



EXPERIMENTAL ESTIMATES, AUSTRALIAN INDUSTRY

A STATE
PERSPECTIVE

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- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Joe Whelan on Canberra 02 6252 5288.

NOTES

ABOUT THIS PUBLICATION This publication presents State estimates which have been derived using a combination of data from the Australian Bureau of Statistics (ABS) annual Economic Activity Survey (EAS) and business income tax data provided to the Australian Taxation Office (ATO). These estimates are experimental in nature and are the second part of an ongoing program to make State estimates available for the full range of industries. This issue includes two years of estimates for 'Selected service industries', for the 1998–99 and 1999–2000 reference periods.

The series in this publication has been expanded to include experimental State estimates for 'Selected goods producing industries'. These industries consist of: SERVICES TO AGRICULTURE; HUNTING AND TRAPPING; FORESTRY AND LOGGING; COMMERCIAL FISHING; MINING; MANUFACTURING; AND ELECTRICITY, GAS AND WATER SUPPLY. Estimates for these industries are available for 1999–2000 only.

It is intended that the range of industries and data items presented in this publication will increase over time, with the objective being the production of State estimates for the whole economy. Please see the Introduction on page 3 for further details.

The series in this publication are recorded exclusive of the Goods and Services Tax, introduced on 1 July 2000.

REVISIONS Estimates in this publication for 1998–99 have been revised as a result of improvements to editing procedures, further analysis of the data and additional data supplied by providers.

COMMENTS The ABS welcomes feedback from readers regarding the usefulness, range and quality of the data presented and explanations provided. In particular, feedback is sought in relation to these experimental estimates as they are only the second release of State level estimates from EAS/Tax data. It is intended that these estimates will be released as an ongoing series if there is sufficient demand for the range and quality of the estimates. Please send any comments to: The Director, Economy Wide Statistics Section, Australian Bureau of Statistics, Locked Bag 10, Belconnen ACT 2616. Alternatively, email <merry.branson@abs.gov.au>.

Dennis Trewin
Australian Statistician

INTRODUCTION

OVERVIEW

The statistics in this publication are experimental State estimates for selected industries. While this range of statistics is still experimental, the ABS is committed to improving the quality and range in future releases.

For a number of years, the ABS has been expanding the range of data sources it uses in order to decrease the statistical reporting load placed on providers, while continuing to increase the range of information available. A major alternate source of data is the Australian Taxation Office (ATO), which collects key economic data for business income tax purposes. Under taxation law, this data may be passed by the Commissioner for Taxation to the ABS for statistical purposes. The estimates in this publication have been sourced from a combination of data from the annual Economic Activity Survey (EAS) conducted by the ABS, business income tax data provided to the ATO and information from a range of other ABS direct collections involved in collecting estimates of State activity (see paragraph 23 of Technical Note 1: Methodology, for a full list).

The estimates presented are part of the ongoing EAS/Tax program and are based on the methodology used to produce Australian level EAS/Tax estimates. The most recent Australian level EAS/Tax estimates, for the 1999–2000 financial year, were released in December 2001 in *Australian Industry* (Cat. no. 8155.0).

This publication contains eleven tables. Tables 1 and 4 provide estimates for 'Selected service industries' and include a two year time series. Tables 2 and 5 provide estimates for 'Selected goods producing industries' for 1999–2000 only, while tables 3 and 6 provide estimates for all 'Selected industries' for 1999–2000 only. Table 7 provides estimates for all 'Selected industries' at the two digit ANZSIC subdivision level for Operating income, while table 8 provides an equivalent set of estimates for Operating expenses. Tables 9, 10 and 11 provide estimates of relative standard errors (RSEs).

In this publication the definition of 'Selected service industries' remains the same as that used in the previous issue. 'Selected service industries' consists of CONSTRUCTION; WHOLESALE TRADE; RETAIL TRADE; ACCOMMODATION, CAFES AND RESTAURANTS; TRANSPORT AND STORAGE; COMMUNICATION SERVICES; PROPERTY AND BUSINESS SERVICES; selected HEALTH SERVICES; CULTURAL AND RECREATIONAL SERVICES and selected PERSONAL SERVICES.

The series of experimental estimates contained in this publication has been expanded for 1999–2000 to include 'Selected goods producing industries'. This set of industries consists of SERVICES TO AGRICULTURE; HUNTING AND TRAPPING; FORESTRY AND LOGGING; COMMERCIAL FISHING; MINING; MANUFACTURING and ELECTRICITY, GAS AND WATER SUPPLY.

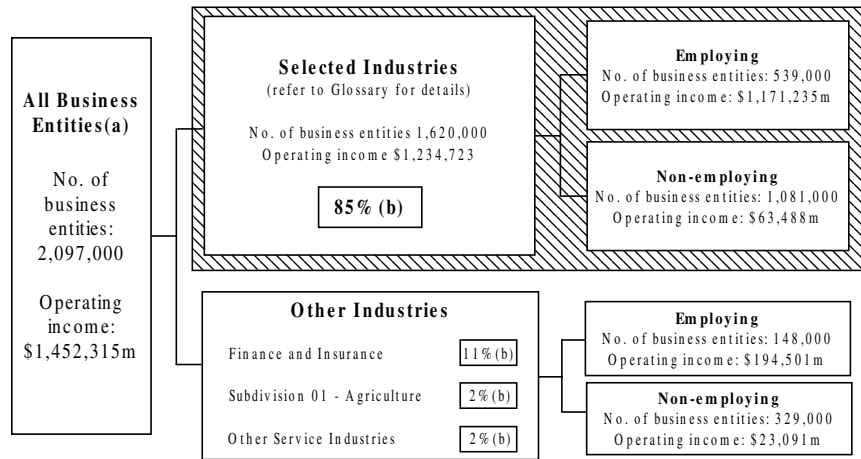
The remaining service industries, defined as 'Other service industries' are: EDUCATION, COMMUNITY SERVICE AND RELIGIOUS ORGANISATIONS, INTEREST GROUPS (trade unions, industry associations etc.) and PUBLIC ORDER AND SAFETY SERVICES. Analysis of the 'Other service industries' has shown that there is very little gain from using business income tax data to substitute/supplement the data from the directly collected survey. This is because these types of organisations generally have minimal taxation obligations.

Estimates for the FINANCE AND INSURANCE industry are not available in this publication. The possibility of releasing experimental EAS/Tax estimates for this industry requires further investigation by the ABS due to the relatively complex business structures in this industry.

INTRODUCTION *continued*

OVERVIEW *continued*

The following diagram summarizes the scope and coverage of the EAS/Tax estimates in relation to the basic structure of the Australian business sector.



(a) Excluding General Government. Note: Government-owned Public Trading Enterprises are included.
 (b) Percentage contribution to Total operating income.

METHODOLOGY

The methodology used to produce the State level estimates in this publication is relatively inexpensive compared to traditional methods which involve collecting additional data on a large scale. For the majority of multi-State businesses, State dissections for items were available either from existing ABS business collections or from the ATO and were used to dissect the variables included in this publication by State. The majority of businesses (approximately two thirds by value) belong to a single State.

Sales data obtained for multi-State businesses was used to dissect Total operating income, Total operating expenses and Operating profit before tax (OPBT). Wages data was used to dissect Labour costs. More details of the methodology and assumptions used to identify and allocate State dissections in this publication are outlined in Technical Note 1: Methodology, on page 31.

CAVEATS

The estimates contained in this publication are considered experimental and should be used with caution.

Some of the assumptions that have been relied upon in the production of these estimates cannot be directly tested easily. Users are advised to review the assumptions and methodology for themselves before deciding on fitness for purpose. Details regarding the quality of the estimates and assumptions can be found in the Explanatory Notes and Technical Note on pages 23 and 31 respectively and in tables 9, 10 and 11 of relative standard errors on pages 20 – 22.

Differences between data presented in this publication and other ABS publications may be due to differences in scope, reference period, statistical units and the definition of data items. More details on these differences and comparisons can be found in Appendix: Comparisons with other ABS estimates, on pages 28 – 30.

INTRODUCTION *continued*

CAVEATS *continued*

It is expected that the methodology used to produce these experimental estimates will continue to be improved to a point where the ABS will remove the 'experimental' tag.

FUTURE PLANS

The ABS is undertaking different streams of development work in order to improve the quality and range of information available. Changes in the external environment provide additional opportunities to improve the national statistical service. For example, changes under The New Tax System (TNTS) have potential to offer the ABS more opportunities, however it may still be some time before the benefits of these opportunities are realised.

The coverage of EAS/Tax estimates is to be expanded to eventually provide a complete picture across the whole economy. In addition, the ABS will continue to refine the methods outlined in this publication to expand the range, detail and quality of information provided at the State level. Production of the estimates annually will provide opportunities for time series analysis. Other initiatives regarding State estimates are taking place within the ABS.

The Quarterly Economic Activity Survey (QEAS) collects State dissections for two items, i.e. Income from sales of goods and services and Wages and salaries. State estimates for these items were released in current price terms in *Business Indicators, Australia* (Cat. no. 5676.0) for the December quarter 2001, released on 5 March 2002.

A list of other relevant publications is provided for reference in paragraph 32 of the Explanatory Notes.

SUMMARY OF FINDINGS

NOTE

This summary of findings is based on experimental datasets and should therefore be used with caution. For the first time this publication presents estimates for selected goods producing industries. Care should be taken when interpreting movements between the 1998–99 and 1999–2000 reference periods due to the inclusion of the selected goods producing industries and the experimental nature of the estimates.

SELECTED INDUSTRIES

In 1999–2000, businesses in New South Wales and Victoria accounted for 61.9% of the Total operating income of businesses in the selected industries. Businesses in those two States also accounted for 62.0% of the Total operating expenses, 61.3% of Operating profit before tax (OPBT) and 63.9% of the Labour costs of businesses in the selected industries.

Employing businesses in New South Wales accounted for 35.6% of the Total operating income of employing businesses in the selected industries. The proportions for the other States were; Victoria 26.5%, Queensland 16.4%, South Australia 7.3%, Western Australia 10.5%, Tasmania 1.8%, Northern Territory 0.8% and Australian Capital Territory 1.1%.

Similarly, non-employing businesses in New South Wales accounted for 34.4% of the Total operating income of non-employing businesses in the selected industries. The proportions for the other States were; Victoria 24.4%, Queensland 18.7%, South Australia 7.3%, Western Australia 11.3%, Tasmania 1.8%, Northern Territory 0.7% and Australian Capital Territory 1.5%.

INDUSTRY CONTRIBUTION ACROSS STATES

In 1999–2000, New South Wales accounted for 35.6% of the Australian estimate for Total operating income in the selected industries. The equivalent proportions for the other States were; Victoria 26.4%, Queensland 16.5%, South Australia 7.3%, Western Australia 10.6%, Tasmania 1.8%, Northern Territory 0.8% and Australian Capital Territory 1.2%. Similarly, in the selected industries, New South Wales accounted for 35.7% of the Australian estimate for Total operating expenses, 33.9% of the Australian estimate for OPBT and 37.7% of the Australian estimate for Labour costs.

Victoria was the largest contributor to Australian estimates for Total operating income (28.6%) and Total operating expenses (29.5%) in the ELECTRICITY, GAS AND WATER SUPPLY industry, and for Labour costs (33.6%) in the MANUFACTURING industry.

Western Australia was the largest contributor to Australian estimates for the MINING industry for Total operating income (44.1%), Total operating expenses (42.2%) and Labour costs (35.4%).

New South Wales was the largest contributor to Australian estimates for Total operating income, Total operating expenses, OPBT and Labour costs for the majority of each of the selected industries.

INDUSTRY CONTRIBUTION WITHIN STATES

In 1999–2000, the MANUFACTURING industry was the largest contributor to Total operating income in Victoria (23.6%), Queensland (19.6%), South Australia (25.8%) and Tasmania (24.0%). The WHOLESALE industry was the largest contributor to Total operating income in New South Wales (21.0%) and Western Australia (17.9%). The RETAIL industry was the largest contributor to Total operating income in the Northern Territory (20.9%), while

SUMMARY OF FINDINGS *continued*

INDUSTRY CONTRIBUTION WITHIN STATES *continued*

the PROPERTY AND BUSINESS SERVICES industry was the largest contributor to Total operating income in the Australian Capital Territory (23.7%).

The MANUFACTURING industry was also the largest contributor to Total operating expenses in Victoria (23.9%), Queensland (20.3%), South Australia (25.9%) and Tasmania (23.9%). The WHOLESALE industry was the largest contributor to Total operating expenses in New South Wales (21.8%) and Western Australia (19.3%). The RETAIL industry was the largest contributor to Total operating expenses in the Northern Territory (22.2%) and the Australian Capital Territory (24.3%).

The MINING industry was the largest contributor to OPBT in Western Australia (30.9%) and the Northern Territory (25.7%). The MANUFACTURING industry was the largest contributor to OPBT in Victoria (22.0%), South Australia (20.0%) and Tasmania (28.7%). The CONSTRUCTION industry was the largest contributor to OPBT in Queensland (15.9%). The PROPERTY AND BUSINESS SERVICES industry was the largest contributor to OPBT in New South Wales (23.5%) and the Australian Capital Territory (24.6%).

The MANUFACTURING industry was the largest contributor to Labour costs in Victoria (27.8%), Queensland (19.0%), South Australia (28.6%), Western Australia (17.1%) and Tasmania (30.1%). The RETAIL industry (15.3%) was the largest contributor to Labour costs in the Northern Territory. The PROPERTY AND BUSINESS SERVICES industry was the largest contributor to Labour costs in New South Wales (22.7%) and the Australian Capital Territory (31.3%).

SUBDIVISION ESTIMATES

Estimates at the ANZSIC subdivision level are presented in tables 7 and 8, with subdivision level estimates for the goods producing industries being presented for the first time. Users should be aware that these data should be used with caution, and should refer to the relative standard error tables (tables 10 and 11 on pages 21 – 22) for further information.

EXPERIMENTAL ESTIMATES, Selected service industries by employing status

	NSW	Vic.	Q/d	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
EMPLOYING BUSINESSES									
1999-2000									
Total operating income	321 459	219 154	134 213	54 693	77 761	13 486	6 597	11 979	839 341
Total operating expenses	303 865	205 866	127 567	52 093	73 891	12 760	6 262	11 253	793 555
Operating profit before tax	18 500	14 354	6 780	2 858	4 290	688	370	762	48 601
Labour costs	56 336	35 414	22 611	8 890	12 289	2 202	1 121	2 385	141 260
1998-99									
Total operating income	279 298	198 159	126 466	45 365	72 578	11 880	6 094	11 243	751 081
Total operating expenses	264 847	185 818	121 088	42 768	68 394	11 278	5 792	10 422	710 405
Operating profit before tax	15 720	12 707	5 904	2 365	4 562	701	317	864	43 140
Labour costs	48 737	31 634	21 033	7 308	11 511	1 953	1 192	2 140	125 508
NON-EMPLOYING BUSINESSES									
1999-2000									
Total operating income	20 010	13 985	10 727	4 091	6 156	987	425	877	57 259
Total operating expenses	15 036	10 505	8 110	3 051	4 341	743	305	635	42 725
Operating profit before tax	4 974	3 480	2 617	1 041	1 815	244	120	242	14 534
Labour costs	..	..	..	..	..	..	..	..	..
1998-99									
Total operating income	18 453	13 171	9 877	3 829	5 954	933	431	778	53 426
Total operating expenses	14 029	10 045	7 511	2 824	4 153	701	303	569	40 134
Operating profit before tax	4 424	3 126	2 366	1 006	1 800	232	128	209	13 292
Labour costs	..	..	..	..	..	..	..	..	..
TOTAL SELECTED SERVICE BUSINESSES									
1999-2000									
Total operating income	341 469	233 139	144 940	58 785	83 917	14 473	7 022	12 856	896 600
Total operating expenses	318 901	216 372	135 677	55 144	78 232	13 502	6 566	11 888	836 280
Operating profit before tax	23 474	17 834	9 397	3 899	6 105	933	491	1 004	63 136
Labour costs	56 336	35 414	22 611	8 890	12 289	2 202	1 121	2 385	141 260
1998-99									
Total operating income	297 751	211 330	136 343	49 194	78 531	12 814	6 525	12 021	804 507
Total operating expenses	278 876	195 863	128 599	45 592	72 548	11 979	6 095	10 990	750 539
Operating profit before tax	20 144	15 833	8 270	3 371	6 362	933	446	1 073	56 431
Labour costs	48 737	31 634	21 033	7 308	11 511	1 953	1 192	2 140	125 508
..	not applicable								

EXPERIMENTAL ESTIMATES, Selected goods producing industries by employing status—1999–2000

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
EMPLOYING BUSINESSES									
Total operating income	95 861	90 767	57 546	30 260	45 725	7 541	2 760	1 424	331 894
Total operating expenses	88 666	84 269	54 072	27 967	39 977	7 014	2 515	1 289	305 778
Operating profit before tax	7 899	7 509	4 202	2 166	6 288	628	207	162	29 064
Labour costs	16 250	15 101	8 118	4 444	5 604	1 425	361	224	51 529
NON-EMPLOYING BUSINESSES									
Total operating income	1 838	1 495	1 123	515	1 004	159	43	52	6 229
Total operating expenses	1 539	1 275	912	414	783	123	33	42	5 120
Operating profit before tax	299	221	211	100	222	36	10	10	1 109
Labour costs	..	..	..	..	..	..	..	..	..
TOTAL SELECTED GOODS PRODUCING BUSINESSES									
Total operating income	97 699	92 263	58 669	30 774	46 730	7 700	2 803	1 475	338 123
Total operating expenses	90 205	85 543	54 984	28 381	40 760	7 136	2 548	1 331	310 898
Operating profit before tax	8 198	7 730	4 413	2 267	6 510	665	217	172	30 173
Labour costs	16 250	15 101	8 118	4 444	5 604	1 425	361	224	51 529
..	not applicable								

EXPERIMENTAL ESTIMATES, Selected industries by employing status—1999–2000

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
EMPLOYING BUSINESSES									
Total operating income	417 320	309 921	191 759	84 953	123 486	21 027	9 357	13 402	1 171 235
Total operating expenses	392 532	290 135	181 638	80 060	113 868	19 773	8 777	12 542	1 099 333
Operating profit before tax	26 399	21 863	10 982	5 024	10 578	1 317	577	925	77 665
Labour costs	72 587	50 515	30 729	13 334	17 894	3 627	1 481	2 609	192 789
NON-EMPLOYING BUSINESSES									
Total operating income	21 848	15 481	11 850	4 606	7 161	1 146	468	928	63 488
Total operating expenses	16 575	11 780	9 022	3 465	5 124	865	338	677	47 845
Operating profit before tax	5 274	3 701	2 828	1 141	2 037	281	131	252	15 643
Labour costs	..	..	..	..	..	..	..	..	..
TOTAL SELECTED BUSINESSES									
Total operating income	439 168	325 402	203 609	89 559	130 647	22 173	9 825	14 331	1 234 723
Total operating expenses	409 106	301 915	190 660	83 525	118 991	20 639	9 114	13 219	1 147 178
Operating profit before tax	31 672	25 564	13 810	6 165	12 615	1 597	708	1 176	93 309
Labour costs	72 587	50 515	30 729	13 334	17 894	3 627	1 481	2 609	192 789

.. not applicable

EXPERIMENTAL ESTIMATES, Selected service industries by division

	NSW	Vic.	Q/d	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
CONSTRUCTION									
1999-2000									
Total operating income	38 229	21 701	21 484	6 296	10 973	1 245	1 018	1 721	102 669
Total operating expenses	34 771	19 937	19 336	5 828	9 769	1 075	874	1 526	93 118
Operating profit before tax	3 879	2 022	2 189	495	1 262	171	153	205	10 376
Labour costs	5 723	3 316	2 902	892	1 662	195	137	236	15 061
1998-99									
Total operating income	32 798	18 872	18 660	5 503	9 528	1 023	902	1 529	88 815
Total operating expenses	29 964	16 849	16 606	4 635	8 310	890	764	1 346	79 364
Operating profit before tax	2 935	2 085	1 947	483	1 216	133	140	190	9 128
Labour costs	4 887	2 876	2 548	756	1 492	156	107	220	13 042
WHOLESALE TRADE									
1999-2000									
Total operating income	92 177	70 984	36 449	16 225	23 403	3 679	1 369	1 513	245 800
Total operating expenses	89 068	68 958	35 445	15 844	22 916	3 573	1 324	1 476	238 604
Operating profit before tax	3 339	2 454	1 088	537	777	94	55	41	8 385
Labour costs	7 946	5 641	2 690	1 305	1 735	266	122	159	19 864
1998-99									
Total operating income	81 932	62 042	34 260	12 885	20 786	3 176	1 051	1 227	217 357
Total operating expenses	79 937	59 537	33 265	12 448	20 301	3 130	1 006	1 197	210 823
Operating profit before tax	2 446	2 092	1 031	435	719	77	50	38	6 888
Labour costs	7 036	4 790	2 543	1 001	1 467	252	89	148	17 325
RETAIL TRADE									
1999-2000									
Total operating income	76 012	50 619	35 360	16 031	21 690	3 754	2 058	3 304	208 827
Total operating expenses	73 932	49 118	34 308	15 538	21 161	3 625	2 022	3 206	202 907
Operating profit before tax	2 260	1 648	1 197	506	618	134	48	115	6 526
Labour costs	8 702	5 803	3 802	1 821	2 084	385	227	365	23 189
1998-99									
Total operating income	68 119	48 433	35 201	13 671	19 876	3 425	1 724	3 313	193 760
Total operating expenses	66 293	47 323	34 185	13 354	19 220	3 300	1 679	3 228	188 579
Operating profit before tax	2 149	1 708	1 234	447	784	128	54	102	6 606
Labour costs	7 393	5 374	3 717	1 506	1 907	362	198	354	20 812
ACCOMMODATION, CAFES AND RESTAURANTS									
1999-2000									
Total operating income	13 516	6 873	7 609	3 170	2 685	1 236	456	645	36 190
Total operating expenses	12 671	6 509	7 466	3 037	2 567	1 159	446	607	34 461
Operating profit before tax	833	371	161	147	118	31	11	39	1 711
Labour costs	3 221	1 650	1 516	682	603	233	146	168	8 220
1998-99									
Total operating income	11 929	6 573	7 329	3 078	3 062	1 156	804	525	34 457
Total operating expenses	11 356	6 314	7 205	2 925	2 892	1 217	783	479	33 170
Operating profit before tax	593	278	136	160	187	-3	20	46	1 418
Labour costs	2 883	1 537	1 565	591	715	258	197	128	7 874

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
TRANSPORT AND STORAGE									
1999-2000									
Total operating income	24 931	18 233	12 526	4 283	6 540	1 725	791	419	69 448
Total operating expenses	23 379	17 136	11 573	4 033	6 049	1 610	771	370	64 920
Operating profit before tax	1 542	1 133	911	260	500	122	19	49	4 535
Labour costs	5 527	3 663	2 879	789	1 219	231	184	159	14 650
1998-99									
Total operating income	22 400	18 563	11 798	4 197	6 377	1 561	614	314	65 824
Total operating expenses	20 982	17 495	11 091	3 914	5 637	1 435	574	271	61 399
Operating profit before tax	1 453	1 039	835	287	744	131	39	43	4 570
Labour costs	5 184	3 590	2 644	774	1 223	212	152	99	13 878
COMMUNICATION SERVICES									
1999-2000									
Total operating income	14 554	10 745	4 486	2 033	2 158	np	np	762	35 472
Total operating expenses	13 015	8 261	3 593	1 679	1 742	np	np	608	29 452
Operating profit before tax	1 761	2 590	932	382	443	np	np	160	6 454
Labour costs	2 218	1 769	731	339	358	np	np	189	5 747
1998-99									
Total operating income	11 729	8 847	3 888	1 704	1 891	np	np	736	29 471
Total operating expenses	9 752	6 689	2 963	1 321	1 431	np	np	597	23 267
Operating profit before tax	2 034	2 147	919	386	457	np	np	140	6 244
Labour costs	1 990	1 679	742	317	350	np	np	195	5 412
PROPERTY AND BUSINESS SERVICES									
1999-2000									
Total operating income	58 229	36 949	16 484	6 219	11 401	1 220	690	3 393	134 585
Total operating expenses	50 624	31 644	14 659	5 292	9 619	1 089	623	3 103	116 653
Operating profit before tax	7 452	5 427	1 692	938	1 733	135	70	289	17 735
Labour costs	16 486	9 352	4 687	1 782	3 053	440	152	816	36 767
1998-99									
Total operating income	48 587	33 341	15 418	4 556	12 119	1 066	881	3 440	119 408
Total operating expenses	43 099	28 494	14 702	3 960	10 446	883	844	3 010	105 438
Operating profit before tax	5 815	4 984	960	609	1 674	185	38	439	14 703
Labour costs	14 132	8 239	4 181	1 329	3 002	361	315	738	32 296
HEALTH SERVICES (a) (b)									
1999-2000									
Total operating income	9 877	7 314	5 195	2 640	2 727	np	np	573	29 010
Total operating expenses	8 713	6 494	4 633	2 318	2 402	np	np	510	25 675
Operating profit before tax	1 162	819	562	322	325	np	np	63	3 331
Labour costs	3 755	2 709	2 305	899	1 113	np	np	169	11 242
1998-99									
Total operating income	7 898	5 868	5 248	1 983	2 389	np	np	479	24 481
Total operating expenses	6 836	5 089	4 637	1 636	2 077	np	np	439	21 222
Operating profit before tax	1 060	786	614	347	312	np	np	40	3 266
Labour costs	2 904	2 174	2 156	706	943	np	np	145	9 257

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

(a) Excludes ANZSIC subdivision 87.

(b) See paragraph 28 of the Explanatory Notes.

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
CULTURAL AND RECREATIONAL SERVICES									
1999-2000									
Total operating income	10 844	7 759	3 780	1 220	1 563	409	205	160	25 940
Total operating expenses	9 967	6 593	3 300	982	1 344	377	146	149	22 858
Operating profit before tax	911	1 127	468	237	219	32	59	11	3 063
Labour costs	1 900	1 008	704	221	277	87	41	25	4 264
1998-99									
Total operating income	9 576	7 068	3 069	908	1 848	265	159	160	23 053
Total operating expenses	8 137	6 547	2 612	759	1 659	214	116	144	20 189
Operating profit before tax	1 390	518	451	150	187	51	43	16	2 806
Labour costs	1 639	974	567	164	253	40	33	29	3 699
PERSONAL SERVICES (a)									
1999-2000									
Total operating income	3 098	1 962	1 566	667	777	143	80	366	8 659
Total operating expenses	2 759	1 722	1 366	592	664	123	73	333	7 633
Operating profit before tax	335	243	197	75	110	19	7	32	1 020
Labour costs	860	503	395	159	186	36	17	100	2 257
1998-99									
Total operating income	2 784	1 722	1 472	710	655	160	80	297	7 880
Total operating expenses	2 518	1 526	1 332	641	575	144	74	280	7 089
Operating profit before tax	270	198	143	69	83	17	6	17	801
Labour costs	688	401	371	166	159	29	17	84	1 914
TOTAL SELECTED SERVICE INDUSTRIES									
1999-2000									
Total operating income	341 469	233 139	144 940	58 785	83 917	14 473	7 022	12 856	896 600
Total operating expenses	318 901	216 372	135 677	55 144	78 232	13 502	6 566	11 888	836 280
Operating profit before tax	23 474	17 834	9 397	3 899	6 105	933	491	1 004	63 136
Labour costs	56 336	35 414	22 611	8 890	12 289	2 202	1 121	2 385	141 260
1998-99									
Total operating income	297 751	211 330	136 343	49 194	78 531	12 814	6 525	12 021	804 507
Total operating expenses	278 876	195 863	128 599	45 592	72 548	11 979	6 095	10 990	750 539
Operating profit before tax	20 144	15 833	8 270	3 371	6 362	933	446	1 073	56 431
Labour costs	48 737	31 634	21 033	7 308	11 511	1 953	1 192	2 140	125 508

(a) Excludes ANZSIC subdivisions 96 and 97.

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
AGRICULTURE, FORESTRY AND FISHING (a)(b)									
Total operating income	2 300	1 027	1 742	952	1 127	693	73	18	7 933
Total operating expenses	2 120	972	1 621	813	981	633	87	19	7 247
Operating profit before tax	94	55	113	145	168	69	6	-1	650
Labour costs	290	192	238	138	196	127	17	5	1 203
MINING									
Total operating income	6 530	3 971	10 085	1 992	19 571	np	1 457	np	44 352
Total operating expenses	6 023	3 192	8 605	1 681	15 658	np	1 194	np	37 066
Operating profit before tax	568	772	1 579	437	3 898	np	182	np	7 491
Labour costs	1 281	271	1 525	274	1 984	np	161	np	5 609
MANUFACTURING									
Total operating income	79 157	76 732	39 969	23 118	22 886	5 321	np	np	249 019
Total operating expenses	73 996	72 036	38 721	21 668	21 773	4 932	np	np	234 948
Operating profit before tax	5 892	5 636	1 838	1 232	1 622	459	np	np	16 748
Labour costs	13 672	14 038	5 853	3 813	3 065	1 090	np	np	41 820
ELECTRICITY, GAS AND WATER SUPPLY									
Total operating income	9 713	10 533	6 874	4 712	3 146	np	np	np	36 818
Total operating expenses	8 065	9 343	6 036	4 221	2 347	np	np	np	31 637
Operating profit before tax	1 644	1 267	882	453	822	np	np	np	5 283
Labour costs	1 008	599	502	219	361	np	np	np	2 898
TOTAL SELECTED GOODS PRODUCING INDUSTRIES									
Total operating income	97 699	92 263	58 669	30 774	46 730	7 700	2 803	1 475	338 123
Total operating expenses	90 205	85 543	54 984	28 381	40 760	7 136	2 548	1 331	310 898
Operating profit before tax	8 198	7 730	4 413	2 267	6 510	665	217	172	30 173
Labour costs	16 250	15 101	8 118	4 444	5 604	1 425	361	224	51 529

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

(a) Excludes ANZSIC subdivision 01.

(b) See paragraph 29 of the Explanatory Notes.

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
.....									
SELECTED GOODS PRODUCING INDUSTRIES (a)									
Total operating income	97 699	92 263	58 669	30 774	46 730	7 700	2 803	1 475	338 123
Total operating expenses	90 205	85 543	54 984	28 381	40 760	7 136	2 548	1 331	310 898
Operating profit before tax	8 198	7 730	4 413	2 267	6 510	665	217	172	30 173
Labour costs	16 250	15 101	8 118	4 444	5 604	1 425	361	224	51 529
.....									
SELECTED SERVICE INDUSTRIES (b)									
Total operating income	341 469	233 139	144 940	58 785	83 917	14 473	7 022	12 856	896 600
Total operating expenses	318 901	216 372	135 677	55 144	78 232	13 502	6 566	11 888	836 280
Operating profit before tax	23 474	17 834	9 397	3 899	6 105	933	491	1 004	63 136
Labour costs	56 336	35 414	22 611	8 890	12 289	2 202	1 121	2 385	141 260
.....									
TOTAL SELECTED INDUSTRIES									
Total operating income	439 168	325 402	203 609	89 559	130 647	22 173	9 825	14 331	1 234 723
Total operating expenses	409 106	301 915	190 660	83 525	118 991	20 639	9 114	13 219	1 147 178
Operating profit before tax	31 672	25 564	13 810	6 165	12 615	1 597	708	1 176	93 309
Labour costs	72 587	50 515	30 729	13 334	17 894	3 627	1 481	2 609	192 789
.....									

(a) Selected Goods Producing Industries — see Glossary for details.

(b) Selected Service Industries — see Glossary for details.

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
TOTAL SELECTED INDUSTRIES	439 168	325 402	203 609	89 559	130 647	22 173	9 825	14 331	1 234 723
Selected Goods Producing Industries	97 699	92 263	58 669	30 774	46 730	7 700	2 803	1 475	338 123
Agriculture, Forestry and Fishing(a)(b)	2 300	1 027	1 742	952	1 127	693	73	18	7 933
02 Services to Agriculture; Hunting and Trapping	1 636	526	1 191	279	296	38	12	10	3 987
03 Forestry and Logging	451	357	226	216	168	355	np	np	1 783
04 Commercial Fishing	213	145	325	457	664	300	np	np	2 162
Mining	6 530	3 971	10 085	1 992	19 571	np	1 457	np	44 352
11 Coal Mining	4 713	np	5 329	np	563	np	np	—	11 258
12 Oil and Gas Extraction	442	np	np	1 115	5 515	np	np	—	10 354
13 Metal Ore Mining	481	94	np	np	10 036	659	894	—	16 278
14 Other Mining	701	355	480	153	1 541	np	144	np	3 427
15 Services to Mining	192	133	280	np	1 915	np	313	np	3 036
Manufacturing	79 157	76 732	39 969	23 118	22 886	5 321	np	np	249 019
21 Food, Beverage and Tobacco Mfg	17 054	15 405	12 248	4 603	4 362	1 377	155	155	55 359
22 Textile, Clothing, Footwear and Leather Mfg	3 497	4 329	1 000	742	543	183	10	55	10 360
23 Wood and Paper Product Mfg	5 318	4 482	2 507	1 744	1 048	1 031	18	164	16 313
24 Printing, Publishing and Recorded Media	7 239	6 022	2 361	1 016	1 066	187	57	181	18 139
25 Petroleum, Coal, Chemical and Associated Product Mfg	12 670	12 315	7 113	2 155	5 436	466	266	90	40 512
26 Non-Metallic Mineral Product Mfg	3 358	2 809	2 414	939	1 508	298	99	72	11 497
27 Metal Product Mfg	15 257	10 369	5 368	2 947	4 663	1 112	np	np	39 894
28 Machinery and Equipment Mfg	12 639	18 432	5 531	8 138	3 210	568	116	152	48 786
29 Other Manufacturing	2 126	2 569	1 427	832	1 050	99	15	41	8 160
Electricity, Gas and Water Supply	9 713	10 533	6 874	4 712	3 146	np	np	np	36 818
36 Electricity and Gas Supply	np	8 820	np	np	np	np	np	np	31 414
37 Water Supply, Sewerage and Drainage Services	np	1 713	np	np	np	—	—	1	5 404
Selected Service Industries	341 469	233 139	144 940	58 785	83 917	14 473	7 022	12 856	896 600
Construction	38 229	21 701	21 484	6 296	10 973	1 245	1 018	1 721	102 669
41 General Construction	20 887	11 540	12 298	2 833	6 252	550	576	965	55 901
42 Construction Trade Services	17 342	10 161	9 186	3 463	4 720	695	442	756	46 767
Wholesale Trade	92 177	70 984	36 449	16 225	23 403	3 679	1 369	1 513	245 800
45 Basic Material Wholesaling	26 848	21 582	11 311	4 620	8 205	1 212	559	321	74 658
46 Machinery and Motor Vehicle Wholesaling	31 704	25 045	13 823	5 137	7 819	1 555	426	793	86 301
47 Personal and Household Good Wholesaling	33 625	24 357	11 315	6 467	7 379	912	385	400	84 841
Retail Trade	76 012	50 619	35 360	16 031	21 690	3 754	2 058	3 304	208 827
51 Food Retailing	26 899	16 315	11 039	5 098	6 798	1 117	720	860	68 844
52 Personal and Household Good Retailing	26 127	20 001	13 044	6 667	6 758	1 425	879	1 305	76 205
53 Motor Vehicle Retailing and Services	22 986	14 304	11 277	4 266	8 135	1 213	459	1 139	63 778
Accommodation, Cafes and Restaurants	13 516	6 873	7 609	3 170	2 685	1 236	456	645	36 190
Transport and Storage	24 931	18 233	12 526	4 283	6 540	1 725	791	419	69 448
61 Road Transport	8 295	5 671	3 938	1 632	2 203	373	229	122	22 463
62 Rail Transport	np	297	np	np	np	np	np	—	5 389
63 Water Transport	546	1 278	428	139	213	np	65	np	2 733
64 Air and Space Transport	np	np	np	np	np	np	np	np	np
65 Other Transport	424	350	203	135	285	np	np	np	1 557
66 Services to Transport	7 551	6 025	2 548	850	1 639	185	279	143	19 221
67 Storage	np	np	np	np	np	np	np	np	np
Communication Services	14 554	10 745	4 486	2 033	2 158	np	np	762	35 472
Property and Business Services	58 229	36 949	16 484	6 219	11 401	1 220	690	3 393	134 585
77 Property Services	12 339	5 190	4 583	1 257	2 480	268	268	330	26 716
78 Business Services	45 890	31 758	11 901	4 963	8 921	951	422	3 062	107 869
Health Services(c)(d)	9 877	7 314	5 195	2 640	2 727	np	np	573	29 010

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

(b) See paragraph 29 of the Explanatory Notes.

(c) Excludes ANZSIC subdivision 87.

— nil or rounded to zero (including null cells)

(d) See paragraph 28 of the Explanatory Notes.

(a) Excludes ANZSIC subdivision 01.

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Cultural and Recreational Services	10 844	7 759	3 780	1 220	1 563	409	205	160	25 940
91 Motion Picture, Radio and Television Services	5 807	2 276	953	470	np	136	np	62	10 189
92 Libraries, Museums and the Arts	909	461	229	115	np	16	np	19	1 891
93 Sport and Recreation	4 129	5 022	2 598	635	1 019	257	121	79	13 860
Personal Services(a)	3 098	1 962	1 566	667	777	143	80	366	8 659

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

(a) Excludes ANZSIC subdivisions 96 and 97.

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
TOTAL SELECTED INDUSTRIES	409 106	301 915	190 660	83 525	118 991	20 639	9 114	13 219	1 147 178
Selected Goods Producing Industries	90 205	85 543	54 984	28 381	40 760	7 136	2 548	1 331	310 898
Agriculture, Forestry and Fishing(a)(b)	2 120	972	1 621	813	981	633	87	19	7 247
02 Services to Agriculture; Hunting and Trapping	1 500	471	1 113	260	266	32	12	10	3 664
03 Forestry and Logging	438	387	220	184	209	343	np	np	1 795
04 Commercial Fishing	182	114	288	368	506	259	np	np	1 789
Mining	6 023	3 192	8 605	1 681	15 658	np	1 194	np	37 066
11 Coal Mining	4 570	np	4 286	np	397	np	np	—	10 060
12 Oil and Gas Extraction	189	np	np	711	3 621	np	np	—	6 813
13 Metal Ore Mining	486	92	np	np	8 512	624	727	—	14 294
14 Other Mining	582	283	370	120	972	np	127	np	2 504
15 Services to Mining	197	184	387	np	2 157	np	258	np	3 395
Manufacturing	73 996	72 036	38 721	21 668	21 773	4 932	np	np	234 948
21 Food, Beverage and Tobacco Mfg	16 438	14 834	11 997	4 408	4 110	1 296	144	170	53 398
22 Textile, Clothing, Footwear and Leather Mfg	3 303	4 147	923	758	525	181	10	52	9 899
23 Wood and Paper Product Mfg	4 771	4 058	2 252	1 536	925	901	17	162	14 622
24 Printing, Publishing and Recorded Media	6 572	5 466	2 082	869	841	161	44	163	16 207
25 Petroleum, Coal, Chemical and Associated Product Mfg	12 121	11 998	7 055	2 005	5 633	409	264	87	39 573
26 Non-Metallic Mineral Product Mfg	2 992	2 553	2 138	847	1 329	236	90	66	10 251
27 Metal Product Mfg	13 782	8 704	5 640	2 805	4 512	1 096	np	np	36 795
28 Machinery and Equipment Mfg	12 036	17 907	5 306	7 649	2 976	560	112	124	46 669
29 Other Manufacturing	1 981	2 369	1 327	791	922	93	14	38	7 533
Electricity, Gas and Water Supply	8 065	9 343	6 036	4 221	2 347	np	np	np	31 637
36 Electricity and Gas Supply	np	8 113	np	np	np	np	np	np	27 736
37 Water Supply, Sewerage and Drainage Services	np	1 230	np	np	np	—	—	1	3 901
Selected Service Industries	318 901	216 372	135 677	55 144	78 232	13 502	6 566	11 888	836 280
Construction	34 771	19 937	19 336	5 828	9 769	1 075	874	1 526	93 118
41 General Construction	19 837	11 279	11 550	2 768	5 973	509	524	897	53 338
42 Construction Trade Services	14 934	8 659	7 785	3 060	3 796	566	350	629	39 780
Wholesale Trade	89 068	68 958	35 445	15 844	22 916	3 573	1 324	1 476	238 604
45 Basic Material Wholesaling	25 998	20 941	10 863	4 520	8 121	1 176	539	310	72 467
46 Machinery and Motor Vehicle Wholesaling	30 441	24 235	13 391	4 964	7 607	1 490	410	775	83 313
47 Personal and Household Good Wholesaling	32 630	23 783	11 191	6 360	7 188	907	375	390	82 825
Retail Trade	73 932	49 118	34 308	15 538	21 161	3 625	2 022	3 206	202 907
51 Food Retailing	26 219	15 926	10 776	4 978	6 727	1 069	718	828	67 241
52 Personal and Household Good Retailing	25 279	19 317	12 546	6 392	6 507	1 374	851	1 264	73 529
53 Motor Vehicle Retailing and Services	22 433	13 875	10 986	4 168	7 927	1 183	453	1 113	62 137
Accommodation, Cafes and Restaurants	12 671	6 509	7 466	3 037	2 567	1 159	446	607	34 461
Transport and Storage	23 379	17 136	11 573	4 033	6 049	1 610	771	370	64 920
61 Road Transport	7 742	5 222	3 626	1 522	2 003	343	217	110	20 786
62 Rail Transport	np	282	np	np	np	np	np	—	4 907
63 Water Transport	531	1 239	425	132	198	np	64	np	2 643
64 Air and Space Transport	np	np	np	np	np	np	np	np	np
65 Other Transport	295	233	158	108	243	np	np	np	1 168
66 Services to Transport	7 233	5 835	2 387	820	1 573	177	280	130	18 434
67 Storage	np	np	np	np	np	np	np	np	np
Communication Services	13 015	8 261	3 593	1 679	1 742	np	np	608	29 452
Property and Business Services	50 624	31 644	14 659	5 292	9 619	1 089	623	3 103	116 653
77 Property Services	10 608	4 075	3 961	1 034	2 154	226	249	247	22 554
78 Business Services	40 016	27 569	10 698	4 258	7 465	863	374	2 856	94 099
Health Services(c)(d)	8 713	6 494	4 633	2 318	2 402	np	np	510	25 675

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

(b) See paragraph 29 of the Explanatory Notes.

(c) Excludes ANZSIC subdivision 87.

— nil or rounded to zero (including null cells)

(d) See paragraph 28 of the Explanatory Notes.

(a) Excludes ANZSIC subdivision 01.

continued

	<i>NSW</i>	<i>Vic.</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas.</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Cultural and Recreational Services	9 967	6 593	3 300	982	1 344	377	146	149	22 858
91 Motion Picture, Radio and Television Services	5 422	1 778	791	417	np	111	np	58	8 936
92 Libraries, Museums and the Arts	780	409	205	97	np	13	np	16	1 627
93 Sport and Recreation	3 765	4 406	2 303	468	919	253	106	75	12 296
Personal Services(a)	2 759	1 722	1 366	592	664	123	73	333	7 633

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

(a) Excludes ANZSIC subdivisions 96 and 97.

	NSW	Vic.	QLD	SA	WA	Tas.	NT	ACT	Aust
	%	%	%	%	%	%	%	%	%
TOTAL OPERATING INCOME									
Total selected industries	na	na	na	na	na	na	na	na	na
Agriculture, Forestry and Fishing(a)(b)	3	7	3	7	5	6	6	14	2
Mining(c)	na	na	na	na	na	np	na	np	na
Manufacturing(c)	na	na	na	na	na	na	np	np	na
Electricity, Gas and Water Supply(c)	na	na	na	na	na	np	np	np	na
Construction	2	3	4	7	5	9	10	10	2
Wholesale Trade	4	4	4	6	6	16	12	8	2
Retail Trade	3	4	4	6	7	5	11	8	2
Accommodation, Cafes and Restaurants	8	7	11	17	12	46	33	18	5
Transport and Storage	2	2	2	3	5	2	11	4	1
Communication Services	3	3	2	1	1	np	np	—	1
Property and Business Services	2	3	4	9	6	15	19	22	2
Health Services(d)(e)	5	4	5	10	14	np	np	41	4
Cultural and Recreational Services	7	3	4	18	5	20	24	8	3
Personal Services(f)	3	4	4	6	7	8	13	4	3
TOTAL OPERATING EXPENSES									
Total selected industries	na	na	na	na	na	na	na	na	na
Agriculture, Forestry and Fishing(a)(b)	3	6	3	8	4	5	5	13	2
Mining(c)	na	na	na	na	na	np	na	np	na
Manufacturing(c)	na	na	na	na	na	na	np	np	na
Electricity, Gas and Water Supply(c)	na	na	na	na	na	np	np	np	na
Construction	2	4	5	8	5	9	10	10	2
Wholesale Trade	4	4	4	6	6	17	11	8	2
Retail Trade	3	5	4	6	7	6	11	8	2
Accommodation, Cafes and Restaurants	8	7	11	17	13	42	34	18	5
Transport and Storage	2	2	2	3	5	3	11	5	1
Communication Services	3	4	3	3	1	np	np	—	2
Property and Business Services	3	3	4	8	7	14	21	26	2
Health Services(d)(e)	5	5	5	10	13	np	np	50	4
Cultural and Recreational Services	7	3	4	19	5	17	11	9	3
Personal Services(f)	4	5	4	7	7	8	13	4	3
LABOUR COSTS									
Total selected industries	na	na	na	na	na	na	na	na	na
Agriculture, Forestry and Fishing(a)(b)	4	11	5	8	9	6	5	18	2
Mining(c)	na	na	na	na	na	np	na	np	na
Manufacturing(c)	na	na	na	na	na	na	np	np	na
Electricity, Gas and Water Supply(c)	na	na	na	na	na	np	np	np	na
Construction	2	4	5	7	5	14	12	13	2
Wholesale Trade	4	4	5	6	7	17	13	10	2
Retail Trade	3	5	3	8	7	7	8	9	2
Accommodation, Cafes and Restaurants	9	9	9	18	12	39	41	19	6
Transport and Storage	2	2	3	4	4	3	10	4	1
Communication Services	3	4	1	3	1	np	np	—	2
Property and Business Services	3	3	5	9	6	19	9	8	2
Health Services(d)(e)	6	4	4	11	17	np	np	43	3
Cultural and Recreational Services	4	5	6	16	6	19	17	24	3
Personal Services(f)	5	6	6	8	7	9	13	5	4

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) Excludes ANZSIC subdivision 01.

(b) See paragraph 29 of the Explanatory Notes.

(c) It is expected that the RSEs for these industries would be comparable to those for the other industries shown.

(d) Excludes ANZSIC subdivision 87.

(e) See paragraph 28 of the Explanatory Notes.

(f) Excludes ANZSIC subdivisions 96 and 97.

	NSW	Vic.	QLD	SA	WA	Tas.	NT	ACT	Aust
	%	%	%	%	%	%	%	%	%
Total selected industries	na	na	na	na	na	na	na	na	na
Agriculture, Forestry and Fishing(a)(b)	3	7	3	7	5	6	6	14	2
02 Services to Agriculture; Hunting and Trapping	2	12	4	12	10	11	26	23	2
03 Forestry and Logging	9	8	8	15	18	9	np	np	4
04 Commercial Fishing	8	9	4	11	5	9	np	np	3
Mining(c)	na	na	na	na	na	np	na	np	na
11 Coal Mining	..	..	..	..	..	..	..	..	..
12 Oil and Gas Extraction	..	..	..	..	..	..	..	..	..
13 Metal Ore Mining	..	..	..	..	..	..	..	..	..
14 Other Mining	na	na	na	na	na	np	na	np	na
15 Services to Mining	na	na	na	np	na	np	na	np	na
Manufacturing(c)	na	na	na	na	na	na	np	np	na
Electricity, Gas and Water Supply(c)	na	na	na	na	na	np	np	np	na
Construction	2	3	4	7	5	9	10	10	2
41 General Construction	3	5	6	12	6	9	12	13	2
42 Construction Trade Services	3	4	7	8	7	15	15	14	2
Wholesale Trade	4	4	4	6	6	16	12	8	2
45 Basic Material Wholesaling	6	4	5	5	13	11	19	17	4
46 Machinery and Motor Vehicle Wholesaling	9	6	7	7	7	38	18	9	5
47 Personal and Household Good Wholesaling	4	8	7	12	10	6	24	21	4
Retail Trade	3	4	4	6	7	5	11	8	2
51 Food Retailing	4	5	4	10	14	6	28	10	3
52 Personal and Household Good Retailing	3	7	7	10	9	11	9	12	2
53 Motor Vehicle Retailing and Services	6	11	9	7	11	10	9	18	5
Accommodation, Cafes and Restaurants	8	7	11	17	12	46	33	18	5
Transport and Storage	2	2	2	3	5	2	11	4	1
61 Road Transport	5	3	5	5	11	9	4	—	2
62 Rail Transport	np	2	np	np	np	np	np	—	—
63 Water Transport	10	6	6	9	11	np	23	np	5
64 Air and Space Transport	np	np	np	np	np	np	np	np	np
65 Other Transport	3	1	5	3	1	np	np	np	1
66 Services to Transport	4	6	8	9	11	12	25	4	3
67 Storage	np	np	np	np	np	np	np	np	np
Communication Services	3	3	2	1	1	np	np	—	1
Property and Business Services	2	3	4	9	6	15	19	22	2
77 Property Services	4	5	8	11	8	13	46	26	3
78 Business Services	3	3	4	11	8	18	13	24	2
Health Services(d)(e)	5	4	5	10	14	np	np	41	4
Cultural and Recreational Services	7	3	4	18	5	20	24	8	3
91 Motion Picture, Radio and Television Services	12	8	3	44	np	53	np	19	7
92 Libraries, Museums and the Arts	5	4	11	13	np	22	np	12	3
93 Sport and Recreation	5	3	5	11	6	14	4	7	3
Personal Services(f)	3	4	4	6	7	8	13	4	3

na not available

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

.. not applicable

— nil or rounded to zero (including null cells)

(a) Excludes ANZSIC subdivision 01.

(b) See paragraph 29 of the Explanatory Notes.

(c) It is expected that the RSEs for these industries would be comparable to those for the other industries shown.

(d) Excludes ANZSIC subdivision 87.

(e) See paragraph 28 of the Explanatory Notes.

(f) Excludes ANZSIC subdivision 96 and 97.

	NSW	Vic.	QLD	SA	WA	Tas.	NT	ACT	Aust
	%	%	%	%	%	%	%	%	%
Total selected industries	na	na	na	na	na	na	na	na	na
Agriculture, Forestry and Fishing(a)(b)	3	6	3	8	4	5	5	13	2
02 Services to Agriculture; Hunting and Trapping	3	12	4	12	10	10	28	22	2
03 Forestry and Logging	9	7	7	18	11	7	np	np	3
04 Commercial Fishing	8	9	5	12	5	9	np	np	3
Mining(c)	na	na	na	na	na	np	na	np	na
11 Coal Mining	..	..	..	..	..	..	..	..	..
12 Oil and Gas Extraction	..	..	..	..	..	..	..	..	..
13 Metal Ore Mining	..	..	..	..	..	..	..	..	..
14 Other Mining	na	na	na	na	na	na	na	na	na
15 Services to Mining	na	na	na	na	na	na	na	na	na
Manufacturing(c)	na	na	na	na	na	na	np	np	na
Electricity, Gas and Water Supply(c)	na	na	na	na	na	np	np	np	na
Construction	2	4	5	8	5	9	10	10	2
41 General Construction	3	5	5	14	6	9	11	13	2
42 Construction Trade Services	4	5	9	9	8	16	17	15	3
Wholesale Trade	4	4	4	6	6	17	11	8	2
45 Basic Material Wholesaling	6	4	5	5	14	11	19	17	4
46 Machinery and Motor Vehicle Wholesaling	9	6	7	7	7	39	18	9	5
47 Personal and Household Good Wholesaling	4	8	7	13	10	6	23	21	4
Retail Trade	3	5	4	6	7	6	11	8	2
51 Food Retailing	4	5	4	10	14	6	27	10	3
52 Personal and Household Good Retailing	3	8	7	10	9	11	9	11	2
53 Motor Vehicle Retailing and Services	6	11	9	7	11	10	9	18	5
Accommodation, Cafes and Restaurants	8	7	11	17	13	42	34	18	5
Transport and Storage	2	2	2	3	5	3	11	5	1
61 Road Transport	5	3	5	5	11	10	4	12	2
62 Rail Transport	np	3	np	np	np	np	np	—	—
63 Water Transport	10	7	6	10	10	np	23	np	6
64 Air and Space Transport	np	np	np	np	np	np	np	np	np
65 Other Transport	8	2	7	3	1	np	np	np	2
66 Services to Transport	4	6	8	9	12	12	24	4	3
67 Storage	np	np	np	np	np	np	np	np	np
Communication Services	3	4	3	3	1	np	np	—	2
Property and Business Services	3	3	4	8	7	14	21	26	2
77 Property Services	5	5	7	13	8	14	48	19	3
78 Business Services	3	3	4	10	8	18	13	28	2
Health Services(d)(e)	5	5	5	10	13	np	np	50	4
Cultural and Recreational Services	7	3	4	19	5	17	11	9	3
91 Motion Picture, Radio and Television Services	12	8	3	43	np	49	np	20	8
92 Libraries, Museums and the Arts	5	5	11	12	np	25	np	13	3
93 Sport and Recreation	6	3	6	15	6	13	4	7	3
Personal Services(f)	4	5	4	7	7	8	13	4	3

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— nil or rounded to zero (including null cells)

(a) Excludes ANZSIC subdivision 01.

(b) See paragraph 29 of the Explanatory Notes.

(c) It is expected that the RSEs for these industries would be comparable to those for the other industries shown.

(d) Excludes ANZSIC subdivision 87.

(e) See paragraph 28 of the Explanatory Notes.

(f) Excludes ANZSIC subdivision 96 and 97.

EXPLANATORY NOTES

INTRODUCTION

1 The estimates presented in this publication have been derived using a combination of directly collected data from the annual Economic Activity Survey (EAS), conducted by the Australian Bureau of Statistics (ABS), and business income tax data provided to the Australian Taxation Office (ATO). This combined dataset has been matched to a number of ABS direct collections to obtain State dissections.

2 Since 1996–97 the ABS has combined data from the EAS collection and business income tax data provided to the ATO. For information on how the ABS has been using ATO data over recent years to compile economic statistics, refer to the ABS Information Paper *Experimental Estimates: Australian Industry, a State Perspective, 1998–99*, (Cat. no. 8156.0), Appendix 1 — Use of ATO Data in Economic Statistics.

3 Australian level EAS/Tax estimates have been released in the publication *Business Operations and Industry Performance, Australia*, (Cat. no. 8140.0). From March 2001, these estimates were incorporated into the publication *Australian Industry*, (Cat. no. 8155.0), which also contains experimental estimates produced at the ANZSIC class level.

4 The EAS/Tax State level estimates presented in this publication are considered to be experimental and should be used with care. The quality of the estimates is discussed below. In particular, users should be aware that estimates at the ANZSIC subdivision level should be used with caution. Users should refer to the relative standard errors (RSEs) in tables 9, 10 and 11 on pages 20–22. Further work will be undertaken over time to improve the quality and accuracy of the estimates.

5 The estimates presented in this publication are for selected industries, and have been sourced from both employing and non-employing business entities. The estimates supplement the relatively small scale EAS collection conducted by the ABS in respect of the selected industries.

REFERENCE PERIOD

6 The estimates presented in this publication are based, where possible, on a June-end financial year.

7 The EAS estimates are based on details obtained from statements of financial performance and position collected from selected businesses, mainly by mail out questionnaires. For 1999–2000, businesses were asked to provide data in respect of the financial year ended June 2000. In a minority of cases, where businesses did not account on a June-year basis, details were reported in respect of an accounting year which ended between October 1999 and September 2000.

8 The ATO estimates are based on business income tax returns lodged with the ATO for the financial year ended June 2000.

SCOPE AND COVERAGE

9 The scope of the EAS/Tax estimates in this publication consists of all business entities in the Australian economy, except for:

- Finance and Insurance businesses;
- Businesses classified as AGRICULTURE (ANZSIC subdivision 01), EDUCATION, COMMUNITY SERVICE, RELIGIOUS ORGANISATIONS, INTEREST GROUPS (trade unions, industry associations etc.) or PUBLIC ORDER AND SAFETY SERVICES INDUSTRIES; and
- Businesses classified as being in the GENERAL GOVERNMENT sector (note: government-owned Public Trading Enterprises are included).

STATISTICAL UNIT

10 The business unit about which information is collected and published for the EAS collection is termed the management unit. This is the highest level unit within a business for which a set of management accounts is maintained. In most

EXPLANATORY NOTES *continued*

STATISTICAL UNIT *continued*

cases it coincides with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.). However, in the case of large diversified businesses there are often a number of management units, each coinciding with a 'division' or 'line of business'. A division or line of business is recognised where separate and comprehensive accounts are compiled for it.

11 For the ATO, business income tax returns are submitted for legal entities. Management units are generally made up of one or more legal entities, but it is possible for legal entities to be made up of one or more management units.

12 The ABS Business Register provided the population frame from which management units were selected for inclusion in the EAS. It also provided a multi-State indicator which was used as a starting point in the methodology to derive State level estimates from the EAS/Tax data.

13 For non-employing businesses, which are not included on the ABS Business Register, ATO business income tax records were used as the population frame. All non-employing businesses were assumed to operate in a single State.

14 Since the estimates in this publication are the result of combining ABS directly collected data with ATO data, the statistical unit has been referred to as a 'business entity'. As explained in paragraphs 10 and 11 above, the ABS unit and the ATO unit are not always comparable. Therefore, providing a count of the number of business entities is not simply a matter of summing the legal entities in the ABS data and the ATO data. Any legal or other business entities that are not included in ABS or ATO data files (e.g. shelf companies) are not included in the estimates shown in this publication.

15 The 2,097,000 business entities referred to in the diagram on page 4 consists of 1,410,000 non-employing business entities sourced directly from the ATO and 687,000 employing business entities sourced from a combination of ABS and ATO data.

16 Estimates in this publication from the directly collected businesses have been adjusted to allow for lags in the processing of new businesses to the ABS Business Register, and the omission of some businesses from the register.

SAMPLING

17 A sample of approximately 20,000 management units was selected for the directly collected part of the EAS/Tax collection. Stratified random sampling techniques were used. All management units with employment of 200 or more persons were automatically selected in the sample. A further sample of approximately 82,400 employing businesses was selected from the business income tax file to supplement the estimates from the 20,000 directly collected businesses.

18 The EAS/Tax sample was not selected on the basis of State for single State businesses. As a result, an increase in sampling error in some States may have occurred. To some extent, any increase in sampling error will have been offset by the expanded use of business income tax data, which provides an increase in sample size across each State. The sampling error may become more significant at the ANZSIC division and subdivision levels, depending on the number of businesses that each business in the sample represents in that particular State. Refer to Technical Note 2: Limitations of Financial Data Analysis on page 36 and the relative standard error tables 9, 10 and 11 on pages 20 – 22 for further details.

CLASSIFICATION BY INDUSTRY

19 This publication presents industry estimates classified according to the *Australian and New Zealand Standard Industrial Classification, 1993*, (Cat. no.1292.0), commonly known as ANZSIC. Each business unit is classified to a single industry class, even where it operates across more than one State. The

EXPLANATORY NOTES *continued*

CLASSIFICATION BY INDUSTRY *continued*

industry allocated is based on an estimate of the primary activity of the management unit, irrespective of whether the management unit undertakes a single activity or a range of activities. For example, a management unit which derives most of its income from construction activities would have all of its operations included in estimates for the Construction division, even if significant secondary activities (e.g. quarrying) were undertaken by the management unit. This differs from the approach that might be taken to the collection of statistics on an activity basis.

STATE PROPORTIONS

20 Refer to Technical Note 1: Methodology for details on the process used to derive State proportions from EAS/Tax data. Outlined below are some of the assumptions users should be aware of when using the State level estimates presented in this publication.

21 Differences in scope, coverage and business classifications exist between the ABS collections used to obtain State dissection information for businesses. In some instances, State dissections have been based on quarterly rather than annual data due to the unavailability of annual State estimates.

22 Sales-based proportions obtained for each multi-State business have been used to apportion EAS/Tax estimates of Total income, Total expenses and Operating profit before tax (OPBT) data across the States for that business. Similarly, Wages-based proportions have been used to apportion Labour costs across States.

23 ABS collections used to obtain State proportions for multi-State businesses are not always consistent in the wording of the State-based questions. For example, the Wholesale Industry Survey collects estimates of income from the sales of goods and services on the basis of the State or Territory from which the goods were despatched, while the Retail Industry Survey collects estimates of income from the sales of goods and services on the basis of where the final purchase occurred. These different treatments are necessary depending on the industries in scope of each collection. Wherever possible, the State dissections for a particular industry have used the data source best suited to that industry. In some cases employment has been used as a proxy for obtaining State proportions.

24 Due to the nature of their activity, some businesses find it difficult to respond to State-based questions. Examples include businesses in the Communication Services industry, and to a lesser extent the Transport and Storage industry, where the activity of the business is not necessarily confined by State boundaries. Additional effort has been put into assisting businesses in these industries report State dissections and as a result revisions have been made to the 1998–99 estimates.

25 For some businesses, income-based State proportions sourced from one ABS direct collection have been used in conjunction with wages-based State proportions sourced from another direct collection.

26 Significant contributors to each industry were reviewed to check the consistency and reliability in relation to State proportions. The accuracy of State proportions reported by many of these businesses appeared reasonable. In some instances proportions were amended where better information was available.

27 As much State information as possible was collected for each selected business, however, it is recognised that some identified single State businesses may actually operate across more than one State. In most cases, the effect on the

EXPLANATORY NOTES *continued*

- STATE PROPORTIONS *continued* estimates due to this factor is minimal — refer to the diagram on page 33 in Technical Note 1: Methodology.
- ADJUSTMENT **28** The movements between 1998–99 and 1999–2000 were analysed and compared with other data sources. While most unusual discrepancies could be explained as being within the bounds of sampling error, the estimates of proportions of the Australian total between 1998–99 and 1999–2000 for the Health division (ANZSIC division O) showed substantial change. In particular, New South Wales was showing a nine percent increase in its contribution to the Australian total for Health and Queensland showed an eight percent decrease in its contribution to the Australian total. Further analysis of the components to movements indicated that a recent change to the sample design and high rotation contributed to this unusual level of movement. Therefore, in this publication an adjustment has been made which removed these two effects to produce a better estimate of movement which has then been used to recalculate the State contributions to the Australian totals for 1999–2000. The assumption used by this technique is that the 1998–99 estimates are without sampling error. While this is not true the adjustment outcome provides a more coherent State distribution.
- CAUTION **29** Limited editing has been undertaken on estimates for the Agriculture industry data due to the lack of available sources with which to confront the estimates. As a result, the published estimates should be used with extreme caution.
- ROUNDING **30** Where figures have been rounded, discrepancies may occur between the sums of the component items and totals. Published percentages are calculated prior to the rounding of figures and therefore some discrepancy may occur between those percentages and those that could be calculated from rounded figures.
- REVISIONS **31** There are small changes in totals from those in *Australian Industry*, (Cat. no. 8155.0), published in March 2001 due to revisions in estimates. The 1998–99 estimates have also been revised due to improved editing practices and additional information from providers.
- RELATED INFORMATION **32** Users may wish to refer to the following ABS publications and data products:
- National estimates
 - *Business Operations and Industry Performance, Australia, Preliminary, 1999–2000* (Cat. no. 8142.0)
 - *Business Operations and Industry Performance, Australia, 1999–2000* (Cat. no. 8140.0)
 - *Australian Industry, 1999–2000* (Cat. no. 8155.0)
 - *Summaries of Industry Performance, 1999–2000* (Cat. no. 8140.0.40.002)
 - *Industry Concentration Statistics, 1999–2000* (Cat. no. 8140.0.40.001)
 - *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0)
 - *Business Indicators, Australia* (Cat. no. 5629.0)
 - State estimates
 - *Australian National Accounts: State Accounts, 1999–2000* (Cat. no. 5220.0)
 - *Information Paper: Experimental Estimates: Australian Industry, a State Perspective, 1998–99* (Cat. no. 8156.0)

EXPLANATORY NOTES *continued*

RELATED INFORMATION

continued

- *Information Paper: Business Income Tax Data for Regional Statistics Experimental Estimates, Selected Regions, Australia* (Cat. no. 5675.0)
- *Information Paper: Improvements to Australian Bureau of Statistics Quarterly Business Indicators* (Cat. no. 5677.0)
- *Wholesale Industry, Australia, 1998–99* (Cat. no. 8638.0)
- *Retail Industry, Australia, 1998–99* (Cat. no. 8622.0)
- *Electricity, Gas, Water and Sewerage Industries, Australia, 1999–2000* (Cat. no. 8208.0)
- *Manufacturing Industry, Australia, 1999–2000* (Cat. no. 8221.0)
- *Mining Operations, Australia, 1999–2000* (Cat. no. 8415.0)

33 A range of individual service industry publications are also produced by the ABS. In general, these publications contain considerable detail about the employing sector of each industry.

ABBREVIATIONS

ABN	Australian Business Number
ABS	Australian Bureau of Statistics
ANA	Australian National Accounts
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
billion	thousand million
EAS	Economic Activity Survey
EAS/Tax	Economic Activity Survey data supplemented with business income tax data
m	million
n.e.c.	not elsewhere classified
OPBT	Operating profit before tax
PTEs	Public Trading Enterprises
QEAS	Quarterly Economic Activity Survey
RIS	Retail Industry Survey
RSE	Relative standard error
SE	Standard error
TNTS	The New Tax System
WIS	Wholesale Industry Survey

APPENDIX COMPARISON WITH OTHER ABS ESTIMATES

A BRIEF HISTORY

The experimental EAS/Tax State estimates presented in this publication are produced by apportioning the results from the national EAS/Tax estimates across States using proportions obtained from a range of ABS statistical collections.

Australian level EAS/Tax estimates have been compiled using a combination of data from the annual Economic Activity Survey (EAS), conducted by the ABS, and business income tax data provided by the ATO. For details on this methodology please refer to the Technical Note 1: Methodology, on page 31.

A range of ABS collections produce estimates at the State level. However, most ABS collections providing a State dissection cover only part of the economy at a given point in time, e.g. the manufacturing industry. By contrast, the State estimates presented in this publication aim to provide a comprehensive view across a number of industries at the same time, rather than for any one specific industry. To achieve this aim, new approaches (including greater use of business income tax data and utilising data already collected by the ABS) are being used. Given the difference in approach, these methods will result in differences with other State estimates presented by the ABS. To help users understand these differences, this appendix outlines some of the investigations performed in comparing EAS/Tax State estimates with data from other ABS sources and presents likely explanations for the differences.

COMPARISON WITH THE ANNUAL MANUFACTURING SURVEY

Each year the ABS conducts a detailed survey in relation to the Manufacturing industry. Data from this survey for the 1999–2000 reference period was compared to the State EAS/Tax estimates for the Manufacturing industry. The most recent results from the survey are presented in *Manufacturing Industry, Australia, 1999–2000* (Cat. no. 8221.0).

For the 1999–2000 reference period, the Manufacturing survey approached a sample of approximately 17,000 manufacturing establishments, which were asked to provide data on a number of items, such as turnover and wages and salaries.

An establishment is the smallest accounting unit of a business, within a State or Territory, controlling its productive activities and maintaining a specified range of detailed accounting data. Generally, an establishment covers all operations of a business at a physical location, but it may consist of groups of locations provided they are within the same State or Territory. Most establishments operate at one location only.

While the Manufacturing survey collects data at the establishment level, data from the EAS/Tax collection is primarily collected at the management unit level. The management unit is a higher level unit than the establishment, i.e. a management unit may consist of one or more establishments. Each establishment in the Manufacturing survey is allocated to a specific ANZSIC class, as is each management unit in the EAS/Tax collection. A management unit consisting of one establishment will be allocated to the same ANZSIC class as the establishment. However, a management unit consisting of more than one establishment will be allocated to one ANZSIC class only, that being the class of its predominant activity.

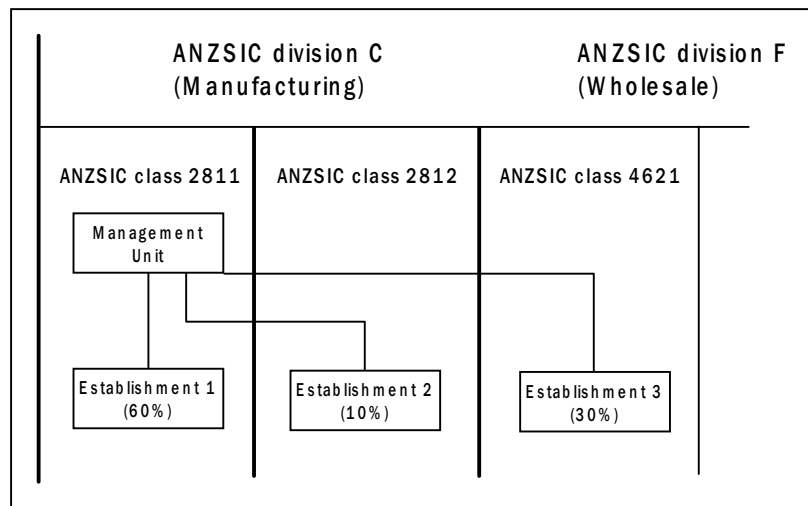
To illustrate this distinction and how it can effect estimates, consider a hypothetical business, comprising one management unit with three establishments; one in ANZSIC class 2811 (Motor vehicle manufacturing), one in class 2812 (Motor vehicle body manufacturing) and one in class 4621 (Car wholesaling).

The management unit derives 60% of its income from motor vehicle manufacturing, 30% from car wholesaling and 10% from the manufacture of

APPENDIX COMPARISON WITH OTHER ABS ESTIMATES *continued*

COMPARISON WITH THE ANNUAL MANUFACTURING SURVEY *continued*

vehicle bodies, so motor vehicle manufacturing is regarded as the predominant activity of the management unit. In the EAS/Tax collection, all of the activity of the business would therefore be regarded as being in ANZSIC class 2811, so the business would be considered to be primarily involved in motor vehicle manufacturing and all of its activity would be included in estimates for the Manufacturing industry. However, in the Manufacturing survey, only the activity of the establishments in ANZSIC classes 2811 and 2812 would contribute to estimates for the Manufacturing industry.



This example illustrates how differences in the type of business units surveyed can lead to differences in the resulting estimates. Estimates compiled from management unit level data for businesses that consist of a number of different establishments, each with different predominant activities, will most likely differ from the equivalent estimates compiled from establishment level data.

The difference in estimates can become more noticeable at finer industry levels, e.g. if the third establishment in the above example was in ANZSIC class 2764 (Metal coating and finishing), all three establishments would be in classes within the Manufacturing division. Estimates from EAS/Tax and the Manufacturing survey for the business would therefore be similar at the ANZSIC division level. However, the estimates would differ at the ANZSIC subdivision level due to the management unit being wholly in subdivision 28, while the establishments would be in subdivisions 27 and 28.

The above examples go some way towards explaining the results of comparisons between State EAS/Tax estimates and the equivalent estimates from the Manufacturing survey. Investigations undertaken for 1999–2000 estimates showed that estimates from the two sources were broadly comparable at the ANZSIC division level and that differences between the two sets of estimates became more noticeable at the subdivision level.

COMPARISON WITH THE QUARTERLY ECONOMIC ACTIVITY SURVEY

Since the March quarter 2001 reference period, the ABS has conducted the Quarterly Economic Activity Survey (QEAS). This comparatively new survey replaces a number of previous similar quarterly business surveys in the ABS' statistical program, most notably the Survey of Inventories, Sales and Services and the Survey of Company Profits. The most recent results from the survey are contained in *Business Indicators, Australia, December quarter 2001* (Cat. no. 5676.0).

APPENDIX COMPARISON WITH OTHER ABS ESTIMATES *continued*

COMPARISON WITH THE QUARTERLY ECONOMIC ACTIVITY SURVEY *continued*

The QEAS collection is conceptually similar to the annual Economic Activity Survey (EAS), in that it collects economic data from businesses across most industries in the Australian economy. Both surveys also collect data at the management unit level. However, there are a number of differences between the two surveys, most notably in timing, scope and sampling methodology.

The most obvious difference between the EAS and QEAS collections is that the former is conducted annually and the latter conducted quarterly. The quarterly nature of QEAS means that for some industries, data for individual quarters is likely to be influenced by seasonal factors. The method used to derive State estimates for EAS/Tax used QEAS proportions from one quarter as one source of State proportions, but any seasonal factors were not taken into account when applying the State proportions from QEAS to the annual EAS/Tax data.

The other major difference between the two collections is related to scope, i.e. the types of businesses that make up the population frame for each collection. The QEAS frame excludes all public sector businesses, i.e. all departments, authorities and other organisations controlled by Commonwealth, State or Local Government. The EAS frame excludes all public sector businesses in the General Government sector, but it includes Public Trading Enterprises (PTEs). PTEs are likely to be significant contributors to EAS/Tax estimates for some industries, particularly Electricity, Gas and Water Supply, Transport and Storage and Communication Services, so estimates for these industries from the two collections are not conceptually consistent.

The survey samples for the two collections are also designed very differently. The State in which each business operates forms part of the sample design for QEAS, but not for EAS. Also, while the QEAS sample consists of approximately 16,000 management units and the EAS sample consists of approximately 20,000 management units, the number of businesses common to the two survey samples is kept to a minimum in order to spread the provider load associated with completing the forms for the two surveys. Some medium-sized and large businesses may have been selected in the samples for both collections, but there should be very few small businesses common to both samples.

When EAS/Tax State level estimates were compared with those from QEAS, it was apparent that the most significant differences were due to scope differences between the two collections, particularly for those industries most likely to include significant PTEs.

COMPARISONS WITH OTHER ABS DATA SOURCES

As well as the comparisons mentioned in this appendix, EAS/Tax State estimates for 1999–2000 were compared with data from the following ABS sources:

- *Australian National Accounts: State Accounts* (Cat. no. 5220.0);
- *Survey of Employment and Earnings (SEE)* (Cat. no. 6428.0);
- *Mining and Utilities survey* (Cat. nos. 8415.0 and 8208.0); and
- the Service Industries surveys

In general, it was found that differences between the EAS/Tax State estimates and those from the other ABS data sources listed above most commonly resulted from differences in one or more of the following: scope, coverage, classifications or reference periods.

TECHNICAL NOTE 1 METHODOLOGY

PRODUCING EAS/TAX ESTIMATES

1 The methodology used to produce the estimates contained in this publication is outlined in the ABS Information Paper: *Experimental Estimates: Australian Industry, a State Perspective, 1998–99* (Cat No. 8156.0). The information contained here is a summarised account of the methodology, aimed at providing users with a broad overview of the techniques used. For additional details, readers should refer to the information paper mentioned above. For details on caveats and cautions that should be considered when using this data, readers should refer to the Explanatory Notes on pages 23 – 27.

2 The estimates in this publication are the result of combining ABS directly collected data with business income tax data sourced from the ATO. The diagram below is a summary of the different data sources used for businesses in producing these estimates.

Summary of Data Sources

	Selected industries			
Type of business	Large businesses	Complex small & medium employing businesses	Simple small & medium employing businesses	Non employing businesses
The source used to identify businesses of each type	ABS Business Register	ABS Business Register	ABS Business Register	ATO income tax files
The number of each type of businesses	1 420	109 585	493 622	1 081 000
The number of businesses that are selected to provide data	1 420	2 240	65 140	1 081 000
Source of data	ABS survey	ABS survey	ATO business income tax returns (a)	ATO business income tax returns
Contribution to total business income for selected industries	44%	18%	33%	5%

(a) Approximately 5,200 of these businesses also receive an EAS survey form.

Source: ABS, *Economic Activity Survey, 1999-2000*; ATO, *Business Income Tax Files, 1999-2000*

Large businesses

3 Information for large employing businesses was sourced from the EAS collection. The two main reasons for this approach were:

- the majority of large employing businesses (management units with 200 or more employees) have more than one legal entity, making it difficult to identify all legal entities for that business on the business income tax files, and;

Large businesses continued

- business income tax data does not include all of the detailed information that the ABS requires from large businesses.

Complex small and medium employing businesses

- 4** Information for complex small and medium employing businesses was also sourced from the EAS collection. There are two main types of businesses that are collectively termed 'complex small and medium employing businesses', and there are difficulties in sourcing business financial data from the business income tax files for these businesses. These businesses are:
- small and medium businesses with more than one legal entity, and;
 - 'tax exempt' businesses such as charities that are not required to complete business income tax returns.

Simple small and medium employing businesses

- 5** Small and medium employing businesses that have simple structures (i.e. management units with one legal entity) had their data sourced from the business income tax files.
- 6** There were 493,622 simple small and medium employing businesses on the ABS Business Register as at June 30, 2000. Of these, a sample of 65,140 businesses was selected to have their data sourced from the business income tax files.

Matching the ATO business income tax files to ABS sources for 'Simple small and medium employing' businesses

- 7** Business entities must be matched to the business income tax files to obtain their business financial data. Given the complex nature of reconciling businesses on the business income tax files with the ABS Business Register, a complete match for all businesses is not possible. However, it is expected that for future years the number of records matched will increase as a result of the introduction of the Australian Business Number (ABN) and its inclusion on both the business income tax files and the ABS Business Register.
- 8** The ABS was able to identify 69% of selected businesses on the business income tax files. There are several reasons why there is not a 100% match rate:
- the ABS uses business income tax files that are generated 12 months after the end of the financial year and;
 - a proportion of businesses that are included on the ABS Business Register would not have traded for the year in question.

9 The sampling and estimation methods used by the ABS take into account selected businesses that are not able to be identified on the business income tax files.

10 For 'matched businesses', the information is extracted from the business income tax files.

Non-employing businesses

11 Data for non-employing businesses was sourced from the business income tax files. The ABS Business Register excludes non-employing businesses, but the business income tax files provides a rich source of data for businesses in the non-employing sector.

12 For non-employing businesses, the ABS used a definition based on reported values for wages and salaries, employee superannuation expenses and size of reported income and expenses. In this process some businesses may be included in both the population of employing businesses and the population of non-employing businesses, while other businesses may be excluded from both populations. Any overlaps or gaps between the two populations are not statistically significant.

13 Estimates for the non-employing sector of the selected industries were produced by aggregating unit record data obtained using the above methodology.

TECHNICAL NOTE 1 METHODOLOGY *continued*

Aggregating estimates

14 Estimates for the whole of the selected industries were produced by adding together the components for each of the business types, i.e. Large businesses, Complex small and medium employing businesses, Simple small and medium employing businesses and Non-employing businesses.

STATE ESTIMATES

15 The methodology for producing State estimates was implemented following the finalisation of EAS/Tax estimates at the Australia level.

16 The methodology separated business entities into two groups;

- those businesses identified as operating in one State or Territory only (single State businesses), and;
- those businesses identified as operating across more than one State or Territory (multi-State businesses).

17 For all employing businesses, a single State/multi-State indicator was obtained from the ABS Business Register. If up-to-date information regarding the State activities of a business was obtained from an ABS direct collection, the indicator information from the ABS Business Register was not used.

18 It was assumed that all non-employing businesses operated in a single State only.

19 The following diagram provides information on the number of businesses and percent of contribution of all single State and multi-State businesses as identified on the ABS Business Register, and after allocation based on information from ABS direct collections.

	MULTI-STATE on ABS Business Register*	SINGLE STATE on ABS Business Register*
STATE PROPORTIONS OBTAINED FROM DATA REPORTED TO AN ABS COLLECTION	<p>Q1- (allocated to multiple states) No of Businesses : 1,994 % contribution to Income : 29.8</p>	<p>Q3- (allocated to multiple states) No of Businesses : 1,018 % contribution to Income : 3.7</p>
NO STATE PROPORTIONS AVAILABLE FROM ABS COLLECTIONS	<p>Q2.1- (allocated to multiple states) Business contacted for an estimate (Total Income > = \$100m) No of Businesses : 77 % contribution to Income : 5.6</p> <hr/> <p>Q2.2- (allocated to a single state) Postcode used to allocate data to a State (Total Income < \$100m) No of Businesses : 645 % contribution to Income : 1.1</p>	<p>Q4.1- (allocated to multiple states) Business contacted for an estimate (Total Income > = \$100m) No of Businesses : 123 % contribution to Income : 4.4</p> <hr/> <p>Q4.2- (allocated to a single state)</p> <p style="text-align: center;">Employing</p> <p>No of Businesses : 63,489 % contribution to Income : 50.3</p> <p style="text-align: center;">Non-employing</p> <p>No of Businesses: 1,081,000 % contribution to Income: 5.1</p>

* Identified using the multi-State indicator on the ABS Business Register

Single State Businesses

20 Non-employing businesses (Q4.2) were allocated to a single State using the mailing address postcode obtained from the business income tax files. A small

*Single State Businesses
continued*

number of non-employing businesses had illegal or missing postcodes . These businesses were allocated across the States on a proportional basis.

21 Employing businesses identified as operating in only one State on the ABS Business Register and where no match was found to an ABS direct collection were divided into two groups (Q4.1 & Q4.2). Those businesses with income of less than \$100m (Q4.2) were allocated to a State using their mailing address postcode on the ABS Business Register and those businesses with income of \$100m or more (Q4.1) were investigated to determine the State/s of operation and to obtain proportions across States. This methodology of contacting large Single State businesses was not employed in the 1998–99 estimates, however, where the same unit existed in 1999–2000 the proportions obtained for the business were applied back to the 1998–99 file.

Multi-State businesses

22 One of the most difficult aspects of the production of State level estimates was the correct treatment of businesses that received income or paid wages in more than one State. In 1999–2000, of the 67,346 employing businesses, 2,716 businesses (Q1, Q2.1 and Q2.2) were identified as multi-State businesses from the ABS Business Register. These businesses contributed 36.5% of the Total operating income estimate at the Australian level.

23 ABS economic collections with similar concepts to the EAS collection ask businesses a variety of State-based questions. In order of relevance, the ABS collections used to obtain State proportions for Sales and Wages for employing businesses were:

- Quarterly Economic Activity Survey (QEAS)
- Retail Industry Survey (RIS);
- Wholesale Industry Survey (WIS);
- Service Industries Survey (SIS);
- Economic Activity Survey (EAS);
- Survey of Business Expectations (BES); and
- Survey of New Capital Expenditure (CAPEX).

*Matching multi-State
businesses to ABS direct
collections*

24 From the EAS/Tax collection, 67,346 employing businesses were matched to the ABS direct collections listed above. If a business matched to more than one direct collection, the source with the highest relevance was used.

25 Of the 2,716 multi-State businesses identified from the ABS Business Register, State dissections for 1,994 businesses (73.0%) were obtained from ABS direct collections. Of these businesses, 1,454 (73.0%) were matched to the QEAS collection, 127 businesses (6.4%) matched to the WIS collection, 112 businesses (5.6%) were matched to the RIS collection and 144 businesses (7.2%) were matched to the EAS collections. The remaining units matched across the other listed collections.

26 Some bias may be present in relation to obtaining State dissections from various ABS collections with different reporting periods, definitions and scope. Please refer to the Explanatory Notes for further information.

27 Of the large multi-State businesses, 90.4% of these units were matched. Those businesses identified as multi-State and single State businesses which did not match to an ABS direct collection were investigated (sometimes involving contact with the business) if the Total operating income of the business was \$100m or more (Q2.1 & Q4.1). Approximately 200 such businesses were contacted, all of which were able to provide a usable State breakdown of their business activity.

TECHNICAL NOTE 1 METHODOLOGY *continued*

*Matching multi-State
businesses to ABS direct
collections continued*

28 Multi-State and single State employing businesses, for which no match was found, with Total income less than \$100m were allocated to the State of their postcode on the ABS Business Register (Q2.2 & Q4.2). There were 64,134 such businesses in this category, contributing 51.4% to the Total operating income estimate for Australia.

29 Sales proportions obtained for each business were used to apportion EAS/Tax Total operating income, Total operating expenses and OPBT data across the States for that business. Similarly, wages proportions were used to apportion Labour costs across the States.

QUALITY ASSURANCE

30 Editing of the significant contributing businesses for Total operating income, Total operating expenses, OPBT and Labour costs was carried out at the State and Industry levels to ensure that data had been apportioned or allocated correctly. In some instances, the State of allocation was changed for single State businesses, or proportions for multi-State businesses were reallocated due to additional information being provided.

TECHNICAL NOTE 2 LIMITATIONS OF DATA ANALYSIS

RELATIVE STANDARD ERROR

- 1** Since the estimates in this publication are based on information obtained from a sample drawn from units in the surveyed population, the estimates are subject to sampling variability. That is, they may differ from the estimates that would have been produced if all units had been included in the survey.
- 2** 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. The relative standard error (RSE) provides an immediate indication of the percentage errors likely to have occurred due to sampling, and thus avoids the need to refer to the size of the estimate. Tables 9, 10 and 11, on pages 20 – 22, provide RSEs for a selection of estimates presented in this publication.
- 3** There are about 2 chances in 3 that the difference between the estimate shown and the true value will be within one SE, and about 19 chances in 20 that the difference will be within two SEs. Thus, for example, if the estimated value of a variable is \$12,000m and its RSE is 5%, its quality in terms of sampling error can be interpreted as follows. There are about 2 chances in 3 that the true value of the variable lies within the range \$11,400m to \$12,600m, and about 19 chances in 20 that it lies within the range \$10,800m and \$13,200m.
- 4** The size of the RSE may be a misleading indicator of the quality of some of the estimates for Operating profit before tax (OPBT). This situation may occur where an estimate may legitimately include positive and negative values reflecting the financial positions of different business entities. In these cases the aggregate estimate can be small relative to the contribution of individual business entities, resulting in a SE which is large relative to the estimate.
- 5** The EAS/Tax sample is not selected on the basis of State and this could have an impact on the size of the sampling error at the State level. To some extent this is offset by the use of business income tax data which increases the sample size, resulting in a broader coverage of units for each State.

NON-SAMPLING ERROR

- 6** The imprecision due to sampling variability, which is measured by the SE, is not to be confused with inaccuracies that may occur because of inadequacies in available sources from which the population frame was compiled, imperfections in reporting by providers, errors made in collection such as in recording and coding data, and errors made in processing data. Inaccuracies of this kind are collectively referred to as non-sampling error and they may occur in any enumeration, whether it be a full count or a sample.
- 7** While it is not possible to quantify non-sampling error, every effort is made to reduce it to a minimum. Collection forms are designed to be easy to complete and assist businesses to report accurately. Efficient and effective operating procedures and systems are used to compile the statistics.
- 8** There are also non-sampling errors associated with the ATO business income tax file. For example, the ATO accounts for non-response in the business income tax file by either bringing forward the previous year's data for a non-responding business, or leaving the data as zero if the business does not have an ATO response history.
- 9** Differences in accounting policy and practices across businesses and industries can also lead to some inconsistencies in the data used to compile the estimates. While much of the accounting process is subject to standards, there remains a great deal of flexibility available to businesses in the accounting policies and practices they adopt.

TECHNICAL NOTE 2 LIMITATIONS OF DATA ANALYSIS *continued*

NON-SAMPLING ERROR *continued*

10 Users should be aware that because direct collection has not been used to apportion EAS/Tax estimates to States, some non-sampling error will result from the techniques used. For full details of the methodology used to allocate estimates to States please refer to the Technical Note 1: Methodology, on page 31.

11 The above limitations are not meant to imply that analysis based on this data should be avoided, only that they should be borne in mind when interpreting the data presented in this publication.

12 This publication presents a wide range of data that can be used to analyse business and industry performance.

13 It is important that any analysis undertaken be based upon a range of data presented rather than focusing on one variable.

GLOSSARY

ANZSIC	The <i>Australian and New Zealand Standard Industrial Classification</i> (Cat. no. 1292.0).
Business Entities	A term used to describe the combination of business units from the Economic Activity Survey and the business units provided by the ATO.
Business Register	A list of businesses maintained by the ABS and used for creating survey frames for ABS business surveys.
Economic Activity Survey (EAS)	An annual business survey conducted by the ABS which is one of the sources of the estimates presented in this publication.
EAS/Tax	Estimates derived by combining (a) data directly collected via the ABS Economic Activity Survey in respect of selected industries with (b) business income tax data provided by the ATO.
Labour costs	Wages and salaries plus employer contributions to superannuation funds plus workers' compensation costs.
Management Unit	The largest type of unit within an enterprise group which controls its productive activities and for which separate accounts are kept.
Multi-State businesses	Those businesses with operations in more than one State or Territory.
Operating profit before tax (OPBT)	A measure of profit before extraordinary items are brought into account and prior to the deduction of income tax and appropriations to owners (e.g. dividends paid). OPBT is broadly defined as follows. Total operating income <i>less</i> Total operating expenses <i>less</i> Opening stocks <i>plus</i> Closing stocks <i>equals</i> OPBT
Profit Margin	The percentage of operating income available as operating profit, i.e. $\frac{\text{OPBT} \times 100}{\text{operating income}}$
Selected industries	Comprises the following industries: SERVICES TO AGRICULTURE; HUNTING AND TRAPPING; FORESTRY AND LOGGING; COMMERCIAL FISHING; MINING; MANUFACTURING; ELECTRICITY, GAS AND WATER SUPPLY; CONSTRUCTION; WHOLESALE TRADE; RETAIL TRADE; ACCOMMODATION, CAFES AND RESTAURANTS; TRANSPORT AND STORAGE; COMMUNICATION SERVICES; PROPERTY AND BUSINESS SERVICES; CULTURAL AND RECREATIONAL SERVICES and selected ANZSIC classes in the HEALTH and PERSONAL SERVICES industries.
Selected goods producing industries	Comprises the following industries: SERVICES TO AGRICULTURE; HUNTING AND TRAPPING; FORESTRY AND LOGGING; COMMERCIAL FISHING; MINING; MANUFACTURING; ELECTRICITY, GAS AND WATER SUPPLY.
Selected service industries	Comprises the following industries: CONSTRUCTION; WHOLESALE TRADE; RETAIL TRADE; ACCOMMODATION, CAFES AND RESTAURANTS; TRANSPORT AND STORAGE; COMMUNICATION SERVICES; PROPERTY AND BUSINESS SERVICES; CULTURAL AND RECREATIONAL SERVICES and selected ANZSIC classes in the HEALTH and PERSONAL SERVICES industries.
Single State businesses	Those businesses with operations in one State or Territory only.
Total operating expenses	The total expenses of a business, excluding extraordinary items.
Total operating income	The total income of a business, excluding extraordinary items.

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