Australian Bureau of Statistics

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MINING OPERATIONS

AUSTRALIA

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CONTENTS

INQUIRIES

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NOTES

ABOUT THIS PUBLICATION

This publication presents estimates, from the annual Economic Activity Survey, of the economic and financial performance of the Australian mining industry for 2005–06, together with data on a comparable basis from 2001–02 and intervening years.

Details of Australia's mining commodities produced shown in Chapter 4 are obtained from the various state and Northern Territory government departments responsible for the collection of these statistics. See Explanatory Notes paragraphs 40–43 for more detail.

CHANGES IN NEXT ISSUE

The data in this publication will be the last released on the basis of the 1993 edition of the *Australian and New Zealand Standard Industrial Classification (ANZSIC)*. Commencing with 2006–07 data, results will be presented on the basis of a new (2006) edition of the ANZSIC.

The 2006–07 issue of this publication will also contain data for 2004–05 and 2005–06 on the basis of the 2006 ANZSIC, as an aid to analysis.

For further details see paragraph 3 of the Explanatory Notes.

REVISIONS

Estimates for earlier years have been revised since the previous issue of this publication. The revisions are incorporated in this publication and in the extended data spreadsheets available free on-line.

The effect of these revisions on the 2004–05 national estimates of key variables for the Mining industry has been an increase of 0.7% (or $464m) in sales and service income, an increase of 1.8% ($136m) in wages and salaries paid, and an increase of 2.9% ($1,141m) in industry value added. Effects may be greater at lower levels of the industry classification and/or for other variables.

INFORMATION AVAILABLE ON-LINE

The text components of this publication are available free on-line. A PDF publication and extended data spreadsheets are also available free on-line.

Other information is also available via the *Mining Statistics* theme page. To access the theme page, go to the ABS web site home page <http://abs.gov.au>. Access the *Themes* page by either opening the *Themes* hotlink from the top menu bar or opening the *Industry* hotlink shown under *Themes*, in the left-side navigator. Then open the *Mining* hotlink shown under *Industry*.

Peter Harper
Acting Australian Statistician

LIST OF TABLES

ABBREVIATIONS

'000	thousand
$b	billion (thousand million) dollars
$m	million dollars
ABARE	Australian Bureau of Agricultural and Resource Economics
ABN	Australian Business Number
ABR	Australian Business Register
ABS	Australian Bureau of Statistics
ABSBR	Australian Bureau of Statistics Business Register
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
Aust.	Australia
BAS	Business Activity Statement
BIT	business income tax
EAS	Economic Activity Survey
EBITDA	earnings before interest, tax, depreciation and amortisation
f.o.b.	free on board
GST	goods and services tax
IVA	industry value added
JPDA	Joint Petroleum Development Area
LNG	liquefied natural gas
n.e.c.	not elsewhere classified
NSW	New South Wales
NT	Northern Territory
OPBT	operating profit before tax
Qld	Queensland
RSE	relative standard error
SA	South Australia
SISCA	Standard Institutional Sector Classification of Australia
Tas.	Tasmania
TAU	type of activity unit
TNTS	The New Tax System
UJV	unincorporated joint venture
Vic.	Victoria
WA	Western Australia

CHAPTER 1 OVERVIEW

INTRODUCTION

This publication presents estimates, from the annual Economic Activity Survey, of the economic and financial performance of the Australian mining industry.

This industry is specified in Division B of the *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, 1993 edition. Please see paragraph 2 of the Explanatory Notes for a full definition.

KEY DATA

Table 1.1 presents a time series for selected variables, from 2001–02 to 2005–06. All value data in this table are shown at current prices.

In each of the four major aggregates presented, the Australian mining industry showed significant growth in 2005–06 when compared to 2004–05. Sales and service income increased by 34% and industry value added by 46%. The industry paid 26% more in wages and salaries than in 2004–05, and its employment rose by 21%. Commentary about these variables is presented in Chapter 2.

For information about survey methodology, see Technical Note 1.

The Glossary provides definitions for terms used.

GROSS VALUE ADDED

Table 1.2 illustrates the growth of Australian industries over time using chain volume measures of their gross value added. Chain volume measures provide estimates free of the direct effects of price change.

Of the seventeen industries shown in table 1.2, Mining ranked fifteenth in its average annual growth rate over the past 10 years and equal fourth over the past 25 years, with increases of 1.7% and 4.1% respectively. By comparison, the highest growth rates were recorded by Communication services, with annualised rates of 6.4% and 7.6% for the 10 year and 25 year periods. In 2005–06, Mining recorded a 2.0% decline in gross value added in chain volume terms. The strongest growth in 2005–06, of 9.6%, was experienced by the Construction industry.

FURTHER COMMENTARY

Please see:

- *Financial operations*: Chapter 2, page 9
- *State/territory summary*: Chapter 3, page 21
- *Commodities produced*: Chapter 4, page 26

1.1 KEY DATA, Mining Industry, 2001–02 to 2005–06

Industry / Reference Year	*Employment at end of June*(a) no.	*Wages and salaries*(b) $m	*Sales and service income*(c) $m	*Industry value added* $m	*Wages and salaries per person employed*(d) $'000	*Wages and salaries to sales and service income* ratio
11 Coal mining						
2001–02	15 661	1 579	14 920	7 550	100.8	0.11
2002–03	18 444	1 910	16 695	8 124	103.6	0.11
2003–04	19 332	1 962	15 355	6 458	101.5	0.13
2004–05	21 568	2 047	20 292	10 346	94.9	0.10
2005–06	25 312	2 692	28 741	16 926	106.4	0.09
12 Oil and gas extraction						
2001–02	7 437	706	17 330	15 123	94.9	0.04
2002–03	7 596	758	17 021	15 293	99.7	0.04
2003–04	7 579	844	15 802	13 746	111.4	0.05
2004–05	8 106	900	17 826	15 006	111.0	0.05
2005–06	9 558	1 034	22 560	19 201	108.1	0.05
1311 Iron ore mining						
2001–02	4 740	410	5 461	4 036	86.5	0.08
2002–03	4 903	499	5 347	3 566	101.7	0.09
2003–04	5 381	519	5 922	3 694	96.4	0.09
2004–05	6 185	585	8 013	4 941	94.6	0.07
2005–06	6 383	635	12 779	8 296	99.5	0.05
1313 Copper ore mining						
2001–02	2 783	215	2 379	1 037	77.2	0.09
2002–03	2 941	215	2 311	809	73.1	0.09
2003–04	4 446	327	2 546	983	73.6	0.13
2004–05	3 185	281	2 385	1 300	88.4	0.12
2005–06	3 829	378	3 797	2 339	98.8	0.10
1314 Gold ore mining						
2001–02	9 470	566	4 893	1 716	59.8	0.12
2002–03	9 166	667	5 823	2 601	72.8	0.11
2003–04	9 220	663	5 073	2 002	71.9	0.13
2004–05	9 711	696	5 151	1 111	71.6	0.14
2005–06	10 441	866	5 568	1 982	82.9	0.16
1315 Mineral sand mining						
2001–02	1 855	107	881	400	57.8	0.12
2002–03	1 723	106	979	381	61.5	0.11
2003–04	1 699	107	941	336	62.8	0.11
2004–05	1 915	141	861	476	73.8	0.16
2005–06	2 234	168	950	441	75.0	0.18
1317 Silver-lead-zinc ore mining						
2001–02	1 694	249	1 700	346	147.3	0.15
2002–03	1 771	216	1 776	668	122.0	0.12
2003–04	2 077	190	1 987	950	91.4	0.10
2004–05	3 521	280	2 891	1 288	79.5	0.10
2005–06	3 182	275	^ 3 923	^ 2 463	86.4	0.07
1312, 1316 and 1319 Bauxite mining, nickel ore mining and metal ore mining n.e.c.						
2001–02	3 207	265	2 502	1 292	82.6	0.11
2002–03	3 414	238	2 679	1 431	69.7	0.09
2003–04	3 719	259	3 333	1 934	69.6	0.08
2004–05	4 091	329	4 139	2 227	80.5	0.08
2005–06	5 256	443	4 904	2 815	84.4	0.09

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.

(d) See Explanatory Notes paragraph 24.

1.1 KEY DATA, Mining Industry, 2001–02 to 2005–06 *continued*

Industry / Reference Year	Employment at end of June(a) no.	Wages and salaries(b) $m	Sales and service income(c) $m	Industry value added $m	Wages and salaries per person employed(d) $'000	Wages and salaries to sales and service income ratio
13 Total metal ore mining						
2001–02	23 749	1 813	17 817	8 827	76.3	0.10
2002–03	23 918	1 942	18 916	9 456	81.2	0.10
2003–04	26 543	2 064	19 803	9 900	77.8	0.10
2004–05	28 608	2 313	23 440	11 342	80.8	0.10
2005–06	31 325	2 765	31 922	18 337	88.3	0.09
11–13 Total coal mining, oil and gas extraction and metal ore mining						
2001–02	46 847	4 098	50 067	31 500	87.5	0.08
2002–03	49 958	4 610	52 632	32 873	92.3	0.09
2003–04	53 454	4 870	50 960	30 104	91.1	0.10
2004–05	58 282	5 260	61 558	36 693	90.2	0.09
2005–06	66 196	6 491	83 222	54 464	98.1	0.08
14 Other mining						
2001–02	**10 859	**467	**3 285	**1 528	43.0	0.14
2002–03	11 077	493	3 794	1 784	44.5	0.13
2003–04	10 805	563	4 008	1 996	52.1	0.14
2004–05	10 844	573	3 774	1 571	52.9	0.15
2005–06	11 614	644	^ 4 512	2 079	55.5	0.14
15 Services to mining						
2001–02	**25 169	**1 530	**6 252	**2 336	60.8	0.24
2002–03	22 682	1 504	6 368	2 363	66.3	0.24
2003–04	22 703	1 598	6 132	2 659	70.4	0.26
2004–05	23 742	1 755	6 178	2 822	73.9	0.28
2005–06	34 478	2 456	8 328	^ 3 632	71.2	0.29
11–15 Total mining						
2001–02	^ 82 875	^ 6 094	59 604	35 364	73.5	0.10
2002–03	83 717	6 607	62 794	37 021	78.9	0.11
2003–04	86 963	7 031	61 099	34 759	80.9	0.12
2004–05	92 868	7 588	71 510	41 086	81.7	0.11
2005–06	112 288	9 590	96 063	60 175	85.4	0.10

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

(a) Includes working proprietors.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.

(d) See Explanatory Notes paragraph 24.

1.2 PRODUCTION VOLUMES(a), Gross value added, 2004–05 and 2005–06

	CHAIN VOLUME MEASURES		*Change from 2004–05 to 2005–06*	AVERAGE ANNUAL CHANGE OVER LAST	
	2004–05	*2005–06*		*10 years*	*25 years*
Industry	$m	$m	%	%	%
Agriculture, forestry and fishing	27 153	28 428	4.7	3.3	3.1
Mining	***46 152***	***45 235***	***–2.0***	***1.7***	***4.1***
Manufacturing	96 366	96 007	–0.4	1.5	1.4
Electricity, gas and water	20 147	20 321	0.9	1.1	2.4
Construction	56 940	62 405	9.6	6.0	3.4
Wholesale trade	43 625	45 049	3.3	3.8	3.0
Retail trade	52 720	53 245	1.0	4.0	3.2
Accommodation, cafes and restaurants	19 608	20 204	3.0	4.4	3.6
Transport and storage	40 966	41 888	2.3	3.9	3.6
Communication services	23 588	25 534	8.2	6.4	7.6
Finance and insurance	62 299	65 323	4.9	4.0	4.5
Property and business services	104 773	108 434	3.5	5.1	5.1
Government administration and defence	34 394	35 125	2.1	2.3	2.6
Education	37 891	38 556	1.8	2.0	2.4
Health and community services	53 197	55 455	4.2	4.1	4.1
Cultural and recreational services	13 132	13 619	3.7	4.0	3.6
Personal and other services	16 743	17 594	5.1	3.5	3.2
Total all industries	**749 694**	**772 422**	**3.0**	**3.5**	**3.3**

(a) Reference year for chain volume measures is 2004–05.

Note: The volume estimates contained in this table are derived from quarterly business surveys.

Source: Australian National Accounts: National Income, Expenditure and Product, June Quarter 2007 (cat. no. 5206.0), table 45.

CHAPTER 2 FINANCIAL OPERATIONS

INTRODUCTION

Statistics in this Chapter relate to all subdivisions of the mining industry as defined in the *Australian and New Zealand Standard Industrial Classification (ANZSIC)*, 1993 edition. The data presented include all activities of mining businesses, some of which may be activities other than mining. Explanatory Notes paragraphs 6–21 provide further details. The commentary refers mainly to the tables in this chapter, as well as to the employment data presented in table 1.1.

MARKET CONDITIONS

Average prices for most mineral commodities increased significantly in 2005–06 compared to the previous year, largely the result of strong global demand driven in part by the continuing strong economic growth of China. Reserve Bank of Australia data shows a 35% increase in its US dollar non-rural commodity price index for 2005–06. In Australian dollar terms this translated to a 36% increase, reflecting a 1% depreciation in the Australian dollar.

As reported in ABARE's *Australian Mineral Statistics*, export earnings for most minerals increased in 2005–06, due principally to the rise in commodity prices. On average the export unit returns for total mineral resources were 32% higher than in 2004–05. At the same time, the volume of mine production indexes show production of total minerals to have decreased by 0.5%.

Export earnings for black coal rose by 42% to $24.2b in 2005–06. The average Australian dollar export price for coking coal increased by 64%, offset by a drop of 4% in export volumes. The average price for steaming coal increased more moderately, by 9%, with export volumes rising by 4%. Production of black saleable coal was less than 1% higher than the previous year.

Iron ore export earnings were $12.8b, an increase of 58%. The volume of iron ore exported increased by 5%, in line with a 5% increase in production. The average export unit value of iron ore rose by 51%, reflecting the effect of a 72% increase in contract prices negotiated in the latter half of 2004–05. A further increase of 19% was agreed by major steel producers in May/June 2006.

The world trade weighted average price of crude oil in 2005–06 was A$76.80 per barrel, an increase of 40% over 2004–05. The effect of this increase was eroded by a 15% decline in production, mainly attributed to the natural depletion of mature fields. Export earnings for liquefied natural gas (LNG) were at record levels in 2005–06, increasing by 38% to $4.4b. Export volumes of LNG also reached their highest level at 12.5Mt. In previous years LNG production was solely from the North West Shelf (Western Australia), but in February 2006 production from the Bayu-Undan fields commenced when the LNG plant in Darwin (Northern Territory) began operating.

Higher average US dollar prices for copper (up 61%) and zinc (up 81%) contributed to significant increases in export earnings for these commodities.

MARKET CONDITIONS *continued*

A number of large mining businesses report in the Economic Activity Survey for financial years ending on dates other than 30 June. For this reason, these changes in market conditions may not be directly reflected in the data of financial and economic performance. See Explanatory Notes paragraphs 22 and 23, where the contribution of such businesses is quantified.

SALES AND SERVICE INCOME

Sales and service income for total mining was $96.1b in 2005–06, an increase of $24.6b (34%) over the previous year. All mining industries presented increased their sales and service income in 2005–06. Sales and service income for the 'core' mining industries of Coal mining, Oil and gas extraction, and Metal ore mining increased by $21.7b (35%) to $83.2b.

The largest contributor to sales and service income was Coal mining, at $28.7b. This was an increase of $8.4b (or 42%). According to ABARE, the average export unit value of coking coal rose by 64% to A$141.13 in 2005–06, while steaming coal rose by 9% to A$65.02. Prices were not as favourable for businesses reporting for the year ended 31 December 2005 (see Explanatory Notes paragraphs 22 and 23 for more details), when the price of coking coal was on average 16% lower, and steaming coal 2% lower, than in 2005–06.

Sales and service income for the Oil and gas extraction industry increased by $4.7b (27%) to $22.6b, despite declining crude oil production. In Australian dollar terms the world trade weighted average price of crude oil increased by 40% in 2005–06 to A$76.80 per barrel. Businesses reporting for the 2005 calendar year experienced a similar increase in crude oil prices (39%). However, the average price of A$65.24 during this period was 15% lower than in the financial year ended June 2006.

Continuing a pattern first established in 2004–05, Coal mining's sales and service income exceeded that of Oil and gas extraction.

Iron ore mining and Copper ore mining recorded the largest percentage increases (59%) in sales and service income. In absolute terms this equated to a $4.8b increase in Iron ore mining and a $1.4b increase in Copper ore mining. ABARE reported the average Australian dollar export price of iron ore increased by 51% in 2005–06, coupled with a 5% increase in export volumes. The average US dollar price of copper rose by 61%.

INDUSTRY VALUE ADDED

In 2005–06, national production of the mining industry as measured by IVA increased by $19.1b (46%) to $60.2b. Coal mining was the largest source of the increase, its IVA rising by $6.6b (64%). IVA of Oil and gas extraction increased by $4.2b (from $15.0b, up 28%), and by $3.4b (up 68%) in Iron ore mining. The only mining industry shown in which IVA decreased in 2005–06 was Mineral sand mining (down 7% to $0.4b).

Contributing 32% (or $19.2b) in 2005–06, the Oil and gas extraction industry continues to be the most significant source of IVA in Mining. Its share has declined from 37% in 2004–05.

In terms of IVA components, the main source of the increase in IVA for Total mining was the $24.6b (34%) increase in sales and service income mentioned above. In contrast purchases of goods and materials and other intermediate expenses increased only $5.5b(or 17%). Purchases of goods and materials rose by $1.7b (19%). The increase in

INDUSTRY VALUE ADDED *continued*

other intermediate input expenses of $3.8b reflected principally increases of $1.1b (23%) in contract mining expenses and $2.1b (20%) in other selected expenses.

EMPLOYMENT

Employment in the Australian mining industry at the end of June 2006 was estimated at 112,300 persons, an increase of 21% (or 19,400 persons) compared to the estimate for June 2005. The major sources of this increase were Services to mining (up by 10,700 persons), Coal mining (by 3,700 persons) and Metal ore mining (by 2,700 persons). Employment increased in all constituent industries for which data are shown, except for Silver-lead-zinc ore mining. Employment in the 'core' mining industries of Coal mining, Oil and gas extraction and Metal ore mining increased by 14% overall.

At the industry subdivision level, 23% of mining employment at the end of June 2006 was in Coal mining, 9% in Oil and gas extraction, 28% in Metal ore mining, 10% in Other mining, and 31% in Services to mining. Compared to previous years, the proportion contributed by Services to mining increased and those of Metal ore mining and Other mining declined.

Employment in Coal mining grew by 9,700 persons (or 62%) between June 2002 and June 2006, and in Metal ore mining by 7,600 persons (up 32%). Over this period the largest percentage increase in employment was in Silver-lead-zinc ore mining, where employment rose by 88% (or 1,500 persons).

LABOUR COSTS

The Australian mining industry paid $9.6b in wages and salaries in 2005–06, an increase of 26% (or $2.0b) on the previous year. Apart from Silver-lead-zinc ore mining, in which wages and salaries declined slightly, all industries for which data are shown incurred higher wages and salaries costs than in 2004–05. The 'core' mining industries of Coal mining, Oil and gas extraction and Metal ore mining recorded a 23% ($1.2b) increase in wages and salaries overall.

In percentage terms, the largest increases in wages and salaries occurred in Services to mining (up 40%), Copper ore mining and Other metal ore mining (35% each) and Coal mining (up 32%).

At the industry subdivision level, 28% of the value of wages and salaries for total mining in 2005–06 were paid in Coal mining, 11% in Oil and gas extraction, 29% in Metal ore mining, 7% in Other mining, and 26% in Services to mining.

The estimate of wages and salaries per person employed increased to $85,400 in 2005–06, up from $81,700 in 2004–05.

It should be noted that employment is measured at a point in time, i.e. end of June, whereas wages and salaries relate to a twelve month period. In times of significant change in the performance of an industry, as is the case in Mining in 2005–06, changes in wages and salaries may not be as great as changes in employment. This will be exacerbated by the effect of those businesses (refer paragraphs 22 and 23 of the Explanatory Notes) that report on a December year end. Their employment will be reported as at June 2006, whereas wages and salaries will be in respect of the twelve months ended December 2005.

LABOUR COSTS *continued*

In 2005–06 selected labour costs for total mining were $10.7b, 77% more than contract mining expenses ($6.0b). Contract mining expenses exceeded selected labour costs in IRON ORE MINING (by 45%) and OTHER METAL ORE MINING (by 21%). For the mining industry, about 90% of the value of selected labour costs is represented by wages and salaries. The value of employer contributions to superannuation rose by 23% in 2005–06, to $846m.

PROFITABILITY AND EARNINGS

At the total mining level, indicators of profitability showed similarly strong increases (in percentage terms) to the increase in IVA. This reflects the extent to which prices received rose by more than expenses. Earnings before interest, tax, depreciation and amortisation (EBITDA) increased in 2005–06 by 57%, or $14.9b, the largest increases in dollar terms having occurred in COAL MINING (up $5.3b, or 79%), OIL AND GAS EXTRACTION (up $3.5b, or 32%), and IRON ORE MINING (up $3.0b, or 82%). In COPPER ORE MINING, EBITDA more than doubled (to $1.8b).

In terms of operating profit before tax (OPBT), the mining industry improved its returns by 59% (or $12.4b) during 2005–06, earning $33.4b. Total trading profit for the mining industry in 2005–06 was $57.1b, an increase of $18.4b (48%) over the previous year.

CAPITAL EXPENDITURE

Net capital expenditure by the mining industry in 2005–06 was $20.9b, which was 45% ($6.5b) higher than the previous year. The largest absolute increase (of $2.6b, or 89%) occurred in COAL MINING, followed by OIL AND GAS EXTRACTION (up $1.8b, or 37%) and IRON ORE MINING (up $1.2b, or 69%). All mining industries shown increased their capital expenditure, apart from GOLD ORE MINING (where it was reduced by 36%, or $675m) and OTHER MINING (down 4%, or $16m).

Outlays on all categories of assets increased, as did disposals of assets (by 26%).

INDUSTRY PERFORMANCE MEASURES

A range of performance measures, mainly expressed as ratios, can be produced from the data available from businesses' financial statements. A selection of these are presented in this Chapter for the various mining industries. Information about the uses and limitations of these measures can be found in Explanatory Notes paragraphs 27–32.

Performance ratios

The following summarises the mining industry's performance ratios for 2005–06, which appear in detail in table 2.2:

- The highest profit margins were recorded by IRON ORE MINING (57%) and OIL AND GAS EXTRACTION (52%). GOLD ORE MINING improved slightly on 2004–05, but remained the industry with the lowest profit margin in 2005–06 (-15%).
- The interest coverage ratios of most of the industries presented improved between 2004–05 and 2005–06, the exceptions being OIL AND GAS EXTRACTION, MINERAL SAND MINING, OTHER METAL ORE MINING and SERVICES TO MINING.
- The highest value of IVA to selected labour costs occurred in the OIL AND GAS EXTRACTION industry, where IVA exceeded selected labour costs by 16.9 times. The next highest value (11.8 times) occurred in IRON ORE MINING. The SERVICES TO MINING industry shows the lowest value (1.3 times) for this ratio.
- Of all mining industries shown, OIL AND GAS EXTRACTION (at $119,100) recorded the highest selected labour costs per person employed, despite having declined by 4% from 2004-05. This was followed by COAL MINING ($118,800, an increase of 10%). For total mining, the estimate was stable.

Performance ratios continued

- MINERAL SAND MINING was the only mining industry in which acquisition of assets exceeded IVA, resulting in an investment rate (value added) of 101.0% in 2005–06, with GOLD ORE MINING recording the next highest value (63.3%).

2.1 SUMMARY, Financial performance and capital expenditure, 2004–05 and 2005–06

Industry / Reference year	Trading profit $m	Earnings before interest, tax, depreciation and amortisation $m	Operating profit before tax $m	Acquisitions $m	Net capital expenditure $m
11 Coal mining					
2004–05	9 851	6 675	5 203	3 161	2 974
2005–06	16 316	11 937	9 998	5 967	5 620
12 Oil and gas extraction					
2004–05	14 317	10 916	9 368	5 502	4 679
2005–06	18 492	14 463	12 032	7 530	6 429
1311 Iron ore mining					
2004–05	4 742	3 689	3 727	1 763	1 713
2005–06	8 107	6 728	7 322	2 975	2 887
1313 Copper ore mining					
2004–05	1 224	851	515	415	387
2005–06	2 246	1 751	1 203	497	477
1314 Gold ore mining					
2004–05	784	–53	^ –790	2 057	1 874
2005–06	1 613	601	^ –821	1 254	1 199
1315 Mineral sand mining					
2004–05	458	267	188	157	149
2005–06	418	200	109	446	413
1317 Silver-lead-zinc ore mining					
2004–05	1 211	856	562	333	329
2005–06	^ 2 403	1 980	^ 1 626	662	657
1312, 1316 and 1319 Bauxite mining, nickel ore mining and metal ore mining n.e.c.					
2004–05	2 122	1 560	1 555	884	833
2005–06	2 504	1 781	*1 062	1 237	1 221
13 Total metal ore mining					
2004–05	10 540	7 171	5 757	5 609	5 285
2005–06	17 291	13 041	10 501	7 071	6 853
11–13 Total coal mining, oil and gas extraction and metal ore mining					
2004–05	34 707	24 762	20 328	14 272	12 937
2005–06	52 099	39 441	32 531	20 567	18 901
14 Other mining					
2004–05	1 474	712	*472	506	457
2005–06	1 941	1 119	^ 757	472	441
15 Services to mining					
2004–05	2 525	641	**263	1 233	1 027
2005–06	^ 3 100	448	**148	1 844	1 532
11–15 Total mining					
2004–05	38 706	26 116	21 063	16 010	14 422
2005–06	57 139	41 009	33 436	22 884	20 874

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

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

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

2.2 FINANCIAL PERFORMANCE, 2004–05 and 2005–06

		COAL MINING		OIL AND GAS EXTRACTION		IRON ORE MINING		COPPER ORE MINING	
		04–05	*05–06*	*04–05*	*05–06*	*04–05*	*05–06*	*04–05*	*05–06*
Income									
Sales and service income(a)	$m	20 292	28 741	17 826	22 560	8 013	12 779	2 385	3 797
Funding from government									
Energy grants credits	$m	285	308	7	15	64	81	20	18
Other operational costs	$m	—	4	—	—	1	1	—	—
Interest income	$m	89	165	223	347	670	1 225	5	7
Other income	$m	821	682	1 910	1 421	170	332	135	65
Total income	$m	*21 487*	*29 899*	*19 967*	*24 344*	*8 919*	*14 418*	*2 545*	*3 887*
Expenses									
Wages and salaries(b)	$m	2 047	2 692	900	1 034	585	635	281	378
Employer contributions to superannuation	$m	180	223	104	100	53	64	31	30
Workers' compensation premiums/costs	$m	98	91	4	5	3	5	7	10
Selected labour costs	$m	*2 325*	*3 007*	*1 009*	*1 139*	*641*	*704*	*320*	*418*
Purchases of goods and materials	$m	3 191	3 298	573	^ 629	699	1 123	410	528
Rent, leasing and hiring expenses	$m	235	309	273	279	65	56	24	34
Freight and cartage expenses	$m	1 706	1 738	211	265	327	476	32	24
Motor vehicle running expenses	$m	25	40	7	9	22	13	3	5
Repair and maintenance expenses	$m	1 031	1 156	169	110	211	212	140	159
Contract mining expenses	$m	1 767	2 366	209	144	845	1 022	136	154
Other contract, subcontract and commission expenses	$m	767	844	321	394	588	617	135	240
Other selected expenses	$m	2 357	3 117	1 826	2 333	585	1 401	422	493
Purchases and selected expenses	$m	*11 079*	*12 869*	*3 588*	*4 163*	*3 343*	*4 921*	*1 302*	*1 639*
Depreciation and amortisation	$m	1 466	1 828	3 041	3 264	605	662	363	542
Interest expenses	$m	916	958	640	935	198	301	114	78
Insurance premiums	$m	132	138	127	133	36	38	35	25
Natural resource royalties expenses	$m	1 006	1 617	2 434	2 860	450	719	60	99
Bad and doubtful debts	$m	**7	^ —	1	70	—	1	—	—
Less									
Capitalised purchases	$m	300	**24	33	1	17	10	66	86
Capitalised wages and salaries	$m	9	**71	163	157	10	—	22	31
Total expenses	$m	*16 621*	*20 322*	*10 645*	*12 405*	*5 246*	*7 335*	*2 105*	*2 685*
Opening inventories	$m	913	1 310	479	526	468	408	388	544
Closing inventories	$m	1 250	1 731	525	620	522	647	464	545
Cost of sales	$m	10 441	12 425	3 509	4 068	3 272	4 672	1 161	1 551
Trading profit	$m	9 851	16 316	14 317	18 492	4 742	8 107	1 224	2 246
Earnings before interest, tax, depreciation and amortisation	$m	6 675	11 937	10 916	14 463	3 689	6 728	851	1 751
Operating profit before tax	$m	5 203	9 998	9 368	12 032	3 727	7 322	515	1 203
Industry ratios									
Profit margin	%	25.6	34.8	52.6	53.3	46.5	57.3	21.6	31.7
Interest coverage	times	7.3	12.5	17.1	15.5	18.6	22.4	7.5	22.5
Investment rate (value added)	%	30.6	35.3	36.7	39.2	35.7	35.9	31.9	21.2
Industry value added to selected labour costs	times	4.5	5.6	14.9	16.9	7.7	11.8	4.1	5.6
Selected labour costs per person employed	$'000	107.8	118.8	124.5	119.1	103.7	110.2	100.5	109.2

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

— nil or rounded to zero (including null cells)

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.2 FINANCIAL PERFORMANCE, 2004–05 and 2005–06 *continued*

		GOLD ORE MINING		MINERAL SAND MINING		SILVER-LEAD-ZINC ORE MINING	
		04–05	*05–06*	*04–05*	*05–06*	*04–05*	*05–06*
Income							
Sales and service income(a)	$m	5 151	5 568	861	950	2 891	^ 3 923
Funding from government							
Energy grants credits	$m	90	109	1	3	32	22
Other operational costs	$m	—	—	—	—	—	—
Interest income	$m	^ 52	^ 59	7	12	11	^ 14
Other income	$m	^ 545	**–322	90	58	6	15
Total income	$m	*5 838*	*5 414*	*959*	*1 023*	*2 940*	*3 974*
Expenses							
Wages and salaries(b)	$m	696	866	141	168	280	275
Employer contributions to superannuation	$m	59	80	15	20	24	27
Workers' compensation premiums/costs	$m	11	^ 8	1	2	6	11
Selected labour costs	$m	*766*	*954*	*157*	*189*	*310*	*312*
Purchases of goods and materials	$m	1 092	1 234	218	195	555	553
Rent, leasing and hiring expenses	$m	95	70	9	11	23	58
Freight and cartage expenses	$m	96	81	34	42	168	106
Motor vehicle running expenses	$m	24	39	2	2	3	13
Repair and maintenance expenses	$m	101	138	17	22	128	^ 86
Contract mining expenses	$m	787	892	129	32	157	146
Other contract, subcontract and commission expenses	$m	261	239	7	109	137	^ 135
Other selected expenses	$m	2 187	1 356	63	64	578	534
Purchases and selected expenses	$m	*4 643*	*4 049*	*479*	*478*	*1 750*	*1 632*
Depreciation and amortisation	$m	848	966	149	129	297	^ 357
Interest expenses	$m	485	194	27	32	13	25
Insurance premiums	$m	35	20	6	8	12	15
Natural resource royalties expenses	$m	148	178	32	32	68	^ 121
Bad and doubtful debts	$m	**1	**—	—	—	—	2
Less							
Capitalised purchases	$m	187	*125	35	34	62	^ 76
Capitalised wages and salaries	$m	23	*32	3	9	4	4
Total expenses	$m	*6 717*	*6 205*	*812*	*825*	*2 384*	*2 384*
Opening inventories	$m	411	568	177	206	162	155
Closing inventories	$m	500	537	218	117	169	191
Cost of sales	$m	4 367	3 955	403	533	1 681	1 520
Trading profit	$m	784	1 613	458	418	1 211	^ 2 403
Earnings before interest, tax, depreciation and amortisation	$m	–53	601	267	200	856	1 980
Operating profit before tax	$m	^ –790	^ –821	188	109	562	^ 1 626
Industry ratios							
Profit margin	%	–15.3	–14.7	21.8	11.5	19.4	41.5
Interest coverage	times	–0.1	3.1	10.0	6.2	64.3	78.5
Investment rate (value added)	%	185.2	63.3	33.1	101.0	25.8	26.9
Industry value added to selected labour costs	times	1.5	2.1	3.0	2.3	4.2	7.9
Selected labour costs per person employed	$'000	78.9	91.3	82.2	84.7	88.1	98.2

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— nil or rounded to zero (including null cells)

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.2 FINANCIAL PERFORMANCE, 2004–05 and 2005–06 *continued*

		OTHER(a)		TOTAL METAL ORE MINING		TOTAL COAL MINING, OIL AND GAS EXTRACTION AND METAL ORE MINING	
		04–05	*05–06*	*04–05*	*05–06*	*04–05*	*05–06*
Income							
Sales and service income(b)	$m	4 139	4 904	23 440	31 922	61 558	83 222
Funding from government							
Energy grants credits	$m	35	36	242	269	534	592
Other operational costs	$m	—	—	1	1	2	5
Interest income	$m	25	46	770	1 363	1 082	1 874
Other income	$m	429	*–109	1 375	^ 39	4 106	2 142
Total income	$m	*4 628*	*4 878*	*25 828*	*33 594*	*67 282*	*87 836*
Expenses							
Wages and salaries(c)	$m	329	443	2 313	2 765	5 260	6 491
Employer contributions to superannuation	$m	40	46	222	267	507	591
Workers' compensation premiums/costs	$m	7	5	36	40	137	136
Selected labour costs	$m	*376*	*495*	*2 571*	*3 073*	*5 904*	*7 218*
Purchases of goods and materials	$m	823	977	3 798	4 610	7 562	8 537
Rent, leasing and hiring expenses	$m	29	45	246	275	753	864
Freight and cartage expenses	$m	77	111	735	840	2 652	2 843
Motor vehicle running expenses	$m	5	9	59	82	91	131
Repair and maintenance expenses	$m	117	134	714	752	1 914	2 018
Contract mining expenses	$m	451	601	2 505	2 848	4 481	5 358
Other contract, subcontract and commission expenses	$m	125	73	1 254	1 413	2 342	2 651
Other selected expenses	$m	565	594	4 400	4 442	8 583	9 893
Purchases and selected expenses	$m	*2 194*	*2 544*	*13 711*	*15 262*	*28 378*	*32 295*
Depreciation and amortisation	$m	412	^ 493	2 673	3 149	7 180	8 241
Interest expenses	$m	48	163	885	793	2 441	2 686
Insurance premiums	$m	27	33	150	140	410	410
Natural resource royalties expenses	$m	202	239	960	1 389	4 400	5 866
Bad and doubtful debts	$m	1	—	**3	3	*11	73
Less							
Capitalised purchases	$m	89	19	455	350	789	376
Capitalised wages and salaries	$m	10	7	72	84	244	^ 313
Total expenses	$m	*3 162*	*3 940*	*20 426*	*23 374*	*47 692*	*56 101*
Opening inventories	$m	421	608	2 026	2 489	3 418	4 325
Closing inventories	$m	509	733	2 381	2 770	4 157	5 121
Cost of sales	$m	2 017	2 400	12 901	14 631	26 852	31 124
Trading profit	$m	2 122	2 504	10 540	17 291	34 707	52 099
Earnings before interest, tax, depreciation and amortisation	$m	1 560	1 781	7 171	13 041	24 762	39 441
Operating profit before tax	$m	1 555	*1 062	5 757	10 501	20 328	32 531
Industry ratios							
Profit margin	%	37.6	21.7	24.6	32.9	33.0	39.1
Interest coverage	times	32.4	10.9	8.1	16.4	10.1	14.7
Investment rate (value added)	%	39.7	43.9	49.5	38.6	38.9	37.8
Industry value added to selected labour costs	times	5.9	5.7	4.4	6.0	6.2	7.5
Selected labour costs per person employed	$'000	91.9	94.2	89.9	98.1	101.3	109.0

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— nil or rounded to zero (including null cells)

(a) Comprises Bauxite ore mining, Nickel ore mining and Metal ore mining n.e.c.

(b) Includes rent, leasing and hiring income.

(c) Excludes the drawings of working proprietors.

2.2 FINANCIAL PERFORMANCE, 2004–05 and 2005–06 *continued*

		OTHER MINING		SERVICES TO MINING		TOTAL MINING	
		04–05	*05–06*	*04–05*	*05–06*	*04–05*	*05–06*
Income							
Sales and service income(a)	$m	3 774	^ 4 512	6 178	8 328	71 510	96 063
Funding from government							
Energy grants credits	$m	23	53	96	56	652	701
Other operational costs	$m	3	5	7	47	12	58
Interest income	$m	*95	^ 40	^ 58	*80	1 234	1 994
Other income	$m	*254	244	*167	*213	4 527	2 600
Total income	$m	*4 148*	*4 855*	*6 506*	*8 725*	*77 936*	*101 416*
Expenses							
Wages and salaries(b)	$m	573	644	1 755	2 456	7 588	9 590
Employer contributions to superannuation	$m	56	57	125	198	689	846
Workers' compensation premiums/costs	$m	18	16	47	69	203	221
Selected labour costs	$m	*648*	*717*	*1 927*	*2 722*	*8 479*	*10 657*
Purchases of goods and materials	$m	572	820	876	*1 320	9 010	10 678
Rent, leasing and hiring expenses	$m	^ 113	101	340	358	1 206	1 323
Freight and cartage expenses	$m	^ 370	^ 349	57	70	3 079	3 262
Motor vehicle running expenses	$m	^ 70	^ 72	^ 46	^ 50	207	253
Repair and maintenance expenses	$m	^ 270	^ 278	387	464	2 572	2 760
Contract mining expenses	$m	^ 80	94	324	^ 558	4 884	6 011
Other contract, subcontract and commission expenses	$m	^ 148	**164	^ 442	^ 628	2 932	^ 3 443
Other selected expenses	$m	^ 706	*729	1 184	^ 1 908	10 473	12 530
Purchases and selected expenses	$m	*2 329*	*^ 2 608*	*3 655*	*^ 5 358*	*34 363*	*40 260*
Depreciation and amortisation	$m	396	488	502	477	8 077	9 206
Interest expenses	$m	^ 194	159	102	116	2 737	2 961
Insurance premiums	$m	28	^ 36	52	^ 68	489	515
Natural resource royalties expenses	$m	107	127	18	*27	4 525	6 020
Bad and doubtful debts	$m	10	5	9	*11	^ 30	89
Less							
Capitalised purchases	$m	**20	3	**39	**38	847	**417
Capitalised wages and salaries	$m	^ 6	5	**19	**73	270	^ 391
Total expenses	$m	*3 685*	*4 131*	*6 207*	*8 667*	*57 584*	*68 899*
Opening inventories	$m	408	^ 456	267	*372	4 094	5 153
Closing inventories	$m	418	^ 489	231	*463	4 805	6 073
Cost of sales	$m	2 300	2 572	3 653	5 229	32 804	38 924
Trading profit	$m	1 474	1 941	2 525	^ 3 100	38 706	57 139
Earnings before interest, tax, depreciation and amortisation	$m	712	1 119	641	448	26 116	41 009
Operating profit before tax	$m	*472	^ 757	**263	**148	21 063	33 436
Industry ratios							
Profit margin	%	12.5	16.8	4.2	1.8	29.5	34.8
Interest coverage	times	3.7	7.0	6.3	3.9	9.5	13.8
Investment rate (value added)	%	32.2	22.7	43.7	50.8	39.0	38.0
Industry value added to selected labour costs	times	2.4	2.9	1.5	1.3	4.8	5.6
Selected labour costs per person employed	$'000	59.8	61.7	81.2	79.0	91.3	94.9

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(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

2.3 INDUSTRY VALUE ADDED, 2004–05 and 2005–06

		PLUS				LESS		
Industry / Reference year	*Sales and service income*(a) $m	*Energy grants credits* $m	*Government funding for other operational costs* $m	*Capital work done for own use* $m	*Change in inventories* $m	*Purchases of goods and materials* $m	*Other intermediate input expenses* $m	*Industry value added* $m
11 Coal mining								
2004–05	20 292	285	—	310	337	3 191	7 687	10 346
2005–06	28 741	308	4	**96	420	3 298	9 345	16 926
12 Oil and gas extraction								
2004–05	17 826	7	—	195	46	573	2 496	15 006
2005–06	22 560	15	—	158	94	^629	2 997	19 201
1311 Iron ore mining								
2004–05	8 013	64	1	27	54	699	2 520	4 941
2005–06	12 779	81	1	10	239	1 123	3 691	8 296
1313 Copper ore mining								
2004–05	2 385	20	—	88	75	410	858	1 300
2005–06	3 797	18	—	117	1	528	1 065	2 339
1314 Gold ore mining								
2004–05	5 151	90	—	210	^89	1 092	3 337	1 111
2005–06	5 568	109	—	*157	**–31	1 234	2 588	1 982
1315 Mineral sand mining								
2004–05	861	1	—	38	41	218	248	476
2005–06	950	3	—	43	–89	195	271	441
1317 Silver-lead-zinc ore mining								
2004–05	2 891	32	—	66	7	555	1 153	1 288
2005–06	^3 923	22	—	^80	*36	553	1 046	^2 463
1312, 1316 and 1319 Bauxite mining, nickel ore mining and metal ore mining n.e.c.								
2004–05	4 139	35	—	98	88	823	1 311	2 227
2005–06	4 904	36	—	26	125	977	1 300	2 815
13 Total metal ore mining								
2004–05	23 440	242	1	528	355	3 798	9 426	11 342
2005–06	31 922	269	1	434	281	4 610	9 960	18 337
11–13 Total coal mining, oil and gas extraction and metal ore mining								
2004–05	61 558	534	2	1 032	738	7 562	19 610	36 693
2005–06	83 222	592	5	^688	796	8 537	22 302	54 464
14 Other mining								
2004–05	3 774	23	3	*26	**9	572	1 692	1 571
2005–06	^4 512	53	5	9	*32	820	1 712	2 079
15 Services to mining								
2004–05	6 178	96	7	**58	–36	876	2 604	2 822
2005–06	8 328	56	47	**111	*91	*1 320	3 682	^3 632
11–15 Total mining								
2004–05	71 510	652	12	1 117	711	9 010	23 906	41 086
2005–06	96 063	701	58	*808	919	10 678	27 696	60 175

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(a) Includes rent, leasing and hiring income.

2.4 ACQUISITION AND DISPOSAL OF ASSETS, 2004–05 and 2005–06

	CAPITAL EXPENDITURE					
Industry / Reference year	*Plant, machinery and equipment* $m	*Dwellings, other buildings and structures* $m	*Other (including land and intangible assets)* $m	*Total acquisitions* $m	*Disposal of assets* $m	*Net capital expenditure* $m
11 Coal mining						
2004–05	1 634	1 137	390	3 161	187	2 974
2005–06	^2 342	*2 621	1 004	5 967	347	5 620
12 Oil and gas extraction						
2004–05	1 222	2 671	1 609	5 502	823	4 679
2005–06	1 666	3 484	2 379	7 530	1 101	6 429
1311 Iron ore mining						
2004–05	488	1 141	134	1 763	50	1 713
2005–06	885	1 948	142	2 975	88	2 887
1313 Copper ore mining						
2004–05	174	219	21	415	27	387
2005–06	338	127	32	497	20	477
1314 Gold ore mining						
2004–05	326	1 122	609	2 057	183	1 874
2005–06	*313	^588	353	1 254	55	1 199
1315 Mineral sand mining						
2004–05	67	28	62	157	8	149
2005–06	178	248	19	446	33	413
1317 Silver-lead-zinc ore mining						
2004–05	252	43	38	333	4	329
2005–06	249	289	124	662	5	657
1312, 1316 and 1319 Bauxite mining, nickel ore mining and metal ore mining n.e.c.						
2004–05	425	359	100	884	51	833
2005–06	637	252	348	1 237	16	1 221
13 Total metal ore mining						
2004–05	1 732	2 913	964	5 609	324	5 285
2005–06	2 601	3 452	1 019	7 071	218	6 853
11–13 Total coal mining, oil and gas extraction and metal ore mining						
2004–05	4 588	6 721	2 963	14 272	1 335	12 937
2005–06	6 609	9 557	4 401	20 567	1 666	18 901
14 Other mining						
2004–05	361	53	92	506	49	457
2005–06	^287	67	117	472	30	441
15 Services to mining						
2004–05	580	**39	614	1 233	205	1 027
2005–06	**914	**64	867	1 844	313	1 532
11–15 Total mining						
2004–05	5 529	6 813	3 669	16 010	1 589	14 422
2005–06	^7 810	9 688	5 385	22 884	2 010	20 874

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CHAPTER 3 STATE/TERRITORY SUMMARY

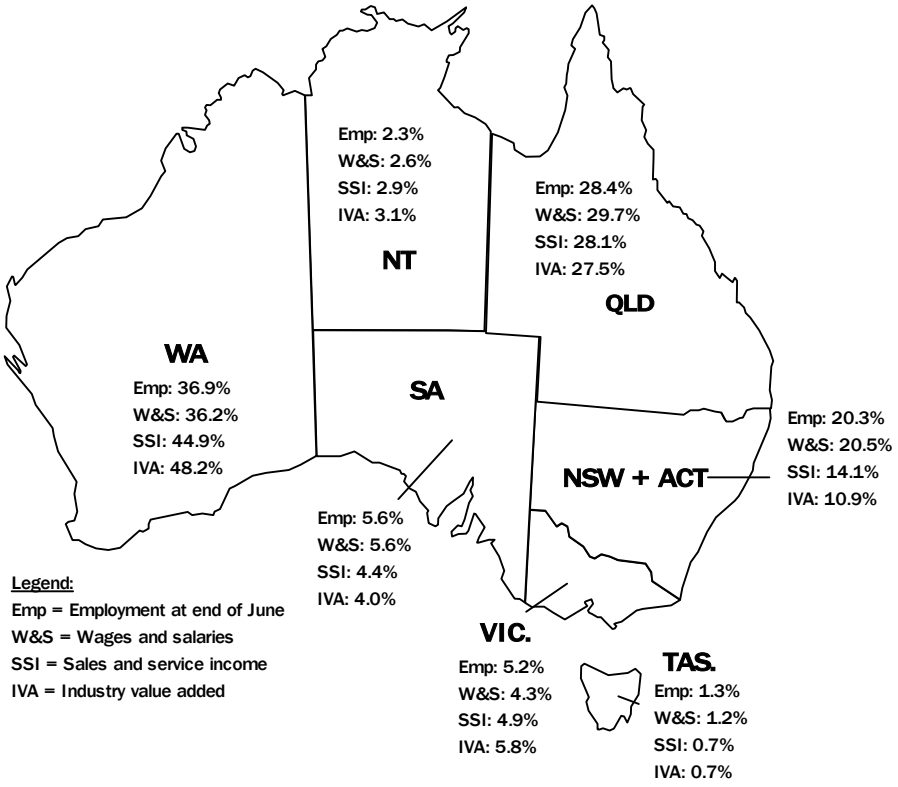
INTRODUCTION

This chapter contains key data of industry performance at the state and territory level, together with data illustrating the contribution of the mining industry in each state and territory. Data for the Australian Capital Territory are included with those for New South Wales and are not available separately. For convenience, the combined estimates are designated as New South Wales data in the commentary below.

KEY DATA

Table 3.1 presents a time series for selected items for all states and the Northern Territory, from 2001–02 to 2005–06. The data relate to the industry designated as 'Selected mining', that is, ANZSIC subdivisions 11–14 (Coal mining, Oil and gas extraction, Metal ore mining and Other mining) only. ANZSIC subdivision 15 (Services to mining) is excluded from the data in this table, because the design of the survey does not support production of data at the state and territory level for this industry. See Explanatory Notes paragraphs 35 to 37 for an outline of the methodology used in deriving these estimates.

CONTRIBUTION OF STATES / TERRITORIES TO TOTAL SELECTED MINING, 2005–06



The above graphic illustrates each state or territory's share of Australian economic aggregates relating to Selected mining in 2005–06.

KEY DATA *continued*

Between 2004-05 and 2005-06, estimates of most of the four key variables shown increased in most jurisdictions. The largest increases in dollar terms occurred in Western Australia and Queensland, reflecting the size and importance of METAL ORE MINING and COAL MINING in those states and the strong performance of those industries as described (at the national level) in Chapter 2. Similarly, these states also contributed the largest increases in employment in SELECTED MINING.

SALES AND SERVICE INCOME

Between 2004–05 and 2005–06, sales and service income of the SELECTED MINING industry increased in all states and territories. Western Australia recorded the largest increase, rising $10.3b (35%) to $39.4b. The largest percentage increase in sales and service income occurred in Queensland (50%), increasing by $8.2b to $24.7b. Other large increases were recorded by South Australia (41%, or $1.1b) and New South Wales (up 20%, or $2.1b). After declining each year since 2001–02, sales and service income rose in both Victoria and the Northern Territory, by 7% ($262m) and 23% ($466m) respectively. Sales and service income in Tasmania rose marginally.

Over the period from 2001–02 to 2005–06, the largest absolute increase in sales and service income of SELECTED MINING occurred in Western Australia ($17.7b), and the largest percentage increase was in South Australia (123%). These increases over time have largely been concentrated in the two most recent years.

In 2005–06, Western Australia accounted for 45% of sales and service income of the SELECTED MINING industry (the same proportion as in 2004-05), followed by Queensland at 28% (compared to 25% in 2004–05). New South Wales accounted for 14% of sales and service income in 2005–06, a decrease from 16% the previous year, and Victoria's share was 5% (down from 6%).

INDUSTRY VALUE ADDED

Increases in sales and service income between 2004–05 and 2005–06 have generally been accompanied by greater percentage increases in IVA. IVA for SELECTED MINING in Western Australia increased by $8.3b (or 44%) to $27.3b, and in Queensland by $6.8b (or 78%) to $15.5b. After declining each year since 2001–02, IVA in Victoria and the Northern Territory increased in 2005–06, by 13% ($376m) and 34% ($437m) respectively. Despite a minimal increase in sales and service income, Tasmania recorded a 26% increase in IVA.

A $23.5b (71%) increase nationally in SELECTED MINING IVA over the period from 2001–02 to 2005–06 is principally due to substantial increases in Western Australia ($12.0b) and Queensland ($9.6b).

In 2005–06, Western Australia's $27.3b of industry value added represented 48% of the Australian total for SELECTED MINING. Queensland with 27% (up from 23% in 2004–05) was the next largest contributor, followed by New South Wales (11%) and Victoria (6%) in 2005–06. The relative shares of the Australian total for SELECTED MINING for the states have remained relatively stable from 2004-05, with the exception of Queensland, which increased its share from 23% up to 27%, and Victoria down from 8% to 6%.

EMPLOYMENT

The SELECTED MINING industry increased employment between 2004–05 and 2005–06 in most states and territories, gaining 13% nationally. Employment increased most strongly in Western Australia (4,100 persons, or 17%), followed by Queensland (1,900 persons, or 10%). Employment rose significantly in percentage terms in South Australia (by 22%) and in Victoria (21%).

Over the period from 2001–02 to 2005–06, the biggest increase in employment in SELECTED MINING occurred in Queensland (8,100 persons, or 58%), followed by Western Australia (7,900 persons, or 38%) and New South Wales (2,900 persons, or 22%).

In 2005–06, 37% of employment in the SELECTED MINING industry was recorded against Western Australia, followed by Queensland with 28%; New South Wales contributed 20% of the total. This pattern differs from the shares of sales and service income and IVA among the major states as outlined above, largely reflecting differing labour intensities in the types of mining predominant in each state and territory.

COMPARISON ACROSS INDUSTRY

Table 3.2 shows the contribution of industries to the production (as measured by total factor income) of each state and territory, as well as Australia, in 2005–06. For the purposes of this table, the activity of general government and the ownership of dwellings are each treated as industries.

In 2005–06, the largest share of production on this basis was contributed by PROPERTY AND BUSINESS SERVICES, which generated 12.6% of total factor income. Of the nineteen industries shown, MINING ranked equal fourth nationally, contributing 7.7%. Its share of total factor income varied markedly among the states and territories.

MINING was by far the dominant industry in both Western Australia and the Northern Territory. At 27.4% and 26.1% respectively, MINING's share of total factor income was more than twice that of the next largest industries in these states. MINING also ranked first in Queensland, compared to third in 2004–05.

3.1 KEY DATA, Selected mining(a)

	Employment at end of June	*Wages and salaries*(b)	*Sales and service income*(c)	*Industry value added*	*Wages and salaries per person employed*(d)
	no.	$m	$m	$m	$'000
New South Wales and Australian Capital Territory					
2001–02	12 875	1 126	7 926	3 415	87.5
2002–03	13 180	1 186	8 675	4 435	90.0
2003–04	13 637	1 134	8 564	3 539	83.2
2004–05	14 489	1 137	10 304	4 520	78.5
2005–06	15 762	1 460	12 376	6 138	92.6
Victoria					
2001–02	3 619	252	5 940	4 977	69.7
2002–03	4 193	290	4 657	3 667	69.2
2003–04	3 143	287	4 393	3 471	91.3
2004–05	3 347	266	3 997	2 877	79.4
2005–06	4 061	304	4 259	3 253	74.9
Queensland					
2001–02	13 998	1 110	12 446	5 902	79.3
2002–03	15 468	1 331	13 745	6 343	86.0
2003–04	17 908	1 539	12 642	5 652	86.0
2004–05	20 187	1 734	16 438	8 716	85.9
2005–06	22 108	2 118	24 651	15 530	95.8
South Australia					
2001–02	3 251	191	1 718	1 097	58.7
2002–03	3 067	174	1 961	1 198	56.6
2003–04	3 399	218	2 108	1 284	64.1
2004–05	3 565	289	2 711	1 623	81.2
2005–06	4 357	401	3 836	2 245	92.0
Western Australia					
2001–02	20 824	1 623	21 719	15 240	77.9
2002–03	22 706	1 886	24 390	17 018	83.1
2003–04	22 927	1 981	24 416	16 398	86.4
2004–05	24 566	2 137	29 178	18 931	87.0
2005–06	28 687	2 581	39 435	27 265	90.0
Tasmania					
2001–02	1 418	96	568	67	67.9
2002–03	999	90	445	108	90.2
2003–04	1 140	67	506	250	58.5
2004–05	1 266	85	633	295	67.2
2005–06	^ 1 049	83	641	372	79.2
Northern Territory					
2001–02	1 722	166	3 034	2 330	96.4
2002–03	1 421	146	2 553	1 888	102.8
2003–04	2 104	207	2 337	1 505	98.4
2004–05	1 706	185	2 070	1 303	108.4
2005–06	1 785	188	2 536	1 740	105.5
Australia					
2001–02	57 706	4 565	53 352	33 028	79.1
2002–03	61 034	5 103	56 426	34 657	83.6
2003–04	64 259	5 433	54 968	32 100	84.5
2004–05	69 126	5 833	65 332	38 264	84.4
2005–06	77 810	7 135	87 735	56 543	91.7

^ estimate has a relative standard error of 10% to less than 25% and should be used with caution

(a) Total mining excluding ANZSIC subdivision 15 SERVICES TO MINING.

(b) Excludes the drawings of working proprietors.

(c) Includes rent, leasing and hiring income.

(d) See Explanatory Notes paragraph 24.

3.2 INDUSTRY CONTRIBUTION TO TOTAL FACTOR INCOME, 2005–06

Industry	NSW %	Vic. %	Qld %	SA %	WA %	Tas. %	NT %	ACT %	Aust. %
Agriculture, forestry and fishing	1.9	3.0	4.1	5.5	3.4	6.7	2.5	—	3.1
Mining	***2.5***	***1.7***	***12.4***	***3.2***	***27.4***	***2.1***	***26.1***	—	***7.7***
Manufacturing	11.1	13.9	9.0	15.3	7.8	14.5	5.9	2.0	11.0
Electricity, gas and water supply	2.1	2.9	2.0	3.1	2.6	4.8	1.4	2.4	2.4
Construction	6.9	6.5	8.0	6.0	8.0	5.5	6.9	7.7	7.1
Wholesale trade	5.4	6.0	4.6	4.3	3.7	3.7	2.0	1.8	4.9
Retail trade	6.0	6.1	7.2	6.2	4.8	7.5	4.4	4.8	6.1
Accommodation, cafes and restaurants	2.5	1.8	2.9	2.2	1.4	2.7	2.5	2.0	2.2
Transport and storage	4.2	4.2	4.6	4.3	4.1	4.2	3.6	2.3	4.2
Communication services	2.7	3.4	2.2	2.5	2.1	2.4	2.1	2.5	2.7
Finance and insurance	10.9	8.7	5.2	6.3	3.8	5.9	2.3	3.6	7.7
Property and business services	14.9	14.1	9.9	9.8	10.4	6.0	7.7	12.7	12.6
Government administration and defence	3.5	2.4	4.0	3.3	2.2	5.5	7.0	26.7	3.7
Education	4.5	5.2	4.3	5.3	2.9	5.5	3.9	5.7	4.5
Health and community services	6.4	7.0	6.3	8.2	5.4	9.7	5.7	6.3	6.6
Cultural and recreational services	1.6	1.7	1.1	1.4	1.0	1.4	1.6	2.6	1.4
Personal and other services	1.8	1.8	2.1	2.3	1.6	2.1	2.0	2.7	1.9
Ownership of dwellings	9.1	8.2	7.9	8.7	6.0	7.3	9.7	8.7	8.2
General government(a)	1.9	1.6	2.2	2.0	1.4	2.7	2.8	5.4	1.9

— nil or rounded to zero (including null cells)

(a) State details for general government gross operating surplus by industry are not available.

Source: Australian National Accounts: State Accounts, 2005–06 (cat. no. 5220.0), Analysis of results (page 7).

CHAPTER 4 COMMODITIES PRODUCED

INTRODUCTION

This Chapter presents information about mineral production in Australia based on data produced by the various state and Northern Territory government departments as part of their administrative responsibilities.

This edition presents these data in accordance with a framework developed by the ABS for categorising the products of the mining industry. This framework has been devised in consultation with industry sources and major users of the data, with a view to standardising the data collected by the various jurisdictions.

Commodity data are presented at the broadest level of this framework, for each year from 2001–02 to 2005–06, for each state and the Northern Territory. More detailed time series data are available, free of charge, on the ABS website. For further information, see Explanatory Notes paragraphs 40-43.

The four broad categories of the commodities framework are fuel minerals, metallic minerals, construction materials, and industrial minerals. A complete list of the items constituting each of these broad categories is provided in the Appendix.

COMPARABILITY

Readers should exercise caution when using mineral commodity data, as:

- definitional requirements vary, as does the range of commodities upon which royalties are payable: the different jurisdictions do not necessarily apply common definitions and standards when compiling the statistics;
- significant variations exist between jurisdictions in the way in which value of production is attributed, particularly for metallic minerals. ABS estimates based on applying a market price to the metallic content (recoverable metal) have been used where possible to obtain a valuation as close as possible to the concept of production.
- the level of information available for construction materials and other non-metallic minerals varies considerably. Production and value of construction materials may be understated in several states, because royalties are not always collected and/or the activity occurs on private land.

Footnotes have been provided in the spreadsheets to clarify definitions, and highlight those areas where treatment or data availability vary across jurisdictions. Any offshore production is attributed to the state or territory which controls that particular offshore area or administers it on behalf of the Australian Government. Data relating to the Joint Petroleum Development Area, in the Timor Sea, is included with that of the Northern Territory.

No data are recorded in this chapter for the Australian Capital Territory.

For further information, see Explanatory Notes paragraphs 40–43. Paragraph 43 also includes website and publication details of the sources.

SUMMARY

The recorded value of mineral production for Australia was $91.8b for 2005–06 (subject to the qualifications described above). This is an increase of $24.3b (or 36%) on 2004–05.

In 2005–06 FUEL MINERALS accounted for 55% of the total value of Australian mineral commodities produced, followed by METALLIC MINERALS (40%), INDUSTRIAL MINERALS (3%) and CONSTRUCTION MATERIALS (2%).

The value of mineral commodities produced increased from 2004–05 to 2005–06 in all jurisdictions.

STATE / TERRITORY COMPARISON

Over the period from 2001–02 to 2005–06 Western Australia was consistently, and by far, the largest Australian mineral commodity producer, accounting for 43% of the value of production in 2005–06. Queensland was the second highest contributor (29% in 2005–06), with New South Wales (13% in 2005–06) consistently ranked third.

Western Australia recorded the highest contribution, 61% of the Australian total, to METALLIC MINERALS, whilst Queensland was the highest in the FUEL MINERALS category, with 37%. Of the $24.3b increase in the value of mineral production during 2005–06, $9.7b was attributable to Queensland and $9.2b to Western Australia. With an increase of $7.5b, Queensland dominated the national increase of $13.4b in the value of FUEL MINERALS. Western Australia was the major source of the $10.7b national increase in value of METALLIC MINERALS, having produced an additional $6.1b in this category. Its contribution to the increase in value of METALLIC MINERALS was more than twice the size of the next largest contributor, Queensland (up $2.3b).

4.1 VALUE OF MINERAL COMMODITIES PRODUCED, States, Northern Territory and Australia, 2001–02 to 2005–06

	Fuel minerals	*Metallic minerals*	*Industrial minerals*	*Construction materials*	*Total mineral commodities*
	$m	$m	$m	$m	$m
New South Wales					
2001–02	6 159	1 192	129	389	7 869
2002–03	4 955	1 325	123	394	6 797
2003–04	4 790	1 469	106	342	6 706
2004–05	7 048	1 735	111	303	9 197
2005–06	8 531	2 759	144	361	11 795
Victoria					
2001–02	3 748	62	43	339	4 193
2002–03	3 423	62	130	391	4 006
2003–04	3 398	57	57	420	3 933
2004–05	4 044	70	39	489	4 642
2005–06	4 460	144	42	501	5 147
Queensland					
2001–02	8 762	4 138	451	324	13 675
2002–03	8 044	3 632	362	351	12 388
2003–04	7 062	3 895	332	452	11 740
2004–05	11 124	4 944	351	543	16 962
2005–06	18 584	7 291	283	521	26 678
South Australia					
2001–02	722	834	60	105	1 722
2002–03	745	731	97	110	1 683
2003–04	673	881	85	117	1 756
2004–05	865	1 330	102	125	2 422
2005–06	1 050	1 981	102	132	3 265
Western Australia					
2001–02	10 112	11 855	1 980	16	23 962
2002–03	10 764	12 286	2 234	16	25 301
2003–04	9 548	12 676	1 804	19	24 046
2004–05	12 675	16 040	1 891	21	30 626
2005–06	15 507	22 150	2 124	51	39 832
Tasmania					
2001–02	(a) np	529	(a) 24	25	577
2002–03	(a) np	485	(a) 24	27	536
2003–04	(a) np	569	(a) 26	34	630
2004–05	(a) np	634	(a) 29	43	706
2005–06	(a) np	932	(a) 34	44	1 011
Northern Territory (b)					
2001–02	1 622	921	218	23	2 784
2002–03	1 390	831	221	28	2 470
2003–04	869	877	205	12	1 962
2004–05	1 575	925	366	17	2 883
2005–06	2 572	1 093	364	13	4 042
Australia					
2001–02	(a) 31 126	19 531	(a) 2 905	1 221	54 782
2002–03	(a) 29 321	19 352	(a) 3 191	1 317	53 181
2003–04	(a) 26 340	20 424	(a) 2 615	1 396	50 773
2004–05	(a) 37 332	25 678	(a) 2 893	1 539	67 441
2005–06	(a) 50 704	36 349	(a) 3 093	1 622	91 769

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

(a) Coal production in Tasmania is included in the value for Industrial minerals.

(b) Fuel minerals for the Northern Territory include production in the Joint Petroleum Development Area. For more information, see paragraph 37 of the Explanatory Notes.

EXPLANATORY NOTES

INTRODUCTION

1 This publication, *Mining Operations, Australia, 2005–06* (cat. no. 8415.0), presents estimates of the economic and financial performance of the mining industry and the production of mining commodities. These data are obtained from ABS surveys and, in the case of the commodity data, as statistics from state and Northern Territory government departments.

2 Mining, as specified in Division B of the 1993 edition of the *Australian and New Zealand Standard Industrial Classification (ANZSIC)* (cat. no. 1292.0), relates to the extraction of minerals occurring naturally as solids such as coal and ores, liquids such as crude petroleum, or gases such as natural gas, by such processes as underground mining, open-cut extraction methods, quarrying, operation of wells or evaporation pans, dredging or recovering from ore dumps or tailings. Activities such as briquetting, or dressing/beneficiating ores or other minerals (by crushing, milling, screening, washing, flotation, chemical beneficiation, etc.) are included, because they are generally carried out at or near mine sites as an integral part of mining operations. Natural gas absorption and purifying plants are also included. The division also includes exploration for minerals and the provision of a wide variety of services to mining and to mineral exploration, as well as mining units under development.

3 From 2006–07 reference year the Economic Activity Survey (EAS) results will be compiled using the 2006 edition of ANZSIC (an updated version of the industry classification) and new methodologies. As a result, a new series of these estimates will commence from 2006–07. When 2006–07 data are released, they will be accompanied by data for 2004–05 and 2005–06 on a comparable basis.

4 The mining collection is conducted annually as a component of the ABS's Economic Activity Survey (EAS):

- A sample of 830 mining businesses were asked by the ABS to provide employment details and data obtained from their financial statements, mainly via mail out questionnaires. Businesses were also asked to supply key details of their operations by state and territory, enabling the production of the state/territory estimates contained in table 3.1.
- Key financial data for 2,474 mining businesses, which had been supplied by them to the Australian Taxation Office (ATO) on business income tax returns (BIT data), were then used to supplement the ABS's directly collected information. Section 16(4)(ga) of the *Income Tax Assessment Act 1936* provides for the ATO to pass information to the Australian Statistician for the purposes of the *Census and Statistics Act 1905*.

5 Commodity production data, as published in Chapter 4, are not collected as part of this annual mining collection (see Explanatory Notes paragraphs 40–43 for further detail).

STATISTICAL UNITS USED

6 Statistical units are those entities from which statistics are collected, or about which statistics are compiled. In ABS economic statistics, the statistical unit is generally the business. All businesses in the EAS are recorded on the ABS Business Register (ABSBR).

STATISTICAL UNITS USED *continued*

7 The ABS uses an economic statistics units model on the ABSBR to describe the characteristics of businesses, and the structural relationships between related businesses. Within large and diverse business groups, the units model is used also to define reporting units that can provide data to the ABS at suitable levels of detail.

8 This units model allocates businesses to one of two sub-populations:

- Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN). The vast majority of these businesses are simple in structure and are allocated to the population which is maintained by the ATO. These are termed (by the ABS) ABN units.
- The remaining businesses are in the ABS maintained population, and are termed type of activity units, or TAUs.

9 Together, these two sub-populations (of ABN units and TAUs) make up the ABSBR population, from which the EAS samples are taken.

10 For details about the ABSBR and how ABN units and TAUs contribute to the industry statistics in this publication, see Technical Note 1.

SCOPE AND COVERAGE

11 The scope of the 2005–06 mining collection comprises all businesses (including non-employing businesses) on the ABSBR at time of selection, whose industry is classified to ANZSIC Division B MINING. This division comprises the following subdivisions and their component groups and classes:

11 Coal mining
  110 Coal mining
    1101 Black coal mining
    1102 Brown coal mining
12 Oil and gas extraction
  120 Oil and gas extraction
    1200 Oil and gas extraction
13 Metal ore mining
  131 Metal ore mining
    1311 Iron ore mining
    1312 Bauxite mining
    1313 Copper ore mining
    1314 Gold ore mining
    1315 Mineral sand mining
    1316 Nickel ore mining
    1317 Silver–lead–zinc ore mining
    1319 Metal ore mining n.e.c.
14 Other mining
  141 Construction material mining
    1411 Gravel and sand quarrying
    1419 Construction material mining n.e.c.
  142 Mining n.e.c.
    1420 Mining n.e.c.
15 Services to mining
  151 Exploration
    1511 Petroleum exploration (own account)
    1512 Petroleum exploration services
    1513 Mineral exploration (own account)
    1514 Mineral exploration services
  152 Other mining services
    1520 Other mining services

SCOPE AND COVERAGE
continued

12 Industry statistics in Chapters 1 and 2 of this publication (excluding table 1.2) are presented at the subdivision level for all subdivisions. ANZSIC Subdivision 13 METAL ORE MINING is also presented at the ANZSIC class level.

13 The ANZSIC-based industry statistics presented in this publication are compiled differently from activity statistics. Each ABN unit or TAU on the ABSBR has been classified (by the ATO and the ABS respectively) to a single industry irrespective of any diversity of activities undertaken. The industry class allocated is the one which relates to those activities that provide the main source of income. A mining business is one predominantly engaged in mining activities, but the data collected for it cover all activities of the business (including any non-mining activities). Conversely, there are some businesses predominantly engaged in non-mining activities which also undertake limited mining activities; these are excluded from the collection.

14 Businesses mainly engaged in refining or smelting minerals or ores (other than preliminary smelting of gold), or in manufacturing such products of mineral origin as coke, cement and fertilisers, are excluded, as they are engaged in activities classified to ANZSIC Division C MANUFACTURING.

15 Businesses engaged in providing contract mining services are not always within the scope of the annual mining collection. Under ANZSIC principles, only those contract mining organisations responsible for all facets of a mining operation are classified to MINING. Businesses which contract to provide selected services are classified to the (predominant) activity they are performing, rather than to the industry they are serving. For example, businesses contracted to perform tasks such as mine site preparation (and/or construction), and removal of overburden, are classified to ANZSIC Division E CONSTRUCTION and are, therefore, outside the scope of the mining collection.

16 Some mining businesses engage, to a significant extent, in activities which are normally carried out by different industries. For example, a predominantly mining business may also undertake significant amounts of manufacturing. Similarly, a mining business may produce significant volumes of goods which are normally produced in different mining industries. Where a business makes a significant economic contribution to industries classified to different ANZSIC subdivisions, the ABS includes the business in the ABS maintained population and 'splits' the TAU's reported data between the industries involved. Significance is determined using total income.

17 A TAU's reported data will be split if the inclusion of data relating to the secondary activity in the statistics for the industry of the primary activity distorts (by overstating or understating) either the primary or secondary industry statistics at the ANZSIC subdivision level by:

- 3% or more, where the industries of the primary and secondary activities are in the same ANZSIC division
- 2% or more, where the industries of the primary and secondary activities are in different ANZSIC divisions.

18 Unincorporated joint ventures (UJVs) within the mining industry are arrangements which allow the sharing of expertise, resources and risk associated with the development of mineral deposits. This occurs through the participation of a number of organisations (by investment) in a mining operation. Some of these organisations may not otherwise be involved in the mining industry.

19 The mining collection includes mining businesses which are operators and/or participants in UJVs. Generally, each participant supplies data of its share of income, while the operator reports all expenses and employment.

SCOPE AND COVERAGE *continued*

20 The ABS attempts to maintain a current understanding of the structure of the large, complex and diverse business groups that form the ABS maintained population on the ABSBR, through direct contact with those businesses. Resultant changes in their structures on the ABSBR can affect:

- the availability of such businesses (or units within them) for inclusion in the annual economic collections,
- the delineation of the units, within those groups, for which data are to be reported.

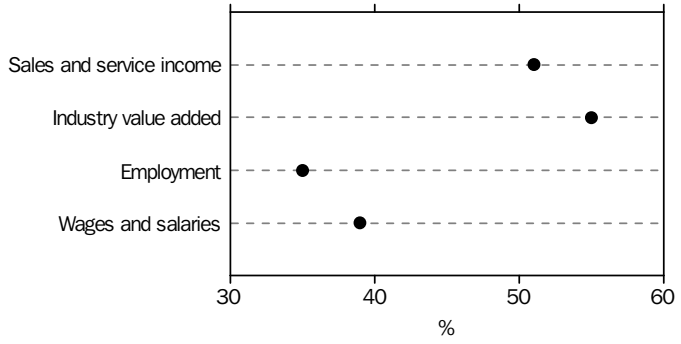
21 The ABS attempts to obtain data for those businesses which ceased operation during the year, but it is not possible to obtain data for all of them.

REFERENCE PERIOD

22 The period covered by the collection is intended to be the 12 months ended 30 June. Where businesses are unable to supply information on this basis, an accounting period for which data can be provided is used for data other than that relating to employment. Such businesses make a substantial contribution to some of the estimates presented in this publication. As a result, the estimates can reflect trading conditions that prevailed in periods outside the twelve months ended June in the relevant year.

23 The following graph illustrates the contribution of businesses which reported for the year ended 31 December 2005 to estimates of key aggregates for TOTAL MINING in 2005–06. The contribution is much greater in the COAL MINING, OIL AND GAS EXTRACTION and METAL ORE MINING industries than in the remaining mining industry subdivisions.

DECEMBER YEAR-END BUSINESSES, Contribution to total mining



24 Although financial data estimates relate to the full twelve months, employment estimates relate to the last pay period ending in June of the given year. As such, estimates of wages and salaries per person employed can be affected by any fluctuations in employment during the reference period.

25 Financial data presented incorporate all units in scope of the mining collection that were at the production stage at any time during the year. They also include any temporarily inactive units, i.e. those units which were in the development stage or which were not in production, but which still existed and held assets and liabilities and/or incurred some non-operating expenses (e.g. depreciation, administration costs).

RELIABILITY OF ESTIMATES

26 For information about this subject, see Technical Note 2.

INDUSTRY PERFORMANCE MEASURES

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

28 Differences in accounting policy and practices across businesses and industries can lead to some inconsistencies in the data input to the statistics. Although much of the accounting process is subject to standards, there is still a great deal of flexibility left to managers and accountants in the accounting policy and practices that they adopt. For example, the way profit is measured is affected by management policy about such issues as depreciation rates, bad debt provisions and write off, and goodwill write off. The

INDUSTRY PERFORMANCE MEASURES *continued*

varying degree to which businesses consolidate their accounts may also affect any industry performance measures calculated.

29 A range of performance measures, usually expressed as ratios, can be produced from the data available from businesses' financial statements. Others, relating to labour inputs, can be derived by expressing financial or economic variables on a per person employed basis. The performance measures presented in this publication comprise:

- profitability ratios, which measure the rate of profit on sales
- debt ratios, which indicate the ability of businesses to meet the cost of debt financing
- labour measures, which relate output, labour costs and employment
- capital expenditure ratios, which indicate the extent of business investment in capital assets.

30 A further explanation of each ratio can be found in the Glossary. Those ratios compiled from a combination of flow (whole period) and level (beginning or end of period) items need to be treated with additional caution. Ratios which include both level and flow items in their derivation may be volatile due to the timing differences involved. In particular, this should be taken into account when considering those measures expressed as values per person employed. It may, therefore, be preferable to base any analysis on a range of data presented rather than focusing on one variable.

31 Similarly, the extent of change in inventories is a component of several of the measures of industry output and earnings. Although the closing inventories held by businesses in an industry in one period should, in concept, equate to its opening inventories in the next period, differences will be observed in many cases. These differences can arise from re-selection of the sample between years and/or changes in the structure of businesses selected, as well as revaluations of inventories in businesses' accounts.

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

INTERNATIONAL FINANCIAL REPORTING STANDARDS

33 The new Australian equivalents to International Financial Reporting Standards (AIFRS) began to be progressively implemented in Australia from 1 January 2005. As a result, a number of items in the financial accounts of Australian businesses have been affected by changed definitions, which have in turn affected both Income Statements and Balance Sheets. A range of ABS economic collections source data from financial accounts of businesses, and use those data to derive economic statistics. There have been no changes in the associated economic definitions.

34 After monitoring data items since March quarter 2005 it has been concluded that most affected published data series have been affected by data breaks, but that the magnitude of such breaks cannot be determined without imposing disproportionate load upon data providers to ABS surveys and other administratively collected data. Limited analysis of data from the Mining collection suggests that adoption of AIFRS has led to a decrease of at least $64m (or 0.2%) in the national estimates of operating profit before tax for the Mining industry between 2004-05 to 2005-06. Effects may be greater at lower levels of the industry classification and/or for other variables. ABS will continue to monitor developments and report any significant identified impacts or changes in methodology as a result of AIFRS.

STATE AND TERRITORY ESTIMATES

35 State and territory summary estimates for selected mining (i.e. TOTAL MINING excluding ANZSIC Subdivision 15 SERVICES TO MINING) are presented in table 3.1. To enable the production of these estimates, businesses included in the mail out survey were asked to report data for employment, wages and salaries, and sales of goods and services, for

STATE AND TERRITORY ESTIMATES *continued*

each state and/or territory in which they operated, if more than one. The relevant data for all other businesses, including those whose contribution was sourced from BIT data, were allocated to their state/territory of operations as recorded on the ABSBR. Further statistical modelling enabled the production of state and territory estimates for industry value added.

36 The design of the mining collection does not take into account the state/territory in which businesses are based or in which they operate. As a result, these state and territory estimates are particularly subject to variation from year to year because of rotation of businesses into and out of the sample.

37 The Joint Petroleum Development Area (JPDA) is an area in the Timor Sea, about 500 km north west of Darwin. A Treaty between Australia and East Timor, which entered into force on 2 April 2003, provides the necessary framework arrangements for companies to exploit resources in the JPDA. Data relating to activity in the JPDA is included in estimates for the Northern Territory. Further, as a reflection of the joint Australia/East Timor administration of exploration and production activity in the JPDA, 50% of income and expenditure relating to the JPDA is excluded from the estimates.

38 State and Northern Territory commodity production statistics are presented in Chapter 4 (see Explanatory Notes paragraphs 40–43 for details).

NEW BUSINESSES

39 Data in this publication have been adjusted to allow for lags in processing new businesses to the ABSBR. The effect of these adjustments is an increase of 0.3% on the Australian estimate of sales and service income for total MINING.

COMMODITY PRODUCTION DATA

40 Chapter 4 of this publication presents details of the value of minerals produced during the year ended 30 June 2006.

41 These data are based on annual publications and other information supplied by the various state and Northern Territory departments responsible for the collection of these statistics, and are presented in accordance with a framework developed by the ABS for categorising the products of the mining industry. Table 4.1 shows values of production for the four broad categories within this framework: FUEL MINERALS, METALLIC MINERALS, INDUSTRIAL MINERALS, and CONSTRUCTION MATERIALS. The presentation of these data is designed to give an overview of the level of mining activity within each state and the Northern Territory.

42 Data at greater levels of detail, and including quantities produced, are available in a spreadsheet which accompanies the release of this publication. The spreadsheet has been footnoted to document conceptual differences relating to scope, coverage, valuation or any other aspect. To access the commodity data, go to the ABS home page <http://www.abs.gov.au>. Select 'Access to all ABS products & statistics' from the 'All Statistics' tab menu bar on the left hand side. On the 'Statistics' page, choose 'By Catalog Number' under 'All Statistics'. Find 8415.0 for 2005-06; the detailed commodity Excel spreadsheets are located under the 'Details' tab.

43 The commodity production data in each state and the Northern Territory were originally produced by the respective departments' web sites and publications:

New South Wales: NSW Department of Primary Industries,
<http://www.dpi.nsw.gov.au /minerals >
Quantity and value of major mining products in New South Wales

Victoria: Department of Primary Industries, <http://www.dpi.vic.gov.au>
Minerals and Petroleum Victoria, Statistical Review

Queensland: Department of Natural Resources and Water,
<http://www.nrw.qld.gov.au>
Queensland Minerals and Energy Review

COMMODITY PRODUCTION DATA *continued*

South Australia: Department of Primary Industries and Resources,
<http://www.pir.sa.gov.au>
Resource Production Statistics, biannual
Western Australia: Department of Industry and Resources,
<http://www.doir.wa.gov.au>
Western Australian Statistics Digest, Mineral and Petroleum Production
Tasmania: Department of Infrastructure, Energy and Resources,
<http://www.dier.tas.gov.au>
Mineral Resources Tasmania, Annual Review
Northern Territory: Department of Primary Industry, Fisheries and Mines,
<http://www.minerals.nt.gov.au>
Annual Production Report

ACKNOWLEDGMENT

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

RELATED PUBLICATIONS

45 The ABS produces industry estimates for a range of selected industries (including mining) and these results are to be available in *Australian Industry, 2005–06* (cat. no. 8155.0), expected to be released in November 2007.

46 National estimates of income, expenditure and associated ratios will be available at the ANZSIC division level (with a greater range of data available via the ABS web site in spreadsheet form). Some data presenting greater detail are considered experimental at this stage, while the methodology used to produce them is reviewed and improved. These consist of national estimates of income, expenses, operating profit before tax (OPBT), and wages and salaries, at the ANZSIC class level, and state/territory estimates of these items at the ANZSIC division level.

47 The following publications and electronic releases also contain information about the mining industry:

Australian Industry, 2004–05, cat. no. 8155.0, released on 21 December 2006 – Annual publication
Australian Labour Market Statistics, cat. no. 6105.0 – Quarterly publication
Australian National Accounts: National Income, Expenditure and Product, cat. no. 5206.0 – Quarterly publication
Australian National Accounts: State Accounts, 2005–06, Reissue, cat. no. 5220.0, released on 13 November 2006 – Annual publication
Business Indicators, Australia, cat. no. 5676.0 – Quarterly publication
Counts of Australian Businesses, including Entries and Exits, June 2003 to June 2006, cat. no. 8165.0, released on 26 February 2007 – Irregular publication
Directory of Mining Statistics, cat. no. 1144.0, released on 11 December 2002 – Irregular publication
International Trade in Goods and Services, Australia, cat. no. 5368.0 – Monthly publication
International Trade Price Indexes, Australia, cat. no. 6457. 0 – Quarterly publication
Job Vacancies, Australia, cat. no. 6354.0 – Quarterly publication
Labour Price Index, cat. no. 6345 – Quarterly publication

RELATED PUBLICATIONS *continued*

Mineral and Petroleum Exploration, Australia, cat. no. 8412.0 – Quarterly publication
Mining Indicators, Australia, cat. no. 8417.0 – Quarterly electronic publication
Private New Capital Expenditure and Expected Expenditure, Australia, cat. no. 5625.0 – Quarterly publication
Producer Price Indexes, Australia, cat. no. 6427.0 – Quarterly publication
Research and Experimental Development, Businesses, Australia, 2005–06, cat. no. 8104.0, released on 21 August 2007 – Annual publication
Year Book Australia, 2007, cat. no. 1301.0, released on 24 January 2007 – Annual publication

48 Current publications and other products released by the ABS are available from the Statistics View on the ABS web site <http://www.abs.gov.au>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

Non-ABS data

49 The following organisations also publish mining and related statistics for Australia:

ABARE, web site <http://www.abareconomics.com>
- *Australian Commodities* (forecasts and issues)
- *Australian Commodity Statistics*
- *Australian Mineral Statistics*

Geoscience Australia, web site <http://www.ga.gov.au>
- *Australia's Identified Mineral Resources*
- *Oil and Gas Resources of Australia*

Minerals Council of Australia, web site <http://www.minerals.org.au>
- *Minerals Industry Survey Report*

United States Department of the Interior, US Geological Survey, web site <http://www.minerals.usgs.gov>
- *Mineral Commodity Summaries*
- *The Mineral Industry of Australia*

ABS DATA AVAILABLE ON REQUEST

50 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request and for a charge. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

ROUNDING

51 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS Business Register (see paragraph 39), this 'rounding rule' also applies to employment estimates.

52 Proportions, ratios and other calculated figures shown in this publication have been calculated using unrounded estimates and may be different from, but are more accurate than, calculations based on the rounded estimates.

APPENDIX

COMMODITY DATA ITEMS

INTRODUCTION

1 This Appendix lists items included in the mining commodities framework within which the commodity data presented in this publication have been compiled. It shows the content of each of the broad categories for which data are presented in Chapter 4.

2 The data produced are derived from data collected by the state and Northern Territory mines departments.

AVAILABILITY OF DATA

3 The Construction materials items shown in this table preceded by the word "including" illustrate the sorts of commodities that may be reported by individual jurisdictions as part of the item in which they are included. In general, they represent items for which data are not sufficiently comparable across jurisdictions (because of differences in definitions and/or scope and coverage) to enable a national total to be produced.

4 Production quantity and value data for all other items listed below are available, in a series starting from 2001–02 reference year, in the spreadsheets that accompany this publication: see the ABS website using the link below. These spreadsheets also contain definitions and some guidance about general principles used in compiling the data in accordance with this framework.

5 To access the commodity data, go to the ABS home page <http://abs.gov.au>. Select the 'Access to all ABS products & statistics' from the 'All Statistics' tab menu bar on the left hand side. On the 'Statistics' page, choose 'By Catalogue Number' under 'All Statistics'. Find 8415.0 for 2005–06; the detailed commodity Excel spreadsheets are located under the 'Details' tab.

MINERAL COMMODITY DATA ITEMS, 2005–06

Fuel minerals
- Black coal (saleable)
- Brown coal
- Crude oil
- Condensate
- Shale oil
- Natural gas
- Coal seam methane
- Liquefied natural gas
- Liquefied petroleum gas
  - Propane
  - Butane
- Ethane
- Carbon dioxide

Metallic minerals
- Antimony (metal content)
- Bauxite
- Cadmium (metal content)
- Cobalt (metal content)
- Copper (metal content)
- Gold (metal content)

Metallic minerals *cont.*
- Iron ore and concentrate
- Iron ore pellets
- Lead (metal content)
- Nickel (metal content)
- Palladium (metal content)
- Platinum (metal content)
- Silver (metal content)
- Tin (metal content)
- Uranium oxide
- Zinc (metal content)
- Zinc/lead concentrate

Industrial minerals
- Barite
- Chromite
- Clays
  - Bentonite
  - Attapulgite
  - Kaolin
  - Structural clays

MINERAL COMMODITY DATA ITEMS, 2005–06 *continued*

Industrial minerals *cont.*

- Diamond
- Diatomite
- Dimension stone
  - Basalt
  - Granite
  - Limestone
  - Marble
  - Sandstone
  - Slate (includes flagstone)
  - Other and/or unspecified rock
- Feldspar
- Garnet (industrial grades only) and Staurolite
  - Garnet
  - Staurolite
- Gems and ornamental stones
  - Gems
    - Opal
    - Sapphire
    - Other
  - Ornamental stones
- Gypsum
- Iron oxides
  - Magnetite
  - Other iron oxides
- Limestone and limesand
  - Limestone for:
    - Cement
    - Lime
    - Agricultural use
    - Metallurgical flux
    - Chemical uses
    - Other and/or unspecified uses
  - Limesand
- Magnesium-rich materials
  - Magnesite
  - Dolomite
  - Serpentinite
- Manganese ore
- Mica
- Peat
- Perlite
- Phosphate rock
- Pyrophyllite
- Salt
- Silica
  - Lump (quartz, quartzite, chert)
  - Sand

Industrial minerals *cont.*

- Silica *cont.*
  - Unspecified silica
- Scheelite
- Sillimanite
- Spodumene
- Spongolite
- Talc
- Tantalum
- Titanium minerals
  - Ilmenite
  - Synthetic rutile
  - Leucoxene
  - Rutile
- Vanadium
- Vermiculite
- Zeolite
- Zircon

Construction materials

- Crushed and broken rock
  (including Crushed rock-broken, Armour, Rip rap and spalls, Concrete aggregate, Sealing aggregate, Screenings, Asphalt aggregate, Rail Ballast, Crusher fines, Other/unspecified aggregate, Road base, Road sub base, Crushed rock - road sub/base, Crushed and broken stone, Aggregate, Rock, Crushed rock, Other rock types excluding gravel and river gravel, Crushed rock - fine aggregate (manufactured sand))
- Construction sand
  (including Natural sand-premixed/ready mixed concrete, Concrete sand, Concrete products, Asphalt sand, Natural sand - mortar sand, Bricklaying sand, Plastering sand, Packing or filling sand, Other and/or unspecified construction sand, Fine sand, Specification sand, Shellgrit, Quarry sand, Washed sand, Bitumen sand, General sand, Building sand)
- Gravel
  (including River gravel - crushed, River gravel - unprocessed, Ridge/other gravel, Decorative stone - Crushed rock, Decorative stone - River gravel (naturally rounded))
- Soil, loam, and garden sand
  (including Loam, garden sand or loam, Soil)
- Other construction materials
  (including Unspecified, Unprocessed construction material, Filling, Rubble, Fill)

TECHNICAL NOTE 1 METHODOLOGY

INTRODUCTION

1 The industry estimates in this publication are produced using a combination of ABS directly collected data and Business Income Tax (BIT) data sourced from the Australian Taxation Office (ATO).

2 The directly collected data have been reported by a sample of mining businesses, as recorded on the ABS Business Register (ABSBR). The ABS uses an economic statistics units model on the ABSBR to describe the characteristics of businesses, and the structural relationships between related businesses. Within large and diverse business groups, the units model is used also to define reporting units that can provide data to the ABS at suitable levels of detail.

STATISTICAL UNITS DEFINED ON THE ABS BUSINESS REGISTER

3 The current economic statistics units model was introduced in mid 2002, to better use the information available as a result of The New Tax System (TNTS). This units model allocates businesses to one of two sub-populations. The vast majority of businesses are in what is called the ATO maintained population, while the remaining businesses are in the ABS maintained population. Together, these two sub-populations make up the ABSBR population.

ATO MAINTAINED POPULATION

4 Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN). They are then included on the whole-of-government register of businesses, the Australian Business Register (ABR), which is maintained by the ATO. Most of these businesses have simple structures; therefore, the unit registered for an ABN will satisfy ABS statistical requirements. For these businesses, the ABS has aligned its statistical units structure with the ABN unit. The businesses with simple structures constitute the ATO maintained population, and the ABN unit is used as the statistical unit for all ABS economic collections.

ABS MAINTAINED POPULATION

5 For the population of businesses where the ABN unit is not suitable for ABS statistical requirements, the ABS maintains its own units structure through direct contact with the business. These businesses constitute the ABS maintained population. This population consists typically of large, complex and diverse businesses. The statistical units model described below caters for such businesses.

Enterprise group: This is a unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the *Corporations Legislation Amendment Act 1991*), including legal entities such as companies, trusts and partnerships. Majority ownership is not required for control to be exercised.

Enterprise: An institutional unit comprising:

(i) a single legal entity or business entity, or

(ii) more than one legal entity or business entity within the same enterprise group and in the same institutional sub-sector (i.e. they are all classified to a single Standard Institutional Sector Classification of Australia (SISCA) sub-sector).

ABS MAINTAINED POPULATION *continued*

Type of activity unit (TAU): The TAU comprises one or more business entities, sub-entities or branches of a business entity within an enterprise group that can report production and employment data for similar economic activities. When a minimum set of data items are available, a TAU is created which covers all the operations within an industry subdivision (and the TAU is classified to the relevant subdivision of the ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision.

CONTRIBUTION OF THE STATISTICAL UNITS TO THE ESTIMATES

6 The following paragraphs outline the way in which these categories of statistical units contribute to the estimates of financial and economic variables presented in this publication. Estimates of employment are derived in a different manner; see paragraph 14 below.

TAUs

7 All units in the ABS maintained population (i.e. TAUs) classified to MINING were eligible to be selected for direct collection. Direct collection of data from these units is necessary because:

- many large and complex employing businesses have more than one legal entity, making it difficult to identify all legal entities for that business in the BIT data
- BIT data do not include all of the detailed information that the ABS requires from large and complex businesses.
- 'tax exempt' businesses that are not required to complete business income tax returns would otherwise not contribute to the statistics.

ABN units

8 The balance of units on the ABSBR classified to MINING were ABN units, from the ATO maintained population. Cut-offs were established which determined the way in which each ABN unit contributed to the statistics:

- First, ABN units with annualised Business Activity Statement (BAS) total sales (used in lieu of EAS total income) at or greater than the cut-offs set for individual ANZSIC categories were eligible to be selected for direct collection of data by the ABS. If selected, they were sent the same mail out questionnaire for completion that was sent to selections from the ABS maintained population.
- Second, ABN units with annualised BAS total sales below the cut-offs were excluded from direct collection. For these units, BIT data were obtained and added to the directly collected estimates to produce the statistics in this publication.

CUT-OFFS FOR ABN UNITS

9 Cut-offs for ABN units were originally established for the 2001–02 collection year, which was the first to incorporate BIT data from the ATO. More information about how the initial cut-offs were set is shown in Appendix 1: Survey Changes in the 2001–02 and 2002–03 issue of this publication.

10 For 2005–06, a cut-off of:

- $1.5m applied for ANZSIC Subdivision 12
- $1m applied for ANZSIC Subdivision 11 and Classes 1311, 1313, 1315, and 1316
- $0.5m applied for ANZSIC Group 152 and Class 1314
- $0.25m applied for ANZSIC Groups 141 and 142, and Class 1319.

11 No cut-off applied for ANZSIC Group 151 and Class 1312.

PRODUCING MINING INDUSTRY ESTIMATES

12 Therefore, the 2005–06 mining industry estimates have been derived as follows:

- A sample survey was used to estimate the contribution of
  - all businesses in the ABS maintained population
  - those businesses at or above the cut-offs in the ATO maintained population
  - 'tax exempt' businesses, that are not required to complete business income tax returns (and so would otherwise not contribute to the statistics)
- For the balance of businesses (i.e. in the ATO maintained population below the cut-offs for their ANZSIC category), their contribution was sourced from BIT data, with some more detailed breakdowns produced using proportional relationships derived from the sample survey. The derivation of employment estimates is discussed below.

Income contribution by unit type

13 An indication of the importance of these populations to the data can be gained from their contribution to the national estimate of sales and service income for total MINING. The following table shows their proportional contributions to sales and service income.

CONTRIBUTION TO SALES AND SERVICE INCOME(a)

ABSBR unit	*ATO BIT data* %	*Directly collected data* %	*Total* %
ABN units	0.8	9.2	10.0
TAUs	—	90.0	90.0
Total	**0.8**	**99.2**	**100.0**

— nil or rounded to zero (including null cells)
(a) Includes rent, leasing and hiring income

EMPLOYMENT ESTIMATES

14 One implication of the use of BIT data in these statistics is that no direct measure of employment is available for those units which contribute to the estimates through the BIT source. This is because the ATO does not collect information about employment numbers. Unlike financial variables, which have a direct relationship to the data available from the BIT files, employment data are not amenable to being modelled using the same techniques. Hence a different methodology is used in order to estimate employment for those units whose data are sourced from the BIT files. For each business, an estimate of employee numbers is derived from its value of wages and salaries (if any) using industry averages. For each unincorporated business, these employee numbers are then added to an estimate of its number of working proprietors or partners, to produce an estimate of the total employment of the business. These estimates are then aggregated to the directly collected data to produce the estimates in this publication.

TECHNICAL NOTE 2 DATA RELIABILITY

ABS SURVEY DATA

1 For 2005–06 the mining collection was a sample survey designed primarily to deliver national industry subdivision and selected class estimates. Industry division estimates (excluding Subdivision 15 SERVICES TO MINING) for states and territories for key data variables are also produced, but the survey was not specifically designed for these purposes.

Sampling error

2 The majority of data in Chapters 1 to 3 of this publication have been obtained from a sample of mining businesses. As such, these data are subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all mining businesses in the population. The measure of the likely difference as used by the ABS is given by the standard error, which indicates the extent to which an estimate might have varied by chance because the data were obtained from only a sample of units. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if the data had been obtained from all units, and about 19 chances in 20 that the difference will be less than two standard errors.

3 The standard error can also be expressed as a percentage of the estimate, and this is known as the relative standard error (RSE).

4 Relative standard errors at the industry subdivision and selected class level for Australia for selected data items representing the full range of data contained in this publication are shown in the table below. The relative standard errors of the selected estimates for the states and territories are mainly 5% or less. Detailed relative standard errors can be made available on request.

5 To illustrate the above, the estimate of sales and service income for total mining in 2005–06 was $96,063m. The RSE of this estimate is shown as 1.1%, giving a standard error of approximately $1,057m. This implies that there are two chances in three that, if all units had been included in the survey, an estimate in the range of $95,006m to $97,120m would have been obtained. Similarly, it implies that there are 19 chances in 20 (i.e., a confidence interval of 95%) that the estimate would have been within the range of $93,949m to $98,177m.

RELATIVE STANDARD ERRORS

Industry	*Employment at end of June* %	*Wages and salaries*(a) %	*Sales and service income*(b) %	*Industry value added* %
11 Coal mining	3.0	3.8	1.5	1.0
12 Oil and gas extraction	1.7	1.0	0.5	0.2
13 Metal ore mining				
1311 Iron ore mining	—	—	—	—
1313 Copper ore mining	—	—	—	—
1314 Gold ore mining	6.3	5.0	4.4	7.5
1315 Mineral sand mining	0.1	0.1	0.1	0.1
1317 Silver-lead-zinc ore mining	8.6	6.9	10.0	16.7
1312, 1316 and 1319 Bauxite mining, nickel ore mining and metal ore mining n.e.c.	0.3	3.0	0.6	0.6
Total metal ore mining	*2.4*	*1.6*	*1.9*	*2.6*
11–13 Total coal mining, oil and gas extraction and metal ore mining	1.7	1.9	0.9	0.8
14 Other mining	9.4	5.0	11.4	6.9
15 Services to mining	6.4	5.9	6.0	10.7
11–15 Total mining	**2.4**	**1.9**	**1.1**	**0.9**

— nil or rounded to zero (including null cells)

(a) Excludes the drawings of working proprietors.

(b) Includes rent, leasing and hiring income.

Sampling error continued

6 The size of the RSE may be a misleading indicator of the reliability of some of the estimates for trading profit, OPBT, EBITDA and IVA. Estimates of these variables may legitimately include positive and negative values, reflecting the financial performance of individual businesses. In these cases the aggregated estimate can be small relative to the contribution of individual businesses, resulting in a standard error which is large relative to the estimate.

Non-sampling error

7 All data presented in this publication are subject to non-sampling error.

8 The imprecision due to sampling variability, which is measured by the standard error, should not 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 referred to collectively as non-sampling error and they may occur in any enumeration, whether a full census or a sample.

9 For the purpose of compiling the estimates in this publication, businesses in the ATO maintained population (see Technical Note 1) are coded to ANZSIC industry classes on the basis of the activity reported to the ATO when they registered for an ABN. There are a number of reasons why a business classified to any given ANZSIC industry on the ABS Business Register may not have been mainly engaged in activities associated with that industry during the 2005–06 reference year. This may be because of inaccurate or incomplete information at the time the business was registered or it may be because the business has changed activity, either temporarily or permanently.

10 Although 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. The ABS compares data from different ABS (and non-ABS) sources relating to the one industry, to ensure consistency and coherence.

NON-ABS DATA

11 The mineral production data shown in Chapter 4 are mainly compiled from data produced by the state and Northern Territory departments responsible. For information about the comparability of these data, please see the introduction to that chapter.

GLOSSARY

Data presented in Chapters 1 to 3 of this publication have been compiled from the standard financial accounts of businesses; therefore, the definition of each reported item aligns closely with that adopted in standard business accounting practice. Definitions of particular terms, as used in this publication, are also included.

ABN unit The statistical unit used by the ABS to represent businesses, and for which statistics are reported, in most cases. The ABN unit is the business unit which has registered for an ABN, and thus appears on the ATO administered Australian Business Register. In most cases, the ABN unit represents the legal entity. This unit is suitable for ABS statistical needs when the business is simple in structure. For more significant and diverse businesses where the ABN unit is not suitable for ABS statistical needs, the statistical unit used is the type of activity unit (TAU).

Acquisitions See the various capital expenditure entries.

Bad and doubtful debts Represents the amount of bad and doubtful debts written-off, net of bad and doubtful debts previously written-off but recovered.

Business A business is generally considered to be a person, partnership, or corporation engaged in business or commerce; for example, a gold mining business.

In this publication, the term represents the ABN unit or type of activity unit (TAU), which are the two standard statistical units for the 2005–06 mining collection (these two units are explained under separate entries). For details, see Explanatory Notes paragraphs 6–10.

Business Activity Statement (BAS) total sales Represented by the form item G1 *Total sales* on businesses' Business Activity Statements, supplied by them to the ATO. This item comprises all payments and other consideration (including GST) received during the nominated tax period for supplies made in the course of business.

Capital expenditure on dwellings, other buildings and structures Capital expenditure incurred acquiring dwellings, other buildings and structures, including roads, factories, warehouses, offices, bridges, mine development, and oil and gas platforms. Represents expenditure before deduction of trade-in allowances, and includes expenses (except capitalised interest) incurred during the year in acquiring such assets.

Capital expenditure on other assets (including land and intangible assets) Capital expenditure incurred acquiring other assets (including land and intangible assets). Intangible asset purchases may include items such as exploration expenditure capitalised, patents, licences and goodwill. Also included is computer software capitalised, including capitalised computer software licence fees, installation costs, the purchase or development of large databases, software developed in-house (but excluded is software maintenance expenditure), and capitalised payments to contractors and consultants for software development. Note that if the cost of software and hardware cannot be separated, the total cost is included in acquisition of plant, machinery and equipment.

Capital expenditure on plant, machinery and equipment Capital expenditure incurred acquiring plant, machinery and other equipment, including motor vehicles. Includes expenses (except capitalised interest) incurred during the year in acquiring such assets.

Capital work done for own use Capitalised work done by the employees or proprietors of a business in manufacturing, constructing, installing or repairing assets, in mineral and petroleum exploration activities, and the in-house development of computer software, for use by the business or for rental or lease. This work is valued at the capitalised costs of the materials and the wages and salaries involved.

Capitalised purchases Goods drawn from inventories for use as fixed tangible assets in capital work done by the employees or proprietors of a business for use by the business or for rental or lease.

Capitalised wages and salaries Capitalised payments for work done by employees of a business in manufacturing, constructing, installing or repairing assets, in mineral and petroleum exploration activities, and in the in-house development of computer software, for use by the business or for rental or lease.

Chain volume measures Annually-reweighted chain Laspeyres volume indexes referenced to the current price values in a chosen reference year (i.e. the year when the quarterly chain volume measures sum to the current price annual values). Chain Laspeyres volume measures are compiled by linking together (compounding) movements in volumes, calculated using the average prices of the previous financial year, and applying the compounded movements to the current price estimates of the reference year. Quarterly chain volume estimates are benchmarked to annual chain volume estimates, so that the quarterly estimates for a financial year sum to the corresponding annual estimate.

Generally, chain volume measures are not additive. In other words, component chain volume measures do not sum to a total in the way original current price components do. In order to minimize the impact of this property, the ABS uses the latest base year as the reference year. A change in reference year changes levels but not growth rates, although some revision to recent growth rates can be expected because of the introduction of a more recent base year (and revisions to the current price estimates underlying the chain volume measures).

For details, see *Australian National Accounts: National Income, Expenditure and Product, June Quarter 2007* (cat. no. 5206.0).

Change in inventories The value of total closing inventories less total opening inventories.

Closing inventories The value of all inventories of finished goods (including mineral ores), work-in-progress (less progress payments billed), raw materials, fuels and containers at the end of the reporting period.

Contract mining expenses Contract payments for mining services. Includes amounts paid/payable to mining contractors and associated freight charges for materials brought in by the contractor.

Cost of sales The sum of purchases, selected expenses and opening inventories less closing inventories. Any capitalised purchases or capitalised wages and salaries are excluded.

Current prices Estimates at current prices are valued at the prices of the period to which the observation relates. For example, estimates for 2005–06 are valued using 2005–06 prices. This contrasts to chain volume measures, where the prices used in valuation refer to the prices of a previous period.

Depreciation and amortisation Depreciation/amortisation allowed on tangible and intangible assets. Includes, for lessees only, depreciation/amortisation in respect of finance leases.

Disposal of assets Proceeds from the sale of tangible assets (plant, machinery, equipment, land, dwellings, other buildings and structures), and intangible assets (such as patents, licences and goodwill). Includes the disposal of motor vehicles.

Earnings before interest, tax, depreciation and amortisation (EBITDA) Profit prior to the deduction of net interest (interest income minus interest expenses), income tax, depreciation and amortisation. Items classifiable to other income are also excluded.

Employer contributions into superannuation

Includes salary sacrifice. Also includes all employer contributions to superannuation funds (including the employer productivity contribution) and provisions for employer contributions to superannuation funds. Employee contributions are excluded.

Employment at end of June

Number of persons working for mining businesses during the last pay period ending in June of the given year. Includes working proprietors and partners, employees absent on paid or prepaid leave, employees on workers' compensation who continue to be paid through the payroll, and contract miners paid through the payroll. Excludes persons paid by commission only, non-salaried directors, and self-employed persons such as consultants and contractors.

In order to produce data by state and territory, businesses which received mail out questionnaires were also asked to report employment (as well as wages and salaries, and sales of goods and services) for each state and/or territory in which they operated. For details, see Explanatory Notes paragraphs 35–37.

For details of how employment estimates have been derived, see Technical Note 1 paragraph 14.

Energy grants credit

See the entry for funding from government: energy grants credit.

Enterprise

An institutional unit comprising:

- a single legal entity or business entity; or
- more than one legal entity or business entity within the same enterprise group and in the same institutional sub-sector (i.e. they are all classified to a single Standard Institutional Sector Classification of Australia (SISCA) sub-sector).

Enterprise group

A unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the *Corporations Legislation Amendment Act 1991*), including legal entities such as companies, trusts and partnerships. Majority ownership is not required for control to be exercised.

Freight and cartage expenses

Includes handling charges and payments to owner/drivers for delivery of minerals. Excludes the cost of delivery by own vehicles and employees, overseas freight and cartage on goods exported, and payments to couriers.

Funding from government: energy grants credit

Amount reimbursed under the Australian Government's Energy Grants (Credit) Scheme. This scheme replaced the Diesel Fuel Rebate Scheme and the Diesel and Alternate Fuels Grant on 1 July 2003, and provides a grant for diesel and alternative fuels used in specified activities.

Funding from government for other operational costs

Funding from federal, state and/or local government for operational costs (e.g. wages and salaries, rent, food) apart from Energy Grants (Credit) Scheme funding (which is separately published). Includes bounties, subsidies, export grants, apprenticeship and traineeship schemes, and community service obligation payments.

Funding from government for specific capital items

Includes capital grants, and low interest or interest free loans made by government to businesses to encourage expenditure on specific equipment (e.g. environmental protection equipment).

Gross value added

The value of output at basic prices minus the value of intermediate consumption at purchasers' prices. The term is used to describe gross product by industry and by institutional sector. Basic prices valuation of output removes the distortion caused by variations in the incidence of commodity taxes and subsidies across the output of individual industries. For details, please refer to *Australian National Accounts: National Income, Expenditure and Product, June Quarter 2007* (cat. no. 5206.0).

Industry value added (IVA)

IVA represents the value added by an industry to the intermediate inputs used by the industry. IVA is the measure of the contribution by mining businesses to gross domestic product.

The derivation of IVA is as follows:

	Sales and service income
plus	Funding from federal, state and/or local government for operational costs
plus	Capital work done for own use
plus	Closing inventories
less	Opening inventories
less	Purchases of goods and materials
less	Other intermediate input expenses (for details, see the entry for total expenses)
equals	IVA

However, it should be noted that IVA is a measure of economic activity and is not equivalent to operating profit before tax (OPBT). Wage and salary expenses and most other labour costs are not taken into account in its calculation, and nor are most insurance premiums, interest expenses or depreciation and a number of lesser expenses (see the entry for total expenses for further detail). On the income side, OPBT includes total income whereas IVA only includes sales and service income.

Industry value added is related to, but different from, the national accounting variable gross value added immediately above.

For national accounts purposes, gross value added is calculated by adjusting industry value added to include General Government units and to also account for some other effects.

Industry value added to selected labour costs

IVA of mining businesses which operated during the given year ended 30 June divided by their selected labour costs, i.e. industry value added / selected labour costs.

Insurance premiums

Premiums for fire, general, accident, public liability, optional third-party and comprehensive motor vehicle insurance, professional indemnity insurance and common law liability. Excludes workers' compensation insurance premiums/costs (included in selected labour costs), compulsory third party motor vehicle insurance premiums (included in motor vehicle running expenses), and reinsurance premiums paid.

Interest coverage

The number of times that businesses can meet their interest expenses from their earnings before interest, tax, depreciation and amortisation (EBITDA), i.e. earnings before interest, tax, depreciation and amortisation / interest expenses. In previous issues of this publication, earnings before interest and tax (rather than EBITDA) was the numerator.

Interest expenses

Includes interest paid on loans from banks, finance companies, partners, and related or unrelated businesses, and in respect of finance leases. Includes interest equivalents, such as hedging costs, and expenses associated with discounted bills. Excludes bank charges other than interest, and capital repayments.

Interest income

Includes interest received from deposits in banks and non-bank financial institutions, loans, advances, finance leases and earnings on discounted bills. Excludes capital repayments received, and charges between companies in the same TAU.

Intermediate input expenses

For details, see the entry for total expenses.

Intermediate inputs

Intermediate inputs consist of materials and certain services which are used up in the production process.

The calculation is:

	Intermediate input expenses (for details, see the entry for total expenses)
plus	Opening inventories
less	Closing inventories
equals	Intermediate inputs

Inventories – opening/closing

The value of all inventories of finished goods (including mineral ores), work-in-progress (less progress payments billed), raw materials, fuels and containers, at the beginning and end of the reporting period respectively.

Investment rate (value added)

The proportion of industry value added (IVA) used to acquire capital, i.e. (capital expenditure / IVA) x 100.

Motor vehicle running expenses

Includes expenditure on registration fees, compulsory third-party insurance premiums, fuel, and repair and maintenance expenses. Excludes expenses for off-road motor vehicles (e.g. mobile plant, quarry dump trucks) and lease payments, optional third party and comprehensive motor vehicle insurance premiums, and depreciation.

Natural resource royalties expenses

Includes payments under mineral lease arrangements, and resource rent taxes and royalties. Excludes payments for royalties from intellectual property (e.g. patents and copyrights) and expensed computer software licence fees, (both of which are included under other operating expenses), and capitalised computer software licence fees (included under capital expenditure). Gold tax payments are also excluded. See the entry for total expenses for the definition of other operating expenses.

Net capital expenditure

The value of total capital expenditure less proceeds received from the disposal of assets.

Opening inventories

The value of all inventories of finished goods (including mineral ores), work-in-progress (less progress payments billed), raw materials, fuels and containers at the beginning of the reporting period.

Operating profit before tax (OPBT)

Profit before extraordinary items are brought to account and prior to the deduction of income tax and appropriations to owners (e.g. dividends paid), i.e. total income – total expenses + change in inventories.

Other contract, subcontract and commission expenses

Payments to other businesses and self-employed persons for work done or sales made on a contract or commission basis. Payments to persons paid by commission without a retainer are also included. Includes payments to owner drivers for removal of material, but not for delivery of the final mineral product. Excludes contract mining expenses, published separately.

Other income

Includes natural resource royalty income, dividend income and other income such as net profit (or loss) on the sale of fixed tangible assets, net profit (or loss) resulting from variations in foreign exchange rates/transactions, and funding from federal, state and/or local government for specific capital items. It excludes extraordinary profits (or losses), i.e. those not associated with the normal operations of the business and of a non-recurring nature.

Other intermediate input expenses

Comprises intermediate input expenses less purchases of goods and materials used in production (i.e. excludes any capitalised purchases). Further detail is included in the entry for total expenses.

Other metal ore mining

Comprises BAUXITE MINING, NICKEL ORE MINING and METAL ORE MINING N.E.C.

Other selected expenses

Includes expenditure on management fees/charges paid to related and unrelated businesses, bank charges other than interest, audit and other accounting expenses, legal fees, advertising expenses, postal and telecommunication expenses, office supplies and printing expenses, travelling, accommodation and entertainment expenses, staff training,

Other selected expenses *continued*

payments for royalties from intellectual property (e.g. patents, copyrights), payments to employment agencies for staff, payroll tax, fringe benefits tax, land tax and land rates, exploration expenditure written off, and computer software expenses not capitalised. Some of these expense items are treated as intermediate input expenses in the calculation of industry value added. For details, see the entry for total expenses.

Production volumes

See the entry for chain volume measures.

Profit margin

The percentage of sales and service income available as operating profit before tax (OPBT), i.e. (OPBT / sales and service income) x 100.

Purchases and selected expenses

Purchases of goods and materials, rent, leasing and hiring expenses, freight and cartage expenses, motor vehicle running expenses, repair and maintenance expenses, contract mining and other contract, subcontract and commission expenses, and other selected expenses.

Purchases of goods and materials

Purchases of materials, components, explosives, containers, packaging materials, fuels, electricity and water, and purchases of minerals and other goods for resale. Also includes capitalised purchases. Excludes purchases of parts and fuels for motor vehicles, but includes fuels for off-road vehicles, such as mobile plant and quarry dump trucks.

Reference period

For each collection year, businesses are asked to report data for the financial year ended 30 June. However, if a business has a different financial year, it is asked to report (apart from employment) for the 12 month period which ends between 1 October of the previous year and 30 September of the current year. This period is then used as a substitute for the financial year ended 30 June. For example, for the 2005–06 collection, a business may have reported data for the year ended 31 December 2005.

Rent, leasing and hiring expenses

Payments for the rent, leasing and hiring of land, dwellings, other buildings and structures, motor vehicles, plant, machinery and other equipment (including telecommunication equipment). Includes operating lease payments; excludes finance lease payments.

Rent, leasing and hiring income

For details, see the entry for sales and service income.

Repair and maintenance expenses

Includes computer and communication software and hardware maintenance, and repair and maintenance of off-road motor vehicles. Excludes wages and salaries of own employees and the repair and maintenance costs of on-road motor vehicles.

Sales and service income

Comprises:

Sales of goods

- whether or not produced by the business (including goods produced for the business on a commission basis). Includes sales or transfers to related businesses or to overseas branches of the business, progress payments relating to long term contracts if they are billed in the period, delivery charges not separately invoiced to customers, and sales of goods produced by the business from crude materials purchased. Excludes excise and duties received on behalf of the Government (e.g. the petroleum production excise duty), sales of assets, royalties income, interest income, and delivery charges separately invoiced to customers. Exports are valued free on board (f.o.b.) (i.e. export freight charges are excluded).

Income from services

- includes income from consulting services, repair, maintenance and service income and fees, contract, subcontract and commission income, management fees/charges from related and unrelated businesses, installation charges, delivery charges separately invoiced to customers and royalties from intellectual property (e.g. patents and copyrights). Excludes natural resource royalties income, interest income, and delivery charges not separately invoiced to customers. Under current international standards, rent, leasing and hiring income (except from finance leases) is also classified as service income.

Sales and service income *continued*

Rent, leasing and hiring income

- derived from the ownership of land, dwellings, buildings and other structures, motor vehicles, plant, machinery and other equipment. Excludes royalties from mineral leases, income from finance leases, and payments received under hire purchase arrangements. This item is included in sales and service income, and is not separately published.

These are valued net of discounts given and exclusive of goods and services tax (GST). Extraordinary items are also excluded.

In order to produce data by state and territory, businesses which received mail out questionnaires were also asked to report sales of goods and services (as well as employment and wages and salaries) for each state and/or territory in which they operated. For details, see Explanatory Notes paragraphs 35–37.

Selected expenses See the entry for purchases and selected expenses.

Selected labour costs See the entry for total expenses.

Selected labour costs per person employed The value of selected labour costs paid by mining businesses which operated during the given year ended 30 June divided by the number of persons employed by mining businesses during the last pay period ending in June of that same year.

Selected mining (Table 3.1) Comprises all classes in ANZSIC Division B MINING except Subdivision 15 SERVICES TO MINING.

Standard Institutional Sector Classification of Australia (SISCA) The SISCA is the central classification among ABS Standard Economic Sector Classifications. It is based on the System of National Accounts 1993 (SNA93) institutional sector classification, and comprises the sectors: non-financial corporations, financial corporations, general government, households, non-profit institutions serving households, and rest of the world (which includes only non-resident units, these being excluded from all other sectors). For more information, please refer to *Standard Economic Sector Classifications of Australia (SESCA)* (cat. no. 1218.0).

Superannuation See the entry for employer contributions into superannuation.

Total expenses For the purposes of calculating economic and accounting variables, expenses incurred by businesses are divided into several categories. However, some expenses are excluded entirely from all such calculations: excluded are capital repayments, costs associated with the transfer of real estate, dividends, donations, export freight charges, extraordinary losses, foreign exchange losses, goods and services tax (GST), excise and duties payable to governments, income tax and other direct taxes, losses on asset sales, and unrealised gains/losses from revaluations of assets.

Those expenses used for calculations are categorised as follows:

Intermediate input expenses

This category covers the major expenses incurred by businesses in producing and distributing goods and services (except labour costs), and comprises two sub-categories of operating expenses:

Purchases of goods, materials and services used in production, which include:

- purchases of materials, components, explosives, containers and packaging materials, electricity, fuels and water
- purchases of minerals and other goods for resale (without any further processing or assembly)
- motor vehicle running expenses
- freight and cartage expenses
- repair and maintenance expenses
- rent, leasing and hiring expenses (excluding finance lease payments) contract, subcontract and commission expenses.

Total expenses *continued*

Expenses related to the sale of goods and administrative expenses, which include:

- management fees/charges paid to related and unrelated businesses
- bank charges other than interest
- audit and other accounting expenses
- legal fees
- advertising expenses
- postal and telecommunication expenses
- office supplies and printing expenses
- travelling, accommodation and entertainment expenses
- staff training
- payments for royalties from intellectual property (e.g. patents and copyrights)
- payments to employment agencies for staff.

Excluded from intermediate input expenses are selected labour costs and other operating expenses as detailed below:

Selected labour costs

- wages and salaries (including provisions for employee entitlements)
- employer contributions into superannuation (including salary sacrifice)
- workers' compensation premiums/costs.

Other operating expenses

Some expenses are excluded from the calculation of intermediate input expenses and selected labour costs, but are included in the calculation of the accounting variable operating profit before tax (OPBT).

These expenses are included in table 2.2 as:

individually listed items

- bad and doubtful debts
- depreciation and amortisation
- insurance premiums (except workers' compensation and compulsory third party motor vehicle insurance premiums)
- interest expenses
- natural resource royalties expenses

part of *other selected expenses*

- computer software expenses not capitalised by businesses
- land tax and land rates
- mineral/petroleum exploration expenses not capitalised by businesses
- payroll tax and fringe benefits tax
- other expenses not capitalised by businesses.

Total factor income

That part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour and capital). It represents the value added by these factors in the process of production, and is equivalent to gross domestic product less taxes plus subsidies on production and imports. For details, please refer to *Australian National Accounts: State Accounts, 2005–06* (cat. no. 5220.0).

Total income

Comprises sales and service income, interest income, energy grants credits and other funding from government for operational costs, and other income (for details, see the entries for these items).

Total mining

Comprises all classes in ANZSIC Division B MINING (i.e. Subdivisions 11–15).

Trading profit

A measure of profit directly attributable to trading in goods and services. It is derived by subtracting the cost of sales from the value of sales and service income.

It should not be inferred that all of this profit is available as surplus, as other expenses such as selected labour costs, depreciation, insurance premiums, natural resource royalties, bad debts and interest have not been taken into account. Also, other income items such as funding from government and interest income have not been included.

Type of activity unit (TAU)

The TAU is the statistical unit used by the ABS to represent businesses, and for which statistics are reported, in cases where the ABN unit is not suitable for ABS statistical needs.

The TAU comprises one or more business entities, sub-entities or branches of a business entity within an enterprise group that can report production and employment data for similar economic activities. When a minimum set of data items are available, a TAU is created which covers all the operations within an industry subdivision (and the TAU is classified to the relevant subdivision of the ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision.

Wages and salaries

The gross wages and salaries (including capitalised wages and salaries) of all employees of the business. The item includes severance, termination and redundancy payments, salaries and fees of directors and executives, retainers and commissions of persons who received a retainer, bonuses, and annual and other types of leave. Provision expenses for employee entitlements (e.g. provisions for annual leave and leave bonus, long service leave, sick leave, and severance, termination and redundancy payments) are also included. Payments related to salary sacrifice and payments to self-employed persons such as consultants, contractors and persons paid solely by commission without a retainer are excluded. The drawings of working proprietors and partners are also excluded.

In order to produce data by state and territory, businesses which received mail out questionnaires were also asked to report wages and salaries (as well as employment and sales of goods and services) for each state and/or territory in which they operated. For details, see Explanatory Notes paragraphs 35–37.

Wages and salaries per person employed

The value of wages and salaries paid by mining businesses which operated during the given year ended 30 June divided by the number of persons employed by mining businesses during the last pay period ending in June of the same year.

Wages and salaries to sales and service income ratio

The wages and salaries paid by mining businesses which operated during the given year ended 30 June as a proportion of the sales and service income of mining businesses which operated during the same year.

Workers' compensation premiums/costs

Workers' compensation is a compulsory insurance cover to be taken out by all employers, except for self-insured workers, according to legislative schemes to cover employees suffering injury or disease in the course of or arising out of employment.

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PHONE	1300 135 070
EMAIL	client.services@abs.gov.au
FAX	1300 135 211
POST	Client Services, ABS, GPO Box 796, Sydney NSW 2001

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