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Statistics New Zealand
TATAURANGA AOTEAROA

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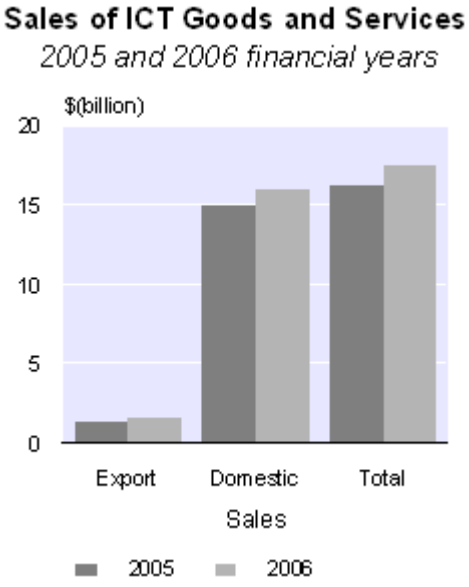
Information and Communication Technology Supply Survey 2005/06

Highlights

- **Total sales of information and communication technology (ICT) goods and services rose 7.9 percent** to $17.6 billion in the 2006 financial year.
- **Total exports of ICT goods and services increased 19.9 percent** to $1,610 million.
- **Electronic devices and equipment was the leading exported ICT commodity**, with 32.5 percent of total sales.
- **Total sales of audio and visual equipment increased 27.1 percent** to $970 million.



Dallas Welch
Acting Government Statistician

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Commentary

Background

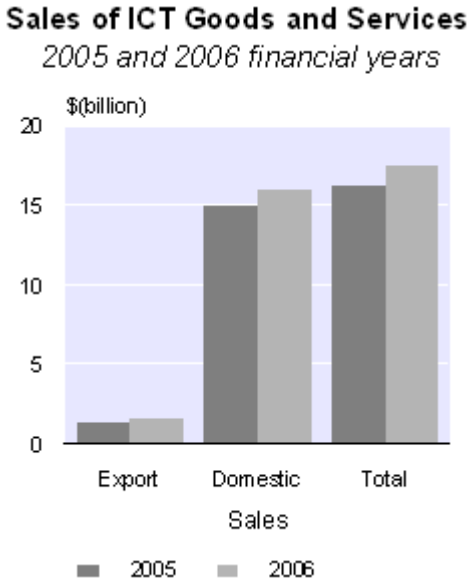
The Information and Communication Technology (ICT) Supply Survey: 2005/06 is the second in a new time series, based on recently developed OECD definitions to measure the ICT industry. The ICT Supply Survey: 2005/06 measures the sale of goods and services from businesses associated with ICT industries. The ICT Supply Survey replaced the previous Statistics New Zealand Information Technology (IT) Survey (1993–2004).

For the ICT Supply Survey: 2005/06, collection industry lists were added to the core ICT industries to provide wider coverage of ICT industries. The lists and minor changes to the questionnaire, together with updated 2004/05 respondent data, have led to revision of the ICT Supply Survey: 2004/05 data to increase comparability with 2005/06 data (see Technical notes of this release).

Data from the ICT Supply Survey: 2005/06 will be included in the OECD Science, Technology and Industry scoreboard (*www.oecd.org/sti/scoreboard*) which will be updated later in 2007.

Total ICT sales

Results from the ICT Supply Survey for the 2006 financial year show that total sales of ICT goods and services were valued at $17,643 million, with 90.9 percent ($16,033 million) of this value being sold domestically, and 9.1 percent ($1,610 million) being sold to export markets. This is a 7.9 percent increase in total sales, with domestic sales rising 6.9 percent and export sales up 19.9 percent from the 2005 financial year.



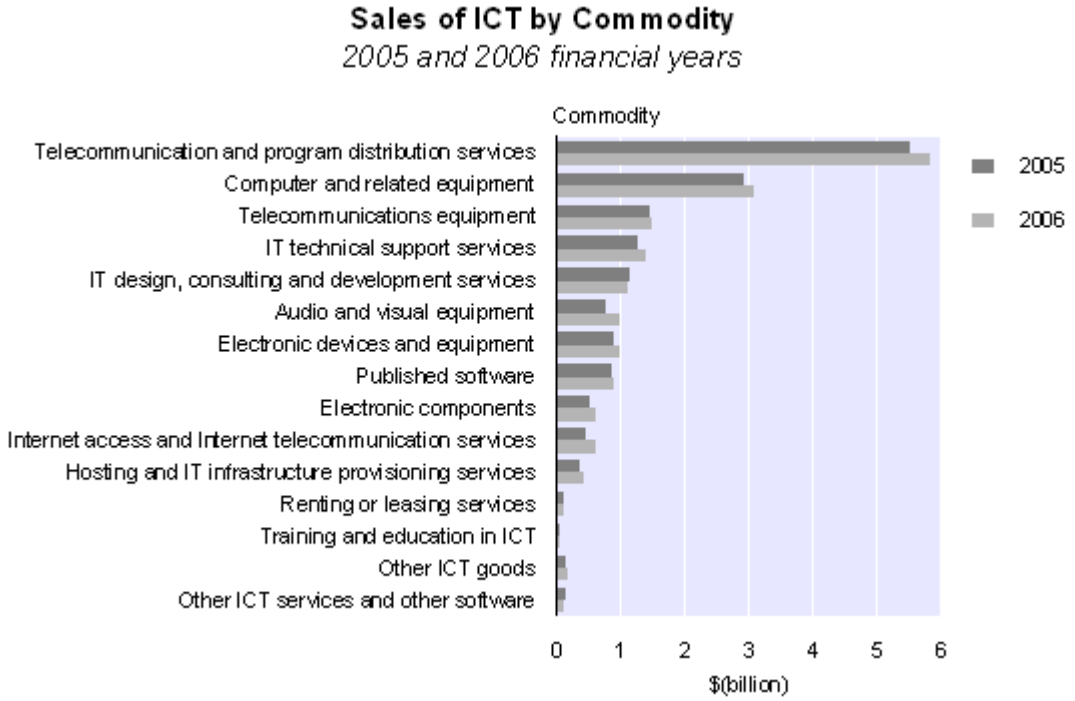
Sales of ICT commodities

For the 2006 financial year, sales of ICT services increased 7 percent to reach $9,518 million, while sales of ICT goods (including published software) increased 9.1 percent to $8,125 million. This percentage difference between sales of ICT goods and services has stayed relatively constant, with a difference of 0.4 percent between the two years.

For the 2006 financial year, sales of telecommunication and program distribution services increased 5.8 percent, to reach $5,803 million. This remains the most significant sales commodity.

Sales of Internet access and Internet telecommunication services increased 32.5 percent, to reach $595 million in 2006.

The audio and visual equipment commodity group, which increased 27.1 percent (to $970 million) in 2006, had the largest percentage change in sales.



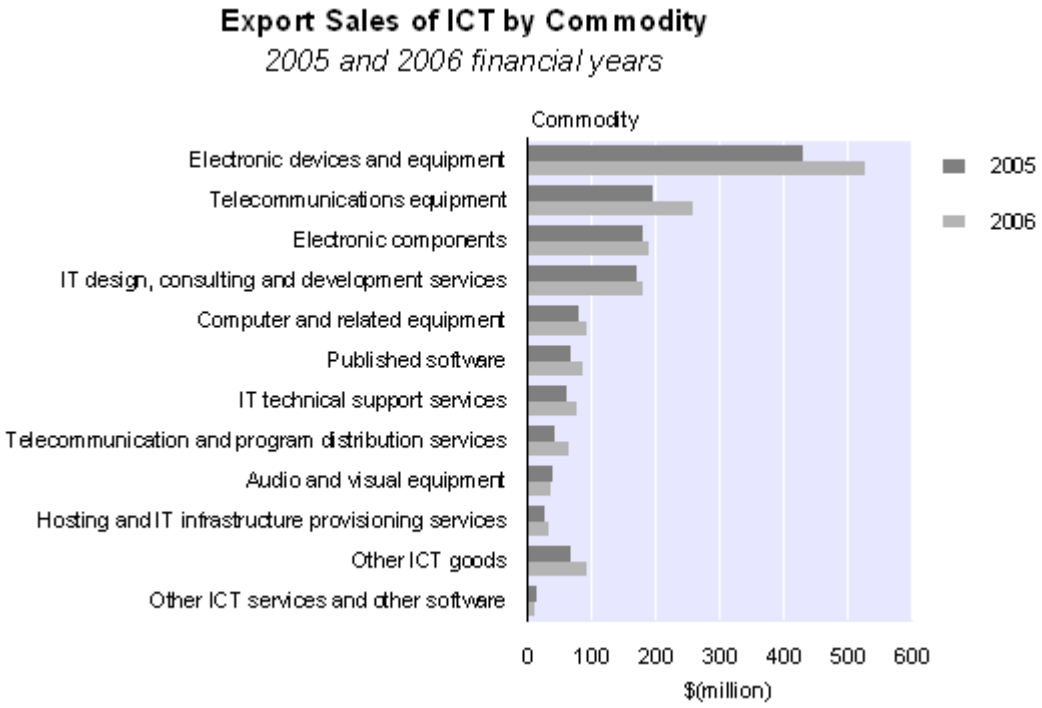
Export sales of ICT commodities

For the 2006 financial year, sales of ICT goods were 78.3 percent ($1,260 million) of the total export value ($1,610 million), while ICT services were 21.7 percent ($350 million) of the total.

Export sales of electronic devices and equipment increased $97 million to $523 million in 2006. This remains the highest-value exported commodity category, with 32.5 percent of the total export value.

For the 2006 financial year, export sales of telecommunication equipment increased 31.2 percent to $254 million. Export sales account for almost all the overall increase in total telecommunication equipment sales.

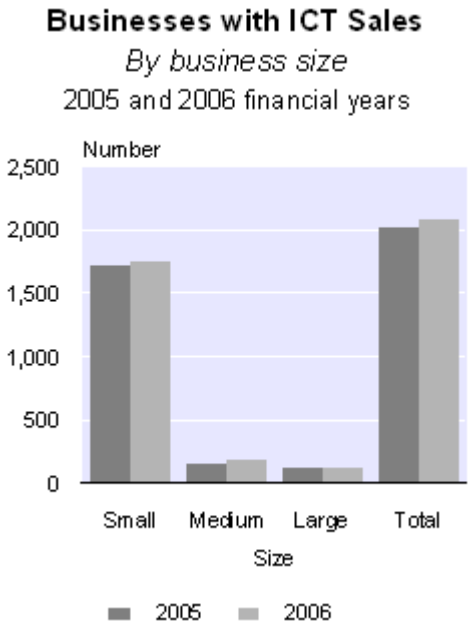
Export sales of published software increased 30.8 percent, to reach $84 million in 2006.



ICT business, by industry and business size

Of the 2,618 enterprises in the 2005/06 ICT Supply Survey population, 2,088 (80 percent) sold ICT goods and services, an increase of 60 enterprises on the 2004/05 ICT Supply Survey population.

Of these 2,088 enterprises, 1,761 (84 percent) were classified as small, an increase of 27 enterprises. There were also 195 medium-sized ICT businesses (9 percent of total), an increase of 27 enterprises; and 131 large businesses (6 percent of total), an increase of 6 enterprises.

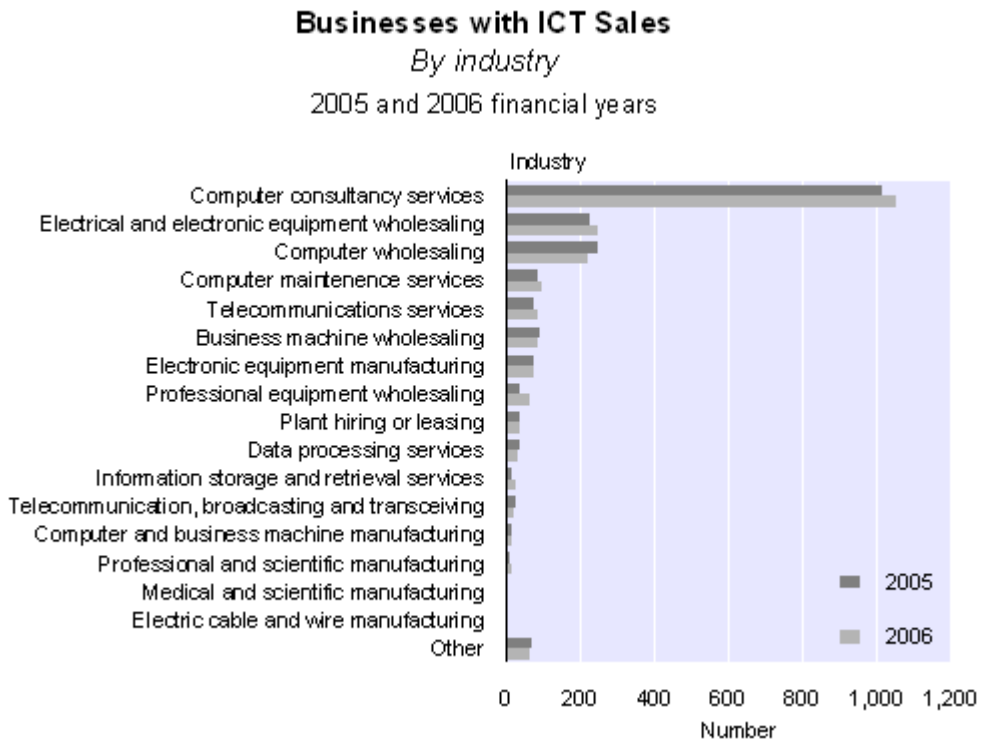


For the purpose of the ICT Supply Survey a small business is defined as having two to less than 20 rolling mean employees (RME); a medium business as having 20 to less than 50 RME, and a large business as having 50 or more RME.

For the 2006 financial year, the number of enterprises with ICT sales in the computer consultancy services industry increased by 39, to 1,050 enterprises. This was 50 percent of the total population of enterprises with ICT sales (2,088).

The number of computer wholesaling industry enterprises with ICT sales decreased by 24, to 219 enterprises in 2006.

For the 2006 financial year, the number of professional equipment wholesaling industry enterprises with ICT sales increased by 75 percent, from 36 to 63 enterprises.

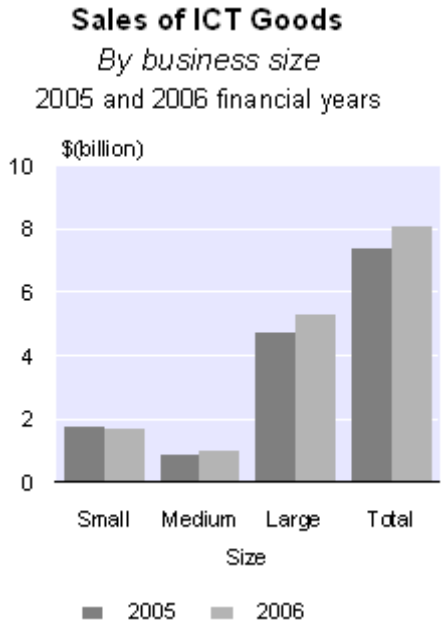


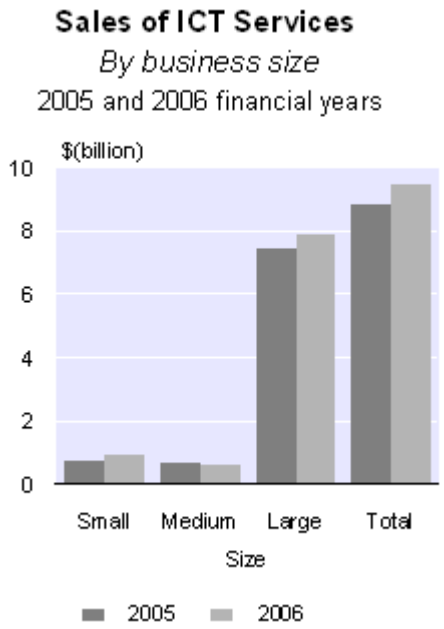
ICT sales, by business size

In total sales of ICT goods and services, the larger enterprises were dominant in the 2006 financial year, accounting for $13,230 million (75 percent) of total ICT sales. The medium-sized businesses contributed $1,724 million (10 percent) and small businesses $2,688 million (15 percent). The large businesses were more influential in the sale of services than in the sale of goods.

For the 2006 financial year, the sales of ICT goods from small-sized businesses decreased $55 million to reach $1,733 million, while sales for medium and large businesses increased by $147 million and $584 million, respectively.

Sales of ICT services from medium-sized businesses decreased $38 million to reach $654 million in 2006, while small and large businesses experienced increased sales of $204 million and $455 million, respectively.





ICT industry barriers to growth

For the ICT Supply Survey: 2005/06, strength of competition remains the greatest barrier to business growth, with 32.5 percent of respondents reporting it as a barrier. Other significant barriers identified were the ability to attract and/or retain experienced staff (26.7 percent of respondents), and the ability to attract and/or retain qualified staff (24.3 percent).

Comparing 2006 with 2005, there was a 4.5 percent increase in the number of enterprises reporting that the ability to attract and/or retain experienced staff had been a barrier to growth.

There was also a 3.6 percent increase (from 15.7 in 2005 to 19.3 percent in 2006) in the number of enterprises reporting that access to financing had been a barrier to growth.

For technical information contact:
Peter McGinty
Wellington 04 931 4600
Email: *info@stats.govt.nz*

Technical notes

Background to the Information and Communication Technology Supply Survey release

The Information and Communication Technology Supply Survey: 2005/06 is the second of a new time series based on recently developed OECD definitions to measure the ICT industry. The need for a new survey is recognition that these two technology categories are converging at a fast rate and are also becoming widespread.

Statistics in this release are drawn from the ICT Supply Survey: 2005/06. The objectives of this survey are to provide information on the total income, export income and domestic income from sales of ICT in New Zealand.

IT Survey 1993–2004

Although the previous Statistics New Zealand IT Survey (1993–2004) measured some of the commodities included in the new ICT Supply Survey, they are not directly comparable. The ICT Supply Survey has a much wider population base. It now includes businesses associated with the electronics and other ICT industries that were not in scope for the IT Survey. Commodity classifications are also different between the two surveys. There is a greater variety of commodities in the new ICT Supply Survey and existing commodity classifications have been redefined.

ICT Supply Survey: 2004/05 revision

The inclusion of industry lists and minor changes to the questionnaire, together with updated 2004/05 respondent data, has led to the revision of the ICT Supply Survey: 2004/05, to maintain consistency with the 2005/06 survey and future surveys in the time series. The revision has resulted in an increase of $907 million in total ICT sales, made up of $563 million of ICT goods sales and $344 million of ICT services sales.

Reference period

The reference period for the survey was the 2006 financial year. For enterprises with balance dates falling between 1 January and 30 September, this is financial data for the year ending 2007. For enterprises with balance dates falling between 1 October and 31 December, this is financial data for the year ending 2005.

Population

The ICT Supply Survey is a census of all enterprise units with 2.0 or more rolling mean employees (RME) engaged in ICT activity in New Zealand. RME is the average size of the enterprise employment count over the past 12 months. The population for the ICT Supply Survey: 2006/07 was 2,752 enterprises.

All units with greater than 2.0 RME, and classified on the Statistics NZ Business Frame to the following ANZSIC codes, are included in the survey:

C283900 Professional and scientific equipment manufacturing not elsewhere classified (nec)

Units mainly engaged in manufacturing draughting, meteorological, surveying or other professional or scientific instruments or equipment nec, or watches, clocks or other timing instruments.

C284100 Computer and business machine manufacturing

Units mainly engaged in manufacturing computers or business machines.

C284900 Electronic equipment manufacturing nec

Units mainly engaged in manufacturing radio receiving sets (except radio transceivers or radio telegraphic receivers), television receiving sets, sound reproducing and/or recording equipment, headphones, hearing aids or electronic equipment or components nec.

C285200 Electric cable and wire manufacturing

Units mainly engaged in manufacturing electric or telephone cable, wire or strip, including stranded, braided or insulated non-ferrous wire, cable or strip.

F461200 Professional equipment wholesaling

Units mainly engaged in wholesaling scientific, medical or other professional equipment.

F461300 Computer wholesaling

Units mainly engaged in the wholesaling of computers or computer peripheral equipment.

F461400 Business machine wholesaling nec

Units mainly engaged in the wholesaling of office or business machines or equipment nec.

F461500 Electrical and electronic equipment wholesaling nec

Units mainly engaged in the wholesaling electrical or electronic equipment nec.

J712000 Telecommunication services

Units mainly engaged in providing telecommunication services to the public by wire, cable or radio.

L783100 Data processing services

Units mainly engaged in providing data processing services. Also included are units mainly engaged in providing time-sharing services.

L783200 Information storage and retrieval services

Units mainly engaged in providing information storage and retrieval services (other than library and bibliographic services).

L783300 Computer maintenance services

Units mainly engaged in providing computer maintenance or repair services.

L783400 Computer consultancy services

Units mainly engaged in providing computer consultancy services, computer systems analysis or computer programming services.

A keyword search was used on the Statistics NZ Business Frame to find ICT units from the following two ANZSIC codes. These units also had to have greater than 2.0 RME to be included in the survey:

C283200 Medical and surgical manufacturing

Units mainly engaged in manufacturing medical, surgical or dental equipment, including dentures.

L774300 Plant hiring or leasing

Units mainly engaged in the leasing, renting or hiring of industrial machinery, plant or equipment (except transport equipment) without operators, from stock physically held for that purpose.

In addition, enterprises are also added if they have greater than 2.0 RME and are a member of one of the following lists:

- New Zealand Software Association
- Information Technology Association of New Zealand
- Companies identified by New Zealand Trade and Enterprise as the ICT industry

Also included are any other enterprises that have more than 2.0 RMEs and are known to be significant participants in the ICT industry outside the above sources and which are not classified on the Statistics NZ Business Frame to any of the above ANZSIC codes. Known information communication and technology retailers were also added to the population.

Data collection

The ICT Supply Survey: 2006/07 is a postal survey to all organisations meeting the population criteria.

Response rate

A target overall response rate of 75 percent was specified in terms of the number of enterprise units from the survey population. Key businesses were also identified and targeted with a

response rate of 95 percent. These key businesses were identified as those having the highest total GST sales in the 2006 financial year, or which were significant contributors to commodity or export totals in the ICT Supply Survey: 2004/05.

An overall response rate of 78 percent was achieved, including 94 percent of key businesses.

Imputation

Imputation is used to obtain data in cases of unit or item non-response. A unit non-response is calculated when the business did not return a form. An item non-response is calculated when a business returns an incomplete form

Non-sampling error

Non-sampling error occurs for reasons such as respondent error, frame quality and errors in processing. While every effort is made to minimise these types of error, they may still occur. It is not possible to quantify their effect.

Statistics New Zealand has used standard procedures in attempting to control non-sample error. This includes pilot testing of questionnaires and survey quality control procedures.

Analysis of results

The survey results have been compared with industry data, export trade data and the ICT Supply Survey: 2004/05 published by Statistics NZ. Where the survey results differed substantially, more detailed analysis of the data was made.

Confidentiality

Data published from the ICT Supply Survey must conform to the provisions of the Statistics Act 1975, which requires that all statistical information published by Statistics NZ shall be arranged in such a manner as to prevent any particulars belonging to any respondent from being identifiable. Cell suppression has been used to prevent the disclosure of sensitive information.

Concepts and terms

ANZSIC

The Australian and New Zealand Standard Industrial Classification (ANZSIC).

Business Frame

A register of all economically significant businesses operating in New Zealand, maintained by Statistics New Zealand from which the survey population is drawn.

Enterprise

A single business entity operating in New Zealand either as a legally constituted body, such as a company, trust, local or central government trading organisation, incorporated society, or self employed individual.

Rolling mean employment (RME)

The average size of the enterprise employment count over the past 12 months. This number is sourced from the Statistics New Zealand Business Frame which is updated on a monthly basis by employers.

Business size

Small business: between 2 and less than 20 RME

Medium business: RME between 20 and less than 50

Large business: 50 or more RME.

OECD definition of ICT goods and services

ICT goods and services fulfil or enable the function of information processing and communication by electronic means. Alternatively, ICT goods may also use electronic processing to detect, measure and/or record physical phenomena or control a physical process.

ICT commodity definition

The following is a list of ICT commodity categories used in the ICT Supply Survey questionnaire, and examples relating to each category. ICT goods commodities are defined by the internationally recognised Harmonized System (HS).

Telecommunications equipment

- telephones, facsimile machines, answering machines
- telephone and data switching and transmission equipment
- radio frequency (RF) and fixed-line equipment
- radio and television transmitting equipment
- television cameras and radar apparatus
- burglar alarms, fire alarms or similar
- optical and coaxial fibre cables
- telecommunications aerials, connectors and conductors.

Computer and related equipment

- computers and other data processing machines
- computer printers, scanners, other peripheral units
- magnetic or optical storage units (eg CD- or DVD-drives)
- servers, routers, switches, structural cabling systems
- barcode scanners, EFTPOS machines
- computer parts and accessories (including printer cartridges; not including covers, carrying cases or similar).

Audio and visual equipment

- radio and television sets
- monitors, video recorders, video or digital cameras, projectors
- CD players, DVD players/recorders, MP3 players
- microphones, earphones, loudspeakers, amplifiers
- magnetic tapes or disks and other unrecorded media.

Electronic components

- electrical transformers, conductors, power supplies or parts thereof
- capacitors, resistors, inductors, printed circuits
- semiconductor devices including diodes, transistors, and integrated circuits
- television picture tubes, microwave tubes, other tubes or parts
- electronic subassemblies and parts thereof
- magnetic stripe cards, recorded or unrecorded.

Electronic devices and equipment

- navigation apparatus and devices
- scientific instruments and appliances
- industrial measurement and process control equipment
- electro-diagnostic medical equipment (eg ECG, MRI, ultrasound, CT, X-ray etc)
- electronic gas, liquid and electricity meters
- marine and aeronautical instruments and devices
- electronic calculating and accounting devices and office machinery.

Published software

- off-the-shelf (packaged) software developed for wide distribution and produced for multiple sale or licensing
- limited end-user licences as part of packaged software
- licensing services for the right to use computer software
- PC and gaming console games.

Telecommunication and program distribution services

- carrier services
- fixed or mobile services
- private network and data transmission services
- telecommunication repair and maintenance services
- audio/video broadcasting on a subscription or pay-to-view basis.

Internet access and Internet telecommunication services

- connections to, and carriage of, traffic on the Internet
- carrier services of Internet traffic by one ISP for another ISP
- telecommunication services on the Internet.

IT technical support services

- IT hardware repair and maintenance, routine testing of hardware
- providing technical expertise to solve IT-related problems
- maintenance and troubleshooting of software or hardware
- provision of software patches and upgrades
- management and monitoring of a client's IT infrastructure (ie hardware, software, networks)
- day-to-day management and operation of a client's computer system
- transforming information from one format or media to another
- data or disaster recovery services.

IT design, consulting and development services

- design and development of IT solutions
- creating and/or implementing software applications, custom programming, customisation and integration of packaged software
- developing and implementing client-specific networks
- developing client-specific computer systems.

Hosting and IT infrastructure provisioning services

- website or email hosting with or without integration of applications (online storefronts, order processing, data warehousing)
- supporting, hosting and managing business processes for a client (financial transaction/credit card processing, payroll processing, personnel administration, logistics services, help desks, call centre
- provision of leased software applications from a centralised, hosted and managed computing environment
- data storage and management services, co-location services
- video and audio streaming services, computer time share.

Renting or leasing services

- computers, printers, peripheral units
- telephones, fax machines, pagers, cellphones
- radio and television equipment
- scientific, measuring or control apparatus.

Training and education in ICT

- post-school technical and vocational education
- in-house training services
- other education and training services.

Sales

Sales in New Zealand dollars for each ICT category.

Exports

Excludes goods sold to other New Zealand businesses who will export the goods at a later stage.

Sales to New Zealand end-users

Sales to those purchasers who buy goods for their own use, rather than for selling.

Sales to other New Zealand customers

Sales not classed as exports or sales to New Zealand end-users. This category includes sales to businesses that sell the ICT goods or services.

Goods and services pricing

The data reported in the ICT Supply Survey: 2006/07 is collected and reported in nominal dollar values at time of sale. These nominal sales figures combine price and volume movements. Price movements of these goods and services may disguise the volume or quantity change in goods and services sold.

Timing

Timed statistical releases are delivered using postal and electronic services provided by third parties. Delivery of these releases may be delayed by circumstances outside the control of Statistics NZ. Statistics NZ accepts no responsibility for any such delays.

Next release ...

Information and Communication Technology Supply Survey: 2006/07 will be released in April 2008.

Tables

The following tables can be downloaded from the Statistics New Zealand website in Excel 97 format. If you do not have access to Excel 97 or higher, you may use the *Excel file viewer* to view, print and export the contents of the file.

List of tables

1.01 Information and communication technology sales of goods and services, by financial year
1.02 Information and communication technology sales of goods and services, by financial year, percent
2.01 Sales of information and communication technology, by commodity and sales type, by financial year
2.02 Sales of information and communication technology, by commodity and sales type, percent
3.01 Population breakdown, by industry, by financial year
3.02 Population breakdown, by industry and business size, by financial year
4.01 Sales of information and communication technology, by business size, by financial year
4.02 Sales of information and communication technology, by business size, percent
5.01 Barriers to business growth, by business size, by financial year
5.02 Barriers to business growth, by business size, percent