Authority

表 1.4 按所提供的服務類別劃分的互聯網服務公司的業務收益

Table 1.4 Business receipts of Internet Service Providers (ISPs) by type of services provided

百萬港元

						H	K\$ million
所提供的服務類別 Type of services provided	2002	2007	2008	2009	2010	2011	2012
基本接駁服務 (1)	2,702	5,916	6,086	7,041	8,390	9,110	8,411
Basic connection services (1)	(+4.5)	(+37.5)	(+2.9)	(+15.7)	(+19.2)	(+8.6)	(-7.7)
	[60.8]	[88.4]	[86.7]	[87.1]	[81.7]	[70.7]	[69.5]
儲存網站及有關服務	772	228	302	330	668	634	504
Website hosting and related services	(+126.5)	(+142.7)	(+32.0)	(+9.5)	(+102.4)	(-5.1)	(-20.5)
	[17.4]	[3.4]	[4.3]	[4.1]	[6.5]	[4.9]	[4.2]
其他服務	974	549	633	715	1,205	3,135	3,195
Other services	(-25.5)	(+8.1)	(+15.2)	(+12.9)	(+68.6)	(+160.1)	(+1.9)
	[21.9]	[8.2]	[9.0]	[8.8]	[11.7]	[24.3]	[26.4]
總計	4,447	6,694	7,021	8,086	10,263	12,878	12,110
Total	(+5.1)	(+36.5)	(+4.9)	(+15.2)	(+26.9)	(+25.5)	(-6.0)
	[100.0]	[100.0]	[100.0]	[100.0]	[100.0]	[100.0]	[100.0]

註釋: 圓括號內的數字是與上年比較的變動百分率。

方括號內的數字是佔個別總計的百分比。

(1) 包括撥號線路/直駁專線/寬頻賬戶, 不包括入會/登記/開戶服務。

Notes: Figures in rounded brackets denote percentage changes over the preceding year.

Figures in square brackets denote the percentage shares of the respective totals.

(1) Including dial-up/leased line/broadband accounts, excluding membership/registration/account set-up services.

資料來源: 政府統計處商業服務統計組

Source: Business Services Statistics Section, Census and Statistics Department

第 2 章 資訊及通訊科技貨品的進出口情況 Chapter 2 Imports and Exports of Information and Communication Technology Goods

緒言

2.1 資訊及通訊科技貨品的分類主要是參考聯合國貿易和發展會議以及經濟合作與發展組織所倡議的國際指引而制定。基本上,資訊及通訊科技貨品是指那些透過電子方式(包括傳輸和顯示)達致資訊處理和通訊功能,或採用電子處理模式來進行檢測、測量及/或記錄實質現象,或控制一個實質程序的貨品。資訊及通訊科技貨品包括下列類別:(i)電訊設備、(ii)電腦及相關設備、(iii)電子組件、(iv)影音設備;及(v)其他資訊及通訊科技貨品。

2.2 香港是區內一個資訊及通訊科技貨品貿易的主要中介中心。本章展示在 2003 至 2013 年期間,香港資訊及通訊科技貨品的進口及出口趨勢和發展。由 2007 年 1 月起,香港的對外貿易統計就電訊設備的涵蓋範圍作出了修訂。因此,該類貨品於 2007 年及以後的貿易數字不能與較早年份的數字作直接比較。

Introduction

- 2.1 classification of information communication technology (ICT) goods mainly follows the international guidelines promulgated by the United Nations Conference on Trade and Development (UNCTAD) and the Organisation for Economic C-operation and Development (OECD). Primarily, ICT goods are those that are either intended to fulfill the function of information processing and communication by electronic means (including transmission and display) or which use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process. ICT goods are grouped into the following categories: (i) telecommunications equipment, (ii) computer and related equipment, (iii) electronic components, (iv) audio and video equipment, and (v) other ICT goods.
- 2.2 Hong Kong is a major intermediary centre for trading of ICT goods in the region. This Chapter highlights the trend and developments in imports and exports of ICT goods in Hong Kong during the period of 2003 to 2013. As from January 2007, the coverage of telecommunications equipment has been revised and the trade figures as from 2007 are not strictly comparable with those in previous years.

概要

2.3 過去十年,香港的資訊及通訊科技貨品對外貿易增長強勁。在 2003 年至 2013 年期間,資訊及通訊科技貨品的進口貨值平均每年增長 12.0%,遠超總進口貨值的相應增長(8.4%)。 同期,資訊及通訊科技貨品的總出口(包括港產品出口及轉口)貨值平均每年增長 12.1%,亦高於總出口貨值的相應增長(7.4%)。 在 2013 年,資訊及通訊科技貨品的進口貨值為 20,052 億元,佔總進口貨值的 49.4%。資訊及通訊科技貨品的總出口貨值則達 19,090 億元,佔總出口貨值的53.6%。(表 2.1)

電訊設備

- 2.4 在 2013 年,香港的電訊設備進口貨值 達 4,519 億元。同年,電訊設備的整體出口 貨值為 4,668 億元。(表 2.1 及 2.2)
- 2.5 在 2013 年,中國內地(內地)為香港 最主要的電訊設備供應地,佔電訊設備進口 總值的 75.5%。第二及第三的主要供應地是 美國和阿拉伯聯合酋長國,分別佔總值的 5.4%和 2.5%。(表 2.2)
- 2.6 内地和美國為香港電訊設備整體出口最主要的兩個目的地,分別佔總值的 48.3% 和 8.7%。(表 2.2)

Overview

2.3 The growth of Hong Kong's external trade in ICT goods was phenomenal over the past decade. The value of the imports of ICT goods increased at an average rate of 12.0% per annum between 2003 and 2013, markedly faster than the corresponding figure of 8.4% for the total merchandise imports. Over the same period, the value of the total exports (including domestic exports and re-exports) of ICT goods increased by 12.1% per annum, also faster than the 7.4% for the total merchandise exports. In 2013, the imports of ICT goods amounted to \$2,005.2 billion, accounting for 49.4% of the total merchandise imports. The value of total exports of ICT goods reached \$1,909.0 billion in 2013, representing 53.6% of the total merchandise exports. (Table 2.1)

Telecommunications Equipment

- 2.4 In 2013, Hong Kong's imports of telecommunications equipment amounted to \$451.9 billion. In the same year, the value of total exports of telecommunications equipment was \$466.8 billion. (Tables 2.1 and 2.2)
- 2.5 The mainland of China (the Mainland) was the major supplier, accounting for 75.5% of Hong Kong's total imports of telecommunications equipment in 2013. The second and third major suppliers were the United States of America (USA) and the United Arab Emirates, accounting for 5.4% and 2.5% respectively of the total. (Table 2.2)
- 2.6 The Mainland and the USA were the two major destinations of Hong Kong's total exports of telecommunications equipment, accounting for 48.3% and 8.7% respectively of the total. (Table 2.2)

電腦及相關設備

- 2.7 在 2013 年,香港的電腦及相關設備進口貨值達 4,075 億元。同年,電腦及相關設備的整體出口貨值為 3,992 億元。 (表 2.1 及 2.3)
- 2.8 在 2013 年,67.6% 進口香港的電腦及相關設備來自內地。第二及第三的主要供應地是日本和泰國,分別佔總值的 6.0% 和 5.5%。(表 2.3)
- 2.9 在 2013 年,香港電腦及相關設備整體 出口的最大目的地是內地,佔總值的 66.7%。第二及第三大目的地是美國和日 本,分別佔總值的 5.9%和 3.7%。(表 2.3)

電子組件

- 2.10 在 2013 年,電子組件的進口及整體出口貨值分別達 9,789 億元及 8,841 億元。(表 2.1 及 2.4)
- 2.11 在 2013 年,香港進口的電子組件的首 三個供應地依次是內地、台灣及新加坡,它 們分別佔電子組件進口總值的 35.5%、17.0% 及 14.7%。(表 2.4)
- 2.12 在 2013 年,香港電子組件整體出口的最大目的地是內地,佔總值的 79.6%。其次是美國和台灣,各佔總值的 2.8%。(表 2.4)

Computer and Related Equipment

- 2.7 In 2013, Hong Kong's imports of computer and related equipment reached \$407.5 billion. In the same year, the value of total exports of computer and related equipment was \$399.2 billion. (Tables 2.1 and 2.3)
- 2.8 In 2013, 67.6% of Hong Kong's imports of computer and related equipment was supplied by the Mainland. The second and third major suppliers were Japan and Thailand, accounting for 6.0% and 5.5% respectively of the total. (Table 2.3)
- 2.9 In 2013, the Mainland was the largest destination of Hong Kong's total exports of computer and related equipment, accounting for 66.7% of the total. The second and third largest destinations were the USA and Japan, accounting for 5.9% and 3.7% respectively of the total. (Table 2.3)

Electronic Components

- 2.10 In 2013, the value of imports and total exports of electronic components reached \$978.9 billion and \$884.1 billion respectively. (Tables 2.1 and 2.4)
- 2.11 In 2013, the top three suppliers of Hong Kong's imports of electronic components were the Mainland, Taiwan and Singapore. They accounted for 35.5%, 17.0% and 14.7% of the total value of Hong Kong's imports of electronic components respectively. (Table 2.4)
- 2.12 In 2013, the Mainland was the largest destination of Hong Kong's total exports of electronic components, accounting for 79.6% of the total. It was followed by the USA and Taiwan, each accounting for 2.8% of the total. (Table 2.4)

影音設備

- 2.13 在 2013 年,香港的影音設備進□貨值 達 1,305 億元。同年,影音設備的整體出□ 貨值為 1,057 億元。(表 2.1 及 2.5)
- 2.14 香港進口的影音設備主要來自內地。 在 2013 年,來自內地的影音設備佔總值的 63.6%。第二和第三大供應地是台灣和日 本,分別佔總值的 10.1%和 6.4%。 (表 2.5)
- 2.15 在 2013 年,香港影音設備整體出口的最大兩個目的地是內地和美國,分別佔總值的 36.8%和 14.1%。第三大目的地是日本,佔總值的 7.4%。(表 2.5)

其他資訊及通訊科技貨品

- 2.16 就香港的情況而言,其他資訊及通訊 科技貨品主要包括辦公室機器及設備、醫療 設備、工業工序控制機器,以及量度、檢查、 測試和導航儀器等。在 2013 年,其他資訊 及通訊科技貨品的進口及整體出口貨值分 別達 363 億元及 533 億元。(表 2.1 及 2.6)
- 2.17 在 2013 年,香港進口的其他資訊及通訊科技貨品的首三個供應地依次是內地、美國及德國,它們分別佔其他資訊及通訊科技貨品進口總值的 48.2%、16.0%及 8.5%。(表 2.6)
- 2.18 在 2013 年,香港其他資訊及通訊科技 貨品整體出口的最大目的地是內地,佔總值 的 67.7%。第二及第三大目的地是美國及日 本,分別佔總值的 9.1%和 2.9%。(表 2.6)

Audio and Video Equipment

- 2.13 In 2013, Hong Kong's imports of audio and video equipment reached \$130.5 billion. In the same year, the value of total exports of audio and video equipment was \$105.7 billion. (Tables 2.1 and 2.5)
- 2.14 The most important source of Hong Kong's imports of audio and video equipment was the Mainland. In 2013, the share of the Mainland was 63.6%. The second and third largest suppliers were Taiwan and Japan, accounting for 10.1% and 6.4% respectively of the total. (Table 2.5)
- 2.15 In 2013, the Mainland and the USA were the two largest destinations of Hong Kong's total exports of audio and video equipment, accounting for 36.8% and 14.1% of the total respectively. The third largest destination was Japan, accounting for 7.4% of the total. (Table 2.5)

Other ICT Goods

- 2.16 In the case of Hong Kong, other ICT goods mainly cover office machinery and equipment, medical equipment, industrial process control equipment, and appliances for measuring, checking, testing and navigating, etc. In 2013, the value of imports and total exports of other ICT goods reached \$36.3 billion and \$53.3 billion respectively. (Tables 2.1 and 2.6)
- 2.17 In 2013, the top three suppliers of Hong Kong's imports of other ICT goods were the Mainland, the USA and Germany. They accounted for 48.2%, 16.0% and 8.5% respectively of the total value of Hong Kong's imports of other ICT goods. (Table 2.6)
- 2.18 In 2013, the Mainland was the largest destination of Hong Kong's total exports of other ICT goods, accounting for 67.7% of the total. The second and third largest destinations were the USA and Japan, accounting for 9.1% and 2.9% respectively of the total. (Table 2.6)

其他有關刊物

香港對外商品貿易(月刊)

香港商品貿易統計: 進口(月刊)

香港商品貿易統計:港產品出口及轉口(月刊)

香港商品貿易統計:周年附刊 — 進口(年 刊)

香港商品貿易統計:周年附刊 — 港產品出口及轉口(年刊)

Further references

Hong Kong External Merchandise Trade (Monthly)

Hong Kong Merchandise Trade Statistics: Imports (Monthly)

Hong Kong Merchandise Trade Statistics: Domestic Exports and Re-exports (Monthly)

Hong Kong Merchandise Trade Statistics: Annual Supplement - Imports (Annual)

Hong Kong Merchandise Trade Statistics: Annual Supplement - Domestic Exports and Re-exports (Annual)

表 2.1 整體資訊及通訊科技貨品的進口及出口

Table 2.1 Imports and exports of all information and communication technology goods

百萬港元

						I	HK\$ million
	2003	2008	2009	2010	2011	2012	2013
進口 ⁽¹⁾	643,975	1,291,872	1,232,135	1,587,552	1,739,703	1,887,163	2,005,200
Imports (1)	(+19.5)	(+4.0)	(-4.6)	(+28.8)	(+9.6)	(+8.5)	(+6.3)
電訊設備(1)	60,632	189,727	187,291	240,697	309,833	388,405	451,931
Telecommunications equipment (1)	(-10.0)	(+6.6)	(-1.3)	(+28.5)	(+28.7)	(+25.4)	(+16.4)
電腦及相關設備	167,434	278,299	252,240	330,510	363,237	417,891	407,497
Computer and related equipment	(+20.5)	(+6.3)	(-9.4)	(+31.0)	(+9.9)	(+15.0)	(-2.5)
電子組件	289,933	652,252	641,659	841,429	883,785	894,079	978,942
Electronic components	(+27.8)	(+4.0)	(-1.6)	(+31.1)	(+5.0)	(+1.2)	(+9.5)
影音設備	108,436	143,666	125,886	141,762	145,275	146,256	130,529
Audio and video equipment	(+19.0)	(-3.4)	(-12.4)	(+12.6)	(+2.5)	(+0.7)	(-10.8)
其他資訊及通訊科技貨品	17,540	27,928	25,060	33,154	37,574	40,533	36,302
Other ICT goods	(+21.0)	(+5.9)	(-10.3)	(+32.3)	(+13.3)	(+7.9)	(-10.4)
佔所有對外貿易進口的百分比 As a % of total imports	35.7	42.7	45.8	47.2	46.2	48.2	49.4
整體出口(1)	607,917	1,284,392	1,192,871	1,520,429	1,672,068	1,788,570	1,909,027
Total exports (1)	(+22.7)	(+6.5)	(-7.1)	(+27.5)	(+10.0)	(+7.0)	(+6.7)
電訊設備(1)	51,898	208,367	205,157	270,737	326,071	378,170	466,757
Telecommunications equipment (1)	(+8.8)	(+12.6)	(-1.5)	(+32.0)	(+20.4)	(+16.0)	(+23.4)
電腦及相關設備	169,921	292,058	254,789	338,796	386,369	428,330	399,167
Computer and related equipment	(+26.1)	(+8.1)	(-12.8)	(+33.0)	(+14.0)	(+10.9)	(-6.8)
電子組件	247,727	590,337	581,207	738,481	785,498	806,983	884,126
Electronic components	(+25.0)	(+9.1)	(-1.5)	(+27.1)	(+6.4)	(+2.7)	(+9.6)
影音設備	119,870	159,102	121,863	131,829	126,629	121,607	105,712
Audio and video equipment	(+22.7)	(-9.6)	(-23.4)	(+8.2)	(-3.9)	(-4.0)	(-13.1)
其他資訊及通訊科技貨品	18,501	34,528	29,856	40,586	47,502	53,480	53,265
Other ICT goods	(+9.7)	(+2.9)	(-13.5)	(+35.9)	(+17.0)	(+12.6)	(-0.4)
佔所有對外貿易出口的百分比 As a % of total exports	34.9	45.5	48.3	50.2	50.1	52.1	53.6

註釋: 括號內的數字是與上年比較的變動百分率。

Note: Figures in brackets denote percentage change over the preceding year.

資料來源: 政府統計處貿易資料分析組

⁽¹⁾ 由 2007 年 1 月起,電訊設備的涵蓋範圍已修訂。在本表內,2007 年及以後的電訊設備貿易數字不可與較前年份的 數字作直接比較。

⁽¹⁾ As from January 2007, the coverage of telecommunications equipment has been revised. In this table, trade figures of telecommunications equipment as from 2007 are not strictly comparable with those in previous years.

表 2.2 電訊設備(1)按主要供應地劃分的進口及按主要目的地劃分的出口

Table 2.2 Imports by main supplier and exports by main destination of telecommunications equipment (1)

百萬港元

						Н	K\$ million
	2003	2008	2009	2010	2011	2012	2013
進口	60,632	189,727	187,291	240,697	309,833	388,405	451,931
Imports	(-10.0)	(+6.6)	(-1.3)	(+28.5)	(+28.7)	(+25.4)	(+16.4)
中國內地	22,551	129,578	130,153	175,897	221,308	281,149	341,121
The mainland of China	(-10.1)	(+8.2)	(+0.4)	(+35.1)	(+25.8)	(+27.0)	(+21.3)
美國	1,974	6,083	8,012	10,839	13,473	13,552	24,611
United States of America	(-15.3)	(+20.2)	(+31.7)	(+35.3)	(+24.3)	(+0.6)	(+81.6)
阿拉伯聯合酋長國	1,464	1,130	2,279	3,483	4,980	9,481	11,193
United Arab Emirates	(-3.3)	(-9.8)	(+101.7)	(+52.8)	(+43.0)	(+90.4)	(+18.1)
整體出口	51,898	208,367	205,157	270,737	326,071	378,170	466,757
Total exports	(+8.8)	(+12.6)	(-1.5)	(+32.0)	(+20.4)	(+16.0)	(+23.4)
中國內地	16,103	72,071	75,494	104,854	133,152	168,442	225,539
The mainland of China	(+13.1)	(+2.7)	(+4.7)	(+38.9)	(+27.0)	(+26.5)	(+33.9)
美國	8,399	28,004	26,784	36,249	33,432	39,327	40,446
United States of America	(-19.9)	(+6.0)	(-4.4)	(+35.3)	(-7.8)	(+17.6)	(+2.8)
印度	3,174	5,343	8,266	15,223	18,273	19,447	22,699
India	(+232.9)	(+67.4)	(+54.7)	(+84.2)	(+20.0)	(+6.4)	(+16.7)
港產品出口	402	8,421	7,649	10,148	2,397	330	132
Domestic exports	(+25.0)	(+11.7)	(-9.2)	(+32.7)	(-76.4)	(-86.2)	(-60.2)
中國內地	332	439	348	793	268	254	93
The mainland of China	(+12.1)	(+1.4)	(-20.9)	(+128.2)	(-66.2)	(-5.3)	(-63.5)
美國	2	1,866	2,058	3,082	858	49	15
United States of America	(-26.0)	(+29.2)	(+10.3)	(+49.8)	(-72.2)	(-94.3)	(-68.2)
巴西	Ş	33	20	37	60	§	6
Brazil	(-48.2)	(+968.4)	(-39.0)	(+82.5)	(+63.2)	(-99.8)	(†)
轉口	51,496	199,946	197,508	260,589	323,673	377,840	466,626
Re-exports	(+8.7)	(+12.7)	(-1.2)	(+31.9)	(+24.2)	(+16.7)	(+23.5)
中國內地	15,771	71,632	75,146	104,060	132,883	168,188	225,446
The mainland of China	(+13.2)	(+2.7)	(+4.9)	(+38.5)	(+27.7)	(+26.6)	(+34.0)
美國	8,396	26,139	24,727	33,167	32,574	39,279	40,430
United States of America	(-19.9)	(+4.6)	(-5.4)	(+34.1)	(-1.8)	(+20.6)	(+2.9)
印度	3,174	4,791	7,792	14,642	18,151	19,446	22,698
India	(+233.0)	(+81.1)	(+62.6)	(+87.9)	(+24.0)	(+7.1)	(+16.7)

註釋: 括號內的數字是與上年比較的變動百分率。

- (1) 由 2007 年 1 月起,電訊設備的涵蓋範圍已修訂。在本表內,2007 年及以後的貿易數字不可與較前年份的數字作直接比較。
- § 少於 500,000 港元。
- † 表示增減大於 999.9%。

Notes:

Figures in brackets denote percentage change over the preceding year.

- (1) As from January 2007, the coverage of telecommunications equipment has been revised. In this table, trade figures as from 2007 are not strictly comparable with those in previous years.
 - § Less than HK\$ 0.5 million.
 - † Denotes increase or decrease of over 999.9%.

資料來源: 政府統計處貿易資料分析組

表 2.3 電腦及相關設備按主要供應地劃分的進口及按主要目的地劃分的出口

Table 2.3 Imports by main supplier and exports by main destination of computer and related equipment

百萬港元 HK\$ million

	HK\$ mi							
	2003	2008	2009	2010	2011	2012	2013	
進口	167,434	278,299	252,240	330,510	363,237	417,891	407,497	
Imports	(+20.5)	(+6.3)	(-9.4)	(+31.0)	(+9.9)	(+15.0)	(-2.5)	
中國內地	64,667	164,447	150,531	201,141	236,520	285,333	275,498	
The mainland of China	(+34.8)	(+12.5)	(-8.5)	(+33.6)	(+17.6)	(+20.6)	(-3.4)	
日本	13,012	24,779	20,746	27,583	28,393	27,814	24,429	
Japan	(+22.0)	(-0.3)	(-16.3)	(+33.0)	(+2.9)	(-2.0)	(-12.2)	
泰國	3,514	17,105	14,539	19,803	19,176	21,085	22,464	
Thailand	(+22.6)	(+12.9)	(-15.0)	(+36.2)	(-3.2)	(+10.0)	(+6.5)	
整體出口	169,921	292,058	254,789	338,796	386,369	428,330	399,167	
Total exports	(+26.1)	(+8.1)	(-12.8)	(+33.0)	(+14.0)	(+10.9)	(-6.8)	
中國內地	87,713	183,107	169,194	231,543	259,902	294,510	266,113	
The mainland of China	(+42.5)	(+11.0)	(-7.6)	(+36.9)	(+12.2)	(+13.3)	(-9.6)	
美國	17,605	20,879	17,348	19,507	21,229	25,910	23,719	
United States of America	(+4.4)	(+1.1)	(-16.9)	(+12.4)	(+8.8)	(+22.0)	(-8.5)	
日本	7,655	12,710	9,782	12,059	13,501	16,151	14,715	
Japan	(+30.0)	(+7.8)	(-23.0)	(+23.3)	(+12.0)	(+19.6)	(-8.9)	
港產品出口	4,649	1,424	1,135	1,145	2,391	3,058	1,675	
Domestic exports	(+23.8)	(-48.7)	(-20.3)	(+0.8)	(+108.9)	(+27.9)	(-45.2)	
美國	1,616	102	109	94	997	2,037	726	
United States of America	(-16.8)	(-23.1)	(+6.7)	(-13.8)	(+965.8)	(+104.2)	(-64.4)	
中國內地	588	679	499	496	618	556	448	
The mainland of China	(-1.6)	(-63.2)	(-26.6)	(-0.6)	(+24.5)	(-10.0)	(-19.3)	
日本	499	52	46	68	140	112	195	
Japan	(+111.5)	(-24.2)	(-12.6)	(+49.4)	(+105.5)	(-20.2)	(+74.0)	
轉口	165,272	290,633	253,653	337,651	383,978	425,272	397,492	
Re-exports	(+26.2)	(+8.7)	(-12.7)	(+33.1)	(+13.7)	(+10.8)	(-6.5)	
中國內地	87,125	182,427	168,695	231,047	259,284	293,954	265,665	
The mainland of China	(+42.9)	(+11.8)	(-7.5)	(+37.0)	(+12.2)	(+13.4)	(-9.6)	
美國	15,989	20,778	17,240	19,414	20,232	23,873	22,993	
United States of America	(+7.1)	(+1.2)	(-17.0)	(+12.6)	(+4.2)	(+18.0)	(-3.7)	
日本	7,156	12,657	9,736	11,991	13,361	16,039	14,520	
Japan	(+26.6)	(+8.0)	(-23.1)	(+23.2)	(+11.4)	(+20.0)	(-9.5)	

註釋: 括號內的數字是與上年比較的變動百分率。

Note: Figures in brackets denote percentage change over the preceding year.

資料來源: 政府統計處貿易資料分析組

表 2.4 電子組件按主要供應地劃分的進口及按主要目的地劃分的出口

Table 2.4 Imports by main supplier and exports by main destination of electronic components

百萬港元 HK\$ million

	HK\$ m							
	2003	2008	2009	2010	2011	2012	2013	
進口	289,933	652,252	641,659	841,429	883,785	894,079	978,942	
Imports	(+27.8)	(+4.0)	(-1.6)	(+31.1)	(+5.0)	(+1.2)	(+9.5)	
中國內地	62,616	202,267	205,973	268,747	285,834	298,069	347,493	
The mainland of China	(+40.2)	(+14.8)	(+1.8)	(+30.5)	(+6.4)	(+4.3)	(+16.6)	
台灣	45,723	108,500	106,971	130,820	135,988	148,496	166,127	
Taiwan	(+7.3)	(-0.9)	(-1.4)	(+22.3)	(+4.0)	(+9.2)	(+11.9)	
新加坡	33,626	99,770	97,437	135,703	143,107	139,683	143,524	
Singapore	(+39.6)	(+6.3)	(-2.3)	(+39.3)	(+5.5)	(-2.4)	(+2.7)	
整體出口	247,727	590,337	581,207	738,481	785,498	806,983	884,126	
Total exports	(+25.0)	(+9.1)	(-1.5)	(+27.1)	(+6.4)	(+2.7)	(+9.6)	
中國內地	165,759	441,164	456,838	572,374	610,349	637,495	704,172	
The mainland of China	(+31.8)	(+10.4)	(+3.6)	(+25.3)	(+6.6)	(+4.4)	(+10.5)	
美國	10,906	20,578	16,656	22,910	25,163	23,640	24,953	
United States of America	(+4.2)	(+9.9)	(-19.1)	(+37.5)	(+9.8)	(-6.1)	(+5.6)	
台灣	16,969	19,021	19,535	25,801	26,657	24,726	24,432	
Taiwan	(+45.1)	(-6.3)	(+2.7)	(+32.1)	(+3.3)	(-7.2)	(-1.2)	
港產品出口	7,864	4,887	3,522	3,586	3,196	2,611	2,127	
Domestic exports	(-43.9)	(-23.8)	(-27.9)	(+1.8)	(-10.9)	(-18.3)	(-18.5)	
中國內地	2,599	2,469	1,969	1,890	1,652	1,441	1,276	
The mainland of China	(-29.6)	(-22.6)	(-20.3)	(-4.0)	(-12.6)	(-12.8)	(-11.5)	
美國	905	381	227	258	304	259	219	
United States of America	(-53.8)	(-3.9)	(-40.3)	(+13.6)	(+17.8)	(-14.7)	(-15.7)	
馬來西亞	519	337	205	342	342	276	206	
Malaysia	(-74.1)	(-6.4)	(-39.3)	(+66.8)	(+0.1)	(-19.2)	(-25.3)	
轉口	239,863	585,449	577,685	734,895	782,302	804,372	881,999	
Re-exports	(+30.2)	(+9.5)	(-1.3)	(+27.2)	(+6.5)	(+2.8)	(+9.7)	
中國內地	163,160	438,695	454,869	570,483	608,697	636,054	702,897	
The mainland of China	(+33.6)	(+10.6)	(+3.7)	(+25.4)	(+6.7)	(+4.5)	(+10.5)	
美國	10,001	20,197	16,429	22,652	24,859	23,381	24,734	
United States of America	(+17.6)	(+10.2)	(-18.7)	(+37.9)	(+9.7)	(-5.9)	(+5.8)	
台灣	16,241	18,810	19,372	25,642	26,543	24,652	24,370	
Taiwan	(+56.9)	(-6.1)	(+3.0)	(+32.4)	(+3.5)	(-7.1)	(-1.1)	

註釋: 括號內的數字是與上年比較的變動百分率。

Note: Figures in brackets denote percentage change over the preceding year.

資料來源: 政府統計處貿易資料分析組

表 2.5 影音設備按主要供應地劃分的進口及按主要目的地劃分的出口

Table 2.5 Imports by main supplier and exports by main destination of audio and video equipment

百萬港元 HK\$ million

						ŀ	HK\$ million
	2003	2008	2009	2010	2011	2012	2013
進口	108,436	143,666	125,886	141,762	145,275	146,256	130,529
Imports	(+19.0)	(-3.4)	(-12.4)	(+12.6)	(+2.5)	(+0.7)	(-10.8)
中國內地	75,718	102,494	88,080	98,169	97,481	99,453	82,956
The mainland of China	(+22.9)	(-3.5)	(-14.1)	(+11.5)	(-0.7)	(+2.0)	(-16.6)
台灣	2,297	6,689	6,344	9,475	11,122	11,962	13,201
Taiwan	(+34.9)	(-10.9)	(-5.2)	(+49.4)	(+17.4)	(+7.6)	(+10.4)
日本	19,042	14,474	10,732	11,308	10,575	9,267	8,388
Japan	(+12.3)	(-4.4)	(-25.9)	(+5.4)	(-6.5)	(-12.4)	(-9.5)
整體出口	119,870	159,102	121,863	131,829	126,629	121,607	105,712
Total exports	(+22.7)	(-9.6)	(-23.4)	(+8.2)	(-3.9)	(-4.0)	(-13.1)
中國內地	37,605	54,001	39,376	43,244	43,876	42,551	38,924
The mainland of China	(+26.8)	(-11.3)	(-27.1)	(+9.8)	(+1.5)	(-3.0)	(-8.5)
美國	22,916	27,248	22,826	24,385	19,045	17,719	14,918
United States of America	(+7.2)	(-13.5)	(-16.2)	(+6.8)	(-21.9)	(-7.0)	(-15.8)
日本	8,604	9,669	7,766	10,783	11,718	10,728	7,863
Japan	(+18.8)	(+3.8)	(-19.7)	(+38.8)	(+8.7)	(-8.4)	(-26.7)
港產品出口	1,227	798	454	428	320	259	196
Domestic exports	(+17.1)	(-34.6)	(-43.1)	(-5.6)	(-25.3)	(-19.0)	(-24.2)
中國內地	279	366	152	227	153	125	140
The mainland of China	(-53.7)	(+8.2)	(-58.6)	(+49.4)	(-32.6)	(-18.2)	(+11.7)
台灣	14	13	95	59	13	5	18
Taiwan	(+21.4)	(-9.1)	(+634.3)	(-38.6)	(-77.2)	(-60.8)	(+246.3)
菲律賓	10	10	1	9	15	18	11
Philippines	(+195.8)	(-38.5)	(-87.6)	(+620.5)	(+78.2)	(+18.9)	(-39.7)
轉口	118,644	158,304	121,409	131,401	126,309	121,348	105,516
Re-exports	(+22.7)	(-9.4)	(-23.3)	(+8.2)	(-3.9)	(-3.9)	(-13.0)
中國內地	37,326	53,635	39,225	43,018	43,724	42,427	38,784
The mainland of China	(+28.4)	(-11.4)	(-26.9)	(+9.7)	(+1.6)	(-3.0)	(-8.6)
美國	22,799	27,187	22,801	24,365	19,020	17,695	14,910
United States of America	(+6.9)	(-13.2)	(-16.1)	(+6.9)	(-21.9)	(-7.0)	(-15.7)
日本	8,599	9,640	7,760	10,781	11,718	10,728	7,863
Japan	(+19.1)	(+3.9)	(-19.5)	(+38.9)	(+8.7)	(-8.4)	(-26.7)

註釋: 括號內的數字是與上年比較的變動百分率。

Note: Figures in brackets denote percentage change over the preceding year.

資料來源: 政府統計處貿易資料分析組

表 2.6 其他資訊及通訊科技貨品按主要供應地劃分的進口及按主要目的地劃分的出口

Table 2.6 Imports by main supplier and exports by main destination of other information and communication technology goods

百萬港元

						Н	K\$ million
	2003	2008	2009	2010	2011	2012	2013
進口	17,540	27,928	25,060	33,154	37,574	40,533	36,302
Imports	(+21.0)	(+5.9)	(-10.3)	(+32.3)	(+13.3)	(+7.9)	(-10.4)
中國內地	6,825	11,769	11,350	14,033	15,799	17,218	17,505
The mainland of China	(+21.8)	(+9.8)	(-3.6)	(+23.6)	(+12.6)	(+9.0)	(+1.7)
美國	3,066	3,908	3,875	4,942	5,393	6,926	5,792
United States of America	(+15.6)	(+1.9)	(-0.8)	(+27.5)	(+9.1)	(+28.4)	(-16.4)
德國	941	1,954	1,588	2,744	3,632	3,088	3,075
Germany	(+23.3)	(+27.3)	(-18.7)	(+72.7)	(+32.4)	(-15.0)	(-0.4)
整體出口	18,501	34,528	29,856	40,586	47,502	53,480	53,265
Total exports	(+9.7)	(+2.9)	(-13.5)	(+35.9)	(+17.0)	(+12.6)	(-0.4)
中國內地	9,082	21,800	18,894	26,161	32,775	37,728	36,050
The mainland of China	(+18.9)	(+3.7)	(-13.3)	(+38.5)	(+25.3)	(+15.1)	(-4.4)
美國	3,495	3,132	2,651	3,419	3,463	3,801	4,829
United States of America	(+10.3)	(-0.6)	(-15.4)	(+29.0)	(+1.3)	(+9.8)	(+27.0)
日本	1,066	1,341	1,462	1,843	1,719	1,753	1,551
Japan	(-3.2)	(+1.1)	(+9.1)	(+26.1)	(-6.7)	(+2.0)	(-11.5)
港產品出口	219	555	397	593	458	488	436
Domestic exports	(-13.4)	(-34.4)	(-28.5)	(+49.4)	(-22.7)	(+6.4)	(-10.5)
中國內地	116	324	229	283	194	189	182
The mainland of China	(-30.8)	(-11.9)	(-29.2)	(+23.5)	(-31.6)	(-2.5)	(-3.8)
台灣	10	66	79	155	111	77	119
Taiwan	(+35.7)	(-71.7)	(+20.8)	(+95.7)	(-28.8)	(-30.5)	(+54.6)
韓國	§	17	5	6	43	30	36
Korea	(-90.1)	(-81.3)	(-72.4)	(+28.6)	(+622.6)	(-29.1)	(+18.5)
轉口	18,282	33,973	29,459	39,993	47,044	52,993	52,829
Re-exports	(+10.1)	(+3.9)	(-13.3)	(+35.8)	(+17.6)	(+12.6)	(-0.3)
中國內地	8,966	21,475	18,665	25,878	32,582	37,539	35,868
The mainland of China	(+20.0)	(+4.0)	(-13.1)	(+38.6)	(+25.9)	(+15.2)	(-4.5)
美國	3,479	3,115	2,637	3,413	3,461	3,797	4,825
United States of America	(+10.5)	(-0.6)	(-15.3)	(+29.4)	(+1.4)	(+9.7)	(+27.1)
日本	1,060	1,303	1,454	1,818	1,682	1,738	1,531
Japan	(-3.1)	(+2.0)	(+11.5)	(+25.1)	(-7.4)	(+3.3)	(-11.9)

註釋: 括號內的數字是與上年比較的變動百分率。

§ 少於 500,000 港元。

Note: Figures in brackets denote percentage change over the preceding year.

§ Less than HK\$ 0.5 million.

資料來源: 政府統計處貿易資料分析組

Source: Trade Analysis Section, Census and Statistics Department

第 3 章 資訊及通訊科技的接達及使用情況

Chapter 3 Access To and Use of Information and Communication Technology

緒言

資訊及通訊科技的基礎建設及需求為量 度資訊社會的兩個主要範疇。根據通訊事務 管理局辦公室所提供有關電訊及互聯網服務 等資料編製而成的統計指標,有助評估相關 的基礎設施在促進資訊及通訊科技接達方面 的就緒程度。資訊及通訊科技的需求主要是 透過住戶、工商機構及政府使用電腦及互聯 網的情況作量度指標。住戶及商業機構使用 電腦及互聯網的統計數字是透過政府統計處 進行的兩項統計調查,即「資訊科技使用情 況和普及程度的主題性住戶統計調查」(住戶 資訊科技統計調查)及「資訊科技在工商業 的使用情况和普及程度統計調查」(工商業資 訊科技統計調查)所搜集的數據編製而成。 至於有關政府使用資訊及通訊科技的統計數 字則由政府資訊科技總監辦公室提供。

資訊及通訊科技的接達情況

電訊服務

3.2 經過多年,香港已發展全面和高效的資訊及通訊科技基礎設施,支援通訊及在線服務的快速增長。自2000年以來,固網電話線數目(包括網際規約電話服務客戶數目)大致保持穩定,每百名人口中約有60條線。另一方面,公共流動電話用戶數目在2013年達1719萬戶,較十年前增幅超逾一倍。公共流動電話用戶數目相對每百名人口為238.2戶,使香港成為全球流動電話用戶比率最高的地區之一。事實上,流動電話網絡已覆蓋所有的香港居民。(表3.1、3.2及3.3)

Introduction

Information and communication technology (ICT) infrastructure and ICT demand are two crucial dimensions for measuring an information society. Statistical indicators relating to telecommunications and Internet services based on data from the Office of Communications Authority are very useful for gauging the state of readiness of the infrastructure to facilitate access to ICT. ICT demand is mainly measured in terms of the use of personal computer (PC) and Internet by households, businesses and the Statistics on the use of PC and government. Internet in the household and business sectors are compiled from data collected through two surveys conducted by the Census and Statistics Department, viz. Thematic Household Survey on Information Technology Usage and Penetration (Household IT Survey) and Survey of Information Technology Usage and Penetration in the Business Sector (Business IT Survey). Statistics on the use of ICT in the government sector are provided by the Office of Government Chief Information Officer.

Access to ICT

Telecommunications services

3.2 Over the years, Hong Kong has developed comprehensive and efficient ICT infrastructure which facilitates the rapid take-up of communication and online services. The number of fixed telephone lines (including Internet **Protocol** service subscribers) has remained stable at around 60 per 100 population since 2000. On the other hand, the number of public mobile subscribers had more than doubled over the past decade, reaching 17.19 million in 2013. The number of public mobile subscribers as a ratio to 100 population was 238.2, making Hong Kong one of the places with the highest ratio in the world. In fact, all inhabitants of Hong Kong are covered by mobile cellular telephone network. (Tables 3.1, 3.2 and 3.3)

3.3 香港的流動電話市場在科技應用和服務提供方面不斷演變。第二代流動電話服務正逐步被新一代的流動電話服務所取代。在2013年,第二代流動電話用戶數目有534萬戶,與上年比較下跌了23.9%。第三代流動電話服務於2004年在香港推出,為顧客提供更多元化的多媒體流動通訊服務。截至2013年底,第三代/四代流動電話用戶數目達1185萬戶,在2008年至2013年期間平均每年大幅增加33.3%。(表3.3)

互聯網服務

3.4 過去十年,香港市民在工作及生活上使用互聯網服務變得越來越普遍。截至 2013 年底,每百名人口中有 37.3 個固定互聯網用戶¹,較 2008 年上升 2.2%。(表 3.1 及 3.5)

3.5 隨着科技的進步,以寬頻連接互聯網已日漸普及。在 2013 年,固定寬頻互聯網用戶數目為 223 萬,而按每百名人口計算的固定寬頻互聯網用戶數目的比率達 30.9 人。過去數年,固定寬頻互聯網用戶數目的增長漸趨整固。另一方面,流動寬頻服務則錄得可觀的增長。按每百名人口計算的流動寬頻訂戶數目由 2008 年的 40.4 個顯著上升至 2013 年的 164.2 個。(表 3.1 及 3.5)

3.3 The mobile phone market of Hong Kong is developing rapidly in terms of technology application and services offered. The second generation (2G) mobile phone services are increasingly being replaced by new generation of mobile phone services. In 2013, there were some 5.34 million subscribers of 2G mobile phone services, down by 23.9% when compared with a year The 3G mobile phone services were launched in Hong Kong in 2004, enabling consumers to enjoy a wider choice of multi-media mobile services. As at end 2013, the number of subscribers of 3G/4G mobile phone services reached 11.85 million, surging by an average of 33.3% per annum during the period 2008 to 2013. (Table 3.3)

Internet services

3.4 The use of Internet has been prevailing in work and life of people in Hong Kong over the past decade. By the end of 2013, the number of fixed Internet subscribers¹ per 100 population reached 37.3, up by 2.2% compared with 2008. (Tables 3.1 and 3.5)

With the advance in technology, the use of Internet with broadband connection has become popular. In 2013, the number of fixed broadband subscribers reached 2.23 million in Hong Kong, representing 30.9 fixed broadband Internet subscribers per 100 population. The growth momentum of the number of fixed broadband Internet subscribers has consolidated in recent years. On the other hand, the mobile broadband services have proliferated. The mobile broadband subscribers per 100 population increased significantly from 40.4 in 2008 to 164.2 in 2013. (Tables 3.1 and 3.5)

Census and Statistics Department, Hong Kong Special Administrative Region

[.] 固定互聯網用戶指以固定網絡接駁互聯網的用戶總數,包括 以撥號和固定寬頻接駁的用戶。

Fixed Internet subscribers refer to the total number of Internet subscribers with fixed access, including dial-up and total fixed broadband subscribers.

住戶使用資訊及通訊科技的情況

3.6 資訊及通訊科技實際上已滲透到本港社會上各層面及各類經濟活動。根據 2013 年的住戶資訊科技統計調查的結果,約 197 萬個住戶在家中有個人電腦,佔全港所有住戶的 81.9%。當中,約有 192 萬個住戶家中有個人電腦(不包括掌上電腦及個人數碼助理)接駁互聯網。換言之,在全港所有住戶中,有 79.9%的住戶家中有個人電腦接駁互聯網。(表 3.6)

個人使用資訊及通訊科技的情況

- 3.7 根據 2013 年的住戶資訊科技統計調查的結果,約 471 萬名 10 歲及以上的人士在統計前 12 個月內曾使用個人電腦。10 歲及以上人士在統計前 12 個月內曾使用個人電腦的整體比率為 74.9%,較 2003 年的 56.2%為高。(表 3.6)
- 3.8 在 2013 年,約 467 萬名 10 歲及以上的人士在統計前 12 個月內曾使用互聯網服務,佔所有 10 歲及以上人士的 74.2%(亦即佔所有在統計前 12 個月內曾使用個人電腦的10 歲及以上人士的 99.1%)。(表 3.6)

Use of ICT by Households

3.6 ICT has penetrated all walks of the society and forms of economies activities. According to the findings of the Household IT Survey in 2013, some 1.97 million households had personal computers (PCs) at home, constituting 81.9% of all households in Hong Kong. Among them, some 1.92 million households had their PCs (excluding palm top and Personal Digital Assistant) at home connected to Internet. In other words, 79.9% of all households in Hong Kong had their PCs at home connected to Internet. (Table 3.6)

Use of ICT by Individuals

- 3.7 According to the result of the Household IT Survey in 2013, some 4.71 million persons aged 10 and over had used PCs in the 12 months before enumeration. The overall rate of persons having used PCs in the 12 months before enumeration was 74.9% among all persons aged 10 and over, higher than that of 56.2% in 2003. (Table 3.6)
- 3.8 In 2013, some 4.67 million persons aged 10 and over had used Internet service in the 12 months before enumeration, accounting for 74.2% of all persons aged 10 and over (or 99.1% of all persons aged 10 and over who had used PCs in the 12 months before enumeration). (Table 3.6)

工商機構使用資訊及通訊科技的情況

3.9 工商機構有效採用資訊及通訊科技往往被視為帶動經濟增長的其中一個重要動力。 根據2013年的工商業資訊科技統計調查的結果,有使用電腦的工商機構比例為75.2%。 而使用互聯網的工商機構比例亦相若 (74.8%)。在2013年,具有網絡²的工商機 構的比例相對較低,為26.4%。(表3.7)

3.10 由於資訊及通訊科技的廣泛使用,工商機構透過電子途徑進行商業交易的比例不斷上升。在 2013 年,有 14.9% 的工商機構在統計前十二個月內曾透過電腦網絡提交訂單。然而,只有小部分(4.3%)的工商機構曾透過電腦網絡獲取訂單。(表 3.7)

工商業的資訊科技總開支

3.11 在 2012 年,工商業的資訊科技總開支 為 507 億元,相對本地生產總值的比率為 2.5%。在 2006 年至 2012 年期間,工商業的 資訊科技總開支相對本地生產總值的比率維 持在 2% 至 3%之間。(表 3.8)

Use of ICT by Businesses

3.9 The effective adoption of ICT is often seen as one of the strong driving forces behind economic growth in an economy. According to the findings of the Business IT Survey in 2013, 75.2% of the business establishments had used computers. The proportion of business establishments using the Internet was similar (74.8%). As regards the business establishments with a web presence², the proportion was relatively lower in 2013 (the figure being 26.4%). (Table 3.7)

3.10 As the use of ICT spreads, the proportion of business establishments making business transactions through electronic means has been rising. In 2013, 14.9% of business establishments had placed orders online in the twelve months before enumeration. However, only a small percentage (4.3%) of the business establishments hadreceived orders online. (Tables 3.7)

Expenditure on Information Technology in the Business Sector

3.11 The total expenditure on information technology (IT) in the business sector amounted to \$50.7 billion in 2012, representing a ratio of 2.5% to Gross Domestic Product (GDP). The total IT expenditure in the business sector as a ratio to GDP varied from 2% to 3% during the period between 2006 and 2012. (Table 3.8)

有網絡存在的工商機構是指機構具有本身的網站/網頁或顯示在另一個實體網站(包括相關業務的網站)。但並不包括列載於其他網上目錄或機構對網頁內容並沒有主導控制的其他網頁。

^{2.} Business establishments with a web presence refers to having a website/webpage or presence on another entity's website (including a related business). It excludes inclusion in an online directory and any other web pages where the business does not have substantial control over the content of the webpage.

政府使用資訊及通訊科技的情況

3.12 在 2013 年,95%受僱於政府的人員擁有專用工作站,與 2003 年的 71%形成鮮明的對比。此外,在 2013 年,92%的政府僱員獲接駁互聯網,而 2003 年的相關比例為 46%。(表 3.9)

3.13 在 2013 年,政府資訊科技人員 (包括系統分析/程式編製主任、電腦操作員及資料處理員)的編制人數為 1 487 位。在 2012-13 年度,政府在資訊科技的開支為 52 億元,佔公共開支的 1.3%。(表 3.10 及 3.11)

其他有關刊物

主題性住戶統計調查第 2、6、10、15、20、23、27、32、37、43、48、50、52 及 53 號報告書

資訊科技在工商業的使用情況和普及程度統計調查報告

香港 - 知識型經濟統計透視

Use of ICT by Government

3.12 In 2013, 95% of the staff employed by the Government had designated workstations, in stark contrast to that of 71% in 2003. Furthermore, 92% of the staff had Internet access in 2013, compared with 46% in 2003. (Table 3.9)

3.13 In 2013, the establishment of IT staff (comprising analyst/programmer, computer operator and data processor) within the Government was 1 487. In 2012-13, Government spending on IT amounted to \$5.2 billion, representing 1.3% of the total public expenditure. (Tables 3.10 and 3.11)

Further references

Thematic Household Survey Reports No. 2, 6, 10, 15, 20, 23, 27, 32, 37, 43, 48, 50, 52 and 53

Report on Survey on Information Technology Usage and Penetration in the Business Sector

Hong Kong as a Knowledge-based Economy – A Statistical Perspective

27

表 3.1 資訊及通訊科技的接達情況主要統計數字

Table 3.1 Key statistics on access to information and communication technology (ICT)

	2003	2008	2009	2010	2011	2012	2013
資訊及通訊科技的基礎設施及接達情況 ICT Infrastructure and Access							
按每百名人口計算的固定電話線數目 ⁽¹⁾ Number of fixed telephone lines per 100 population ⁽¹⁾	56.5	59.0	59.9	60.4	59.8	59.2	59.8
按每百名人口計算的公共流動電話用戶數目 Number of public mobile subscribers per 100 population	106.4	163.3	174.5	190.2	209.9	228.4 *	238.2
按每百名人口計算的固定互聯網用戶數目 ⁽²⁾ Fixed Internet subscribers per 100 population ⁽²⁾	34.6	36.5	38.3	40.7	42.7	42.6 *	37.3
按每百名人口計算的固定寬頻互聯網用戶數目 Fixed broadband Internet subscribers per 100 population	18.2	27.6	29.1	30.2	31.6	31.5 *	30.9
按每百名人口計算的流動寬頻訂戶數目 ⁽³⁾ Mobile broadband subscribers per 100 population ⁽³⁾	-	40.4	54.6	74.5	104.3	130.7 *	164.2
按每名人口計算的國際互聯網頻寬 ⁽⁴⁾ (每秒千比特) International Internet bandwidth per person ⁽⁴⁾ (Kilobits per second (Kbps))	92.0	499.0	566.6	620.9	913.1	1 314.4 *	1 882.3
流動電話網絡覆蓋率 % of population covered by mobile cellular telephone network	100.0	100.0	100.0	100.0	100.0	100.0	100.0
流動電話服務平均月費 (以每月100分鐘計算)(港元) Average mobile cellular tariffs (100 minutes of use per month) (HK\$)	30.0	8.5	10.5	10.5	10.5	10.5	10.5
互聯網服務月費(以每月計算)(港元) Internet access tariffs (per month) (HK\$)							
撥號式調解器 ⁽⁵⁾ Dial-up modem ⁽⁵⁾	30.0	68.0	68.0	68.0	68.0	68.0	N.A.
固定寬頻 ^{(3) (6)} Fixed broadband ^{(3) (6)}	-	121.0	100.7	123.0	86.7	86.7	159.0
有設立公共互聯網連接中心的地區覆蓋率 ⁽⁷⁾ % of localities with public Internet access centres ⁽⁷⁾	100.0	100.0	100.0	100.0	100.0	100.0	100.0

本表下頁繼續。

This table is continued on the next page.

表 3.1 資訊及通訊科技的接達情況主要統計數字(續)

Table 3.1 Key statistics on access to information and communication technology (ICT) (cont'd)

註釋: 上述統計表內有關人口的數字是根據 2014 年 2 月發布的最新人口估計數字編製而成。

- (1) 包括電話線和網際規約電話服務的客戶數目。
- (2) 根據互聯網服務供應商申報的估計數字,不包括不屬於持牌互聯網服務供應商客戶的使用者。
- (3) 數字由 2005 年開始編製。
- (4) 國際互聯網頻寬指香港對外電訊設施的已裝備容量。
- (5) 月費包 100 小時上網,除了月費外,還要收取每小時 HK\$1.2 的上網費。
- (6) 寬頻服務的價格在 2008 至 2012 年有下降的趨勢,主要受惠於服務供應商以優惠價格吸引新客戶使用寬頻服務。2013 年的價格水平主要反映了已提升寬頻速度的服務質量(在 2008 年,服務供應商主要提供每秒 10 個百萬位元的寬頻服務;而在 2010 年及以後,服務供應商逐漸以提供每秒 100 個百萬位元或以上的寬頻服務為主)。
- (7) 數字只反映在十八個區議會分區內,提供公共上網設施的情況。
- * 經修訂的數字。

Notes: Population-related figures shown in the above table are compiled based on the latest population estimates released in February 2014.

- (1) Figures include the number of exchange lines and subscribers of Internet Protocol service.
- (2) Estimated figures based on the return from the Internet service providers (ISPs) and do not include users who are not customers of the licensed ISPs.
- Figures are available as from 2005.
- (4) The International Internet Bandwidth refers to the equipped capacity of the external circuits.
- (5) Monthly subscription provided service of 100-hour online time. In addition to the monthly subscription fee, a PNET charge of \$HK1.2/hour was imposed on Internet access.
- (6) There has been a downward trend in the access tariff of broadband services between 2008 and 2012. It is mainly attributable to the fact that service providers attracted new subscribers of broadband services by offering preferential tariff. The tariff level in 2013 mainly reflects the enhancement of the quality of broadband services offered in terms of speed (the service providers mainly offered broadband services of 10Mbps in 2008. From 2010 onward, service providers have gradually offered customers with broadband services of 100Mbps or above).
- (7) Figures indicate the availability of public Internet access in 18 District Council districts only.
- Revised figures.

資料來源: 通訊事務管理局辦公室

康樂及文化事務署

Sources: Office of the Communications Authority

Leisure and Cultural Services Department

表 3.2 有線電話服務

Table 3.2 Wireline telephone services

	2003	2008	2009	2010	2011	2012	2013
電話線數目(1)(千條)	3 820	3 712	3 688	3 687	3 554	3 489	3 368
Number of exchange lines (1) (thousands)	(-0.6)	(-0.2)	(-0.6)	(§§)	(-3.6)	(-1.8)	(-3.5)
商用電話線	1 701	1 769	1 766	1 794	1 771	1 770	1 759
Business lines	(-0.4)	(+1.5)	(-0.2)	(+1.6)	(-1.3)	(-0.1)	(-0.6)
住宅電話線	2 119	1 943	1 923	1 893	1 783	1 719	1 609
Residential lines	(-0.7)	(-1.7)	(-1.0)	(-1.5)	(-5.8)	(-3.6)	(-6.4)
網際規約電話服務客戶數目(2)(千個)	-	396	500	573	698	759	949
Number of subscribers of Internet protocol		(+7.0)	(+26.3)	(+14.7)	(+21.7)	(+8.7)	(+25.2)
(IP) telephony services (2) (thousands)							
商用客戶	-	64	63	60	68	74	80
Business subscribers		(+0.3)	(-2.8)	(-4.8)	(+14.9)	(+8.0)	(+7.9)
住宅客戶	-	332	437	514	629	685	870
Residential subscribers		(+8.4)	(+31.9)	(+17.5)	(+22.5)	(+8.8)	(+27.0)
按每百名人口計算的固定電話線數目(3)	56.5	59.0	59.9	60.4	59.8	59.2	59.8
Number of fixed telephone lines per 100							
population (3)							
按每百個住戶計算的固定電話線數目(3)(4)	100.3	99.8	102.7	103.5	102.2	100.6	103.1
Number of fixed telephone lines per 100							
households (3) (4)							
圖文傳真線數目(千條)	491	319	286	260	233	214	202
Number of facsimile lines (thousands)	(-10.1)	(-9.4)	(-10.5)	(-8.9)	(-10.6)	(-8.1)	(-5.7)
本地專用線路(5)							
Local leased lines (5)							
數目(千條)	175	164	154	146	141	135	131
Number (thousands)	(-0.8)	(-25.7)	(-6.2)	(-5.1)	(-3.3)	(-4.5)	(-2.9)
總容量(每秒兆比特)	455 564	2 302 605	3 084 739	4 403 643	, ,	10 124 288	, ,
Total capacity (Mbps)	(+25.2)	(+32.5)	(+34.0)	(+42.8)	(+37.1)	(+67.6)	(+29.4)

註釋: 括號內的數字是與上年比較的變動百分率。

上述統計表內有關人口的數字是根據 2014年2月發布的最新人口估計數字編製而成。

- (1) 包括直通內線式電話線、圖文傳真線及電文線路的直撥服務。
- (2) 網際規約電話服務統計數字,是指持牌營辦商根據「香港號碼計劃」獲指配電話號碼的網際規約(IP)電話或網絡電話(VoIP) 服務客戶的數目。通訊事務管理局辦公室自 2007 年 12 月開始公布有關數字。
- (3) 包括電話線和網際規約電話服務的客戶數目。
- (4) 指標是根據通訊事務管理局辦公室行政紀錄編製的固定電話線(包括住宅電話線和住宅網際規約電話服務客戶)數目除以政府統計處編製的香港住戶總數所得。
- §§ 表示變動百分率在增減 0.05%以內。

Notes: Figures in brackets denote percentage changes over the preceding year.

Population-related figures shown in the above table are compiled based on the latest population estimates released in February 2014.

- (1) Including direct dialing in lines, facsimile lines and datel lines.
- (2) Figures reported under the IP telephony services refer to the number of subscribers of IP telephony/voice-over-IP (VoIP) services of licensed operators assigned with telephone numbers in accordance with the Hong Kong Numbering Plan. The Office of the Communications Authority has published the statistics since December 2007.
- (3) Figures include the number of exchange lines and subscribers of IP services.
- (4) The indicator is calculated by dividing the number of fixed telephone lines (including residential exchange lines and residential subscribers of IP telephony services) based on administrative records from the Office of the Communications Authority by the total number of households in Hong Kong compiled by the Census and Statistics Department.
- §§ Denotes changes within +/- 0.05%.

資料來源: 通訊事務管理局辦公室

Source: Office of the Communications Authority

公共流動電話服務 3.3 表

Table 3.3 Public mobile services

	2003	2008	2009	2010	2011	2012	2013
公共流動電話用戶數目(千個) Number of public mobile subscribers (thousand	le)						
_							
總數	7 194	11 374	12 207			16 393	17 194
Total 週期性結帳(包括數碼式800/	(+15.7) 4 408	(+7.4) 6 090	(+7.3) 6 377			(+9.8) 7 634	(+4.9) 7 847
900 兆赫和個人通訊服務) ⁽¹⁾ Post-paid (including Digital 800,	(+4.8)	(+6.9)	(+4.7)				(+2.8)
預付儲值智能卡	2 787	5 284	5 830	6 600	7 765	8 759	9 347
Pre-paid stored-value SIM cards		(+8.1)	(+10.3)				(+6.7)
其中 Within which							
第2代客戶	7 194	8 562	8 388	8 161	7 514	7 013	5 340
2G customers	(+15.7)	(-0.3)	(-2.0)			(-6.7)	(-23.9)
第2.5代客戶 ⁽²⁾	730	679	1 185	995	710	683	261
2.5G customers ⁽²⁾	(+326.8)	(-28.0)	(+74.6)			(-3.8)	(-61.8)
	,	, ,	2.010	, , ,	, ,	, ,	11.054
第3代/4代客戶(3)	-	2 812 (+40.3)	3 819 (+35.8)			9 380 (+26.5)	11 854 (+26.4)
3G/4G customers (3)	-	(+40.3)	(+33.6)	(+37.0)	(+41.2)	(+20.3)	(+20.4)
按每百名人口計算的公共流動電話 用戶數目	106.4	163.3	174.5	190.2	209.9	228.4	* 238.2
Number of public mobile subscribers per 100 population							
流動電話網絡覆蓋率 % of population covered by mobile cellular telephone network	100.0	100.0	100.0	100.0	100.0	100.0	100.0
流動電話服務平均月費 (以每月100分鐘計算)(港元) Average mobile cellular tariffs (100 minutes of use per month) (HK\$)	30.0	8.5	10.5	10.5	10.5	10.5	10.5
短訊數目(1)(千個)							
Number of short messages (1) (thousands)							
發送 ⁽⁴⁾	416 845	4 454 588	5 645 420	6 859 404	7 395 653	5 430 286	3 295 957
Sent ⁽⁴⁾	(+112.3)	(+32.7)		(+21.5)			(-39.3)
接收 ⁽⁴⁾	1 024 560	6 316 760	7 901 199	0 300 700	9 471 649	6 872 556	5 132 902
按収 Received ⁽⁴⁾	(+99.0)	(+25.6)					(-25.3)
Received	(.,,,,,,)	(.25.5)	(.23.3)	(120.0)	(10.0)	(= / · · ·)	(25.5)

本表下頁繼續。 This table is continued on the next page.

表 3.3 公共流動電話服務(續)

Table 3.3 Public mobile services (cont'd)

註釋: 括號內的數字是與上年比較的變動百分率。

上述統計表內有關人口的數字是根據 2014 年 2 月發布的最新人口估計數字編製而成。

圖表內短訊發送及接收的數目是以每年的 1 月 1 日起至 12 月 31 日期間內的總和計算,至於其他數據則以每年的 12 月 3 日截止計算。

- (1) 2004 年起的數字已包括第 3 代流動服務。
- (2) 第 2.5 代客戶指在統計年 12 月份中已選用第 2.5 代服務(包括通用分組無線電服務(GPRS)及 IS-95B 服務)或至少使用第 2.5 代服務一次的客戶。
- (3) 第3代/4代客戶指(i) 登記為第3代/4代客戶或購買第3代/4代服務預繳智能卡的人士及(ii)未有登記為第3代/4代客戶或沒有購買第3代/4代服務預繳智能卡但曾使用第3代/4代頻率享用公共流動電話服務的人士。數字包括預繳智能卡的客戶。數字由2005年開始編製。
- (4) 收發短訊數目包括流動服務客戶之間的短訊,以及由固定位置發送到流動服務客戶或由流動服務客戶發送到固定位置 的短訊。接收短訊的數目大於發送短訊的數目,是由於一些短訊有多過一名接收者。
- * 經修訂的數字。

Notes: Figures in brackets denote percentage changes over the preceding year

Population-related figures shown in the above table are compiled based on the latest population estimates released in February 2014. The number of short messages sent and received are calculated based on the sum obtained between 1 January and 31 December every year, while other figures in the table are recorded as at 31 December every year.

- (1) Figures from 2004 onwards include 3G mobile phone services.
- (2) 2.5G customers refer to those customers who have joined the service plans for 2.5G services (including general packet radisservice (GPRS) and IS-95B services) or used the 2.5G services at least once in December of the reference year.
- (3) 3G/4G customers refer to those (i) who are registered as 3G/4G customers or purchase pre-paid SIM cards for 3G/4G services and (ii) who are not registered as 3G/4G customers or do not purchase pre-paid SIM cards for 3G/4G services, but have use 3G/4G frequencies to receive the public mobile services. The figures include customers of pre-paid SIM cards. Figures ar available as from 2005.
- (4) The number of short messages sent and received includes messages between mobile customers as well as messages sent to mobile customers from fixed locations and vice versa. The number of messages received exceeds the number of messages sent because some sent messages were received by more than one recipient.
- Revised figures.

資料來源: 通訊事務管理局辦公室

Source: Office of the Communications Authority

表 3.4 對外電訊通訊量

Table 3.4 External telecommunications traffic

	2003	2008	2009	2010	2011	2012	2013
對外電話總通訊量(百萬分鐘)	5 908.8	10 000.3	10 029.4	10 308.7	10 541.7	10 525.0	10 361.8
Total external telephone traffic volume (million minutes)	(+3.5)	(+5.3)	(+0.3)	(+2.8)	(+2.3)	(-0.2)	(-1.6)
撥出總數	4 232.6	7 656.8	7 758.6	7 727.2	7 646.1	7 888.1	8 043.0
Total outgoing	(+7.1)	(+5.8)	(+1.3)	(-0.4)	(-1.0)	(+3.2)	(+2.0)
撥入總數 ⁽¹⁾	1 676.2	2 343.6	2 270.8	2 581.6	2 895.6	2 636.9	2 318.7
Total incoming (1)	(-4.5)	(+3.6)	(-3.1)	(+13.7)	(+12.2)	(-8.9)	(-12.1)
對外專用電報總通訊量(2)(千分鐘)	2 558	351	181	156	112	65	32
Total external telex traffic volume (2) (thousand minutes)	(-32.5)	(-32.4)	(-48.5)	(-13.8)	(-27.9)	(-41.8)	(-50.8)

註釋: 括號內的數字是與上年比較的變動百分率。

(1) 估計數字。

(2) 不包括轉發的專用電報。

Notes: Figures in brackets denote percentage changes over the preceding year.

(1) Estimated figures.

(2) Not including telex refile traffic.

資料來源: 通訊事務管理局辦公室

Source: Office of the Communications Authority

表 3.5 互聯網服務

Table 3.5 Internet services

	2003	2008	2009	2010	2011	2012	2013
互聯網使用量 Internet traffic volume							
客戶透過公共電話網絡接駁 ⁽¹⁾ (百萬分鐘) Customer access via Public Switched Telephone Networks ⁽¹⁾ (million minut	3 564 (-35.8)	305 (-24.6)	259 (-14.9)	179 (-31.1)	168 (-5.9)	185 (+10.0)	222 (+20.0)
客戶透過寬頻網絡接駁 (太字節) ⁽²⁾ Customer access via broadband networks (terabytes) ⁽²⁾	116 716 (+333.7)	1 289 080 (+7.7)	1 435 691 (+11.4)	1 652 942 (+15.1)	1 924 886 (+16.5)	2 232 256 (+16.0)	2 581 114 (+15.6)
持牌互聯網服務供應商客戶數目 Number of customers of licensed ISPs							
以撥號接駁的已登記客戶戶口 (不包括互聯網儲值卡) ⁽³⁾⁽⁴⁾ Registered customer accounts with dial-up access (excluding Internet pre-paid calling cards) ⁽³⁾⁽⁴⁾	1 084 368 (-20.9)	621 420 (-2.0)	644 078 (+3.6)	741 511 (+15.1)	788 835 (+6.4)	793 811 (+0.6)	462 376 (-41.8)
作撥號接駁用途的互聯網儲值卡 ⁽³⁾ Internet pre-paid calling cards for dial-up access ⁽³⁾	20 411 (+36.3)	300 (-40.0)	300 (0.0)	0 (-100.0)	0 -	0 -	0 -
以私人租用線路接駁的已登記客戶 戶口 ^{(3) (4)}	2 739 (-20.4)	1 724 (-9.9)	1 571 (-8.9)	1 580 (+0.6)	1 546 (-2.2)	1 565 (+1.2)	1 641 (+4.9)
Registered customer accounts with leased line access (3) (4)							
寬頻互聯網接駁客戶戶口 Registered broadband Internet access customer accounts	1 230 607 (+24.4)	1 921 258 (+3.7)	2 033 352 (+5.8)	2 126 962 (+4.6)	2 244 514 (+5.5)	2 264 545 (+0.9)	2 232 031 (-1.4)
按每百名人口計算的固定互聯網 用戶數目 ⁽³⁾ Fixed internet subscribers per 100 population ⁽³⁾	34.6	36.5	38.3	40.7	42.7	42.6 *	37.3
按每百名人口計算的固定寬頻 互聯網用戶數目 Fixed broadband Internet subscribers per 100 population	18.2	27.6	29.1	30.2	31.6	31.5 *	30.9
按每百名人口計算的流動寬頻 訂戶數目 ⁽⁵⁾ Mobile broadband subscribers per 100 population ⁽⁵⁾	-	40.4	54.6	74.5	104.3	130.7 *	164.2

本表下頁繼續。

This table is continued on the next page.

表 3.5 互聯網服務(續)

Table 3.5 Internet services (cont'd)

	2003	2008	2009	2010	2011	2012	2013
按每名人口計算的國際互聯網頻寬 ⁽⁶⁾ (每秒千比特) International Internet bandwidth per person ⁽⁶⁾ (Kilobits per second (Kbps))	92.0	499.0	566.6	620.9	913.1	1 314.4 *	1 882.3
互聯網服務月費(以每月計算)(港元) Internet access tariffs (per month) (HK\$)							
撥號式調解器 ⁽⁷⁾ Dial-up modem ⁽⁷⁾	30.0	68.0	68.0	68.0	68.0	68.0	N.A.
固定寬頻 ^{(5) (8)} Fixed broadband ^{(5) (8)}	-	121.0	100.7	123.0	86.7	86.7	159.0

註釋: 括號內的數字是與上年比較的變動百分率。

上述統計表內有關人口的數字是根據 2014年2月發布的最新人口估計數字編製而成。

- (1) 數字不包括透過私人租用線路及使用寬頻服務接駁的客戶。
- (2) 1 太字節等於 8 兆兆比特。
- (3) 根據互聯網服務供應商申報的估計數字,不包括不屬於持牌互聯網服務供應商客戶的使用者。
- (4) 已登記客戶戶口指互聯網服務供應商的客戶戶口(包括免費的客戶戶口)。擁有超過一個客戶登入識別碼的登記客戶戶口 只算作一個已登記的客戶戶口。數字不包括只獲提供電郵地址的客戶戶口。
- (5) 數字由 2005 年開始編製。
- (6) 國際互聯網頻寬指香港對外電訊設施的已裝備容量。
- (7) 月費包 100 小時上網,除了月費外,還要收取每小時 HK\$1.2 的上網費。數字由 2003 年開始編製。
- (8) 寬頻服務的價格在 2008 至 2012 年有下降的趨勢,主要受惠於服務供應商以優惠價格吸引新客戶使用寬頻服務。2013 年 的價格水平主要反映了已提升寬頻速度的服務質量(在 2008 年,服務供應商主要提供每秒 10 個百萬位元的寬頻服務; 而在 2010 年及以後,服務供應商逐漸以提供每秒 100 個百萬位元或以上的寬頻服務為主)。
- * 經修訂的數字。

Notes: Figures in brackets denote percentage changes over the preceding year.

Population-related figures shown in the above table are compiled based on the latest population estimates released in February 2014.

- (1) Figures do not include customer access via leased circuits and broadband services.
- (2) 1 terabytes equals to 8 terabits.
- (3) Estimated figures based on the return from the ISPs and do not include users who are not customers of the licensed ISPs.
- (4) Registered customer accounts refer to the customer accounts of ISPs (including those free-of-charge customer accounts). For a registered customer account which has more than one user login ID, it is counted as one registered customer account only. Figures do not include customer accounts which are provided with e-mail addresses only.
- (5) Figures are available as from 2005.
- (6) The International Internet Bandwidth refers to the equipped capacity of the external circuits.
- (7) Monthly subscription provided service of 100-hour online time. In addition to the monthly subscription fee, a PNET charge of \$HK1.2/hour was imposed on Internet access. Figures are available as from 2003.
- (8) There has been a downward trend in the access tariff of broadband services between 2008 and 2012. It is mainly attributable to the fact that service providers attracted new subscribers of broadband services by offering preferential tariff. The tariff level in 2013 mainly reflects the enhancement of the quality of broadband services offered in terms of speed (the service providers mainly offered broadband services of 10Mbps in 2008. From 2010 onward, service providers have gradually offered customers with broadband services of 100Mbps or above).
- Revised figures.

資料來源: 通訊事務管理局辦公室

Source: Office of the Communications Authority

表 3.6 資訊及通訊科技於住戶及個人的使用情況的統計數字(1)

Table 3.6 Statistics⁽¹⁾ on use of information and communication technology (ICT) by households and individuals

	2003	2008	2009	2010	2011	2012*	2013
家中有個人電腦的住戶數目(千戶) Number of households with personal computers (PCs) at home (thousands)	1 479.1	1 710.1	1 756.3	1 832.2	-	1 921.0	1 968.7
家中有個人電腦的住戶百分比 % of households with PCs at home	67.5	74.6	75.8	77.9	-	80.0	81.9
家中有個人電腦接駁互聯網 ⁽²⁾ 的住戶數目(千戶) Number of households with PCs at home connected to Internet ⁽²⁾ (thousands)	1 312.8	1 625.7	1 699.4	1 795.4	-	1 871.2	1 920.5
家中有個人電腦接駁互聯網 ⁽²⁾ 的住戶百分比 % of households with PCs at home connected to Internet ⁽²⁾	60.0	70.9	73.3	76.4	-	77.9	79.9
在統計前 12 個月內曾使用個人電腦 的 10 歲及以上人士數目(千人) Number of persons aged 10 and over who had used PCs during the 12 months before enumeration (thousands)	3 464.4	4 221.6	4 349.4	-	-	4 577.8	4 714.3
在統計前 12 個月內曾使用個人電腦 的 10 歲及以上人士的百分比 % of persons aged 10 and over who had used PCs during the 12 months before enumeration	56.2	68.2	70.2	-	-	72.8	74.9
在統計前 12 個月內曾使用互聯網服務的 10 歲及以上人士數目(千人) Number of persons aged 10 and over who had used Internet service during the 12 months before enumeration (thousands)	3 212.8	4 123.9	4 300.0	-	-	4 580.1	4 671.8
在統計前 12 個月內曾使用互聯網服務的 10 歲及以上人士的百分比 % of persons aged 10 and over who had used Internet service during the 12 months before enumeration	52.2	66.7	69.4	-	-	72.9	74.2

註釋: (1) 為了減輕被訪者的負擔,2010 年度的住戶資訊科技統計調查所搜集的資料範圍縮小,沒有搜集個人使用資訊及通訊科技情況的 資料。而 2011 年則沒有進行相關統計調查。

(2) 不包括掌上電腦及個人數碼助理。

* 經修訂的數字。

Notes: (1) To re

(1) To relieve the respondents' burden, the scope of data collection for the 2010 round of the Household IT Survey was reduced, and the information in respect of the use of ICT by individuals was not collected. A similar Household IT Survey had not been conducted in 2011.

(2) Exclude palm top and Personal Digital Assistant (PDA).

* Revised figures.

資料來源: 政府統計處社會統計調查組

Source: Social Surveys Section, Census and Statistics Department

資訊及通訊科技於工商機構的使用情況的統計數字(1) 表 **3.7**

Statistics on use of information and communication technology (ICT) by businesses $^{(1)}$ **Table 3.7**

	2003	2005	2006	2007	2008	2009	2013
使用電腦的工商機構比例 (%) Proportion of business establishments using computers (%)	54.8	60.5	60.5	63.8	63.1	63.6	75.2
經常使用電腦的工商機構僱員比例 (%) ⁽²⁾ Proportion of persons employed in business establishments routinely using computers (%) ⁽²⁾	-	53.7	56.4	57.5	58.4	60.0	62.9
使用互聯網的工商機構比例 (%) Proportion of business establishments using the Internet (%)	47.5	54.7	55.9	59.8	58.8	60.6	74.8
經常使用互聯網的工商機構僱員比例 (%) ⁽²⁾ Proportion of persons employed in business establishments routinely using the Internet (%) ⁽²⁾	-	42.9	46.2	49.5	51.4	53.7	59.4
有網絡存在 ⁽³⁾ 的工商機構比例 (%) Proportion of business establishments with a web presence ⁽³⁾ (%)	13.5	15.5	17.5	18.2	19.3	20.0	26.4
有局部區域網絡的工商機構比例 (%) ⁽²⁾ Proportion of business establishments with a Local Area Network (LAN) (%) ⁽²⁾	-	20.4	22.4	20.7	27.7	24.6	26.8
有內聯網的工商機構比例 (%) ⁽²⁾ Proportion of business establishments with an intranet (%) ⁽²⁾	-	6.2	7.7	12.7	11.0	12.0	16.1
有外聯網的工商機構比例 (%) ⁽²⁾ Proportion of business establishments with an extranet (%) ⁽²⁾	-	1.4	1.9	4.8	4.6	3.7	4.9
透過電腦網絡提交訂單的工商機構比例 (%) Proportion of business establishments placing orders online (%)	9.6	15.4	11.7	11.4	13.2	12.9	14.9
透過電腦網絡獲取貨品、服務或資料 的工商機構比例 (%) Proportion of business establishments with receipt of goods, services or information online (%)	51.0	52.3	54.7	58.3	58.9	60.1	58.3
透過電腦網絡獲取訂單的工商機構比例 (%) Proportion of business establishments receiving orders online (%)	1.1	1.8	1.5	1.8	1.3	1.5	4.3
透過電腦網絡遞送貨品、服務或資料 的工商機構比例 (%) Proportion of business establishments with delivery of goods, services or information online (%)	13.6	15.7	18.0	18.3	19.4	20.1	55.9

本表下頁繼續。 This table is continued on the next page.

資訊及通訊科技於工商機構的使用情況的統計數字(續)(1) 表 3.7

Statistics on use of information and communication technology (ICT) by businesses (cont'd)⁽¹⁾ **Table 3.7**

註釋: 統計數字是根據「資訊科技在工商業的使用情況和普及程度統計調查」所搜集的資料編製。2010至 2012年並沒有該類 的統計調查資料。

(1)

- 數字由 2005 年開始編製
- 有網絡存在的工商機構是指機構具有本身的網站/網頁或顯示在另一個實體網站(包括相關業務的網站)。但並不包括 列載於其他網上目錄或機構對網頁內容並沒有主導控制的其他網頁。
- Note: Statistics are compiled from data collected through the Survey on Information Technology Usage and Penetration in the Business Sector. Survey data are not available for 2010 to 2012.
 - (2) Figures are available as from 2005.
 - Business establishments with a web presence refers to having a website/webpage or presence on another entity's website (including a related business). It excludes inclusion in an online directory and any other web pages where the business does not have substantial control over the content of the webpage.

資料來源: 政府統計處科技統計組

Source: Science and Technology Statistics Section, Census and Statistics Department

工商業的資訊科技總開支相對於本地生產總值的比率(1)(2) 表 3.8

Table 3.8 Total information technology (IT) expenditure in the business sector as a ratio to Gross Domestic Product (GDP)⁽¹⁾⁽²⁾

	2006	2007	2008	2009	2010	2011	2012
工商業的資訊科技總開支(十億港元) Total IT expenditure in the business sector (HK\$ billion)	33.3	33.7	37.0	33.6	38.6	50.4	50.7
工商業的資訊科技總開支相對於本地生產總值的比率(%) Total IT expenditure in the business sector as a ratio to GDP	2.2	2.0	2.2	2.0	2.2	2.6	2.5 @

註釋:

- (1) 工商業所涵蓋的行業是根據自 2008 年開始採用的香港標準行業分類 2.0 版編製而成。2008 年或之前的數字並沒有包括以 下行業:污水處理、廢棄物的收集、處理及處置活動、資源的回收處理、污染防治活動及其他廢棄物處理服務。唯該等 行業對整體數字的影響十分輕微。
- (2) 本地生產總值的數字是 2014 年 5 月發布的最新數據。這些數據已就 2012 年 9 月完成的本地生產總值統計修訂工作而作 出修訂。
- 數字在日後可能作出修訂。

Notes:

- (1) The coverage of industries in the business sector is based on the Hong Kong Standard Industrial Classification Version 2.0 which has been adopted since 2008. Figures for years on or before 2008 did not cover: sewerage, waste collection, treatment and disposal activities, materials recovery and remediation activities and other waste management services. Nevertheless, those industries had only slight effect on the overall figures.
- Figures on GDP refer to the latest statistics released in May 2014, which have been taken into account the Gross Domestic Product (GDP) revision exercise completed in September 2012.
- Figure is subject to revision later on.

資料來源: 政府統計處科技統計組

Source: Science and Technology Statistics Section, Census and Statistics Department

表 3.9 政府機構的電腦化

Table 3.9 Computerisation in the Government

每年12月31日的數字

As at 31 December of each year

	2003 (1)	2008	2009	2010	2011	2012	2013
獲提供專用工作站的人員 ⁽¹⁾ 所佔的百分比 % of staff ⁽¹⁾ with designated workstations	71	94	94	94	94	95	95
獲接駁互聯網的人員的百分比 % of staff with Internet access	46	93	91	92	87	87	92
可使用内部電子郵件的人員的百分比 % of staff with internal e-mail access	31	75	74	61	69	72	77

註釋: (1) 除公務員外,以其他聘用條件(例如合約形式)受僱於政府的人員亦包括在內。

Note: (1) Apart from civil servants, persons employed by the Government under other terms (e.g. contract terms) are also included.

資料來源: 政府資訊科技總監辦公室

Source: Office of the Government Chief Information Officer

表 3.10 政府資訊科技人員

Table 3.10 Government information technology (IT) staff

每年3月31日的編制數目 Establishment as at 31 March of each year

				Establisi	iment as at 3	of March of	each year
職系 Grade	2003	2008	2009	2010	2011	2012	2013
系統分析/程式編製主任 Analyst/programmer	773	742	759	772	794	819	869
電腦操作員 Computer operator	499	450	443	442	441	442	444
資料處理員 Data processor	223	189	189	186	183	176	174
合計 Total	1 495	1 381	1 391	1 400	1 418	1 437	1 487

資料來源: 政府資訊科技總監辦公室

Source: Office of the Government Chief Information Officer

表 3.11 政府的資訊科技開支

Table 3.11 Government spending on information technology (IT)

	2002-03	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
C TT (TYXA)	3,213 2) 4,040	3,002 4,099	3,027 3,954	3,438 4,448	3,781 4,930	3,535 4,729	3,826 5,177
政府的資訊科技開支相對於公共開支的 比率 (%) ⁽³⁾ Government expenditure on IT as a ratio to public expenditure (%) ⁽³⁾	1.5	1.6	1.2	1.4	1.5	1.2	1.3
政府的資訊科技開支相對於本地生產總值的比率 (%) (3) (4) Government expenditure on IT as a ratio to Gross Domestic Product (GDP) (%) (3) (4)	0.3	0.2	0.2	0.3	0.3	0.2	0.3

註釋: 所有有關員工方面的支出均以員工的總薪酬福利作為計算基礎。

- (1) 由 2001-02 年度開始,政府的資訊科技開支亦包括非經常資助金及主要系統設備總目中的非行政電腦系統的支出。
- (2) 數字是指列(1)所載數字以及房屋委員會、醫院管理局及津貼學校的資訊科技支出的總和。
- (3) 在 2001-02 年度之前,政府的資訊科技開支採用列(1)的數據計算; 2001-02 年度及以後均採用列(2)的數字。
- (4) 本地生產總值的數字是 2014 年 5 月發布的最新數據。

Notes: Staff cost is computed on a full cost basis.

- (1) Starting from 2001-02, Government spending on IT also includes non-administrative computer systems under Capital Subventions and Major Systems and Equipment.
- (2) The figures refer to the sum of those shown in row (1) and the IT expenditure of Housing Authority, Hospital Authority and subvented schools.
- (3) Government spending on IT is calculated using the figures in row (1) before 2001-02, while using the figures in row (2) for 2001-02 and afterwards.
- (4) Figures on GDP refer to the latest statistics released in May 2014.

資料來源: 政府資訊科技總監辦公室

Source: Office of the Government Chief Information Officer

第 4 章 資訊科技的人力資源及教育

Chapter 4 Human Resources and Education in Information Technology

緒言

- 4.1 資訊及通訊科技要在一個經濟體系內 持續發展,有賴擁有合適技能的人才。有關 資訊科技的教育和培訓可提升資訊及通訊 科技人員的知識與技能。
- 4.2 資訊科技訓練發展委員會隸屬職業訓練局,負責評估香港資訊科技業的人力需求及訓練需要,並就相關事宜提出建議。職業訓練局自 1983 年開始進行全港性的資訊科技業人力調查¹,從工商界搜集有關資料,以評估香港資訊科技業的人力情況。

4.3 為應對各行業對資訊科技人才的需求,政府持續投放龐大的教育和培訓資源,以培育本港的資訊科技人才。除了增加高中以上院校的學生名額外,政府還致力推動中小學的資訊科技教育以培養學生發展有效處理資訊的能力,及使學生具備應有的知識、技能和態度以適應不斷更新的科技。

Introduction

- 4.1 The availability of human resources with the right skills is vital to sustainable development of ICT in an economy. Education and training in IT can improve the knowledge and skills of personnel relating to ICT.
- 4.2 The Committee on Information Technology Training and Development of the Vocational Training Council (VTC) is charged with the duty to assess the manpower requirements and training needs of information technology (IT) personnel and to draw up recommendations in this aspect. VTC has been conducting an economy-wide IT manpower survey¹ since 1983 to collect relevant data from the business community, with a view to evaluating the IT manpower situation in Hong Kong.
- 4.3 In response to the demand for IT manpower in various industries, the Government has been deploying substantial resources in the areas of education and training for nurturing IT personnel in Hong Kong. Apart from increasing the number of student places for IT in the post-secondary institutions, efforts have also been made to promote IT in education in both primary and secondary schools in order to help students develop their capabilities to process information effectively, and to acquire the knowledge, skills and attitude required for adapting the advent of new technology.

¹ 資訊科技業人力調查是由職業訓練局自 1983 年開始,每兩年進行一次的統計調查。由於各主要行業均有僱用資訊 科技人員從事不同的資訊科技職務,因此這項統計調查涵 蓋所有主要行業的機構。

¹ The Manpower Survey of the Information Technology Sector is a biennial survey conducted by the Vocational Training Council since 1983. Since IT employees are employed in all major sectors of the economy to perform various types of IT duties, the survey covers establishments in all major sectors.

資訊科技範疇現時的人力結構

- 4.4 根據資訊科技業人力調查的結果顯示,資訊科技僱員的總人數由 2002 年的 63 098 名增加至 2012 年的 78 685 名,增幅 達 24.7%。(表 4.1)
- 4.5 由於資訊科技業已發展多年,業界對 涉及資訊科技/軟件開發技能類別的人力 需求最為殷切。在 2012 年的 78 685 名資訊 科技僱員中,資訊科技/軟件開發人員有 29 085 名 (37.0%),操作服務人員及實地支援人員,分別有 17 305 名 (22.0%)及 9 171 名 (11.7%)。另一方面,增長最快的技能類 別為實地支援(在 2006 年至 2012 年期間錄得 71.7% 的強勁增長),以及電訊及網絡(在 2006 年至 2012 年期間錄得 60.2% 的增長)。(表 4.1 及圖 4.1)
- 4.6 資訊科技僱員受僱於各主要行業。在2012年,僱用最多資訊科技人員的組別為資訊科技產品及服務供應商,僱用人數達26563名,佔資訊科技僱員總數33.8%。其次為零售批發及出入口貿易、飲食業及酒店業,以及金融、保險、房地產及商用服務業,僱用人數分別為15940名(佔總數20.3%)及13536名(佔總數17.2%)。(表4.2及圖4.2)
- 4.7 資訊科技產品及服務供應商亦是吸納 資訊科技人員速度最快的組別。該行業的資 訊科技僱員人數由 2002 年約 15 000 人上升 至 2012 年約 26 600 人。另一方面,在其他 行業,吸納資訊科技人員的速度則有所放 緩。(表 4.2)

Existing Manpower Structure in the IT Field

- 4.4 The findings of the IT manpower surveys showed that the total number of IT employees increased from 63 098 in 2002 to 78 685 in 2012, representing an increase of 24.7% over the period. (Table 4.1)
- 4.5 As the IT sector had been developed for some years, the job category of IT/software development ranked top amid the demand for IT manpower. Among the 78 685 IT employees in 2012, 29 085 (37.0%) were in IT/software development, 17 305 (22.0%) in operation services; and 9 171 (11.7%) in field support. On the other hand, the fastest growing job categories were field support (registering a remarkable increase of 71.7% between 2006 and 2012) and telecommunications and networking (increase of 60.2% between 2006 and 2012). (Table 4.1 and Chart 4.1)
- 4.6 IT employees are engaged in virtually all major industries. In 2012, the IT products and services suppliers category had the largest share of IT employees (26 563), accounting for 33.8% of the total IT manpower. This was followed by the wholesale, retail and import/export trades, catering and hotels sector (15 940 or 20.3%); and the financing, insurance, real estate and business services sector (13 536 or 17.2%). (Table 4.2 and Chart 4.2)
- 4.7 The IT products and services suppliers category was also the fastest growing segment, in terms of the intake of IT employees. The number of IT employees increased from around 15 000 in 2002 to around 26 600 in 2012. On the other hand, the increase in intake of IT employees had moderated in most of the other industries in recent years. (Table 4.2)

大學教育資助委員會(教資會)資助的 資訊科技課程

4.8 本港大部分獲教資會資助的院校都提供副學位課程、學士學位課程及研究院課程程度的資訊科技課程。教資會資助的資訊科技課程(包括全日制和兼讀制課程)的畢業生總人數看似從 2006/07 學年開始有所下降。闡釋有關數字時須留意的是由於教資會資助的資訊科技副學位課程及研究院修課課程自 2004/05 學年起逐漸轉變成以自負盈虧模式開辦,致使該兩項課程的有關數字下跌。

4.9 在最近的 2007/08 學年至 2012/13 學年期間,教資會資助的資訊科技課程的畢業生(包括全日制和兼讀制學生)總人數每學年約 2 300 至 2 400 人。在第 4.8 段陳述的原因亦導致有關畢業生人數自 2006/07 學年開始下降。2012/13 學年的畢業生人數為 2 254人,其中 206人(9%)是副學位畢業生,1 797人(80%)是學士學位畢業生,另外 251(11%)是研究院研究課程的畢業生。(表 4.3)

利用資訊科技作教育用途的情況

4.10 在資訊科技教育策略方面,政府擔當 領導和統籌的角色以推動資訊科技於教育 上的應用,而學校可因應本身的需要而自行 擬定其資訊科技計劃及制定把資訊科技融 入課程的步伐。

IT Programmes Funded by the University Grants Committee (UGC)

4.8 Most of the UGC-funded institutions in Hong Kong are offering IT programmes at sub-degree, undergraduate and postgraduate levels. The numbers of total graduates of UGC-funded IT programmes (including both full-time and part-time programmes) seemed to have decreased as from the 2006/07 academic year. These numbers should be interpreted with caution because, starting from the 2004/05 academic year, UGC-funded sub-degree and taught postgraduate programmes had generally been converted to self-financing mode, thus attributing to the decrease in numbers reported for these two levels.

During the latest academic years of 2007/08 to 2012/13, the total number of graduates (including full-time and part-time students) UGC-funded IT programmes was around 2 300 to 2 400 in each academic year. The reason mentioned in paragraph 4.8 is also relevant for explaining the decrease in number of graduates as from the 2006/07 academic year. Among the 2 254 graduates in 2012/13 academic year, 206 (9%) were sub-degree graduates, 1 797 (80%) were first degree graduates and 251 (11%) were graduates of research postgraduate programmes. (Table 4.3)

Use of IT in Education

4.10 Under the strategy on IT education, the Government assumes a leading and coordinating role in promoting the application of IT in education, and schools are given the flexibility to devise their own IT plans and to set the pace for incorporating IT in their curriculum.

- 4.11 以下列出幾個有關在教育範疇內採納 資訊科技的特點:
 - (1) 由 2001/02 學年開始,所有小學及中 學已配備接駁互聯網的裝置。
 - (2) 由 2007/08 學年開始,所有小學及 中學已配備校園無線接駁互聯網的 裝置。
 - (3) 在 2012/13 學年,約有 3 400 名小學 教師及 6800 名中學教師曾參與約 600 個由教育局舉辦的資訊科技培 訓課程。(表 4.4 和 4.5)
 - (4) 在 2012/13 學年,小學及中學分別約 有 500 名教師在學校執行資訊科技 統籌員/資訊科技主任的職務。 (表4.6)
 - (5) 在 2012/13 學年,約 2 000 名中學教 師任教資訊科技/電腦科目。 (表4.7)

政府在資訊科技教育及電腦科目方面的 開支

4.12 政府經過多年在教育系統的各層面就 資訊科技方面投放大量資源後, 近年在教育 方面的資訊科技開支有所整固。在 2012-13 年的財政年度,政府在小學、中學及特殊學 校的資訊科技教育及電腦科目方面的總開 支(包括優質教育基金的撥款)為 3.58 億 元,其中 0.41 億元為非經常開支,3.17 億 元為經常開支。(表 4.8)

其他有關刊物

2002、2004、2006、2008、2010 及 2012 年 資訊科技業人力調查報告

- 4.11 The following highlights some of the features regarding the adoption of IT in education:
 - (1) As from the 2001/02 academic year, all primary and secondary schools have been equipped with Internet connection.
 - (2) As from the 2007/08 academic year, all primary and secondary schools have been equipped with campus wireless Internet connection.
 - (3) In the 2012/13 academic year, the Education Bureau organised some 600 IT courses, which were attended by about 3 400 primary school teachers and 6800 secondary school teachers. (Tables 4.4 and 4.5)
 - (4) In the 2012/13 academic year, there were around 500 teachers each in primary and secondary schools respectively with duties as IT coordinators/IT in-charge. (Table 4.6)
 - (5) In the 2012/13 academic year, about 2 000 secondary school teachers were teaching IT/computer studies. (Table 4.7)

Government Spending on IT Education and **Computer Subjects**

4.12 After a period of extensive investment in IT at all levels of the education system, government outlay on IT in the area of education had consolidated in recent years. In the 2012-13 financial year, the Government spent a total of \$358 million (including contribution to the Quality Education Fund) on IT education and computer subjects in primary schools, secondary schools, and special schools. Of the total expenditure, \$41 million was non-recurrent expenditure and \$317 million was recurrent expenditure. (Table 4.8)

Further reference

44

Manpower Survey Report - Information Technology Sector, 2002, 2004, 2006, 2008, 2010 and 2012

表 4.1 2002至2012年按技能類別劃分的資訊科技業人力結構

Table 4.1 Manpower structure of the information technology (IT) sector by job category, 2002-2012

僱員人數

					Number of	employees
	2002 ⁽¹⁾	2004	2006	2008	2010	2012
資訊科技/軟件開發	-	28 733	28 916	24 206	26 340	29 085
IT/Software development						
操作服務	-	8 609	12 756	16 235	15 950	17 305
Operation services						
技術服務 ⁽²⁾ Technical services ⁽²⁾						
實地支援 ⁽³⁾ Field support ⁽³⁾	-	10 642	5 340	6 277	7 970	9 171
系統程式編製 ⁽³⁾ Systems programming ⁽³⁾	-	4 314	3 732	3 988	3 764	3 705
資料庫 Database	-	897	837	525	753	1042
資訊科技保安 IT security	-	391	424	361	509	577
電訊及網絡 Telecommunications and networking	-	4 265	3 749	6 153	5 948	6 007
資訊科技銷售及市場推廣 ^{(3) (4)} IT sales and marketing ^{(3) (4)}	-	-	4 517	4 531	5 741	6 705
資訊科技教育及訓練 IT education and training	-	2 494	2 575	3 302	5 161	3 650
一般資訊科技管理 ⁽⁵⁾ General IT management ⁽⁵⁾	-	1 753	1 627	1 119	1 242	1 438
終言十 Total	63 098	62 098	64 473	66 697	73 378	78 685

註釋:

- (1) 自 2004 年度的資訊科技業人力調查起,有關統計調查所採用的技能類別分類已進行了修訂,以反映資訊科技工作的最新要求。因此,在 2002 年度按技能類別劃分的人力統計數字沒有在本表列出。
- (2) 有關技能類別在 2004 年為「技術支援」。
- (3) 在 2004 年度的「實地支援」和「系統程式編製」的技能類別中,擁有資訊科技產品及服務技術知識的軟硬件銷售僱員於 2006-08 年度期間納入在「資訊科技銷售」的技能類別內,由 2010 年度開始,則納入在「資訊科技銷售及市場推廣」的技能類別內。
- (4) 有關技能類別在 2006-08 年為「資訊科技銷售」。
- (5) 有關技能類別在 2004 年為「資訊科技管理」。

Notes:

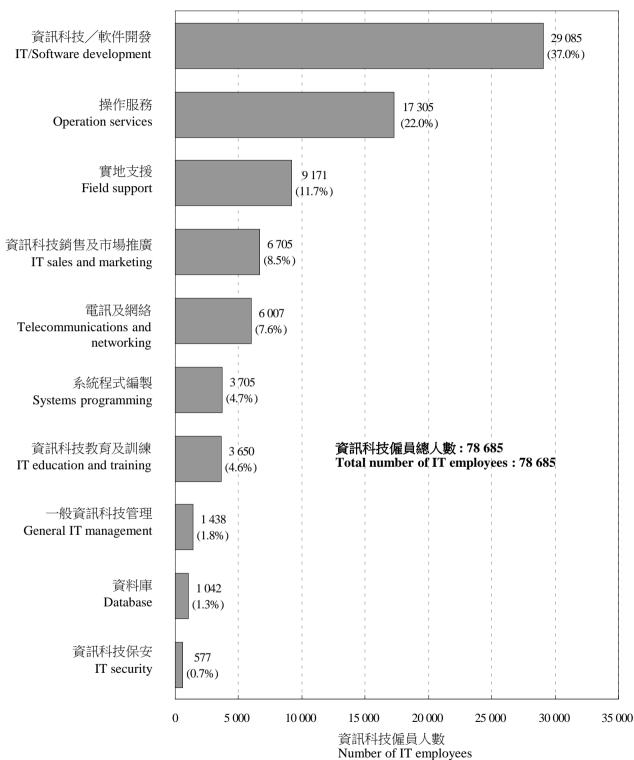
- (1) The job category classification adopted in the Manpower Survey of the Information Technology Sector was revised taking into account the latest development in IT job requirements starting from the 2004 round. Thus, manpower statistics by job category of 2002 round are not shown in the table.
- (2) The corresponding job category for 2004 was "Technical support".
- (3) Hardware and software sales employees with technical knowledge of IT products and services who were grouped under the job categories "Field support" and "Systems programming" respectively in 2004 round were classified under the job category "IT sales" in 2006 2008 rounds and "IT sales and marketing" starting from 2010 round.
- (4) The corresponding job category for 2006-08 was "IT sales".
- (5) The corresponding job category for 2004 was "IT management".

資料來源: 職業訓練局

圖 4.1 2012年按技能類別劃分的資訊科技業人力結構

Chart 4.1 Manpower structure of the information technology (IT) sector by job category, 2012





註釋: 括號內的數字代表佔資訊科技僱員總數的百分比。

Note: Figures in brackets denote the percentage shares in the total number of IT employees.

資料來源: 職業訓練局

表 4.2 按行業組別分類的資訊科技僱員分布

Table 4.2 Distribution of information technology (IT) employees by industry grouping

僱員人數

						Number of e	mployees
		2002	2004	2006	2008	2010	2012
資訊科技產品及服務供應商 ⁽¹⁾ IT products and services suppliers ⁽¹⁾						23 356	26 563
數碼創意業 ⁽²⁾ Digital creative ⁽²⁾		15 069	16 802	18 465	17 737	631	680
零售批發及出入口貿易、飲食業及酒店業 Wholesale, retail and import/export trades, catering and hotels		19 171	13 749	15 050	14 459	15 742	15 940
金融、保險、房地產及商業服務業 Financing, insurance, real estate and business serv	vices	11 063	13 575	12 508	16 566	13 413	13 536
社區、社會及個人服務業(醫院除外) ⁽³⁾ Community, social and personal services (excluding hospitals) ⁽³⁾		8 162	8 688	8 934	7 961	9 159	9 497
醫療及保健服務 Medical and health care services					423	556	750
通訊服務業 Communications services				3 014	2 680	3 014	3 747
運輸及貨倉服務業 Transport and storage services		3 914	4 486	1 803	1 762	1 771	1 837
製造業 Manufacturing		2 540	2 029	2 076	2 389	2 600	2 867
政府部門 Government bureaux/departments		2 460	2 271	2 134	2 161	2 497	2 470
電力、氣體燃料及水務 Electricity, gas and water		350	326	333	333	332	374
建造業 Construction		369	172	156	226	307	424
總計 Total		63 098	62 098	64 473	66 697	73 378	78 685

註釋: (1) 2002-04 年度期間,有關的行業分類為「軟件商」。

Notes: (1) The corresponding sector in 2002-04 rounds was "software vendors".

資料來源: 職業訓練局

^{(2) 2002-08} 年度期間,「數碼創意業」納入在「資訊科技產品及服務供應商」的類別內。

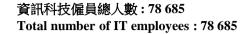
^{(3) 2002-06} 年度期間,有關的行業包括醫院。

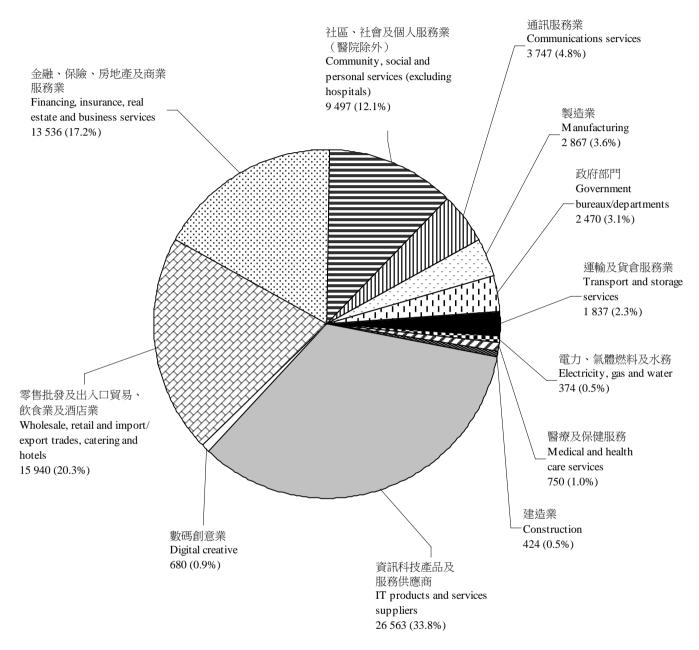
^{(2) &}quot;Digital creative" sector was grouped under "IT products and services suppliers" in 2002-08 rounds.

⁽³⁾ The corresponding sector in 2002-06 rounds included hospitals.

圖 4.2 2012年按行業組別分類的資訊科技僱員分布

Chart 4.2 Distribution of information technology (IT) employees by industry grouping, 2012





註釋: 括號內的數字代表佔資訊科技僱員總數的百分比。

Note: Figures in brackets denote the percentage shares in the total number of IT employees.

資料來源: 職業訓練局

表 4.3 按修課程度劃分的大學教育資助委員會(教資會)資助的資訊科技課程的畢業生人數

Table 4.3 Graduates of information technology (IT) programmes funded by University Grants Committee (UGC) by level of study

畢業生人數

						Number o	f graduates		
				學年					
修課程度	Academic year								
Level of study	2002/03	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13		
副學位課程	688	260	222	224	219	226	206		
Sub-degree	(+0.1)	(-58.9)	(-14.6)	(+0.9)	(-2.2)	(+3.2)	(-8.8)		
學士學位課程	1 967	1 908	1 825	1 914	1 894	1 813	1 797		
Undergraduate	(+2.2)	(+1.5)	(-4.4)	(+4.9)	(-1.0)	(-4.3)	(-0.9)		
研究院修課課程	691	17	2	1	0	0	0		
Taught postgraduate	(+64.5)	(-79.0)	(-88.2)	(-50.0)	(-100.0)	-	-		
研究院研究課程	208	213	216	242	222	226	251		
Research postgraduate	(+14.9)	(+12.1)	(+1.4)	(+12.0)	(-8.3)	(+1.8)	(+11.1)		
總計	3 554	2 398	2 265	2 381	2 335	2 265	2 254		
Total	(+10.6)	(-13.9)	(-5.5)	(+5.1)	(-1.9)	(-3.0)	(-0.5)		

註釋: 括號內的數字是與上年比較的變動百分率。

Note: Figures in brackets denote percentage changes over the preceding year.

資料來源: 大學教育資助委員會 Source: University Grants Committee

表 4.4 按課程類別劃分的教育局為小學及中學教師而設的資訊科技培訓課程數目

Table 4.4 Number of information technology (IT) courses offered by Education Bureau for primary and secondary school teachers by course type

課程數目

						Number	of courses
				學年			
_			Ac	ademic year			
	2002/03	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
資訊科技教育培訓課程 ⁽¹⁾ IT in Education Courses ⁽¹⁾							
小學	266	159	174	199	203	154	164
Primary schools	(-51.7)	(-2.5)	(+9.4)	(+14.4)	(+2.0)	(-24.1)	(+6.5)
中學	161	204	207	174	186	201	226
Secondary schools	(-52.1)	(+27.5)	(+1.5)	(-15.9)	(+6.9)	(+8.1)	(+12.4)
校管系統/網上校管系統培訓課程 Courses on School Administration and Management System (SAMS) and Web-based School Administration and Management System (WebSAMS)							
小學	186	62	79	62	71	73	101
Primary schools	(+24.0)	(+3.3)	(+27.4)	(-21.5)	(+14.5)	(+2.8)	(+38.4)
中學	428	69	88	67	77	77	106
Secondary schools	(+30.5)	(+7.8)	(+27.5)	(-23.9)	(+14.9)	(0.0)	(+37.7)

註釋: 括號內的數字是與上年比較的變動百分率。

(1) 資訊科技教育培訓課程包括為加強教師利用資訊科技促進學習與教授的培訓課程。

Note: Figures in brackets denote percentage changes over the preceding year.

(1) IT in Education Courses cover training courses for teachers to empower them to use IT for enhancing learning and teaching.

資料來源: 教育局教育基建分部及資訊科技管理分部

Source: Education Infrastructure Division and Information Technology Management Division, Education Bureau

表 4.5 按課程類別劃分的教育局為小學及中學教師而設的資訊科技培訓參與教師人數

Table 4.5 Number of teachers attending information technology (IT) courses offered by Education Bureau for primary and secondary school teachers by course type

參與教師人數

Number of teachers attended

				學年			
_			Ac	ademic year			
	2002/03	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
資訊科技教育培訓課程 ⁽¹⁾ IT in Education Courses ⁽¹⁾							
小學	5 081	8 308	4 593	6 582	2 848	2 203	2 148
Primary schools	(-52.9)	(+263.0)	(-44.7)	(+43.3)	(-56.7)	(-22.6)	(-2.5)
中學	6 635	9 711	4 800	5 918	3 526	3 607	4 391
Secondary schools	(-0.8)	(+332.4)	(-50.6)	(+23.3)	(-40.4)	(+2.3)	(+21.7)
校管系統/網上校管系統培訓課程 Courses on School Administration and Management System (SAMS) and Web-based School Administration and Management System (WebSAMS)							
小學	3 000	967	1 767	866	1 108	931	1 263
Primary schools	(+23.5)	(-42.1)	(+82.7)	(-51.0)	(+27.9)	(-16.0)	(+35.7)
中學	6 970	1 596	2 572	1 350	1 475	1 241	2 361
Secondary schools	(+29.1)	(-22.1)	(+61.2)	(-47.5)	(+9.3)	(-15.9)	(+90.2)

註釋: 括號內的數字是與上年比較的變動百分率。

(1) 資訊科技教育培訓課程包括為加強教師利用資訊科技促進學習與教授的培訓課程。

Note: Figures in brackets denote percentage changes over the preceding year.

(1) IT in Education Courses cover training courses for teachers to empower them to use IT for enhancing learning and teaching.

資料來源: 教育局教育基建分部及資訊科技管理分部

Source: Education Infrastructure Division and Information Technology Management Division, Education Bureau

表 4.6 小學及中學的資訊科技統籌員/資訊科技主任人數(1)

Table 4.6 Information technology (IT) coordinators/IT in-charge of primary and secondary schools (1)

資訊科技統籌員/資訊科技主任人數 Number of IT coordinators/IT in-charge

		學年									
小學/中學 -		Academic year									
Primary/secondary schools	2002/03 ⁽²⁾	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13				
小學	666	473	456	473	471	461	467				
Primary schools	(+6.4)	(-2.7)	(-3.6)	(+3.7)	(-0.4)	(-2.1)	(+1.3)				
中學	445	529	530	530	517	516	502				
Secondary schools	(-11.2)	(-1.9)	(+0.2)	(0.0)	(-2.5)	(-0.2)	(-2.7)				
約割	1 111	1 002	986	1 003	988	977	969				
Total	(-1.4)	(-2.2)	(-1.6)	(+1.7)	(-1.5)	(-1.1)	(-0.8)				

註釋: 括號內的數字是與上年比較的變動百分率。

- (1) 數字包括本地普通日校,並自 1998/99 學年開始編製。2004/05 學年前的數字是指在資訊科技教育計劃下獲分配到小學及中學的資訊科技統籌員人數,而該計劃自 1998/99 學年起推行並於 2004/05 學年終止。2004/05 學年及以後的數字是指在學校執行資訊科技統籌員/資訊科技主任職務的教師人數。
- (2) 2002/03 學年的數字不包括 73 位任教於特殊學校內的統籌員。

Notes: Figures in brackets denote percentage changes over the preceding year.

- (1) Figures cover local ordinary day schools and are compiled as from 1998/99 academic year. Figures prior to 2004/05 academic year refer to IT coordinators allocated to primary and secondary schools under the IT in Education Project, which started in 1998/99 academic year and ended in 2004/05 academic year. Figures for and after 2004/05 academic year refer to teachers with duties as IT coordinators/IT in-charge in schools.
- (2) Figures for 2002/03 academic year exclude 73 coordinators in special schools.

資料來源:教育局學校教育統計組

Source: School Education Statistics Section, Education Bureau

表 4.7 任教資訊科技/電腦科目的中學教師人數

Table 4.7 Secondary school teachers teaching information technology (IT)/computer studies

			學年 Academi				
	2002/03	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
教師人數	2 659	2 772	2 647	2 343	2 152	2 185	1 988
Number of teachers	(-0.9)	(-1.6)	(-4.5)	(-11.5)	(-8.2)	(+1.5)	(-9.0)

註釋: 括號內的數字是與上年比較的變動百分率。

Note: Figures in brackets denote percentage changes over the preceding year.

資料來源: 教育局學校教育統計組

Source: School Education Statistics Section, Education Bureau

表 4.8 按學校類別及開支類別劃分的政府在資訊科技教育及電腦科目方面的開支

Table 4.8 Government spending on information technology (IT) education and computer subjects by type of schools and type of expenditure

百萬港元 HK\$ million

833 L2-V-7 F1-1		財政年度 Financial year					X minion	
學校類別 Type of schools	開支類別 Type of expenditure	2002-03	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
小學	非經常開支 ⁽¹⁾	25.5	83.0	4.4	1.1	42.4	16.8	4.5
Primary schools	Capital expenditure (1)	(-54.9)	(+563.3)	(-94.7)	(-75.7)	(†)	(-60.4)	(-73.3)
	經常開支	213.0	119.9	134.3	131.0	136.4	139.6	146.1
	Recurrent expenditure	(+30.1)	(-20.6)	(+12.0)	(-2.5)	(+4.1)	(+2.3)	(+4.7)
中學	非經常開支(1)	51.4	99.7	4.4	1.7	35.6	7.0	4.5
Secondary schools	Capital expenditure (1)	(-41.4)	(+583.2)	(-95.6)	(-61.4)	(†)	(-80.5)	(-35.1)
	經常開支	188.5	130.7	144.9	140.2	145.3	157.2	153.2
	Recurrent expenditure	(+13.1)	(-14.0)	(+10.9)	(-3.3)	(+3.7)	(+8.2)	(-2.5)
特殊學校	非經常開支(1)	2.8	8.8	§ §	0.0	6.8	1.8	0.5
Special schools	Capital expenditure (1)	(-73.3)	(†)	(-100.0)	(-100.0)	(-)	(-74.0)	(-70.6)
	經常開支	24.4	13.6	15.8	15.0	16.1	17.3	17.9
	Recurrent expenditure	(+90.5)	(-19.3)	(+16.0)	(-5.3)	(+7.6)	(+7.0)	(+3.5)
前教育署/前教育統	非經常開支(1)	5.7	9.5	8.1	36.9	21.1	12.4	12.7
籌局/教育局	Capital expenditure (1)	(+331.3)	(-25.5)	(-14.9)	(+355.4)	(-42.7)	(-41.2)	(+1.9)
Then Education	經常開支 ⁽²⁾	0.1	-	-	-	-	-	-
Department/Then Education and Manpower Bureau/Education Bureau	Recurrent expenditure (2)	(0.0)	-	-	-	-	-	-
優質教育基金	非經常開支(1)	206.5	93.6	53.3	26.6	31.4	23.4	18.7
Quality Education Fund	Capital expenditure (1)	(-74.0)	(+9.0)	(-43.1)	(-50.0)	(+18.0)	(-25.6)	(-20.1)
()	經常開支	(, ,,,,	-	-	-	-	-	-
	Recurrent expenditure	-	-	-	-	-	-	-
小計	非經常開支 ⁽¹⁾	291.8	294.6	70.1	66.3	137.4	61.3	40.9
Sub-total	Capital expenditure (1)	(-69.3)	(+133.3)	(-76.2)	(-5.5)	(+107.3)	(-55.4)	(-33.4)
	經常開支	426.0	264.2	295.0	286.1	297.8	314.0	317.2
	Recurrent expenditure	(+24.1)	(-17.4)	(+11.7)	(-3.0)	(+4.1)	(+5.4)	(+1.0)
總計		717.8	558.9	365.2	352.4	435.2	375.3	358.1
Total		(-44.5)	(+25.3)	(-34.7)	(-3.5)	(+23.5)	(-13.8)	(-4.6)

註釋: 括號內的數字是與上年比較的變動百分率。

- (1) 數字指政府一般收入帳目下的非經常開支及非經營帳目的開支。
- (2) 數字指資訊科技教育資源中心的開支。該中心已於2006年4月關閉。
- §§ 少於 50,000 港元。
- † 表示增減大於 999.9%

Notes:

Figures in brackets denote percentage changes over the preceding year.

- $(1) \quad Figures \ refer \ to \ the \ non-recurrent \ expenditure \ and \ capital \ account \ expenditure \ under \ General \ Revenue \ Account.$
- (2) Figures refer to the expenditure of the IT in Education Resource Centre, which was closed in April 2006.
- §§ Less than HK\$50,000.
- † Denotes increase or decrease of over 999.9%

資料來源: 教育局財政分部及優質教育基金秘書處

Source: Finance Division and Quality Education Fund Secretariat, Education Bureau

Terms and Definitions

1. 資訊及通訊科技業的營運特徵

- 1.1 機構 是指在單一擁有權或控制權(即單一公司名義)下,在單一地點從事一種或主要從事一種經濟活動(即生產貨物或提供服務)的經濟單位。
- 1.2 對外電訊服務 是指透過固網服務/固定傳送者/綜合傳送者牌照持有人提供的對外專用綫路經營(包括話音、傳真、或數據)與香港以外的地方通訊服務。
- 1.3 *固定資產的買賣淨值* 是指添置的固定 資產減出售的固定資產。
- 1.4 本地生產總值 是指一個國家或地區的 所有常住生產單位,在一個指定的期間內,未 扣除固定資本消耗的生產總價值。
- 1.5 *盈餘總額* 是指收入(來自銷售或業務) 或支出,減僱員薪酬及其他支付或開支。
- 1.6 *就業人數* 包括在職東主、在職合夥 人、無酬家屬幫工及所有僱員。
- 1.7 增加價值 是生產總額減去中間投產消耗(生產過程中所耗用的貨物和服務的價值)。

1. Operating Characteristics of the Information and Communication Technology Sector

- 1.1 An *establishment* is defined as an economic unit (i.e. a unit engaged in the production of goods or services) which engages, under a single ownership or control (i.e. under a single company name), in one or predominantly one kind of economic activity at a single physical location.
- 1.2 External telecommunications services, which may include voice, facsimile or data, are services operated over external leased circuits supplied by Fixed Telecommunication Network Services/Fixed Carrier/Unified Carrier licensee for communications with places outside Hong Kong.
- 1.3 Gross addition to fixed assets is defined as acquisition of fixed assets minus disposal of fixed assets.
- 1.4 Gross Domestic Product (GDP) is a measure of the total value of production of all resident producing units of a country or territory in a specified period, before deducting allowance for consumption of fixed capital.
- 1.5 *Gross surplus* is defined as receipts (from sales or business) or output, minus compensation of employees and other payments or expenses.
- 1.6 *Persons engaged* include working proprietors, active partners, unpaid family workers and all employees in establishment.
- 1.7 Value added is defined as the value of gross output less the value of intermediate consumption (the value of goods and services used up in the course of production).

2. 資訊及通訊科技貨品的進出口

2.1 *影音設備的貿易統計數字* 主要涵蓋錄音及錄影設備或重播器具及其零件及附件;無線電廣播或電視傳送器具、電視攝影機、數碼攝影機及其他攝錄機;傳聲器及其座架、音頻電動擴音器、電動擴音器組合;以及唱片、磁帶、固態永久資料存儲器及其他供錄音或記錄其他信息的媒體的進口及出口。

- 2.2 電腦及相關設備的貿易統計數字 主要涵蓋自動資料處理機及其儲存、輸入或輸出部件、磁性或光學閱讀器、將資料以代碼形式轉錄到資料媒體的機器及處理這些資料的機器及網絡裝置設備;以及其他有關零件及附件的進口及出口。
- 2.3 電子組件的貿易統計數字 主要涵蓋電子集成電路及微形電子組件;二極管、晶體管及類似的半導體器件;光敏半導體器件,包括無論是否裝在組件內或組裝成塊的光電池;發光二極管;已裝配的壓電晶體;印刷電路;以及用於傳送器具、電視攝影機、數碼攝影機、攝錄機、監視器及投影機的零件等的進口及出口。
- 2.4 其他資訊及通訊科技貨品的貿易統計 數字 主要涵蓋辦公室機器及設備、醫療設 備、工業工序控制機器,以及量度、檢查、測 試及導航儀器等的進口及出口。

2. Imports and Exports of Information and Communication Technology Goods

- Trade statistics on audio and video 2.1 equipment mainly cover imports and exports of sound and video recording or reproducing apparatus and their parts and accessories; transmission apparatus for radio-broadcasting or television, television cameras, digital cameras and video camera recorders; microphones and stands therefore. headphones earphones. and audio-frequency electric amplifiers, electric sound amplifier sets; and discs, tapes, solid-state non-volatile storage devices and other media for the recording of sound or of other phenomena.
- 2.2 Trade statistics on computer and related equipment mainly cover imports and exports of automatic data processing machines and storage, input or output units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form, machines for processing such data and network units equipment; and other related parts and accessories.
- 2.3 Trade statistics on electronic components mainly cover imports and exports of electronic integrated circuits and micro assemblies; diodes, transistors and semiconductor devices; photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light emitting diodes; mounted piezo-electric crystals; printed circuits; and parts of transmission apparatus, television cameras, digital cameras, video camera recorders, monitors and projectors, etc.
- 2.4 Trade statistics on other ICT goods mainly cover imports and exports of office machinery and equipment, medical equipment, industrial process control equipment, and appliances for measuring, checking, testing and navigating, etc.

2.5 電訊設備的貿易統計數字 主要涵蓋電話機,包括蜂巢式網絡或其他無線網絡的電話;其他傳送或接收聲音、圖像或數據的器具,包括有線或無線網絡的通訊器具,如局部或寬廣區域網絡;無線電廣播或電視傳送器具及其他裝有接收器的傳送器具的進口及出口。

(註釋:上述第 2.1-2.5 段列出的貨品類別是以 2008 年有關類別的涵蓋範圍為依歸。由於每年的貨品編碼會有所變動,過往年份的涵蓋範圍可能略為不同。故在比較跨年的有關數字時應注意此點。)

3. 資訊及通訊科的接達及使用情況

- 3.1 *寬頻互聯網接駁* 指使用者透過傳送速度由每秒數百個千位元(Kbps)至每秒千個百萬位元(Mbps)的上網服務(1個百萬位元=1024個千位元)進入互聯網並使用互聯網服務。採用有線調解器、以太網、非對稱數碼用戶線路(ADSL)、其他種類的數字式用戶線路/數碼用戶線路(DSL)及光纖到樓(FTTB)都是常用的上網方式。
- 3.2 把有關機構或其所售賣產品的資料放在互聯網上亦視為 *有透過電子途徑遞送貨品、服務或資料*。
- 3.3 機構 請參閱本附錄第1.1段。
- 3.4 機構如有透過電子途徑確認整個預訂 或購買程序,便會視為 *有透過電子途徑預訂* 或購買貨品、服務或資料。

2.5 Trade statistics on telecommunications equipment mainly cover imports and exports of telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network such as a local or wide area network; transmission apparatus for radio-broadcasting or television and other apparatus incorporating reception apparatus.

(Note: The commodity categories listed in paragraphs 2.1-2.5 above are based on the respective coverage in 2008. Due to annual changes in commodity codes, the coverage in previous years may be slightly different and caution should be exercised in comparing the relevant figures across years.)

3. Access To and Use of Information and Communication Technology

- 3.1 Broadband Internet access refers to access to the Internet and Internet related services, with transmission speed from hundreds of kbps (kilobits per second) to thousand Mbps (Megabits per second) (1 Mb = 1024 kb). Cable modems, Ethernet, ADSL (asymmetric digital subscriber line), other types of DSL (digital subscriber line) and FTTB (Fibre-to-the-building), are technologies commonly used for provision of broadband connection.
- 3.2 Placing information on the Internet about an establishment or the products sold is considered to have *delivered its goods, services or information through electronic means*.
- 3.3 *Establishment* please refer to paragraph 1.1 of this Appendix.
- 3.4 An establishment is considered to have ordered or purchased goods, services or information through electronic means if the confirmation of order or purchase is completely done through electronic means.

- 3.5 個人電腦 是指為個人使用而設的電腦,包括桌面電腦、便攜式/筆記簿型電腦/小筆電/平板電腦及掌上電腦/個人數碼助理。但不包括電子日記簿、電子詞典、伺服器及用於主機或小型電腦的工作站和終端機。把多個個人電腦接駁一起可組成區域網絡或廣域網絡系統。
- 3.6 網上瀏覽資料亦視為 透過電子途徑獲 取貨品、服務或資料。至於透過電子途徑獲取 的貨品,只限於能以電子途徑傳遞的產品,如 套裝軟件及歌曲。
- 3.7 第二代流動無線服務(2G) 是指利用包括碼分多址制式(CDMA)、分時多工存取(TDMA)、環球流動通訊系統(GSM)及個人通訊服務(PCS)系統操作的數碼式流動電訊服務。
- 3.8 第三代流動無線服務(3G) 是根據國際電信聯盟(International Telecommunication Union,簡稱 ITU)定下的國際流動電信2000標準(International Mobile Telecommunication 2000,簡稱IMT-2000)發展而成的新一代無線通訊系統。第三代流動無線服務可使無線傳送速度提升至2兆比特/秒,提供高質素的無線話音及影像的傳送。

- 3.5 Personal computer refers to a computer designed for individual use. Personal computer includes desktop computer, laptop/notebook/netbook/tablet and palm top/Personal Digital Assistant. Digital diary, electronic dictionary, servers, workstations and terminals of mainframe or minicomputer are not included. Personal computers may be connected to form a Local Area Network (LAN) or Wide Area Network (WAN) system.
- 3.6 Browsing of information on the Internet is also considered as *receiving information through electronic means*. Goods received through electronic means are only restricted to products which could be transmitted through electronic means, such as software packages and songs.
- 3.7 Second Generation (2G) wireless services is the digital mobile telecommunications service operating on Code Division Multiple Access (CDMA), Time Division Multiple Access (TDMA). Global System for Mobile and Communication (GSM) Personal Communications Services (PCS) systems.
- 3.8 Third Generation (3G) wireless services is a new generation of wireless telecommunications service and its development is based on the initiative of International Telecommunication Union (ITU) called IMT-2000 (International Mobile Telecommunication 2000). 3G will bring wireless transmission speeds up to 2Mbps, which allows high-quality wireless audio and video transmission.

- 3.9 *工商業的資訊科技總開支* 涵蓋以下四種類別的開支:
 - (a) 購買供自用的電腦硬件(例如個人電腦、主機電腦、筆記簿型電腦、儲存裝置及元件)及周邊設備(例如打印機和掃瞄器)的開支;
 - (b) 購買供自用的電腦程式、軟件及資料 庫的開支,包括市場上的標準電腦軟 件和由其他機構專門設計/開發的 電腦軟件;
 - (c) 其他與資訊科技有關的服務(例如系統設計與開發、電腦培訓、網頁設計、互聯網接駁服務、網站儲存、電腦設備租賃,以及電腦產品的維修保養)的開支;及
 - (d) 自行開發供自用的軟件及資料庫的 成本。
- 3.10 有網絡存在的工商機構 是指機構具有本身的網站/網頁或顯示在另一個實體網站(包括相關業務的網站)。但並不包括列載於其他網上目錄或機構對網頁內容並沒有主導控制的其他網頁。
- 3.11 網站 是一組以本頁為首頁的相關網頁。每一網站通常都有一個獨一無二的網上地址,以供用戶尋找所需的首網頁。

- 3.9 Total expenditure on information technology (IT) in the business sector is defined to cover the following four types of expenditure:
 - (a) Expenditure on purchases of computer hardware (e.g. personal computers, mainframes, notebook computers, storage devices and components) and peripherals (e.g. printers and scanners) for own use;
 - (b) Expenditure on purchases of computer programs, software and databases for own use, including both standard ones available in the market and those specifically designed/developed by other firms;
 - (c) Payments for other IT-related services (e.g. system design and development; computer training; webpage design; Internet connection; website hosting; computer equipment leasing; and repair and maintenance of computer products); and
 - (d) Cost of in-house development of computer programs and databases for own use.
- 3.10 Business establishments with a web presence refers to having a website/webpage or presence on another entity's website (including a related business). It excludes inclusion in an online directory and any other web pages where the business does not have substantial control over the content of the webpage.
- 3.11 *Website* is a collection of related webpages that includes a beginning page called a home page. A website usually has a unique address to facilitate users to get their intended home pages.

4. 資訊及通訊科技的人力資源

- 4.1 資料庫 包括以下員工:
 - 適用於2004年
 - 資料庫管理主任/專責經理/ 設計員/主任
 - 數據庫管理主任
 - 決策支援專責經理
 - 商業資訊專責經理
 - 知識管理專責經理
 - 適用於2006年、2008年、2010年及 2012年
 - 資料庫管理主任/設計員
 - 數據庫管理主任
- 4.2 實地支援包括以下員工:
 - 適用於2004年
 - 經理 客戶工程/服務支援
 - 工程師 客戶/客戶服務/硬件/技術/實地服務
 - 技術員 硬件/服務/實地服務/維修
 - 適用於2006年、2008年、2010年及 2012年
 - 經理 客戶工程/服務支援
 - 工程師 客戶服務/實地服務
 - 實地服務技術員
- 4.3 一般資訊科技管理包括以下員工:
 - 適用於2006年、2008年、2010年及 2012年
 - 資訊科技總監
 - 管理資訊系統總監
 - 資訊科技主管
 - 首席資訊主任

- **4.** Information and Communication Technology in Human Resources
- 4.1 *Database* includes the following personnel:
 - for 2004
 - Database Administrator/Specialist/ Designer/ Officer
 - Data Warehouse Administrator
 - Decision Support Specialist
 - Business Intelligence Specialist
 - Knowledge Management Specialist
 - for 2006, 2008, 2010 and 2012
 - Database Administrator/Designer
 - Data Warehouse Administrator
- 4.2 *Field Support* includes the following personnel:
 - for 2004
 - Manager Customer Engineering/Services Support
 - Engineer Customer/Customer Services/ Hardware/Technical/Field
 - Technician Hardware/Service/Field/ Maintenance
 - for 2006, 2008, 2010 and 2012
 - Manager Customer Engineering/Services Support
 - Engineer Customer Services/Field
 - Field Technician
- 4.3 *General IT management* includes the following personnel:
 - for 2006, 2008, 2010 and 2012
 - IT Director
 - Management Information System (MIS)
 Director
 - Head of IT
 - Chief Information Officer (CIO)

- 4.4 資訊科技教育及訓練 包括以下員工:
 - 適用於2004年
 - 教授/講師/訓練主任
 - 資訊科技訓練員/教導員
 - 資訊科技研究員(大專院校)
 - 研究助理
 - 項目助理
 - 適用於2006年、2008年、2010年及 2012年
 - 教授/講師/訓練主任
 - 資訊科技訓練員/教導員
 - 資訊科技研究員(大專院校)/ 研究助理
- 4.5 資訊科技管理 包括以下員工:
 - 適用於2004年
 - 資訊科技董事
 - 電腦服務董事
 - 管理資訊系統董事
 - 資訊科技主管
 - 首席資訊主任
- 4.6 *資訊科技銷售* 包括以下員工:
 - 適用於2006年及2008年
 - 總監 銷售/客戶
 - 經理 銷售/客戶
 - 代表 銷售/產品推廣
- 4.7 *資訊科技銷售及市場推廣* 包括以下員 T.:
 - 適用於2010年及2012年
 - 總監 銷售/市場/客戶
 - 經理 銷售/市場/客戶
 - 代表 銷售/市場/產品推廣

- 4.4 *IT education and training* includes the following personnel:
 - for 2004
 - Professor/Lecturer/Training Officer
 - IT Trainer/Instructor
 - IT Researcher (in a tertiary education institution)
 - Research Assistant
 - Project Assistant
 - for 2006, 2008, 2010 and 2012
 - Professor/Lecturer/Training Officer
 - IT Trainer/Instructor
 - IT Researcher (in a tertiary educational institution)/Research Assistant
- 4.5 *IT management* includes the following personnel:
 - for 2004
 - IT Director
 - Computer Services Director
 - MIS Director
 - Head of IT
 - Chief Information Officer (CIO)
- 4.6 *IT sales and marketing* includes the following personnel:
 - for 2006 and 2008
 - Director Sales/Account
 - Manager Sales/Account
 - Representative Sales/Product
 Promotion
- 4.7 *IT Sales and marketing* includes the following personnel:
 - for 2010 and 2012
 - Director Sales/Marketing/Account
 - Manager Sales/Marketing/Account
 - Representative-Sales/Marketing/Product Promotion

- 4.8 *資訊科技保安* 包括以下員工:
 - 適用於2004年、2006年、2008年、 2010年及2012年
 - 專責經理 電腦保安/資訊保安
 - 資訊保安主任
- 4.9 資訊科技/軟件開發 包括以下員工:
 - 適用於2004年
 - 經理 系統開發/程式編製/ 系統
 - 資訊科技策略員/建築師
 - 商業分析員/顧問
 - 顧問 資訊科技/系統/項目 /應用/應用設計
 - 電腦系統審核經理
 - 經理 項目/外判
 - 項目組長
 - 系統分析員
 - 應用設計員
 - 程式編製員
 - 分析員/程式編製員
 - 應用程式編製員
 - 工程師 應用程式/開發
 - 軟件設計員/工程師
 - 網站設計員/開發員
 - 專責經理 品質檢查/軟件品 質檢查
 - 測試設計員
 - 軟件測試工程師
 - 研究及開發工程師
 - 研究員
 - 軟件/固件產品設計員
 - 產品分析員/開發員
 - 技術撰稿員

- 4.8 *IT Security* includes the following personnel:
 - for 2004, 2006, 2008, 2010 and 2012
 - Specialist IT Security/Information Security
 - Information Security Officer
- 4.9 *IT/Software development* includes the following personnel:
 - for 2004
 - Manager Systems development/ Programming/Systems
 - IT Strategist/Architect
 - Business Analyst/Consultant
 - Consultant IT/Systems/Project/ Application/Usability Design
 - IT Systems Auditor
 - Manager Project/Outsourcing
 - Project Leader
 - Systems Analyst
 - Usability Designer
 - Programmer
 - Analyst/Programmer
 - Application Programmer
 - Engineer Application/Development
 - Software Designer/Engineer
 - Web Designer/Developer
 - Specialist Quality Assurance/Software Assurance
 - Test Designer
 - Software Testing Engineer
 - Research and Development Engineer
 - Research Scientist
 - Software/Firmware Product Designer
 - Product Analyst/Developer
 - Technical Writer

- 適用於2006年
 - 系統開發經理
 - 資訊科技建築師
 - 商業分析員
 - 項目經理/組長
 - 系統分析員
 - 應用設計員/設計顧問
 - 程式編製員
 - 分析員/程式編製員
 - 軟件工程師
 - 網站設計員/開發員
 - 品質檢查專責經理
 - 軟件品質檢查專責經理/工程師
 - 電腦系統審核經理
 - 研究及開發工程師
 - 軟件/固件產品設計員
 - 產品分析員/開發員
 - 技術撰稿員
 - 電腦遊戲設計/美術/開發員
 - 電腦圖像設計/美術員
 - 電腦動畫設計師
 - 設計師 網頁圖像/視覺效果

- for 2006
 - Systems Development Manager
 - IT Architect
 - Business Analyst
 - Project Manager/Leader
 - Systems Analyst
 - Usability Designer/Design Consultant
 - Programmer
 - Analyst/Programmer
 - Software Engineer
 - Web Designer/Developer
 - Quality Assurance Specialist
 - Software Assurance Specialist/Engineer
 - IT Systems Auditor
 - Research and Development Engineer
 - Software/Firmware Product Designer
 - Product Analyst/Developer
 - Technical Writer
 - Computer Game Designer/Artist/ Developer
 - Computer Graphic Designer/Artist
 - Computer Animator
 - Designer Web Graphic/Visual Effect

- 適用於2008年、2010年及2012年
 - 系統開發經理
 - 資訊科技建築師
 - 商業分析員
 - 項目經理/組長
 - 系統分析員
 - 應用設計員/設計顧問
 - 程式編製員
 - 分析員/程式編製員
 - 軟件工程師
 - 網站設計員/開發員
 - 品質檢查專責經理
 - 軟件品質檢查專責經理/工程師
 - 電腦系統審核經理
 - 研究及開發工程師
 - 軟件產品工程師
 - 軟件/固件產品設計員
 - 產品分析員/開發員
 - 軟件產品經理
 - 技術撰稿員
 - 電腦遊戲設計/美術/開發員
 - 電腦圖像設計/美術員
 - 電腦動畫設計師
 - 設計師 網頁圖像/視覺效果

- for 2008, 2010 and 2012
 - Systems Development Manager
 - IT Architect
 - Business Analyst
 - Project Manager/Leader
 - Systems Analyst
 - Usability Designer/Design Consultant
 - Programmer
 - Analyst/Programmer
 - Software Engineer
 - Web Designer/Developer
 - Quality Assurance Specialist
 - Software Assurance Specialist/Engineer
 - IT Systems Auditor
 - Research and Development Engineer
 - Software Product Engineer
 - Software/Firmware Product Designer
 - Product Analyst/Developer
 - Software Product Manager
 - Technical Writer
 - Computer Game
 Designer/Artist/Developer
 - Computer Graphic Designer/Artist
 - Computer Animator
 - Designer Web Graphic/Visual Effect

4.10 操作服務 包括以下員工:

- 適用於2004年
 - 經理 電腦操作/電腦服務
 - 經理 資訊中心/資訊中心服務
 - 求助台主任/主管
 - 服務員 求助台/求助中心
 - 客戶服務主任/服務員
 - 電腦操作主任
 - 操作員 電腦/系統
 - 用戶支援/統籌員
 - 用戶主任
 - 用戶技術員
 - 桌面支援專責人員
- 適用於2006年、2008年、2010年及 2012年
 - 電腦操作經理
 - 求助台主任/服務員
 - 客戶服務主任/服務員
 - 電腦操作主任
 - 操作支援主任
 - 操作員 電腦/系統
 - 用戶支援/統籌員
- 4.11 系統程式編製 包括以下員工:
 - 適用於2004年、2006年、2008年、2010年及2012年
 - 系統程式編製員(機構內部/ 電腦供應商)
 - 系統工程師

- 4.10 *Operation services* includes the following personnel:
 - for 2004
 - Manager Computer Operations/Computer Services
 - Manager Data Centre/Data Centre Services
 - Help Desk Supervisor/ Manager-in-charge
 - Representative Help Desk/Call Centre
 - Customer Service Officer/ Representative
 - Computer Operations Supervisor
 - Operator Computer/Systems
 - User Support/Co-ordinator
 - User Officer
 - User Technician
 - Desktop Support Specialist
 - for 2006, 2008, 2010 and 2012
 - Computer Operations Manager
 - Help Desk Supervisor/Representative
 - Customer Service Officer/Representative
 - Computer Operations Supervisor
 - Operations Support Supervisor
 - Operator Computer/Systems
 - User Support/Co-ordinator
- 4.11 *Systems programming* includes the following personnel:
 - for 2004, 2006, 2008, 2010 and 2012
 - Systems Programmer (in-house/vendor environment)
 - Systems Engineer

4.12 電訊及網絡 包括以下員工:

- 適用於2004年
 - 經理 電訊/網絡
 - 顧問 電訊/網絡
 - 工程師 電訊/網絡
 - 分析員 電訊/網絡
 - 管理主任 網絡/局域網/寬 域網
 - 網絡運作主任
- 適用於2006年、2008年、2010年及 2012年
 - 經理 電訊/網絡
 - 顧問 電訊/網絡
 - 工程師 電訊/網絡
 - 網絡 管理主任/主任

- 4.12 *Telecommunications and networking* includes the following personnel:
 - for 2004
 - Manager Telecommunications/Network
 - Consultant Telecommunications/Network
 - Engineer Telecommunications/Network
 - Analyst Telecommunications/Network
 - Administrator Network/LAN/WAN
 - Network Operation Officer
 - for 2006, 2008, 2010 and 2012
 - Manager Telecommunications/Networking
 - Consultant Telecommunications/Network
 - Engineer Telecommunications/ Network
 - Network Administrator/Officer

查詢電話 Enquiry Telephone Numbers

資料來源 Source of information	查詢電話 Enquiry telephone numbers
政府統計處商業服務統計組 Business Services Statistics Section, Census and Statistics Department	2894 8149
教育局 Education Bureau	
(a) 財政分部 Finance Division	2892 6230
(b) 教育基建分部 Education Infrastructure Division	3698 3601
(c) 優質教育基金秘書處 Quality Education Fund Secretariat	2123 6090
(d) 資訊科技管理分部 Information Technology Management Division	2573 4240
(e) 學校教育統計組 School Education Statistics Section	3509 8443
康樂及文化事務署 Leisure and Cultural Services Department	2921 0580
政府資訊科技總監辦公室 Office of the Government Chief Information Officer	2582 4520
通訊事務管理局辦公室 Office of the Communications Authority	2961 6333
政府統計處科技統計組 Science and Technology Statistics Section, Census and Statistics Department	2887 9634
政府統計處社會統計調查組 Social Surveys Section, Census and Statistics Department	2887 5103

資料來源查詢電話
EnquirySource of informationtelephone numbers政府統計處貿易資料分析組2582 4915Trade Analysis Section,
Census and Statistics Department2844 9919大學教育資助委員會
University Grants Committee2844 9919職業訓練局3907 6650

Vocational Training Council

獲取政府統計處刊物的方法 Means of Obtaining Publications of the Census and Statistics Department

網站

用戶可以在政府統計處網站(www.censtatd.gov.hk/hkstat/quicklink/index_tc.jsp)免費下載統計刊物。

政府統計處刊物出版組

政府統計處部分刊物備有印刷版,市民可親臨政府統計處刊物出版組購買刊物的印刷版,並即時提取。該組並設有閱讀區,陳列政府統計處各類刊物的最新期號,供讀者查閱。閱讀區也備有統計處編製的宣傳/教育單張和小冊子,歡迎索閱。

刊物出版組的地址是:

香港灣仔港灣道 12 號 灣仔政府大樓 19 樓

電話:(852) 2582 3025 圖文傳真:(852) 2827 1708

訂購服務

政府統計處部分刊物備有印刷版,於政府新聞處的政府書店網站 (www.bookstore.gov.hk)有售。市民亦可在政府統計處網站(www.censtatd.gov.hk/service_desk/list/mail/index_tc.jsp)下載郵購表格,並將填妥的郵購表格,連同所需費用的支票或匯票寄回辦理。

Website

Users may download statistical publications free of charge from the Census and Statistics Department (C&SD) Website (www.censtatd.gov.hk/hkstat/quicklink/index.jsp).

Publications Unit of C&SD

Some publications of C&SD are available in print versions. These print versions are available for purchase and collection on the spot at the Publications Unit of C&SD. The Unit also provides a reading area where users may browse through the latest issue of various publications of the Department on display. Publicity/educational leaflets and pamphlets of the Department are also available for collection.

The address of the Publications Unit is:

19/F, Wanchai Tower,

12 Harbour Road, Wan Chai, Hong Kong.

Tel.: (852) 2582 3025 Fax: (852) 2827 1708

Order service

Some publications of C&SD are available in print versions and are offered for sale online at the Government Bookstore of the Information Services Department (www.bookstore.gov.hk). A mail order form for ordering print versions of publications is also available for downloading on the website of the Department (www.censtatd.gov.hk/service desk/list/mail/index.jsp). Completed form should be sent back together with a cheque or bank draft covering all necessary cost.