

INFORMATION TECHNOLOGY

AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) THURS 19 SEP 2002

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- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Marie Apostolou on Melbourne 03 9615 7465.

INTRODUCTION

This publication presents final results, in respect of the 2000–01 financial year, from an Australian Bureau of Statistics (ABS) survey on the production and distribution of information technology and telecommunication (IT&T) goods and services by businesses in Australia. This is the fourth ABS survey of IT&T production and distribution, with the previous collections being conducted in respect of the 1998–99, 1995–96 and 1992–93 financial years. The survey scope is defined to include government owned Public Trading Enterprises as well as private sector businesses. Survey definitions are broadly consistent with those used in the previous surveys. Some of the industry specific income items definitions have been redefined to fit the evolving nature of these industries.

Information in this publication covers the main industries involved in the production and distribution of IT&T goods and services. This industry view draws together a number of standard industries that together comply reasonably well with the common international definition agreed to by the OECD in September 1998 known as the information and communication technology (ICT) sector. More information about the definition of IT&T, the industries involved, and related publications can be found in paragraphs 2 to 6, and 27 to 28 of the Explanatory Notes.

In order to allow historical comparisons, it has been necessary to revise the 1998–99 data so that the basis for the estimates is consistent with that used for the 2000–01 survey. For more details, please refer to paragraphs 8 to 11 of the Explanatory Notes. Additional revisions have also been made to 1998–99 in light of further information arising during the 2000–01 survey.

COMMENTS ON THIS PUBLICATION

The ABS welcomes comments and suggestions from users regarding data items for inclusion in future surveys. Comments should be addressed to the Director, New Economy National Statistical Centre, Australian Bureau of Statistics, Locked Bag 10, Belconnen ACT, 2616.

ROUNDING

Where figures have been rounded, discrepancies may occur between the sum of component items and the total.

Dennis Trewin
Australian Statistician

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CHAPTER 1

SUMMARY OF FINDINGS

INTRODUCTION

This publication presents final results, in respect of the 2000–01 financial year, from an Australian Bureau of Statistics (ABS) survey of the production and distribution of information technology and telecommunications (IT&T) goods and services by businesses in Australia. The publication predominantly presents statistics for IT&T specialist businesses. IT&T specialist businesses are defined as businesses which derive 50% or more of their total income from IT&T goods and services. The exception to this rule is employing businesses who fall into certain classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Businesses who fall into these classes are regarded as IT&T specialists regardless of their income. For further information on these classes please refer to the definition of IT&T specialists in the Glossary.

Note that financial data are presented in current price terms.

Table 1.1 contains summary information from the survey. Tables 2.1–2.10 present statistics related to IT&T specialist businesses. Tables 3.1–3.3 present production and international trade statistics of IT&T goods and services. Table 4.1 presents statistics on IT&T specialist businesses in the recorded media manufacturing and publishing industry.

There has been significant change in the information technology and telecommunications (IT&T) industries in Australia over the two years to 2000–01, as outlined in the summary below.

BUSINESSES

At the end of June 2001, there were 22,475 IT&T specialist businesses in the industries surveyed. Of these IT&T specialist businesses, 17,386 (77%) were in the computer consultancy services industry, 2,320 (10%) in the computer wholesaling industry and 814 (4%) in the telecommunication services industry. The remaining 1,955 (9%) were spread across the other industries surveyed.

The number of IT&T specialist businesses (22,475) in 2000–01 increased by 25% (or 4,487 businesses) since the last survey in 1998–99. The number of computer wholesaling businesses increased by 50% (or 775 businesses) and the number of computer consultancy businesses increased by 24% (or 3,350 businesses). The total number of IT&T manufacturing businesses increased by 63% (or 193 businesses) and the number of telecommunication services businesses declined by 6% (or 54 businesses).

EMPLOYMENT

There were 238,521 persons working in IT&T specialist businesses at the end of June 2001, a 20% (39,932) increase since June 1999. The increase was spread by industry groupings as follows: computer services contributed an increase in employment of 23,493, IT&T wholesale trade contributed 11,756, telecommunication services contributed 2,804, while employment in IT&T manufacturing grew by 1,879.

PROFITABILITY

During 2000–01, IT&T specialist businesses generated a total operating profit before tax of \$4,925m, a 35% decrease (\$2,595m) from the level recorded for 1998–99. The main contributors to this decline in profitability were the following IT&T industry groupings: wholesale trade (decrease of \$1,349m), computer services (decrease of \$641m) and telecommunication services (decrease of \$612m).

Overall, the operating profit margin in 2000–01 was 6.5%, which was a decrease on the operating profit margin of 12.2% recorded in 1998–99. Operating profit margins declined for each of the IT&T industry groupings, with computer services showing the greatest fall (from 8.1% in 1998–99 to 1.4% in 2000–01), followed by wholesale trade (from 4.5% to –1.4%) and telecommunication services (from 21.2% to 16.2%).

PROFITABILITY MEASURES, IT&T specialists

	OPERATING PROFIT BEFORE TAX		OPERATING PROFIT MARGIN	
	1998–99	2000–01	1998–99	2000–01
<i>IT&T industry sector</i>	\$m	\$m	%	%
Manufacturing	r148.1	154.8	4.4	3.8
Wholesale trade	r961.0	–388.2	4.5	–1.4
Telecommunication services	r5 565.5	4 953.9	21.2	16.2
Computer services	r845.4	**204.3	8.1	1.4
Total	r7 520.0	4 924.9	12.2	6.5

r revised

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

INCOME

During 2000–01, the total income for IT&T specialist businesses was \$77,518m, an increase of \$14,920m (or 24%) since 1998–99. The industries making the greatest contribution to this increase in total income were telecommunication services (\$5,088m), computer wholesaling (\$5,050m) and computer consultancy services (\$2,956m).

INCOME, IT&T industries—2000–01

	<i>IT&T Income</i>	<i>Other income</i>	<i>Total income</i>
<i>Business type</i>	\$m	\$m	\$m
IT&T specialists	73 767.1	3 751.1	77 518.2
Other businesses	744.5	11 529.6	12 274.0
All businesses	74 511.6	15 280.7	89 792.3

INCOME <i>continued</i>	IT&T specialist businesses had IT&T income of \$73,767m which represented 95% of their total income. The largest contributors to IT&T income were businesses classified to the telecommunication services industry (\$29,827m), which accounted for 40% of the total. The computer wholesaling industry contributed \$20,271m (27%) and the computer consultancy services industry contributed \$12,412m (17%).
INDUSTRY VALUE ADDED	During 2000–01, the total industry value added for IT&T specialists was \$28,211m. The industries making the greatest contribution to industry value added were telecommunication services (\$15,478m), which accounted for 55% of the total. Computer consultancy services contributed \$6,762m (24%) and computer wholesaling contributed \$3,058m (11%).
EXPENDITURE	Total expenses for IT&T specialist businesses during 2000–01 were \$72,998m, an increase of 32% since 1998–99. Purchases (\$25,292m) were the highest single expense and accounted for 35% of total expenses, followed by wages and salaries (\$14,061m) accounting for 19% of total expenses during 2000–01.
DOMESTIC PRODUCTION, IMPORTS AND EXPORTS	<p>Total income from the domestic production of IT&T goods and services was \$50,199m in 2000–01, an increase of 25% since 1998–99. Income rises occurred in the provision of computer services (37%), manufactured computer and communications hardware, equipment and cables (31%), packaged software and licensing (23%) and telecommunication services (19%) over the two years to 2000–01.</p> <p>Exports (including re-exports) of IT&T goods and services totalled \$5,973m in 2000–01, a 34% increase since 1998–99. Imports of IT&T goods and services were valued at \$17,286m, a 28% increase since 1998–99. This represents a trade deficit in IT&T goods and services for 2000–01 of \$11,313m and compares with \$9,061m in 1998–99.</p>

1.1**SUMMARY OF OPERATIONS**

	<i>Businesses at end June</i>	<i>Employment at end June</i>	<i>IT&T Income</i>	<i>Total income</i>	<i>Wages and salaries</i>	<i>Industry value added</i>
	no.	no.	\$m	\$m	\$m	\$m
IT&T SPECIALISTS						
Manufacturing						
Computer and business machines	282	3 398	1 311.3	1 342.7	137.6	227.9
Telecommunication, broadcasting and transceiving equipment	188	8 373	1 914.0	2 340.5	555.8	815.3
Electronic equipment n.e.c.	—	—	—	—	—	—
Electric cable and wire	*28	928	430.2	469.7	55.6	139.9
Total	497	12 699	3 655.4	4 152.9	749.0	1 183.0
Wholesale trade						
Computers	2 320	38 656	20 271.2	20 618.3	2 148.2	3 057.6
Business machines and electrical and electronic equipment n.e.c.	483	12 327	6 072.5	6 704.4	902.2	1 056.3
Total	2 803	50 983	26 343.7	27 322.7	3 050.4	4 113.9
Telecommunication services	814	77 275	29 827.1	31 504.8	4 651.3	15 478.4
Computer services						
Data processing	485	3 718	*443.2	*477.3	154.3	*263.1
Information storage and retrieval	33	1 174	141.7	150.0	49.0	73.6
Computer maintenance	457	4 451	944.4	983.2	252.6	337.9
Computer consultancy	17 386	88 222	12 411.6	12 927.3	5 154.6	6 761.5
Total	18 361	97 565	13 940.9	14 537.8	5 610.5	7 436.0
Total	22 475	238 521	73 767.1	77 518.2	14 061.1	28 211.3

OTHER BUSINESSES

Manufacturing						
Computer and business machines	16	808	np	212.4	45.4	262.1
Telecommunication, broadcasting and transceiving equipment	—	—	—	—	—	—
Electronic equipment n.e.c.	301	8 027	31.1	1 948.4	361.1	558.1
Electric cable and wire	33	2 461	np	939.2	134.9	241.8
Total	351	11 296	109.5	3 099.9	541.4	1 062.0
Wholesale trade						
Computers	—	—	—	—	—	—
Business machines and electrical and electronic equipment n.e.c.	1 914	26 744	634.9	9 174.2	1 088.7	1 660.4
Total	1 914	26 744	634.9	9 174.2	1 088.7	1 660.4
Telecommunication services	—	—	—	—	—	—
Computer services	—	—	—	—	—	—
Total	2 264	38 040	744.5	12 274.0	1 630.1	2 722.3

— nil or rounded to zero (including null cells)

* estimate has a relative standard error of between 25% and 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

1.1**SUMMARY OF OPERATIONS** *continued*

	<i>Businesses at end June</i>	<i>Employment at end June</i>	<i>IT&T Income</i>	<i>Total income</i>	<i>Wages and salaries</i>	<i>Industry value added</i>
	no.	no.	\$m	\$m	\$m	\$m
ALL BUSINESSES						
Manufacturing						
Computer and business machines	298	4 206	np	1 555.1	183.0	489.9
Telecommunication, broadcasting and transceiving equipment	188	8 373	1 914.0	2 340.5	555.8	815.3
Electronic equipment n.e.c.	301	8 027	31.1	1 948.4	361.1	558.1
Electric cable and wire	61	3 389	np	1 408.9	190.5	381.7
<i>Total</i>	848	23 995	3 765.0	7 252.8	1 290.3	2 245.0
Wholesale trade						
Computers	2 320	38 656	20 271.2	20 618.3	2 148.2	3 057.6
Business machines and electrical and electronic equipment n.e.c.	2 396	39 070	6 707.4	15 878.6	1 990.9	2 716.6
<i>Total</i>	4 716	77 726	26 978.6	36 496.9	4 139.1	5 774.2
Telecommunication services	814	77 275	29 827.1	31 504.8	4 651.3	15 478.4
Computer services						
Data processing	485	3 718	*443.2	*477.3	154.3	*263.1
Information storage and retrieval	33	1 174	141.7	150.0	49.0	73.6
Computer maintenance	457	4 451	944.4	983.2	252.6	337.9
Computer consultancy	17 386	88 222	12 411.6	12 927.3	5 154.6	6 761.5
<i>Total</i>	18 361	97 565	13 940.9	14 537.8	5 610.5	7 436.0
Total	24 739	276 561	74 511.6	89 792.3	15 691.2	30 933.7

np not available for publication but included in totals where applicable, unless otherwise indicated

* estimate has a relative standard error of between 25% and 50% and should be used with caution

CHAPTER 2

IT&T SPECIALISTS

INTRODUCTION

This chapter presents information about businesses which were IT&T specialists. IT&T specialist businesses are defined as businesses which derive 50% or more of their total income from IT&T goods and services. The exception to this rule is employing businesses who fall into certain classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Businesses who fall into these classes are regarded as IT&T specialists regardless of their income. For further information on these classes please refer to the definition of IT&T specialists in the Glossary.

EMPLOYMENT

There were 238,521 persons working in IT&T specialist businesses at the end of June 2001, a 20% (39,932) increase since June 1999. The increase was spread by industry groupings as follows: computer services contributed an increase in employment of 23,493, IT&T wholesale trade contributed 11,756, telecommunication services contributed 2,804, while employment in IT&T manufacturing grew by 1,879.

The majority of employment in IT&T specialist businesses comprised employees working on a permanent full-time basis (89% or 213,081). Only 10% (24,551) of total employment was attributable to permanent part-time or casual employees.

Males working in IT&T specialist businesses accounted for 67% (159,479) of total employment, with the majority of these (94%) being employees working on a permanent full-time basis. Of the 11,400 permanent part-time employees, 71% (8,114) were females.

Of the persons working in IT&T specialist businesses at June 2001, 44% (105,301) were engaged in a computing and technical related activity. The computer services industry grouping had the highest proportion of persons whose main employment activity was computing and technical related (70%) whilst the telecommunication services industry had the lowest (15%). Within IT&T specialist businesses, males comprised 79% (83,146) of the total employment for computing and technical related activity. Of the total male employment in IT&T specialist businesses, 52% were employed in positions whose main activity was computing and technical. This is in contrast to total female employment where 28% of females were employed in similar positions.

SOURCES OF INCOME

In 2000–01, the total income of the 22,475 IT&T specialist businesses was \$77,518m, of which 95% (\$73,767m) was IT&T income. Total income has grown by 24% (from \$62,599m) since 1998–99 and IT&T income by 26% (from \$58,399m). The industries making the greatest contributions to IT&T income in 2000–01 were telecommunication services (\$29,827m or 40%), computer wholesaling (\$20,271m or 27%) and computer consultancy services (\$12,412m or 17%).

SOURCES OF INCOME

continued

Total income for all IT&T specialist manufacturers amounted to \$4,153m in 2000–01. The main components of manufacturing income were from the sale of other telecommunication and transceiving equipment (\$780m), telephone and telegraph equipment, excluding parts (\$766m), and PCs and similar desktop computers (\$463m).

Total income for all IT&T specialist trade wholesalers was \$27,323m in 2000–01. The major sources of this income were from the following sale of goods purchased for re-sale: computer hardware, components and consumables (\$14,524m), communications hardware, components and consumables (\$5,693m) and sales and licensing of packaged software (\$2,757m).

Total income for telecommunication services IT&T specialists was \$31,505m in 2000–01. The largest income sources for telecommunication services were from the provision of basic telephony services (\$10,197m), mobile and paging services (\$7,082m) and intercarrier charges, leased lines and sales of capacity to other telecommunications operations (\$3,362m).

Total income for all computer services IT&T specialists was \$14,538m in 2000–01. The main components of this income were from the provision of whole IT&T business functions (\$3,329m), customised software services other than web site design and other Internet applications (\$2,509m) and other computer consultancy services (\$2,233m).

EXPENDITURE

In 2000–01, expenses for IT&T specialist businesses totalled \$72,998m compared with \$55,105m in 1998–99.

Purchases were the highest single expense at \$25,292m, accounting for 35% of total expenses in 2000–01. The wholesale trade industry grouping contributed 76% (\$19,212m) toward total purchases.

Labour costs were a significant component of expenditure and accounted for 22% (\$16,077m) of total expenses. Labour costs as a proportion of total expenses were highest for smaller businesses with 0–4 persons employed (42%) and lowest for businesses with 100 or more persons employed (20%). Overall, labour costs per employee were \$67,700 for IT&T specialist businesses, with these costs varying from \$48,200 for businesses with 0–4 persons employed to \$75,000 for businesses with 20–99 persons employed.

The industry grouping contributing most to total IT&T specialist expenses in 2000–01 were wholesale trade (\$27,863m or 38%), telecommunication services (\$26,661m or 37%), and computer services (\$14,401m or 20%).

PERFORMANCE
MEASURES

During 2000–01, IT&T specialist businesses generated a total operating profit before tax of \$4,925m. The 187 IT&T specialist businesses with 100 or more persons employed generated a total operating profit before tax of \$5,644m, whereas the 22,288 IT&T specialist businesses with fewer than 100 persons employed generated a total operating loss before tax of \$719m. The telecommunication services industry contributed \$4,954m operating profit before tax, while the wholesale trade industry grouping generated an operating loss before tax of \$388m.

PERFORMANCE

MEASURES *continued*

Overall, the operating profit margin in 2000–01 was 6.5%, which was a decrease on the operating profit margin of 12.2% recorded in 1998–99. In 2000–01, the telecommunication services industry had the highest operating profit margin (16.2%) whilst the wholesale trade industry group had the lowest (–1.4%).

BUSINESS SIZE

In 2000–01, very small businesses (those employing 0–4 persons) made up 82% (18,396) of the 22,475 IT&T specialist businesses. However, these businesses accounted for only 14% of employment and 5% of total income and on average operated with a profit margin of –0.9% during 2000–01. Very small computer services businesses accounted for 87% (16,092) of all very small IT&T specialist businesses.

There were 187 IT&T specialist businesses with employment of 100 persons or more, accounting for fewer than 1% of all IT&T specialist businesses. These large businesses accounted for 61% of employment and 77% of total income. The operating profit margin for these large businesses was 9.6% and the average income per business was \$319m during 2000–01.

STATE AND TERRITORY
DIMENSION

New South Wales had the largest number of IT&T specialist businesses in 2000–01. There were 9,833 of these businesses operating in New South Wales (44% of all IT&T specialist businesses), which accounted for 42% of all employment and 44% of wages and salaries within all IT&T industry groupings.

Victoria, with 7,207 IT&T specialist businesses, made the second largest contribution to employment and wages and salaries and, together with New South Wales, accounted for 76% of businesses, 73% of employment and 76% of wages and salaries.

2.1

HISTORICAL DATA, IT&T specialists

	<i>Businesses at end June</i>	<i>Employment at end June</i>	<i>IT&T income</i>	<i>Total income</i>	<i>Wages & salaries</i>	<i>Total expenses</i>	<i>Operating profit before tax</i>
	no.	no.	\$m	\$m	\$m	\$m	\$m
2000-01							
Manufacturing							
Computer and business machines	282	3 398	1 311.3	1 342.7	137.6	1 332.1	38.7
Telecommunication, broadcasting and transceiving equipment	188	8 373	1 914.0	2 340.5	555.8	2 317.9	70.2
Electronic equipment n.e.c.	—	—	—	—	—	—	—
Electric cable and wire	*28	928	430.2	469.7	55.6	423.0	45.9
Total	497	12 699	3 655.4	4 152.9	749.0	4 072.9	154.8
Wholesale trade							
Computers	2 320	38 656	20 271.2	20 618.3	2 148.2	20 553.6	*184.6
Business machines and electrical and electronic equipment n.e.c.	483	12 327	6 072.5	6 704.4	902.2	7 309.1	-572.8
Total	2 803	50 983	26 343.7	27 322.7	3 050.4	27 862.7	-388.2
Telecommunication services	814	77 275	29 827.1	31 504.8	4 651.3	26 660.9	4 953.9
Computer services							
Data processing	485	3 718	*443.2	*477.3	154.3	*425.3	**51.9
Information storage and retrieval	33	1 174	141.7	150.0	49.0	138.5	11.6
Computer maintenance	457	4 451	944.4	983.2	252.6	944.0	**31.0
Computer consultancy	17 386	88 222	12 411.6	12 927.3	5 154.6	12 893.5	**109.9
Total	18 361	97 565	13 940.9	14 537.8	5 610.5	14 401.2	**204.3
Total	22 475	238 521	73 767.1	77 518.2	14 061.1	72 997.8	4 924.9

— nil or rounded to zero (including null cells)

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

* estimate has a relative standard error of between 25% and 50% and should be used with caution

2.1**HISTORICAL DATA, IT&T specialists** *continued*

	<i>Businesses at end June</i>	<i>Employment at end June</i>	<i>IT&T income</i>	<i>Total income</i>	<i>Wages & salaries</i>	<i>Total expenses</i>	<i>Operating profit before tax</i>
	no.	no.	\$m	\$m	\$m	\$m	\$m
1998–99 (a)							
Manufacturing							
Computer and business machines	r156	r3 587	r1 265.4	r1 398.6	r138.1	r1 379.9	r39.1
Telecommunication, broadcasting and transceiving equipment	r121	r6 235	r1 371.5	r1 681.1	r311.5	r1 582.5	*r81.1
Electronic equipment n.e.c.	—	—	—	—	—	—	—
Electric cable and wire	27	r998	280.5	307.3	48.8	286.1	28.0
Total	r304	r10 820	r2 917.4	r3 387.0	r498.4	r3 248.5	r148.1
Wholesale trade							
Computers	r1 545	r26 816	r13 750.3	r15 568.8	r1 539.3	r14 964.1	r672.2
Business machines and electrical and electronic equipment n.e.c.	r555	r12 411	r6 034.6	r6 716.6	r750.1	r6 576.5	*r288.8
Total	r2 100	r39 227	r19 784.8	r22 285.4	r2 289.4	r21 540.6	r961.0
Telecommunication services	r868	r74 471	r25 397.5	r26 416.8	r3 724.9	r20 636.5	r5 565.5
Computer services							
Data processing	r244	r1 829	r137.9	r143.1	r54.7	r131.4	r11.9
Information storage and retrieval	*r102	r920	r94.4	r100.5	r32.3	r90.3	**r9.9
Computer maintenance	335	r2 544	r286.1	r294.2	r94.7	r310.7	r–16.0
Computer consultancy	r14 036	r68 779	r9 780.9	r9 971.7	r3 536.1	r9 147.2	r839.6
Total	r14 716	r74 072	r10 299.2	r10 509.4	r3 717.8	r9 679.6	r845.4
Total	r17 988	r198 589	r58 398.9	r62 598.5	r10 230.5	r55 105.2	r7 520.0

r revised

* estimate has a relative standard error of between 25% and 50% and should be used with caution

— nil or rounded to zero (including null cells)

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) 1998–99 figures have been revised. For details, see paragraphs 8 to 11 in the Explanatory Notes.

2.2

CHARACTERISTICS OF EMPLOYMENT, By industry grouping—IT&T specialists

	<u>Males</u>		<u>Females</u>		<u>Persons</u>	
	no.	%	no.	%	no.	%
MANUFACTURING						
Working proprietors and partners of unincorporated businesses	*58	*0.6	*24	*0.8	*81	*0.6
Employees						
Permanent full-time employees	8 883	93.1	2 653	84.0	11 535	90.8
Permanent part-time employees	104	1.1	128	4.1	232	1.8
Total permanent employees	8 986	94.2	2 781	88.1	11 767	92.7
Casuals and temporary employees	497	5.2	352	11.2	850	6.7
Total employees	9 484	99.4	3 134	99.2	12 617	99.4
Total employment at end June 2001	9 541	100.0	3 157	100.0	12 699	100.0
WHOLESALE TRADE						
Working proprietors and partners of unincorporated businesses	*121	*0.3	*47	*0.3	*168	*0.3
Employees						
Permanent full-time employees	32 524	93.3	13 441	83.3	45 965	90.2
Permanent part-time employees	538	1.5	1 170	7.3	1 707	3.3
Total permanent employees	33 062	94.9	14 611	90.6	47 673	93.5
Casuals and temporary employees	1 671	4.8	1 470	9.1	3 142	6.2
Total employees	34 733	99.7	16 081	99.7	50 814	99.7
Total employment at end June 2001	34 854	100.0	16 128	100.0	50 983	100.0
TELECOMMUNICATION SERVICES						
Working proprietors and partners of unincorporated businesses	112	0.2	*24	*0.1	135	0.2
Employees						
Permanent full-time employees	46 598	95.6	24 216	84.8	70 814	91.6
Permanent part-time employees	877	1.8	2 690	9.4	3 566	4.6
Total permanent employees	47 475	97.4	26 906	94.3	74 381	96.3
Casuals and temporary employees	1 141	2.3	1 618	5.7	2 759	3.6
Total employees	48 616	99.8	28 524	99.9	77 139	99.8
Total employment at end June 2001	48 727	100.0	28 547	100.0	77 275	100.0
COMPUTER SERVICES						
Working proprietors and partners of unincorporated businesses	*353	*0.5	*150	*0.5	503	0.5
Employees						
Permanent full-time employees	61 407	92.5	23 360	74.9	84 767	86.9
Permanent part-time employees	1 768	2.7	4 126	13.2	5 894	6.0
Total permanent employees	63 175	95.2	27 486	88.1	90 661	92.9
Casuals and temporary employees	2 829	4.3	3 572	11.4	6 401	6.6
Total employees	66 004	99.5	31 058	99.5	97 062	99.5
Total employment at end June 2001	66 356	100.0	31 209	100.0	97 565	100.0

* estimate has a relative standard error of between 25% and 50% and should be used with caution

2.2**CHARACTERISTICS OF EMPLOYMENT, By industry grouping—IT&T specialists***continued*

	<u>Males</u>		<u>Females</u>		<u>Persons</u>	
	no.	%	no.	%	no.	%
TOTAL						
Working proprietors and partners of unincorporated businesses	643	0.4	245	0.3	888	0.4
Employees						
Permanent full-time employees	149 411	93.7	63 670	80.6	213 081	89.3
Permanent part-time employees	3 286	2.1	8 114	10.3	11 400	4.8
<i>Total permanent employees</i>	<i>152 698</i>	<i>95.7</i>	<i>71 784</i>	<i>90.8</i>	<i>224 481</i>	<i>94.1</i>
Casuals and temporary employees	6 139	3.8	7 013	8.9	13 151	5.5
<i>Total employees</i>	<i>158 836</i>	<i>99.6</i>	<i>78 796</i>	<i>99.7</i>	<i>237 633</i>	<i>99.6</i>
Total employment at end June 2001	159 479	100.0	79 041	100.0	238 521	100.0

2.3**MAIN ACTIVITY OF PERSONS EMPLOYED, By industry grouping—IT&T specialists . .**

	<u>Males</u>		<u>Females</u>		<u>Persons</u>	
	no.	%	no.	%	no.	%
MANUFACTURING						
Computing and technical	3 846	40.3	633	20.0	4 478	35.3
Other	5 696	59.7	2 525	80.0	8 220	64.7
Total at end June 2001	9 541	100.0	3 157	100.0	12 699	100.0
WHOLESALE TRADE						
Computing and technical	17 344	49.8	4 080	25.3	21 424	42.0
Other	17 511	50.2	12 048	74.7	29 559	58.0
Total at end June 2001	34 854	100.0	16 128	100.0	50 983	100.0
TELECOMMUNICATION SERVICES						
Computing and technical	8 560	17.6	2 949	10.3	11 509	14.9
Other	40 168	82.4	25 598	89.7	65 766	85.1
Total at end June 2001	48 727	100.0	28 547	100.0	77 275	100.0
COMPUTER SERVICES						
Computing and technical	53 397	80.5	14 494	46.4	67 891	69.6
Other	12 959	19.5	16 715	53.6	29 674	30.4
Total at end June 2001	66 356	100.0	31 209	100.0	97 565	100.0
TOTAL						
Computing and technical	83 146	52.1	22 156	28.0	105 301	44.1
Other	76 334	47.9	56 886	72.0	133 219	55.9
Total at end June 2001	159 479	100.0	79 041	100.0	238 521	100.0

2.4 SOURCES OF INCOME, Manufacturing industry grouping—IT&T specialists

	<i>Businesses at end June(a)</i>	<i>Income</i>	<i>Proportion of total income</i>
	no.	\$m	%
Income from the sale of goods			
Computer and communications hardware, equipment and cables, etc. produced by this business			
Mainframe data processing machines	*17	89.2	2.1
Laptop, notebook and similar portable computers	*54	86.5	20.8
PCs and similar desktop computers	69	463.1	11.2
Laser and other printing systems	*39	21.1	0.5
Other input-output devices and peripherals (including scanners, keyboards, monitors, etc.)	*25	130.9	3.2
Consumables (including removable storage media)	68	56.5	1.4
Other computer hardware, parts and accessories	*125	443.7	10.7
Telephone and telegraph equipment (excluding parts)	36	766.3	18.5
Mobile communications			
Mobile, cellular and car phones	4	np	np
CB and other mobile radio and transceiving equipment	*18	124.2	3.0
Total mobile communications	*20	np	np
Satellite equipment	8	np	np
Other telecommunication and transceiving equipment	140	779.8	18.8
Telecommunication cables and wire(b)	32	447.2	10.8
Sales of other goods produced by this business	65	356.1	8.6
Total income from sales of goods produced by this business	496	3 873.2	93.3
Sales of goods not produced by this business			
Sales of computer and communications hardware, components and consumables and packaged software	100	69.1	1.7
Sales of other goods not produced by this business	*41	84.9	2.0
Total income from the sales of goods not produced by this business	119	154.1	3.7
Total income from the sale of goods	496	4 027.3	97.0
Income from the provision of computer services(c)	*138	53.1	1.3
Income from the provision of telecommunication services	**28	np	np
Interest income	144	16.7	0.4
Other income	132	np	np
Total	497	4 152.9	100.0

* estimate has a relative standard error of between 25% and 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

(a) Businesses may have more than one source of income. Hence, the counts of businesses for each income source do not sum to the total.

(b) Excludes income from production of cables that are not associated with IT&T.

(c) Includes income from developing packaged software.

2.5**SOURCES OF INCOME, Wholesale trade industry grouping—IT&T specialists**

	<i>Businesses at end June(a)</i>	<i>Income</i>	<i>Proportion of total income</i>
	no.	\$m	%
.....			
Income from the sale of goods purchased for resale			
Computer hardware, components and consumables	2 063	14 524.4	53.2
Communications hardware, components and consumables	924	5 693.2	20.8
Sales and licensing of packaged software	895	2 756.6	10.1
Other goods	298	483.3	1.8
<i>Total income from the sale of goods purchased for resale</i>	2 786	23 457.4	85.9
Income from the sale of goods produced by this business			
IT&T goods	523	674.0	2.5
Other goods	*92	33.9	0.1
<i>Total income from the sale of goods produced by this business</i>	523	707.9	2.6
Income from the provision of computer services	1 179	2 104.6	7.7
Income from the provision of telecommunication services	230	567.3	2.1
Interest income	1 134	81.4	0.3
Other income	772	404.2	1.5
Total	2 803	27 322.7	100.0

* estimate has a relative standard error of between 25% and 50% and should be used with caution

(a) Businesses may have more than one source of income. Hence, the counts of businesses for each income source do not sum to the total.

2.6**SOURCES OF INCOME, Telecommunication services industry—IT&T specialists ...**

	<i>Businesses at end June(a)</i>	<i>Income</i>	<i>Proportion of total income</i>
	no.	\$m	%
Income from the provision of basic telephony services	184	10 196.5	32.4
Income from the provision of mobile and paging services (excluding sales of mobile hand sets)	*65	7 082.4	22.5
Income from the provision of data and text services	109	np	np
Income from the provision of Internet services	513	1 623.5	5.2
Income from the provision of other telecommunication services			
Intercarrier charges, leased lines and other infrastructure, and sales of capacity to other telecommunication operations	32	3 362.1	10.7
Satellite services	12	525.5	1.7
Other	152	np	np
Total	185	np	np
Income from the sale of goods			
Computer and communications hardware, parts and components and consumables	236	511.0	1.6
Income from the sale of other goods	*42	*15.3	—
Total income from the sale of goods	261	526.3	1.7
Income from the provision of computer services	215	50.1	0.2
Interest income	317	200.2	0.6
Other income	279	1 462.4	4.6
Total	814	31 504.8	100.0

* estimate has a relative standard error of between 25% and 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

— nil or rounded to zero (including null cells)

(a) Businesses may have more than one source of income. Hence, the counts of businesses for each income source do not sum to the total.

2.7**SOURCES OF INCOME, Computer services industry grouping—IT&T specialists**

	<i>Businesses at end June(a)</i>	<i>Income</i>	<i>Proportion of total income</i>
	no.	\$m	%
Income from the sale of goods			
Computer hardware, components and consumables	2 681	766.1	5.3
Communications hardware, components and consumables	575	**85.9	**0.6
Income from the sale and licensing of packaged software	2 030	469.5	3.2
Income from the sale of other goods	539	*57.0	*0.4
<i>Total income from the sale of goods</i>	<i>4 012</i>	<i>1 378.5</i>	<i>9.5</i>
Income from the provision of computer services			
Customised software services and solutions (excluding maintenance)			
Web site design	2 596	519.9	3.6
Other Internet applications	1 019	460.3	3.2
Other customised software services	7 807	2 509.1	17.3
<i>Total customised software services and solutions (excluding maintenance)</i>	<i>9 281</i>	<i>3 489.3</i>	<i>24.0</i>
Software maintenance services	7 740	1 566.1	10.8
Hardware installation and maintenance services	2 259	918.6	6.3
Other computer consultancy services	7 930	2 233.3	15.4
Information storage and retrieval services	*195	132.7	0.9
Data processing services	1 342	491.7	3.4
Income from the provision of whole IT&T business functions	*423	3 329.0	22.9
Income from the provision of other computer services	1 534	404.9	2.8
<i>Total income from the provision of computer services</i>	<i>18 222</i>	<i>12 565.6</i>	<i>86.4</i>
Income from the provision of telecommunication services	479	*52.6	*0.4
Interest income	7 791	95.5	0.7
Other income	4 222	445.6	3.1
Total	18 361	14 537.8	100.0

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

* estimate has a relative standard error of between 25% and 50% and should be used with caution

(a) Businesses may have more than one source of income. Hence, the counts of businesses for each income source do not sum to the total.

2.8**ITEMS OF EXPENDITURE, By industry grouping—IT&T specialists**

	MANUFACTURING		WHOLESALE TRADE		TELECOMMUNI- CATION SERVICES	
	Expenditure	Proportion of total expenses	Expenditure	Proportion of total expenses	Expenditure	Proportion of total expenses
	\$m	%	\$m	%	\$m	%
Labour costs						
Wages and salaries	749.0	18.4	3 050.4	10.9	4 651.3	17.4
Employer contributions to superannuation funds	61.2	1.5	249.0	0.9	155.2	0.6
Workers' compensation costs	11.0	0.3	21.9	0.1	31.6	0.1
Payroll tax	43.2	1.1	172.4	0.6	230.2	0.9
Fringe benefits tax	13.4	0.3	81.5	0.3	48.6	0.2
<i>Total</i>	<i>877.7</i>	<i>21.5</i>	<i>3 575.1</i>	<i>12.8</i>	<i>5 116.9</i>	<i>19.2</i>
Selected expenses						
Payments to employment agencies for staff	32.2	0.8	np	np	np	np
Payments to contractors and consultants for computing and telecommunication services	22.2	0.5	np	np	np	np
Rent, leasing and hiring expenses	52.5	1.3	347.1	1.2	938.2	3.5
Telecommunication, interconnection and transmission expenses	28.9	0.7	212.9	0.8	5 624.2	21.1
Payments for other telecommunication services	—	—	—	—	1 556.9	5.8
Travelling, accommodation and entertainment expenses	40.2	1.0	329.4	1.2	461.6	1.7
Advertising, marketing and promotion expenses	54.3	1.3	376.9	1.4	748.6	2.8
Other operating expenses	549.2	13.5	2 229.9	8.0	2 316.8	8.7
<i>Total</i>	<i>779.5</i>	<i>19.1</i>	<i>4 101.6</i>	<i>14.7</i>	<i>13 631.4</i>	<i>51.1</i>
Other costs						
Purchases						
Computer and communications hardware components and consumables	1 881.6	46.2	16 473.3	59.1	1 473.2	5.5
Packaged software and software licensing for resale	8.2	0.2	1 995.6	7.2	*2.7	—
Packaged software and software licensing for own use	14.1	0.3	141.8	0.5	91.3	0.3
Other purchases	341.4	8.4	600.7	2.2	333.0	1.2
<i>Total</i>	<i>2 245.3</i>	<i>55.1</i>	<i>19 211.5</i>	<i>69.0</i>	<i>1 900.2</i>	<i>7.1</i>
Depreciation and amortisation	106.7	2.6	329.0	1.2	4 462.4	16.7
Insurance premiums	21.1	0.5	47.0	0.2	28.7	0.1
Interest expenses	31.9	0.8	np	np	np	np
Bad and doubtful debts	10.8	0.3	np	np	np	np
<i>Total</i>	<i>2 415.8</i>	<i>59.3</i>	<i>20 186.0</i>	<i>72.4</i>	<i>7 912.6</i>	<i>29.7</i>
Total	4 072.9	100.0	27 862.7	100.0	26 660.9	100.0

np not available for publication but included in totals where applicable, unless otherwise indicated

— nil or rounded to zero (including null cells)

* estimate has a relative standard error of between 25% and 50% and should be used with caution

2.8**ITEMS OF EXPENDITURE, By industry grouping—IT&T specialists *continued***

	COMPUTER SERVICES		TOTAL	
	Expenditure	Proportion of total expenses	Expenditure	Proportion of total expenses
	\$m	%	\$m	%
Labour costs				
Wages and salaries	5 610.5	39.0	14 061.1	19.3
Employer contributions to superannuation funds	526.3	3.7	991.7	1.4
Workers' compensation costs	31.4	0.2	95.8	0.1
Payroll tax	263.7	1.8	709.4	1.0
Fringe benefits tax	76.0	0.5	219.4	0.3
<i>Total</i>	<i>6 507.8</i>	<i>45.2</i>	<i>16 077.4</i>	<i>22.0</i>
Selected expenses				
Payments to employment agencies for staff	94.3	0.7	568.1	0.8
Payments to contractors and consultants for computing and telecommunication services	1 587.2	11.0	3 758.5	5.1
Rent, leasing and hiring expenses	619.2	4.3	1 957.1	2.7
Telecommunication, interconnection and transmission expenses	529.3	3.7	6 395.2	8.8
Payments for other telecommunication services	—	—	1 556.9	2.1
Travelling, accommodation and entertainment expenses	378.0	2.6	1 209.1	1.7
Advertising, marketing and promotion expenses	160.0	1.1	1 339.8	1.8
Other operating expenses	1 786.4	12.4	6 882.3	9.4
<i>Total</i>	<i>5 154.4</i>	<i>35.8</i>	<i>23 666.9</i>	<i>32.4</i>
Other costs				
Purchases				
Computer and communications hardware components and consumables	1 283.6	8.9	21 111.8	28.9
Packaged software and software licensing for resale	281.2	2.0	2 287.7	3.1
Packaged software and software licensing for own use	103.7	0.7	351.0	0.5
Other purchases	266.6	1.9	1 541.6	2.1
<i>Total</i>	<i>1 935.1</i>	<i>13.4</i>	<i>25 292.2</i>	<i>34.6</i>
Depreciation and amortisation	614.8	4.3	5 512.8	7.6
Insurance premiums	54.6	0.4	151.4	0.2
Interest expenses	87.3	0.6	1 272.1	1.7
Bad and doubtful debts	47.3	0.3	1 024.9	1.4
<i>Total</i>	<i>2 739.1</i>	<i>19.0</i>	<i>33 253.4</i>	<i>45.6</i>
Total	14 401.2	100.0	72 997.8	100.0

— nil or rounded to zero (including null cells)

2.9**PERFORMANCE INDICATORS, By employment size—IT&T specialists****EMPLOYMENT SIZE**

	0-4 persons	5-19 persons	20-99 persons	100 or more persons	Total
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MANUFACTURING

Businesses at end June	no.	281	139	53	24	497
Employment at end June	no.	614	1 220	1 946	8 918	12 699
Total income	\$m	*94.4	247.3	644.4	3 166.8	4 152.9
Total labour costs	\$m	*27.0	56.5	103.8	690.4	877.7
Total expenses	\$m	*94.5	255.6	645.7	3 077.1	4 072.9
Earnings before interest and tax	\$m	**0.3	**−4.9	**−1.9	193.2	186.7
Industry value added	\$m	**31.8	55.5	123.1	972.6	1 183.0
Total income per person employed	\$'000	153.6	202.7	331.2	355.1	327.0
Labour costs per employee	\$'000	*49.1	46.9	53.4	77.4	69.6
Labour costs to total expenses	%	28.5	22.1	16.1	22.4	21.6
Operating profit before tax	\$m	**−0.3	**−7.0	**−7.5	169.6	154.8
Operating profit before tax per person employed	\$'000	**−0.5	**−5.8	**−3.8	19.0	12.2
Operating profit margin	%	**−0.4	**−2.9	**−1.2	5.4	3.8

WHOLESALE TRADE

Businesses at end June	no.	1 566	933	243	61	2 803
Employment at end June	no.	3 520	8 468	9 064	29 931	50 983
Total income	\$m	1 217.9	2 511.1	4 939.5	18 654.2	27 322.7
Total labour costs	\$m	140.0	351.6	540.1	2 543.4	3 575.1
Total expenses	\$m	1 187.9	2 461.4	4 988.5	19 224.8	27 862.7
Earnings before interest and tax	\$m	*35.4	*59.2	**−28.9	−329.7	*−264.1
Industry value added	\$m	190.7	429.7	596.3	2 897.1	4 113.9
Total income per person employed	\$'000	346.0	296.6	545.0	623.2	535.9
Labour costs per employee	\$'000	41.6	41.6	59.6	85.0	70.4
Labour costs to total expenses	%	11.8	14.3	10.8	13.2	12.8
Operating profit before tax	\$m	*30.1	*52.1	**−56.4	−413.9	−388.2
Operating profit before tax per person employed	\$'000	*8.6	*6.2	**−6.2	−13.8	−7.6
Operating profit margin	%	*2.5	*2.1	**−1.1	−2.2	−1.4

TELECOMMUNICATION SERVICES

Businesses at end June	no.	457	231	91	35	814
Employment at end June	no.	791	2 122	3 706	70 655	77 275
Total income	\$m	*70.7	297.7	1 056.3	30 080.1	31 504.8
Total labour costs	\$m	30.4	84.1	490.7	4 511.8	5 116.9
Total expenses	\$m	196.4	348.9	1 465.0	24 650.6	26 660.9
Earnings before interest and tax	\$m	−124.9	*−41.1	−394.4	6 543.2	5 982.8
Industry value added	\$m	−72.3	72.3	170.1	15 308.3	15 478.4
Total income per person employed	\$'000	*89.3	140.3	285.0	425.7	407.7
Labour costs per employee	\$'000	45.5	39.8	132.4	63.9	66.3
Labour costs to total expenses	%	15.5	24.1	33.5	18.3	19.2
Operating profit before tax	\$m	−125.7	*−49.8	−408.3	5 537.7	4 953.9
Operating profit before tax per person employed	\$'000	−158.9	*−23.5	−110.2	78.4	64.1
Operating profit margin	%	**−189.2	*−16.5	−39.2	19.0	16.2

* estimate has a relative standard error of between 25% and 50% and should be used with caution

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

2.9PERFORMANCE INDICATORS, By employment size—IT&T specialists *continued*

EMPLOYMENT SIZE

	0-4 persons	5-19 persons	20-99 persons	100 or more persons	Total
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COMPUTER SERVICES

Businesses at end June	no.	16 092	1 744	458	67	18 361
Employment at end June	no.	28 390	14 555	17 874	36 745	97 565
Total income	\$m	2 366.3	1 584.8	2 821.1	7 765.7	14 537.8
Total labour costs	\$m	1 378.5	791.0	1 307.8	3 030.5	6 507.8
Total expenses	\$m	2 303.5	1 595.0	3 009.2	7 493.6	14 401.2
Earnings before interest and tax	\$m	**85.8	**−3.5	**−184.6	393.9	**291.6
Industry value added	\$m	1 534.1	837.6	1 266.6	3 797.7	7 436.0
Total income per person employed	\$'000	83.4	108.9	157.8	211.3	149.0
Labour costs per employee	\$'000	49.1	55.2	73.2	82.5	67.1
Labour costs to total expenses	%	59.9	49.6	43.5	40.4	45.2
Operating profit before tax	\$m	**62.9	**−10.1	**−198.6	350.2	**204.3
Operating profit before tax per person employed	\$'000	**2.2	**−0.7	**−11.1	9.5	**2.1
Operating profit margin	%	**2.7	**−0.6	**−7.2	4.5	**1.4

.....
TOTAL

Businesses at end June	no.	18 396	3 048	845	187	22 475
Employment at end June	no.	33 316	26 365	32 590	146 250	238 521
Total income	\$m	3 749.3	4 641.0	9 461.2	59 666.8	77 518.2
Total labour costs	\$m	1 575.9	1 283.1	2 442.4	10 776.1	16 077.4
Total expenses	\$m	3 782.3	4 660.9	10 108.4	54 446.2	72 997.8
Earnings before interest and tax	\$m	**−3.5	**9.7	−609.8	6 800.6	6 197.0
Industry value added	\$m	1 684.3	1 395.2	2 156.2	22 975.7	28 211.3
Total income per person employed	\$'000	112.5	176.0	290.3	408.0	325.0
Labour costs per employee	\$'000	48.2	49.1	75.0	73.7	67.7
Labour costs to total expenses	%	41.7	27.5	24.2	19.8	22.0
Operating profit before tax	\$m	**−33.1	**−14.9	−670.7	5 643.6	4 924.9
Operating profit before tax per person employed	\$'000	**−1.0	**−0.6	−20.6	38.6	20.7
Operating profit margin	%	**−0.9	**−0.3	−7.1	9.6	6.5

.....
** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

2.10**STATE AND TERRITORY COMPARISONS, IT&T specialists**

		<i>Manufacturing</i>	<i>Wholesale trade</i>	<i>Telecom- munication services</i>	<i>Computer services</i>	<i>Total</i>
Businesses at end June(a)						
New South Wales	no.	226	1 248	358	8 001	9 833
Victoria	no.	153	885	253	5 916	7 207
Queensland	no.	88	567	155	2 141	2 951
South Australia	no.	*76	253	45	669	1 043
Western Australia	no.	56	336	120	1 340	1 853
Tasmania	no.	7	59	41	138	245
Northern Territory	no.	4	43	7	49	103
Australian Capital Territory	no.	18	81	35	788	922
<i>Australia</i>	<i>no.</i>	<i>497</i>	<i>2 803</i>	<i>814</i>	<i>18 361</i>	<i>22 475</i>
Employment at end June						
New South Wales	no.	5 526	22 975	29 954	41 444	99 899
Victoria	no.	2 986	15 672	23 257	31 272	73 188
Queensland	no.	960	6 105	10 402	9 612	27 080
South Australia	no.	1 581	2 088	4 705	3 659	12 033
Western Australia	no.	808	2 746	5 707	6 112	15 373
Tasmania	no.	np	188	np	509	2 177
Northern Territory	no.	np	236	np	297	1 104
Australian Capital Territory	no.	706	972	1 332	4 658	7 667
<i>Australia</i>	<i>no.</i>	<i>12 699</i>	<i>50 983</i>	<i>77 275</i>	<i>97 565</i>	<i>238 521</i>
Wages and salaries						
New South Wales	\$m	322.5	1 474.4	1 838.5	2 562.5	6 197.9
Victoria	\$m	209.3	981.9	1 549.5	1 798.4	4 539.2
Queensland	\$m	36.4	287.1	552.1	466.2	1 341.9
South Australia	\$m	104.6	95.1	238.3	149.6	587.6
Western Australia	\$m	29.9	129.4	285.7	290.1	735.0
Tasmania	\$m	0.6	8.0	np	21.0	np
Northern Territory	\$m	np	8.6	np	12.3	49.8
Australian Capital Territory	\$m	np	65.8	np	310.4	np
<i>Australia</i>	<i>\$m</i>	<i>749.0</i>	<i>3 050.4</i>	<i>4 651.3</i>	<i>5 610.5</i>	<i>14 061.1</i>

* estimate has a relative standard error of between 25% and 50% and should be used with caution

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Multi-state organisations are counted in each state in which they operate. Hence, the counts of businesses for states and territories do not sum to the total for Australia.

CHAPTER 3

PRODUCTION IMPORTS AND EXPORTS OF IT&T GOODS AND SERVICES

INTRODUCTION

This chapter compares 2000–01 income from domestic production of IT&T goods and services with imports and exports data compiled from sources other than this survey. These sources comprise information submitted by exporters, importers or their agents to the Australian Customs Service and the ABS Survey of International Trade in Services. Income from domestic production relates to all businesses in the industries generally included in the international definition of the ICT sector, together with businesses in the recorded media manufacturing and publishing industry. (Refer paragraph 28 of the Explanatory Notes for related publications on the ICT sector).

SUMMARY

Total income from the domestic production of IT&T goods and services was \$50,199m in 2000–01, an increase of 25% since 1998–99. Income rises occurred in the provision of computer services (37%), manufactured computer and communications hardware, equipment and cables (31%), packaged software and licensing (23%) and telecommunication services (19%) over the two years to 2000–01.

It should be noted that the imports and exports details presented in this publication include amounts for re-exports, which are goods imported into Australia and subsequently exported in the same condition, or after undergoing minor operations which leave them essentially unchanged.

Exports (including re-exports) of IT&T goods and services totalled \$5,973m in 2000–01, a 34% increase since 1998–99. Imports of IT&T goods and services were valued at \$17,286m, a 28% increase since 1998–99. This represents a trade deficit in IT&T goods and services for 2000–01 of \$11,313m and compares with \$9,061m for 1998–99.

In 2000–01, the value of re-exports was \$1,657m compared to \$1,018m in 1998–99. Excluding re-exported goods from the IT&T imports and exports details, the value of imports (\$15,629m) were equivalent to 31% of the value of income from domestic production in 2000–01, while exports (\$4,316m) were equivalent to 9%. These percentages were comparable to those for 1998–99.

Imports of IT&T goods during 2000–01 totalled \$14,328m and mainly comprised \$5,542m of computer parts and consumables, \$3,178m of other communications equipment and cables, \$2,605m of computers and \$1,884m of mobile communications equipment. Exports of IT&T goods were valued at \$3,482m and mainly comprised \$1,751m of other communications equipment and cables and \$1,533m of computer parts and consumables.

SUMMARY *continued*

The major contributors of IT&T goods imports in 2000–01 were the United States of America (\$3,151m or 22%), Malaysia (\$1,506m or 11%), Singapore (\$1,425m or 10%), Republic of Korea (\$1,283m or 9%), Japan (\$1,248m or 9%) and Taiwan (\$1,153m or 8%). Imports of IT&T goods increased by \$3,572m (or 33%) over those for 1998–99. Countries contributing to this increase were Korea (up \$762m), United States of America (up \$588m), China (up \$518m), Malaysia (up \$386m), United Kingdom (up \$261m), Japan (up \$247m) and Ireland (up \$215m).

The major destinations of Australia's IT&T goods exports in 2000–01 were New Zealand (\$586m or 17%) and the United States of America (\$582m or 17%). Exports of IT&T goods increased by \$1,240m (or 55%) over those for 1998–99.

3.1

PRODUCTION, IMPORTS AND EXPORTS OF IT&T GOODS AND SERVICES

	INCOME FROM DOMESTIC PRODUCTION (a)(b)		IMPORTS (CUSTOMS VALUE) (c)		EXPORTS (F.O.B) (c)	
	1998-99	2000-01	1998-99	2000-01	1998-99	2000-01
	\$m	\$m	\$m	\$m	\$m	\$m
Computer and communications hardware, equipment and cables etc.						
Mainframe data processing machines	r129.1	98.3	448.0	657.0	185.0	94.1
Laptop, notebook and similar portable computers	*28.9	95.5	490.3	876.0	15.6	17.5
PCs and similar desktop computers	r748.6	463.1	1 065.9	1 072.0	30.6	42.0
Laser and other printing systems	4.9	21.1	403.4	417.9	40.8	43.3
Other input-output devices and peripherals (including scanners, keyboards, monitors, etc.)	*r8.7	131.5	665.5	702.1	na	na
Consumables (including removable storage media)	*r41.6	56.5	86.5	101.6	20.4	32.7
Other computer and communications hardware (excluding storage media)	r187.6	444.1	4 620.4	5 440.2	1 248.0	1 500.5
Telephone and telegraph equipment (excluding parts)	r520.6	766.3	161.9	285.7	20.3	8.5
Mobile communications						
Mobile, cellular and car phones	*30.5	np	768.2	1 474.5	na	na
CB and other mobile radio transceiving equipment	r114.0	125.4	74.7	409.5	na	na
Total mobile communications	r144.5	np	842.9	1 883.9	na	na
Satellite equipment	na	np	na	na	na	na
Other telecommunication and transceiving equipment	r547.0	782.6	1 866.0	2 679.4	624.1	1 308.3
Cables	371.5	493.9	106.1	212.5	57.2	434.7
Unspecified computer and communications hardware, equipment and cables	r886.4	1 141.4	—	—	—	—
Total computer and communications hardware, equipment and cables etc.	r3 619.5	4 728.4	10 756.9	14 328.4	2 242.0	3 481.6
Packaged software and associated licensing	r515.6	634.0	918.1	814.8	329.8	319.8
Income from the provision of computer services						
Customised software services and solutions (excluding maintenance)	r2 834.7	3 489.3	na	na	na	na
Software maintenance services	r956.4	1 566.1	na	na	na	na
Hardware installation and maintenance services	r500.4	918.6	na	na	na	na
Other computer consultancy services	r1 124.4	2 233.3	na	na	na	na
Information storage and retrieval services	na	132.7	na	na	na	na
Data processing services	na	491.7	na	na	na	na
Income from the provision of whole IT&T business functions	na	3 329.0	na	na	na	na
Income from the provision of other computer services	r5 189.1	404.9	na	na	na	na

r revised

* estimate has a relative standard error of between 25% and 50% and should be used with caution

na not available

np not available for publication but included in totals where applicable, unless otherwise indicated

— nil or rounded to zero (including null cells)

(a) Includes data for the recorded media manufacturing and publishing industry (ANZSIC class 2430).

(b) 1998-99 figures have been revised. For details see paragraphs 8 to 11 in the Explanatory Notes.

(c) Import and export data are compiled by the ABS from information submitted by importers, exporters or their agents to the Australian Customs Service. Exports include exports of Australian commodities and re-exports of goods of foreign origin. Because of the sheer volume of transactions involved, it is inevitable that there will be some errors, misclassifications and approximations in the statistics. Due to changes in import and export commodity classifications, data for 2000-01 are not strictly comparable with 1998-99 data. Please contact the ABS for further information.

3.1PRODUCTION, IMPORTS AND EXPORTS OF IT&T GOODS AND SERVICES *continued*

	INCOME FROM DOMESTIC PRODUCTION (a)(b)		IMPORTS (CUSTOMS VALUE) (c)		EXPORTS (F.O.B) (c)	
	1998–99	2000–01	1998–99	2000–01	1998–99	2000–01
	\$m	\$m	\$m	\$m	\$m	\$m
Income from the provision of computer services <i>cont.</i>						
Unspecified computer services	r252.9	2 360.6	na	na	na	na
Total income from the provision of computer services	r10 857.9	14 926.2	392.0	377.0	662.0	775.0
Income from the provision of telecommunication services	r25 175.0	29 910.0	(d)1 467.0	(d)1 766.0	(d)1 239.0	(d)1 397.0
Total	r(e)40 167.9	(e)50 198.5	13 534.0	17 286.2	4 472.8	5 973.4

r revised

na not available

(a) Includes data for the recorded media manufacturing and publishing industry (ANZSIC class 2430).

(b) 1998–99 figures have been revised. For details see paragraphs 8 to 11 in the Explanatory Notes.

(c) Import and export data are compiled by the ABS from information submitted by importers, exporters or their agents to the Australian Customs Service. Exports include exports of Australian commodities and re-exports of goods of foreign origin. Because of the sheer

volume of transactions involved, it is inevitable that there will be some errors, misclassifications and approximations in the statistics. Due to changes in import and export commodity classifications, data for 2000–01 are not strictly comparable with 1998–99 data. Please contact the ABS for further information.

(d) Includes both postal and telecommunication services data.

Telecommunication services data are not separately available.

(e) Excludes income from production of cables that are not associated with IT&T and other services data not elsewhere classified.

3.2**IMPORTS AND EXPORTS OF IT&T GOODS(a), By country of origin/destination(b) ..**

	IMPORTS (CUSTOMS VALUE)			EXPORTS (F.O.B.)		
	1998-99	2000-01	Change	1998-99	2000-01	Change
	\$m	\$m	%	\$m	\$m	%
Oceania and Antarctica						
New Zealand	48.8	45.3	-7.2	484.8	586.3	20.9
Papua New Guinea	—	—	—	34.6	37.7	9.0
Other Oceania and Antarctica	2.2	1.7	-22.7	46.5	31.0	-33.3
North West Europe						
United Kingdom	421.8	683.1	61.9	60.3	103.0	70.8
Ireland	144.3	358.9	148.7	6.6	19.2	190.9
Austria	21.8	31.5	44.5	2.0	2.0	—
Belgium-Luxembourg	17.2	36.2	110.5	8.2	21.8	165.9
France	128.0	213.6	66.9	10.2	14.3	40.2
Germany	233.5	182.3	-21.9	74.5	121.6	63.2
Finland	68.8	83.0	20.6	3.9	3.9	—
Sweden	295.5	299.9	1.5	6.2	16.4	164.5
Denmark	17.4	27.5	58.0	9.5	26.5	178.9
Netherlands	23.6	25.6	8.5	20.4	10.7	-47.5
Norway	10.9	31.1	185.3	1.2	1.7	41.7
Other North West Europe	8.4	14.0	66.7	1.5	2.6	73.3
Southern and Eastern Europe						
Italy	39.7	69.3	74.6	3.9	18.8	382.1
Spain	32.7	46.7	42.8	3.0	5.7	90.0
Hungary	22.5	32.5	44.4	1.8	0.9	-50.0
Other Southern and Eastern Europe	31.9	31.9	—	3.0	7.4	146.7
North Africa and the Middle East						
Israel	60.2	69.3	15.1	7.8	7.3	-6.4
Other North Africa and the Middle East	4.9	8.2	67.3	31.7	18.6	-41.3
South-East Asia						
Thailand	172.5	177.4	2.8	21.7	65.4	201.4
Malaysia	1 119.3	1 505.6	34.5	43.0	82.7	92.3
Philippines	157.5	222.0	41.0	32.1	58.3	81.6
Singapore	1 424.3	1 424.5	—	180.4	230.1	27.5
Indonesia	30.7	87.6	185.3	13.6	23.7	74.3
Other South-East Asia	1.6	2.6	62.5	12.0	10.0	-16.7
North East Asia						
China	393.4	911.8	131.8	47.4	50.5	6.5
Hong Kong (SAR of China)	278.4	314.5	13.0	136.0	179.9	32.3
Japan	1 000.6	1 247.8	24.7	101.4	80.0	-21.1
Korea, Republic of	521.0	1 283.2	146.3	49.5	22.7	-54.1
Taiwan	1 005.6	1 153.0	14.7	46.5	64.0	37.6
Other North East Asia	0.3	0.6	100.0	0.4	0.2	-50.0
Southern-Central Asia						
India	2.9	12.0	313.8	16.3	74.5	357.1
Other Southern-Central Asia	—	0.3	—	8.4	22.2	164.3

— nil or rounded to zero (including null cells)

- (a) Data in this table relate to merchandise trade and not to trade in services. Import and export data are compiled by the ABS from information submitted by importers, exporters or their agents to the Australian Customs Service. Exports include exports of Australian commodities and re-exports of goods of foreign origin. Because of the sheer volume of transactions involved, it is inevitable that there will be some errors, misclassifications and approximations in the statistics. Due to changes in import and export commodity classifications, data for 2000-01 are not strictly comparable with 1998-99 data. Please contact ABS for further information.
- (b) Countries are classified according to the 1998 Standard Australian Classification of Countries (SACC, cat. no. 1269.0).

3.2**IMPORTS AND EXPORTS OF IT&T GOODS(a), By country of origin/destination(b)***continued*

	IMPORTS (CUSTOMS VALUE)			EXPORTS (F.O.B.)		
	1998-99	2000-01	Change	1998-99	2000-01	Change
	\$m	\$m	%	\$m	\$m	%
Americas						
United States of America	2 563.2	3 151.4	22.9	421.5	581.8	38.0
Canada	257.3	265.4	3.1	32.9	52.6	59.9
Mexico	119.8	214.5	79.0	7.5	2.3	-69.3
Other Americas	43.6	37.5	-14.0	40.2	16.5	-59.0
Sub-Saharan Africa						
South Africa	2.8	2.5	-10.7	18.3	24.0	31.1
Other sub-Saharan Africa	0.7	0.6	-14.3	4.7	11.7	148.9
Other country of origin/destination	(c)27.1	(c)22.2	-18.1	(d)186.6	(d)771.3	313.3
Total(e)	10 756.9	14 328.4	33.2	2 242.0	3 481.6	55.3

- (a) Data in this table relate to merchandise trade and not to trade in services. Import and export data are compiled by the ABS from information submitted by importers, exporters or their agents to the Australian Customs Service. Exports include exports of Australian commodities and re-exports of goods of foreign origin. Because of the sheer volume of transactions involved, it is inevitable that there will be some errors, misclassifications and approximations in the statistics. Due to changes in import and export commodity classifications, data for 2000-01 are not strictly comparable with 1998-99 data. Please contact ABS for further information.
- (b) Countries are classified according to the 1998 Standard Australian Classification of Countries (SACC, cat. no. 1269.0).
- (c) Includes re-imports and imports with country unknown.
- (d) Includes exports classified to International Waters, Ship and Aircraft Stores, Zone of Cooperation A in the Timor Gap, and commodities subject to 'no country details' confidentiality restriction.
- (e) Excludes packaged software.

3.3 IMPORTS AND EXPORTS OF IT&T GOODS(a), By major country of origin/destination(b)

	Computers	Printers, input-output devices and peripherals	Computer parts and consumables	Mobile communications	Other communications equipment and cables	Total(c)
	\$m	\$m	\$m	\$m	\$m	\$m
IMPORTS (CUSTOMS VALUE)						
United States of America	385.4	78.2	1 424.1	156.1	1 107.6	3 151.4
Malaysia	571.7	156.3	499.2	177.5	101.1	1 505.6
Singapore	214.1	137.9	847.8	147.1	77.6	1 424.5
Korea, Republic of	145.3	73.0	114.0	913.5	37.4	1 283.2
Japan	340.4	171.0	469.3	15.0	252.2	1 247.8
Taiwan	462.4	95.8	509.0	7.1	78.6	1 153.0
China	168.8	219.8	322.9	80.8	119.6	911.8
United Kingdom	30.8	5.8	131.5	55.3	459.6	683.1
Ireland	104.8	1.1	152.8	0.7	99.5	358.9
Hong Kong (SAR of China)	11.4	10.7	255.7	9.4	27.3	314.5
Sweden	29.7	2.8	42.0	86.5	138.9	299.9
Canada	12.2	1.8	85.6	13.1	152.6	265.4
Philippines	70.5	15.3	99.3	28.0	9.0	222.0
Mexico	1.5	5.4	55.9	0.1	151.7	214.5
France	25.7	2.9	64.9	69.9	50.2	213.6
Germany	6.3	5.6	101.4	18.4	50.6	182.3
Thailand	0.2	68.1	52.8	6.1	50.2	177.4
Total(d)	2 605.0	1 120.1	5 541.7	1 883.9	3 177.7	14 328.4
EXPORTS (F.O.B.)						
New Zealand	61.4	11.1	410.6	na	103.2	586.3
United States of America	11.2	12.5	344.0	na	214.1	581.8
Singapore	27.5	7.0	151.9	na	43.7	230.1
Hong Kong (SAR of China)	11.9	1.5	106.5	na	60.0	179.9
Germany	2.4	0.1	72.4	na	46.8	121.6
United Kingdom	5.7	0.6	67.5	na	29.3	103.0
Malaysia	4.7	1.5	55.0	na	21.6	82.7
Japan	6.6	0.8	35.8	na	36.8	80.0
India	0.5	0.3	15.9	na	57.7	74.5
Thailand	0.4	2.3	11.8	na	50.9	65.4
Taiwan	2.1	0.6	22.8	na	38.5	64.0
Philippines	0.5	0.1	11.8	na	45.9	58.3
Canada	0.2	0.1	14.9	na	37.4	52.6
China	1.0	0.4	10.6	na	38.5	50.5
Papua New Guinea	0.7	0.8	31.4	na	4.7	37.7
Denmark	—	—	25.6	na	0.9	26.5
Total(d)	153.6	43.3	1 533.3	na	1 751.5	3 481.6

na not available

— nil or rounded to zero (including null cells)

(a) Data in this table relate to merchandise and not to trade in services. Where imports for an individual category exceed \$50m, data have been included against that country for all categories. Where exports for an individual category exceed \$20m, data have been included against that country for all categories.

(b) Countries are classified according to the 1998 Standard Australian Classification of Countries (SACC, cat. no. 1269.0).

(c) Excludes packaged software.

(d) Relates to all countries, not just those listed.

CHAPTER 4

RECORDED MEDIA MANUFACTURING AND PUBLISHING INDUSTRY

INTRODUCTION

The recorded media manufacturing and publishing industry is not included in the main part of this publication as it does not form part of the international definition of industries which specialise in IT&T activity. However, selected statistics about this industry are presented below because the industry has significant IT&T activity. Details for this industry are also included in Table 3.1 which provides a comprehensive picture of domestic production of IT&T.

SUMMARY

At June 2001, there were 273 businesses in the recorded media manufacturing and publishing industry, of which 249 (91%) were IT&T specialist businesses.

The recorded media manufacturing and publishing IT&T specialist businesses employed 2,891 persons at June 2001.

During 2000–01, total income for IT&T specialist businesses in the industry was \$421m. The majority of income, \$332m (79%), was generated from the sale and licensing of packaged software produced by the business.

Total expenses for IT&T specialist businesses in the industry during 2000–01 were \$460m. Labour costs (\$186m or 40%) and other expenses (\$117m or 25%) were the largest expense items.

The operating loss before tax for IT&T specialist businesses in the industry was \$41m in 2000–01 and the operating profit margin was –9.6%.

4.1**KEY FIGURES, Recorded media manufacturing and publishing industry**

		<i>IT&T specialists</i>	<i>Other businesses</i>	<i>All businesses</i>
Businesses at end June 2001	no.	249	24	273
Employment at end June 2001	no.	2 891	1 320	4 211
Income				
Income from the sale of goods produced by this business				
Income from the sale and licensing of packaged software	\$m	332.3	23.6	355.9
Other IT&T goods	\$m	0.4	0.1	0.4
Other goods	\$m	12.6	298.6	311.2
<i>Total income from the sale of goods produced by this business</i>	\$m	345.3	322.3	667.5
Income from the sale of goods not produced by this business				
Income from the sale of computer and communications hardware, components and consumables, and packaged software	\$m	4.7	—	4.7
Other goods	\$m	**3.4	26.5	29.9
<i>Total income from the sale of goods not produced by this business</i>	\$m	*8.1	26.5	34.6
Income from the provision of computer services	\$m	61.8	—	61.8
Income from the provision of telecommunication services	\$m	—	—	—
Other income	\$m	*5.5	7.2	12.6
<i>Total</i>	\$m	420.6	355.9	776.5
Expenses				
Labour costs	\$m	186.3	71.9	258.2
Payments to contractors and consultants for computing and telecommunication services	\$m	19.7	1.2	20.8
Telecommunication expenses	\$m	11.1	1.9	12.9
Purchases	\$m	102.5	123.9	226.3
Depreciation and amortisation	\$m	18.5	15.7	34.2
Interest expenses	\$m	*5.2	5.1	10.2
Other expenses	\$m	117.3	110.4	227.7
<i>Total</i>	\$m	460.4	329.9	790.3
Operating profit before tax	\$m	**−40.6	28.3	*−12.2
Operating profit margin	%	**−9.6	8.0	*−1.6

— nil or rounded to zero (including null cells)

** estimate has a relative standard error greater than 50% and is considered too unreliable for general use

* estimate has a relative standard error of between 25% and 50% and should be used with caution

EXPLANATORY NOTES

INTRODUCTION

1 This publication presents results, in respect of the 2000–01 financial year, from a survey conducted by the Australian Bureau of Statistics (ABS) on the production and distribution of information technology and telecommunication (IT&T) goods and services by businesses in Australia. Also included in this publication are:

- import and export data compiled by the ABS from information submitted by exporters, importers or their agents to the Australian Customs Service.
Exports include both exports of Australian produce and re-exports of goods of foreign origin; and
- data from the ABS Survey of International Trade in Services.

2 Information in this publication covers the main industries involved in the production and distribution of IT&T goods and services. This industry view draws together a number of standard industries that generally comply with the international definition of industries that specialise in IT&T activity. A complete list of these industries can be found in paragraph 5 below. Within these industries, it is the subset of businesses which specialise in IT&T which are the prime interest, and therefore the main focus of the statistics in this publication. Also presented are comparisons between selected IT&T goods and services produced in Australia, and imports and exports of those goods and services. The recorded media manufacturing and publishing industry is included in a separate chapter of the publication, because it undertakes significant IT&T activity, but is not within the international definition of industries which specialise in IT&T activity.

3 The definition of IT&T used in these statistics is based on a set of goods and services descriptions which have been agreed by major policy and industry organisations. It essentially covers computers and communications equipment and the services which facilitate the use of this equipment. Excluded from this definition are process control computers and other equipment in which the presence of microprocessors is predominantly for the control or setting of functions. Also excluded are simple calculating devices and TV and radio receivers.

4 The survey complements other information produced as part of the ABS IT&T statistics work program. Related publications are listed in paragraph 27 below.

SCOPE

5 The scope of the survey was all employing businesses recorded on the ABS Business Register and classified to the following classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC):

- Class 2841, Computer and business machine manufacturing;
- Class 2842, Telecommunication, broadcasting and transceiving equipment manufacturing;
- Class 2849, Electronic equipment manufacturing;
- Class 2852, Electric cable and wire manufacturing;
- Class 4613, Computer wholesaling;
- Class 4614, Business machine wholesaling n.e.c.;
- Class 4615, Electrical and electronic equipment wholesaling n.e.c.;

SCOPE *continued*

- Class 7120, Telecommunication services;
- Class 7831, Data processing services;
- Class 7832, Information storage and retrieval services;
- Class 7833, Computer maintenance services; and
- Class 7834, Computer consultancy services.

The scope excludes businesses classified to the General Government sector but includes government owned Public Trading Enterprises.

6 A random sample of businesses recorded on the ABS Business Register that were classified to ANZSIC 2430, Recorded media manufacturing and publishing, was also surveyed. This industry is not included in the main parts of this publication as it does not form part of the international definition of industries which specialise in IT&T activity. The only tables which incorporate statistics from this industry are Tables 3.1 (Production, imports and exports of IT&T goods and services) and 4.1 (Key figures, Recorded media manufacturing and publishing).

7 In general, the ABS Business Register excludes businesses which do not have any employees. However, a sample of businesses recorded on the Telecommunication Industry Ombudsman list of employing and non-employing Internet service provider (ISP) businesses was also included in the survey.

COVERAGE

8 The frame used for the IT&T Producers survey, like most ABS economic surveys, was taken from the ABS Business Register. The ABS Business Register is primarily based on registrations to the Australian Taxation Office's Pay As You Go Withholding (PAYGW) scheme (and prior to 1 July 2000, the Group Employer (GE) scheme). The frame is updated quarterly to take account of new businesses and businesses which have ceased employing.

9 Businesses which have ceased employing are identified when the Australian Taxation Office cancels their PAYGW registration (or previously their GE registration). In addition, from July 1999, businesses which did not remit under the GE scheme for the previous five quarters were removed from the frame. A similar process will be adopted to remove businesses which do not remit under the PAYGW scheme. The changes resulted in a shift in the level of the IT&T estimates. Historic data in this publication have been revised to take account of these changes.

10 From June 2002, the ABS will make further changes to the business surveys including adopting a new units model and expanding the frame to include all units on the Australian Business Register, including non-employers.

11 The introduction of The New Tax System has a number of significant implications for ABS business statistics, and these are discussed in the information papers *ABS Statistics and The New Tax System* (cat. no. 1358.0) and *Improvements in ABS Economic Statistics [Arising from The New Tax System]* (cat. no. 1372.0).

IMPROVEMENTS TO
COVERAGE

12 Data in this publication have been adjusted to allow for lags in processing new businesses to the ABS Business Register, and the omission of some businesses from the register. The majority of businesses affected and to which the adjustments apply, are small in size.

13 Adjustments have been made to include new businesses in the estimates in the periods in which they commenced operations, rather than when they were processed to the ABS Business Register. Adjustments of this type will continue to be applied in future periods.

IMPROVEMENTS TO
COVERAGE *continued*

14 Further adjustments have been made for businesses which had been in existence for several years, but, for various reasons, were not previously added to the ABS Business Register. The ABS is remedying these omissions.

15 For more information on these adjustments, please refer to the ABS publication *Information Paper: Improvements to ABS Economic Statistics, 1997* (cat. no. 1357.0).

STATISTICAL UNIT

16 The management unit is the highest type of unit within a business or organisation which controls its productive activities, and for which accounts are kept. A management unit is created for all the operations within an industry subdivision (and the unit will be classified to the relevant subdivision of the Australian and New Zealand Standard Industrial Classification). Where a business cannot supply adequate data for each industry subdivision, a management unit will be formed which contains activity in more than one industry subdivision.

STATE AND TERRITORY DATA

17 Data were collected from the Australia-wide operations of each organisation. Businesses which operated in more than one state or territory were asked to provide a dissection of total employment and wages and salaries to enable state and territory statistics to be compiled and comparisons undertaken.

REFERENCE PERIOD

18 Most data contained in the tables in this publication relate to IT&T businesses which operated in Australia at any time during the year ended 30 June 2001. Counts of businesses however, include only those that were operating at 30 June 2001.

RELIABILITY OF THE DATA

19 The estimates presented in this publication are subject to sampling and non-sampling error.

20 The estimates are generally based on information obtained from a sample of businesses in the surveyed population. Consequently, the estimates in this publication are subject to sampling variability; therefore, they may differ from figures that would have been obtained if all units had been included in the survey, that is if a census had been conducted. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of units was included.

21 There are about 2 chances in 3 that a sample estimate will differ by less than one SE from the figure that would have been obtained if a census had been conducted, and approximately 19 chances in 20 that the difference will be less than two SEs.

22 Sampling variability can be measured by the relative standard error (RSE) which is obtained by expressing the SE as a percentage of the estimate to which it refers. The RSE is a useful measure in that it provides an immediate indication of the sampling error in percentage terms and thus avoids the need to refer also to the size of the estimate.

23 The following table contains estimates of RSEs for a selection of statistics presented in this publication.

RELATIVE STANDARD ERRORS FOR TABLE 1.1, Summary of Operations

	<i>Businesses at end June</i>	<i>Employment at end June</i>	<i>IT&T income</i>	<i>Total income</i>	<i>Wages and Salaries</i>	<i>Industry value added</i>
<i>Industry</i>	%	%	%	%	%	%
IT&T SPECIALISTS						
Manufacturing						
Computer and business machines	18	5	4	4	7	8
Telecommunication, broadcasting and transceiving equipment	14	2	2	2	1	2
Electronic equipment n.e.c.	—	—	—	—	—	—
Electric cable and wire	28	6	5	5	5	4
Total	12	2	2	2	2	2
Wholesale trade						
Computers	6	4	7	7	3	3
Business machines and electrical and electronic equipment n.e.c.	11	5	7	6	2	4
Total	5	3	6	6	2	2
Telecommunication services	6	1	1	—	1	—
Computer services						
Data processing	22	14	29	29	23	33
Information storage and retrieval	21	7	9	8	8	10
Computer maintenance	17	5	4	4	4	5
Computer consultancy	2	3	3	3	3	3
Total	2	2	3	3	3	3
Total	2	1	2	2	1	1

— nil or rounded to zero (including null cells)

RELIABILITY OF THE DATA
continued

24 As an example of the above, the estimate of the total income of IT&T specialist businesses in the computer and business machines manufacturing industry is \$1,342.7m and the RSE is 4%, giving a standard error of \$53.7m. Therefore, there would be 2 chances in 3 that, if all units had been included in the survey, a figure in the range of \$1,289.0m to \$1,396.4m would have been obtained, and 19 chances in 20 (i.e. a confidence interval of 95%) that the figure would have been within the range of \$1,235.3m to \$1,450.1m.

25 Errors other than those due to sampling may occur because of deficiencies in the register of units from which the sample was selected, non-response and imperfections in reporting by respondents. Inaccuracies of this kind are referred to as non-sampling errors and they may occur in any collection, whether it be a census or a sample. Every effort has been made to reduce non-sampling error to a minimum by careful design and testing of questionnaires, efficient operating procedures and systems, and appropriate methodology.

ACKNOWLEDGMENT

26 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the *Census and Statistics Act 1905*.

RELATED PUBLICATIONS

27 The most recent issues of other ABS publications on the use and production of information technology and telecommunication goods and services in Australia are listed below:

Business Use of Information Technology, Australia, 2000–01, cat. no. 8129.0

Computing Services Industry, Australia, 1998–99, cat. no. 8669.0

Government Use of Information Technology, Australia, 1999–2000,
cat. no. 8119.0

Household Use of Information Technology, Australia, 2000, cat. no. 8146.0

Information Technology, Australia, 1998–99, cat. no. 8126.0

Internet Activity, Australia, March 2002, cat. no. 8153.0

Telecommunication Services, Australia, 1996–97, cat. no. 8145.0

Use of Information Technology on Farms, Australia, June 2000,
cat. no. 8150.0

Use of the Internet by Householders, Australia, November 2000,
cat. no. 8147.0

Year 2000 Problem, Australia, June 1999, cat. no. 8152.0

28 A reference to the OECD ICT sector definition can be found in the following publication released in October 2000:

Measuring the ICT Sector, Information Society, OECD

RELEASE OF ADDITIONAL
INFORMATION

29 Inquiries about more detailed statistics than those presented in this publication should be made by telephoning the contact shown on the front page.

ABBREVIATIONS

\$m	million dollars
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
f.o.b.	free on board
GE	group employer
ICT	Information and communication technology
IT&T	information technology and telecommunications
n.e.c.	not elsewhere classified
OECD	Organisation for Economic Co-operation and Development
OPBT	operating profit before tax
PAYGW	Pay-as-you-go withholding
RSE	relative standard error
SAR	Special Administrative Region
SE	standard error

GLOSSARY

Advertising expenses	This includes expenses paid to advertising agencies, direct payments to the press, radio and television stations, and other advertising expenses. It excludes marketing, promotion and sponsorship expenses.
Bad and doubtful debts	Bad and doubtful debts is the amount of accounts receivable that are either written off or estimated to be uncollectible during an accounting period. They are expensed in an accounting period's profit calculations.
Business machines and electrical and electronic equipment n.e.c. wholesaling	This includes the distribution of office or business machines (including photocopiers) and electrical and electronic equipment (including communication equipment and cables), but excluding computers and computer peripheral equipment.
Businesses at end June	This comprises the number of management units operating at the end of the financial year reference period. The management unit is the highest type of unit within a business or organisation which controls its productive activities, and for which accounts are kept.
Casual employees	This item refers to employees who are not entitled to take paid holidays or sick leave days.
Communications hardware, components and consumables	This includes mobile phones, switching equipment (PABX, SBS, etc.), transmission equipment (including terrestrial satellite equipment), fixed network telephone sets, radio reception apparatus for telephony transmissions, CB and other mobile radio equipment, LAN equipment, separate modems, and teleprinters and other line equipment.
Computer and business machines manufacturing	This includes manufacturing of all computers, such as PCs, laptops, mainframes, and peripherals; and business machines, such as photocopiers, calculators and other office machinery.
Computer wholesaling	This includes the distribution of computers and computer peripheral equipment.
Computer hardware, components and consumables	This includes laptop, notebook and similar portable computers, PCs and desktop computers, laser and other printer systems, multi-user systems and removable storage media.
Computer services	Covers businesses providing customised software services and solutions, software maintenance, web site design and/or Internet consultancy, computer systems analysis, hardware consultancy, maintenance and repair, disaster recovery, data processing services, computer time sharing, information storage and retrieval services.
Computing and technical	This includes employees whose main activity may be system information technology managers, electronics engineers, systems managers and administrators, software designers, applications and analyst programmers, computer database managers, testers, controllers, security auditors, electronic, computer and communication technicians. Excluded are administrative, data entry, call centre, sales and assembly employees.
Consumables	This includes ink cartridges, toner cartridges and removable storage media.

Depreciation and amortisation	This refers to the financial charges made in the accounts to reflect that part of the value of an asset which may be regarded as having been used up in producing revenue in a particular accounting period. They represent the accounting process of systematically allocating the cost of a non-current asset over its expected useful life.
Earnings before interest and tax	This provides a measure of profit prior to the deduction of interest expenses and income tax.
Electric cable and wire manufacturing	This includes manufacturing of telecommunications cable such as coaxial communication cable and fibre optic cable; and all types of insulated wire and cable for electrical applications.
Electronic equipment n.e.c. manufacturing	This includes manufacturing of electronic components, satellite receivers, radio receivers, televisions, and sound equipment and other electronic equipment.
Employees	This includes all persons working for businesses (excluding working proprietors and partners) who receive remuneration in the last pay period of the financial year.
Employment at end June	This includes full-time and part-time employees, employees absent on paid or prepaid leave, managerial and executive employees, permanent, temporary and casual employees, consultants who are employees and working proprietors and partners. Non-salaried directors, sub-contractors, and persons paid solely by commission without a retainer are excluded.
Employer contributions to superannuation funds	This includes all employer contributions to superannuation schemes (including the employer productivity contribution).
Exports (f.o.b.)	The value of exports is the free on board (f.o.b.) transaction value of the goods expressed in Australian dollars. The f.o.b. value includes the value of packaging (other than containerisation) and excludes freight and insurance costs for the overseas route.
Fringe benefits tax	Fringe benefits tax is paid by employers when certain benefits in excess of normal wages or salaries (e.g. free or discounted goods) are received by their employees in connection with their employment.
Full-time employees	This refers to permanent employees who work 35 hours or more a week.
ICT sector	This refers to the OECD standard definition relating to industries that comprise the information and communication technology sector.
Imports (customs value)	The value of imports is the Australian Customs value. Goods are valued at the point of containerisation, or the port of shipment, or the customs frontier of the exporting country, whichever comes first. The customs value is generally the same as the transaction value unless Australian Customs considers the value reported to be an unfair estimate of market value. This can occur when the transaction is between related companies.
Income from domestic production	This includes total domestic income derived from the sale of computer and communication hardware manufactured in Australia, from packaged software developed in Australia, and from the provision of computer and communication services.
Income from the provision of basic telephony services	This includes income from installation charges, subscriptions, access and usage fees related to local, long distance and international phone calls.
Income from the provision of computer services	This includes income from customised software development services and solutions, software and hardware maintenance services, hardware consultancy services, installation and cabling services, computer processing services, information storage and retrieval services and other computer services.

Income from the provision of data and text services	This includes income from installation charges, subscriptions, access and usage fees related to point to point fixed lines and facsimile services.
Income from the provision of Internet services	This includes income from installation charges, subscriptions, access and usage fees related to Internet dial-up and permanent access connections, and web site and domain hosting services. It specifically excludes income from web site design, which is included under provision of computer services.
Income from the provision of mobile and paging services	This includes income from installation charges, subscriptions, access and usage fees related to mobile, messaging and paging services. Excludes income from the sale of mobile hand sets.
Income from the provision of other telecommunication services	This includes income from intercarrier charges, satellite charges, directory services and value-added voice services.
Income from the provision of telecommunication services	This includes income from voice services, data services, mobile voice services, Internet services, leased lines, mobile data services, electronic data interchange services, video conferencing, value added voice services, repair and maintenance of telecommunication equipment and telecommunication consultancy services.
Income from the provision of whole IT&T business functions	This includes income from the provision of a number of functions as a bundled service. This could involve a combination of computing and telecommunication goods and include services such as facilities management.
Income from the sale and licensing of packaged software	This includes commercially distributed (mass produced) software products and associated licensing fees.
Income from sales of computer and communications hardware, components and consumables	<p>This includes income from the sale of the following goods, either manufactured in Australia by the business or purchased by it for resale, or both:</p> <ul style="list-style-type: none"> ■ computer hardware - laptops, notebooks, portable computers, other PCs and desktop computers, mid range multi user systems, large scale multi user systems, input-output devices such as scanners, keyboards, video conference cameras, monitors, laser and other printer systems; ■ communications hardware - switching and transmission equipment such as PABX, SBS and satellite equipment, fibre optic and coaxial communication cables, fixed and mobile phones and networks, radio, mobile, data and Internet transmission apparatus, CB and other mobile radio equipment, modems, LAN equipment including multiplexers, servers, bridges, routers, hubs, facsimile machines, teleprinters and other line equipment; ■ parts and components - printed circuit boards, integrated circuits, transformers and semi-conductors; and ■ consumables - storage media such as floppy disks, compact disks (CDs), magnetic tape, toner and cartridges.
Industry value added (IVA)	This provides a measure of gross product at basic prices and is defined as the sale of goods and services plus the change in stocks less purchases and selected expenses (excluding indirect taxes). Indirect taxes include payroll tax, fringe benefits tax, land tax and land rates.
Information Technology and Telecommunications (IT&T)	Information technology and telecommunications (IT&T) refers to the services and technologies that enable information to be accessed, stored, processed, transformed, manipulated and disseminated, including the transmission or communication of voice and/or data over a variety of transmission media. Transmission media include telephone, facsimile, Internet data lines, satellite, microwave, radio, etc.
Insurance premiums	This refers to expenses incurred by a business in respect of different types of insurance policies but excluding workers' compensation and compulsory third party motor vehicle insurance.
Interest expenses	This item includes the outflow of funds related to the cost of borrowing money.

Interest income	This item includes income earned through the lending out of funds owned by the business.
IT&T goods and services	IT&T goods and services are defined to include: <ul style="list-style-type: none"> ■ computer hardware, communications hardware, parts, components and consumables; ■ packaged and customised software; ■ computer and data processing services; ■ information storage and retrieval services; ■ installation and cabling services; ■ hardware and software maintenance services; ■ computer consultancy services such as hardware and software appraisal, facilities management, network management, etc. ■ telecommunication services such as Internet services, data services, telephony and mobile phone services.
IT&T income	This includes all income from the sale, distribution and provision of IT&T goods and services.
IT&T specialists	Those businesses whose IT&T income (as defined above) is 50% or more of the total income of the business, with the exception of employing businesses, classified to the following classes of the Australian and New Zealand Standard Industrial Classification (ANZSIC), who are defined as IT&T specialist businesses regardless of their income: <ul style="list-style-type: none"> ■ Class 2842, Telecommunication, broadcasting and transceiving equipment manufacturing; ■ Class 4613, Computer wholesaling; ■ Class 7120, Telecommunications services; ■ Class 7831, Data processing services; ■ Class 7832, Information storage and retrieval services; ■ Class 7833, Computer maintenance services; ■ Class 7834, Computer consultancy services.
Labour costs	This covers labour expenses involved in the production of goods and services and includes such items as wages, salaries, employer contributions to superannuation funds, workers' compensation costs, fringe benefits tax and payroll tax.
Manufacturing	Covers businesses manufacturing computer and communications hardware, parts, components and consumables, business machines, telecommunication, broadcasting and transceiving equipment, electronic equipment, electrical and telecommunications cable and wire and recorded media.
Operating profit before tax	This is a measure of profit (or loss) before extraordinary items are brought to account and prior to the deduction of income tax and appropriation to owners. It is derived as total income minus total expenses, plus closing inventories minus opening inventories.
Operating profit margin	This represents the percentage of a business' sales of goods and services which becomes profit after all operating expenses have been deducted. It is derived by expressing total operating profit before tax (OPBT) as a percentage of total sales of goods and services (i.e. $OPBT \times 100 / \text{Sales of goods and services}$).
Other businesses	Businesses whose major income (i.e. 50% or more) is earned from the sale of non-IT&T goods and/or services.
Other computer consultancy services	This includes systems analysis (e.g. quality assurance planning and review services), hardware consultancy services and disaster recovery.

Other income	This includes those income items not included elsewhere, such as net profit (loss) on the sale of non-current assets, dividend income and net profit (loss) on share trading.
Other operating expenses	This includes expenses not separately itemised, such as charges for utilities, printing and postal charges, motor vehicle running expenses and bank charges.
Payments for other telecommunication services	Covers commissions and rebate expenses and mobile hand set subsidies.
Payments to contractors and consultants for computing and telecommunication services	This includes payments to other businesses and self-employed persons for computing and telecommunication services work done or sales made on a contract or commission basis. Payments to contractors for non computing work (e.g. cleaning services) are excluded.
Payments to employment agencies for staff	This includes payment to employment agencies for procuring the services of staff. This is commonly a temporary contract between the client and the employment agency.
Payroll tax	This item refers to a tax levied by state and territory governments upon the amount of wages and salaries paid by a business.
Peripherals	This includes computer hardware such as printers, monitors, scanners, modems and mice.
Permanent full-time employees	This refers to permanent employees who work 35 hours per week or more and are entitled to paid holidays and sick leave.
Permanent part-time employees	This refers to permanent employees who work less than 35 hours per week and are entitled to paid holidays and sick leave.
Purchases	This includes purchases of finished goods for resale and other non-capitalised purchases such as materials, components, containers and packaging materials.
Rent, lease and hiring expenses	These are the costs from the rent, leasing and hiring of vehicles, land, buildings, machinery, equipment and other property from other businesses or individuals. They exclude expenses relating to finance leases.
Sales of other goods	Income from the sale of business equipment (including photocopiers), electronic and electrical equipment, scientific and medical equipment, dedicated games machines, televisions and radios, and income from sales of goods not reported elsewhere.
Telecommunication, interconnection and transmission expenses	Covers payments for connection, access and use of telecommunication facilities, including rent, leasing and hiring of lines and cables.
Telecommunication, broadcasting and transceiving equipment manufacturing	This includes the manufacture of telephone, telegraphic and switching equipment, modems, telephones (cord, cordless and mobile), radio and television equipment and parts for all these items.
Telecommunication services	Includes businesses undertaking the provision of basic telephony, mobile and paging services, data and text services, Internet service provision, inter-carrier services, leased lines and other infrastructure services, sales of capacity to other telecommunication providers, satellite and other telecommunication services including directory services, value-added voice services and phone cards.
Total employment	This includes permanent, part-time and casual employees, managerial and executive employees, consultants who are employees and working proprietors and partners working for a business during the last pay period in June. Employees absent on paid or prepaid leave and contract personnel from whom PAYGW tax is deducted are included.

Total expenses	The sum of all expense items. This includes labour costs, purchases of goods and materials, rent, leasing and hiring expenses, royalties expenses, telecommunication services, repair and maintenance, advertising expenses and any other operating and non-operating expenses incurred.
Total income	The sum of all income items. This includes IT&T income, rent, leasing and hiring income, funding from government, interest income and other operating and non-operating income.
Unspecified	This represents uncategorised income which cannot be attributed to any of the components under the relevant categories in the table.
Wages and salaries	Payments accruing to all employees during the financial year including provisions for employee entitlements, severance, termination and redundancy payments. It excludes drawings of working principals and partners of unincorporated businesses.
Wholesale trade	Covers businesses wholesaling computer and communications hardware, parts, components and consumables, software, business machines, electrical cable and wire and electronic equipment.
Workers' compensation costs	This item refers to the compulsory insurance cover to be taken out by all employers, except for self-insured workers, according to legislative schemes to cover employees suffering injury or disease in the course of or arising out of employment.
Working proprietors and partners of unincorporated businesses	These are proprietors and partners who are actively engaged in the business of unincorporated entities.

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ISSN 1442 8490

RRP \$23.00