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CENSUS OF MINING ESTABLISHMENTS INDUSTRY CONCENTRATION STATISTICS AUSTRALIA, 1987-88

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SUMMARY OF RESULTS

Introduction

This publication presents, for Australia, statistics relating to industry concentration compiled from the 1987-88 census of mining establishments. These statistics supplement the establishment data already published in *Census of Mining Establishments, Details of Operations by Industry Class, Australia, 1987-88* (8402.0). Similar statistics were last published in respect of 1982-83.

Industry concentration statistics provide information on the extent to which a few enterprise groups predominate in individual industries. They are a useful aid in assessing the degree of competition existing among enterprise groups engaged in an industry.

The statistics presented in this publication relate to Australia only and similar information is not available at the State level.

Overview

There were 1,475 mining establishments (representing 915 enterprise groups) operating in Australia at the end of June 1988. These establishments employed 76,753 people; paid \$2,883 million in wages and salaries; recorded \$20,912 million in turnover and \$13,606 million in value added.

PERCENTAGE CONTRIBUTION OF THE 20 LARGEST ENTERPRISE GROUPS TO THE MINING SECTOR, AUSTRALIA (per cent)

Item	1977-78	1982-83	1987-88
Employment at 30 June	66	63	57
Wages and salaries	70	66	61
Turnover	78	73	61
Value added	79	77	64
Capital expenditure	65	55	28

The proportion of each of these items contributed by the 20 largest enterprise groups (determined by value of mining turnover) has decreased significantly between 1977-78 and 1987-88. The trend which was apparent in the five years from 1977-78 to 1982-83 appears to have accelerated in the five years from 1982-83 to 1987-88.

PERCENTAGE CONTRIBUTION TO INDUSTRY SUBDIVISION VALUE ADDED BY THE 4 LARGEST AND 20 LARGEST ENTERPRISE GROUPS (WITHIN INDIVIDUAL SUBDIVISIONS), AUSTRALIA, 1987-88

Industry subdivision	Enterprise groups	
	4 largest	20 largest
Metallic minerals	38	74
Coal	44	84
Oil and gas	85	99
Construction materials	63	76
Other non-metallic minerals	65	90

In 1987-88, the 4 largest enterprise groups (within individual subdivisions) accounted for more than 50 per cent of value added in Oil and gas (85%), Other non-metallic minerals (65%) and Construction materials (63%). In Metallic minerals and Coal the contribution of the 4 largest enterprise groups was somewhat lower (38% and 44% respectively).

At the ASIC Class level, Gold ores exhibited the lowest concentration ratio in these terms, where the 4 largest enterprise groups contributed only 31 per cent of value added for the class. Black coal at 42 per cent had the next lowest concentration ratio. All other individual ASIC classes had value added concentration ratios of around 60 per cent or more for the 4 largest enterprise groups in 1987-88.

NOTE: Explanatory Notes can be found at the back of this publication.

TABLE 1. MINING ESTABLISHMENTS: SELECTED STATISTICS AND CONCENTRATION RATIOS, AUSTRALIA

Enterprise groups ranked by contribution to industry turnover(a)	Establishments at 30 June		Persons employed at end of June(b)		Wages and salaries(c)		Turnover		Value added		Fixed capital expenditure less disposals	
	No.	Ratio	No.	Ratio	\$m	Ratio	\$m	Ratio	\$m	Ratio	\$	Ratio
1987-88												
Mining (excl. service to mining)—												
Largest 12	158	0.11	34,933	0.46	1,402	0.49	10,417	0.50	7,380	0.54	1,008	0.27
Largest 25	337	0.23	46,180	0.60	1,857	0.64	13,863	0.66	9,580	0.70	1,288	0.34
Largest 50	378	0.26	57,716	0.75	2,306	0.80	17,116	0.82	11,471	0.84	1,562	0.41
Largest 100	445	0.30	64,815	0.84	2,565	0.89	19,143	0.92	12,684	0.93	1,935	0.51
Largest 200	666	0.45	69,868	0.91	2,712	0.94	20,378	0.97	13,372	0.98	2,224	0.59
All enterprise groups	1,475	1.00	76,753	1.00	2,883	1.00	20,912	1.00	13,606	1.00	3,766	1.00
1982-83												
Mining (excl. services to mining)—												
Largest 12	188	0.12	40,246	0.52	1,141	0.55	7,285	0.61	5,300	0.65	1,360	0.39
Largest 25	357	0.23	53,919	0.69	1,485	0.72	9,356	0.79	6,681	0.82	2,012	0.58
Largest 50	413	0.27	65,195	0.84	1,802	0.87	10,833	0.91	7,582	0.93	2,294	0.66
Largest 100	567	0.37	71,981	0.93	1,974	0.96	11,504	0.97	7,942	0.98	3,098	0.89
Largest 200	728	0.48	74,305	0.96	2,022	0.98	11,735	0.99	8,068	0.99	3,217	0.92
All enterprise groups	1,542	1.00	77,755	1.00	2,063	1.00	11,901	1.00	8,110	1.00	3,497	1.00

(a) See paragraph 18 of Explanatory Notes. (b) Includes working associations. (c) Excludes

(a) See paragraph 18 of Explanatory Notes. (b) Includes working proprietors. (c) Excludes amounts drawn by working proprietors.

TABLE 2. MINING ESTABLISHMENTS: SELECTED STATISTICS AND CONCENTRATION RATIOS BY INDUSTRY CLASS, AUSTRALIA 1987-88

Enterprise groups ranked by contribution to industry turnover largest twenty in categories of four(a)		Enterprise groups at 30 June		Establishments at 30 June		Persons employed at end of June(b)		Wages and salaries(c)		Turnover		Value added		Fixed capital expenditure less disposals	
ASIC code	Industry description	No.	Ratio	No.	Ratio	No.	Ratio	\$m	Ratio	\$m	Ratio	\$m	Ratio	\$m	Ratio
	Metallic minerals—														
	Ferrous metal ores—														
1111	Iron ores—														
1112	Iron ore pelletising }														
	First	4	0.36	9	0.53	6,009	0.82	239	0.84	1,930	0.89	1,114	0.97	93	0.76
	Remainder	7	0.64	8	0.47	1,307	0.18	44	0.16	234	0.11	34	0.03	30	0.24
	Industry total	11	1.00	17	1.00	7,316	1.00	283	1.00	2,164	1.00	1,148	1.00	123	1.00
1121	Non-ferrous metal ores—														
	Bauxite	6	1.00	9	1.00	2,040	1.00	67	1.00	601	1.00	518	1.00	15	1.00
1122	Copper ores	6	1.00	6	1.00	3,030	1.00	107	1.00	541	1.0	334	1.00	145	1.00
1123	Gold ores—														
	First	4	0.02	6	0.03	2,061	0.25	70	0.29	692	0.27	490	0.31	176	0.20
	Second	4	0.02	6	0.03	722	0.09	25	0.10	276	0.11	183	0.12	46	0.05
	Third	4	0.02	4	0.02	448	0.05	13	0.05	201	0.08	143	0.09	21	0.02
	Fourth	4	0.02	5	0.03	457	0.06	11	0.05	161	0.06	127	0.08	70	0.08
	Fifth	4	0.02	5	0.03	585	0.07	19	0.08	140	0.06	71	0.05	30	0.03
	Remainder	153	0.88	169	0.87	3,902	0.48	107	0.44	1,055	0.42	547	0.35	522	0.60
	Industry total	173	1.00	195	1.00	8,175	1.00	245	1.00	2,524	1.00	1,561	1.00	865	1.00
1124	Mineral sands—														
	First	4	0.40	6	0.35	1,305	0.67	36	0.70	360	0.79	262	0.80	25	0.71
	Remainder	6	0.60	11	0.65	636	0.33	16	0.30	96	0.21	63	0.20	10	0.29
	Industry total	10	1.00	17	1.00	1,941	1.00	52	1.00	456	1.00	325	1.00	35	1.00
1125	Nickel ores	2	1.00	3	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00
1126	Silver-lead-zinc ores—														
	First	4	0.50	9	0.69	4,898	0.94	197	0.96	918	0.95	481	0.94	81	0.69
	Remainder	4	0.50	4	0.31	339	0.06	8	0.04	45	0.05	31	0.06	37	0.31
	Industry total	8	1.00	13	1.00	5,237	1.00	206	1.00	963	1.00	512	1.00	118	1.00

For footnotes see end of table.

TABLE 2. MINING ESTABLISHMENTS: SELECTED STATISTICS AND CONCENTRATION RATIOS BY INDUSTRY CLASS, AUSTRALIA 1987-88—continued

<i>Enterprise groups ranked by contribution to industry turnover largest twenty in categories of four(a)</i>		<i>Enterprise groups at 30 June</i>		<i>Establishments at 30 June</i>		<i>Persons employed at end of June(b)</i>		<i>Wages and salaries(c)</i>		<i>Turnover</i>		<i>Value added</i>		<i>Fixed capital expenditure less disposals</i>	
<i>ASIC code</i>	<i>Industry description</i>	<i>No.</i>	<i>Ratio</i>	<i>No.</i>	<i>Ratio</i>	<i>No.</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>
1127	Metallic minerals (continued)— Tin ores	9	1.00	10	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00
1128	Uranium ores	2	1.00	2	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00	n.p.	1.00
1129	Non-ferrous metal ores n.e.c.	9	1.00	9	1.00	961	1.00	29	1.00	151	1.00	103	1.00	7	1.00
11	Metallic minerals—														
	First	4	0.02	20	0.07	13,550	0.43	520	0.47	3,164	0.39	1,899	0.38	443	0.33
	Second	4	0.02	15	0.05	5,091	0.16	191	0.17	1,225	0.15	685	0.14	47	0.04
	Third	4	0.02	6	0.02	2,253	0.07	78	0.07	813	0.10	669	0.13	41	0.03
	Fourth	4	0.02	9	0.03	1,396	0.04	51	0.05	450	0.06	301	0.06	35	0.03
	Fifth	4	0.02	5	0.02	1,368	0.04	43	0.04	323	0.04	181	0.04	39	0.03
	Remainder	201	0.91	226	0.80	7,828	0.25	213	0.19	2,106	0.26	1,280	0.26	737	0.55
	Industry total	221	1.00	281	1.00	31,486	1.00	1,096	1.00	8,080	1.00	5,015	1.00	1,342	1.00
1201	Coal, oil and gas— Black coal—														
	First	4	0.08	33	0.32	11,598	0.41	530	0.43	2,601	0.40	1,418	0.42	142	0.23
	Second	4	0.08	7	0.07	3,026	0.11	138	0.11	963	0.15	517	0.15	41	0.07
	Third	4	0.08	6	0.06	2,451	0.09	121	0.10	757	0.12	354	0.10	183	0.30
	Fourth	4	0.08	7	0.07	2,997	0.11	117	0.09	651	0.10	328	0.10	52	0.09
	Fifth	4	0.08	11	0.11	2,627	0.09	94	0.08	467	0.07	239	0.07	83	0.14
	Remainder	31	0.61	39	0.38	5,688	0.20	241	0.19	1,059	0.16	522	0.15	105	0.17
	Industry total	51	1.00	103	1.00	28,387	1.00	1,241	1.00	6,498	1.00	3,378	1.00	607	1.00

For footnotes see end of table.

TABLE 2. MINING ESTABLISHMENTS: SELECTED STATISTICS AND CONCENTRATION RATIOS BY INDUSTRY CLASS, AUSTRALIA 1987-88—continued

Enterprise groups ranked by contribution to industry turnover largest twenty in categories of four(a)		Enterprise groups at 30 June		Establishments at 30 June		Persons employed at end of June(b)		Wages and salaries(c)		Turnover		Value added		Fixed capital expenditure less disposals	
ASIC code	Industry description	No.	Ratio	No.	Ratio	No.	Ratio	\$m	Ratio	\$m	Ratio	\$m	Ratio	\$m	Ratio
1202	Coal, oil and gas (continued)— Brown coal	3	1.00	6	1.00	2,715	1.00	88	1.00	386	1.00	328	1.00	—	1.00
1300	Oil and gas—														
	First	4	0.12	4	0.11	2,725	0.55	135	0.62	3,550	0.83	3,319	0.85	364	0.22
	Second	4	0.12	5	0.14	512	0.10	19	0.09	525	0.12	431	0.11	22	0.01
	Third	4	0.12	4	0.11	51	0.01	2	0.01	93	0.02	72	0.02	48	0.03
	Fourth	4	0.12	4	0.11	74	0.01	3	0.01	51	0.01	47	0.01	4	—
	Fifth	4	0.12	7	0.19	30	0.01	1	0.01	30	0.01	18	—	3	—
	Remainder	13	0.39	13	0.35	1,551	0.31	57	0.26	24	0.01	14	—	1,244	0.74
	Industry total	33	1.00	37	1.00	4,943	1.00	218	1.00	4,273	1.00	3,902	1.00	1,684	1.00
	Construction materials—														
1401	Sand and gravel—														
	First	4	0.02	79	0.22	676	0.33	20	0.41	196	0.55	119	0.59	10	0.44
	Second	4	0.02	11	0.03	197	0.10	4	0.09	27	0.08	16	0.08	6	0.25
	Third	4	0.02	10	0.03	70	0.03	2	0.04	16	0.05	11	0.05	—	—
	Fourth	4	0.02	4	0.01	76	0.04	2	0.04	11	0.03	5	0.03	—	—
	Fifth	4	0.02	5	0.01	47	0.02	1	0.03	9	0.03	6	0.03	—	—
	Remainder	224	0.92	243	0.69	995	0.48	19	0.39	97	0.27	47	0.23	6	0.28
	Industry total	244	1.00	352	1.00	2,061	1.00	49	1.00	355	1.00	203	1.00	23	1.00
1404	Construction materials n.e.c.—														
	First	4	0.02	136	0.32	1,811	0.47	51	0.52	418	0.61	241	0.66	19	0.45
	Second	4	0.02	12	0.03	242	0.06	6	0.06	47	0.07	26	0.07	2	0.04
	Third	4	0.02	9	0.02	107	0.03	3	0.03	24	0.04	10	0.03	1	0.02
	Fourth	4	0.02	10	0.02	144	0.04	5	0.05	23	0.03	12	0.03	1	0.03
	Fifth	4	0.02	11	0.03	120	0.03	3	0.03	21	0.03	8	0.02	—	—
	Remainder	230	0.92	253	0.59	1,425	0.37	31	0.31	151	0.22	69	0.19	18	0.45
	Industry total	250	1.00	431	1.00	3,849	1.00	99	1.00	684	1.00	365	1.00	41	1.00
14	Construction materials—														
	First	4	0.01	208	0.27	2,452	0.41	70	0.48	607	0.58	357	0.63	29	0.46
	Second	4	0.01	34	0.04	445	0.08	10	0.07	65	0.06	35	0.06	6	0.10
	Third	4	0.01	9	0.01	95	0.02	3	0.02	29	0.03	15	0.03	1	0.01
	Fourth	4	0.01	16	0.02	148	0.03	4	0.03	25	0.02	11	0.02	1	0.01
	Fifth	4	0.01	6	0.01	102	0.02	4	0.03	23	0.02	12	0.02	1	0.02
	Remainder	453	0.96	510	0.65	2,668	0.45	56	0.38	290	0.28	138	0.24	26	0.40
	Industry total	473	1.00	783	1.00	5,910	1.00	147	1.00	1,039	1.00	568	1.00	64	1.00

For footnotes see end of table.

TABLE 2. MINING ESTABLISHMENTS: SELECTED STATISTICS AND CONCENTRATION RATIOS BY INDUSTRY CLASS, AUSTRALIA 1987-88—continued

Enterprise groups ranked by contribution to industry turnover largest twenty in categories of four(a)		Enterprise groups at 30 June		Establishments at 30 June		Persons employed at end of June(b)		Wages and salaries(c)		Turnover		Value added		Fixed capital expenditure less disposals	
ASIC code	Industry description	No.	Ratio	No.	Ratio	No.	Ratio	\$m	Ratio	\$m	Ratio	\$m	Ratio	\$m	Ratio
Other non-metallic minerals															
1501	Limestone														
	First	4	0.09	10	0.18	407	0.56	10	0.57	50	0.53	30	0.58	1	0.25
	Second	4	0.09	5	0.09	106	0.15	3	0.18	19	0.20	11	0.22	—	0.02
	Third	4	0.09	7	0.12	47	0.06	1	0.07	9	0.10	3	0.05	3	0.55
	Fourth	4	0.09	4	0.07	41	0.06	1	0.05	5	0.05	3	0.05	—	0.08
	Fifth	4	0.09	4	0.07	31	0.04	1	0.05	3	0.04	1	0.02	—	0.03
	Remainder	26	0.57	26	0.46	97	0.13	1	0.08	7	0.07	4	0.08	—	0.07
	Industry total	46	1.00	56	1.00	729	1.00	18	1.00	94	1.00	52	1.00	5	1.00
1502	Clays—														
	First	4	0.09	18	0.20	110	0.23	3	0.30	24	0.58	12	0.65	—	—
	Second	4	0.09	5	0.05	49	0.10	2	0.17	7	0.17	4	0.23	4	0.21
	Third	4	0.09	11	0.12	156	0.33	2	0.21	3	0.08	2	0.12	10	0.59
	Fourth	4	0.09	15	0.16	90	0.19	2	0.25	2	0.06	-1	-0.07	3	0.15
	Fifth	4	0.09	5	0.05	10	0.02	—	0.02	2	0.04	—	0.01	—	—
	Remainder	27	0.57	37	0.41	54	0.12	1	0.05	3	0.08	1	0.06	1	0.04
	Industry total	47	1.00	91	1.00	469	1.00	10	1.00	41	1.00	19	1.00	17	1.00
1504	Salt—														
	First	4	0.40	6	0.43	557	0.95	19	0.97	113	0.97	80	0.96	11	1.00
	Remainder	6	0.60	8	0.57	32	0.05	1	0.03	4	0.03	3	0.04	—	—
	Industry total	10	1.00	14	1.00	589	1.00	20	1.00	117	1.00	83	1.00	11	1.00
1505	Non-metallic minerals n.e.c.—														
	First	8	0.10	21	0.20	1,039	0.68	37	0.80	334	0.87	244	0.94	12	0.32
	Second	4	0.05	5	0.05	91	0.06	2	0.04	18	0.05	8	0.03	18	0.50
	Third	4	0.05	6	0.06	72	0.05	2	0.04	8	0.02	4	0.02	—	0.01
	Fourth	4	0.05	4	0.04	57	0.04	1	0.03	6	0.02	3	0.01	—	—
	Fifth	67	0.77	68	0.65	266	0.17	4	0.09	18	0.05	2	0.01	6	0.16
	Remainder	87	1.00	104	1.00	1,525	1.00	46	1.00	384	1.00	260	1.00	37	1.00

For footnotes see end of table.

TABLE 2. MINING ESTABLISHMENTS: SELECTED STATISTICS AND CONCENTRATION RATIOS BY INDUSTRY CLASS, AUSTRALIA 1987-88—continued

<i>Enterprise groups ranked by contribution to industry turnover largest twenty in categories of four(a)</i>		<i>Enterprise groups at 30 June</i>		<i>Establishments at 30 June</i>		<i>Persons employed at end of June(b)</i>		<i>Wages and salaries(c)</i>		<i>Turnover</i>		<i>Value added</i>		<i>Fixed capital expenditure less disposals</i>	
<i>ASIC code</i>	<i>Industry description</i>	<i>No.</i>	<i>Ratio</i>	<i>No.</i>	<i>Ratio</i>	<i>No.</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>	<i>\$m</i>	<i>Ratio</i>
15	Other non-metallic minerals (continued)—														
	First	4	0.02	15	0.06	1,208	0.36	47	0.50	371	0.58	271	0.65	16	0.23
	Second	4	0.02	22	0.08	363	0.11	9	0.09	56	0.09	38	0.09	3	0.04
	Third	4	0.02	12	0.05	300	0.09	7	0.08	45	0.07	26	0.06	2	0.02
	Fourth	4	0.02	17	0.06	238	0.07	6	0.07	39	0.06	24	0.06	—	0.01
	Fifth	4	0.02	17	0.06	177	0.05	4	0.05	26	0.04	14	0.03	8	0.11
	Remainder	154	0.89	182	0.69	1,026	0.31	20	0.22	99	0.16	41	0.10	41	0.59
	Industry total	174	1.00	265	1.00	3,312	1.00	93	1.00	636	1.00	414	1.00	69	1.00
	Total mining (excl. services to mining)—														
	First	4	—	45	0.03	15,235	0.20	688	0.24	5,816	0.28	4,107	0.30	447	0.12
	Second	4	—	18	0.01	9,977	0.13	366	0.13	2,979	0.14	2,001	0.15	427	0.11
	Third	4	—	95	0.06	9,721	0.13	348	0.12	1,621	0.08	1,273	0.09	133	0.04
	Fourth	4	—	16	0.01	5,640	0.07	243	0.08	1,252	0.06	607	0.04	35	0.01
	Fifth	4	—	113	0.08	3,013	0.04	103	0.04	1,068	0.05	773	0.06	24	0.01
	Remainder	895	0.98	1,188	0.81	33,167	0.43	1,135	0.39	8,176	0.39	4,845	0.36	2,699	0.72
	Industry total	915	1.00	1,475	1.00	76,753	1.00	2,883	1.00	20,912	1.00	13,606	1.00	3,766	1.00

(a) See paragraph 18 of Explanatory Notes. (b) Includes working proprietors. (c) Excludes amounts drawn by working proprietors.

EXPLANATORY NOTES

Introduction

This publication presents, for Australia, statistics relating to industry concentration compiled from the census of mining establishments conducted in respect of the year ended 30 June 1988 (subsequently referred to as the 1987-88 mining census). These statistics supplement the establishment data already published in respect of this census. (See paragraphs 22 and 23.) Similar statistics were last released in respect of the 1982-83 mining census.

2. Detailed explanatory notes on the 1987-88 mining census may be found in the publication *Census of Mining Establishments, Details of Operations by Industry Class, Australia, 1987-88* (8402.0).

3. The mining census is conducted as a component of the ABS's integrated economic statistics system. Data from each industry sector conform to the same basic conceptual standards allowing comparative analysis between and across different industry sectors. The results of the mining census are therefore comparable with other ABS economic data collections.

4. Mining, as specified in Division B of the Australian Standard Industrial Classification (ASIC) 1983 (1201.0), broadly 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 dressing or beneficiating ores or other minerals by crushing, milling, screening, washing, flotation or other, including chemical beneficiation, processes, or in briquetting 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. Excluded are establishments mainly engaged in refining or smelting of minerals or ores (other than preliminary smelting of gold), or in the manufacture of such products of mineral origin as coke, cement and fertilisers.

Scope and coverage

5. The basic unit for which statistics are reported in ABS integrated industry collections is the establishments (refer to paragraph 15).

6. The establishment statistics also include data for separately located administrative offices and ancillary units (such as head offices, storage premises, laboratories and producers' sales branches or sales offices) serving the establishment and forming part of the enterprise which owns and operates the establishment. However, sales branches or offices which distribute to customers from stocks separately controlled by them are classified to the wholesale industry and are not included in these statistics.

7. Statistics in this publication relate to all establishments classified to Division B - Mining, which operated at any time during the year ended 30 June 1988, except for those in ASIC classes 1611 Petroleum, explora-

tion (own account), 1612 Mineral exploration, n.e.c. (own account) and 1620 Mining and exploration services n.e.c.

8. Also excluded from the collection are itinerant and part-time miners, particularly in the gemstone industry and to a lesser extent in the copper, tin and sand and gravel industries. This deficiency in coverage exists because production is usually on such a small scale that it would be difficult to establish lists of producers and obtain statistical returns. Establishments engaged in quarrying sand and gravel in Western Australia are also excluded because of inadequate coverage owing to the localised nature of the activity in that State.

Use of concentration statistics

9. Industry concentration statistics are concerned with providing measures of the extent to which a few enterprise groups predominate in individual industries. They are a useful aid in assessing the degree of competition existing among enterprise groups engaged in an industry.

10. These statistics provide measures of concentration in industries as a whole and therefore are not measures of concentration in the market for commodities or activities.

11. The concentration statistics provided in this publication relate to Australia as a whole. Similar information is not available for States or other regional areas.

The concept of industry

12. The concept of an industry is fundamental to the understanding of results from economic census and surveys (particularly concentration statistics).

13. An industry is comprised of all establishments predominantly engaged in activities designated as being primary to that industry. For each establishment, data for all activities carried out are attributed to the industry to which it has been classified. Therefore, output for a particular industry will include the output of some activities which are not primary to that industry. Similarly, some of the output of activities primary to a particular industry will be included in aggregates for other industries.

14. For an outline of the range of activities primary to each industry, refer to Volume 1 of the ASIC.

Unit definitions

15. In order to understand the industry concentration statistics presented in this publication, it is necessary to be aware of the definitions of the business units employed in integrated economic collections. They are as follows.

Enterprise. In general, the unit covering all the operations in Australia of a single operating legal entity (e.g. sole trader, company, partnership, trust, government trading enterprise, etc).

Enterprise group. The unit covering all the operations in Australia of a group of companies which are related in terms of the uniform Companies Acts.

Note: individual government departments and authorities are generally treated as separate enterprise groups.

Establishment. In general, the unit covering all the operations carried on under the ownership of one enterprise (business) at a single location.

A mining establishment is one predominantly engaged in mining activities, but the data collected for it cover all activities at the location (including non mining activities). An exception is where the subsidiary activities exceed a specified value (\$5.3 million for 1987-88) in terms of sales and transfers out of goods and services during the year. For statistical purposes, such locations are treated as two or more establishments with each being classified to an industry according to its activities.

Ancillary unit. The unit covering all the operations of an enterprise conducted at or from a single location where those operations are mainly the provision of services to other locations of the same enterprise.

16. For more detailed information on units definitions and rules, refer to the publication *Standards for Statistical Units in Australian Integrated Economic Statistics* (SSU) 1985 (1231.0).

Calculation of concentration ratios

17. The following steps outline the method used to calculate concentration ratios for each industry.

(a) Establishments (and related administrative offices and ancillary units) engaged in an industry and belonging to the same enterprise group were brought together and the data reported for them, for the items defined in paragraph 21 were aggregated. In this way it was possible to identify the contribution to industry totals by establishments operating under common ownership or control, i.e. to measure the involvement, in terms of these items, of an enterprise group in an industry.

(b) Enterprise groups were ranked in descending order according to the size of the contribution of their establishments to the total turnover of the industry.

(c) For the purpose of compiling Table 1, the ranked enterprise groups were brought together into the following cumulative categories:

largest 12 enterprise groups
largest 25 enterprise groups
largest 50 enterprise groups
largest 100 enterprise groups
largest 200 enterprise groups.

(d) For the purpose of compiling Table 2, the ranked enterprise groups were brought together into categories of four units, in the following sequence:

largest 4 enterprise groups
second largest 4 enterprise groups
third largest 4 enterprise groups
fourth largest 4 enterprise groups
fifth largest 4 enterprise groups
remaining enterprise groups owning or controlling establishments in the industry.

However, this break up is not available for a number of the industries in table 2 because of the need to avoid disclosure of confidential data.

18. Each of the five categories of four enterprise groups comprises statistics of groups owning or controlling establishments which were in operation in the industry concerned at any time during the year 1987-88. Included also are particulars of establishments which had not commenced operation by the end of June 1988, but had paid wages and salaries and/or had incurred capital expenditure. In a small number of cases, however, the item 'number of enterprise groups' for a category is not '4', for the following reasons:

(a) Where an enterprise group ceased operation before the end of June 1988, within the industry concerned, the enterprise group is not counted in the 'number of enterprise groups', but its activities are included where appropriate, in the items 'turnover', 'value added' etc.

(b) Where there are less than twenty enterprise groups owning or controlling establishments in an industry, the last category in which data are shown is a residual category.

19. For each of the categories in 17 (c) and (d) above, the contribution of the category to the total for the industry was determined for each of the data items defined in paragraph 21. The contribution is shown in the tables as an absolute amount and as a proportion of the total for the industry.

20. Categories of four enterprise groups were chosen to conform with international practice and will therefore facilitate comparison of concentration patterns in Australian industries with those in other countries.

Definitions of data items

21. data items shown in this publication are defined as follows.

Enterprise groups at 30 June. The number of enterprise groups owning or controlling establishments which were classified to the relevant industry and which were in operation at 30 June.

Establishments at 30 June. The number of establishments in operation at 30 June relates only to mining establishments. It includes mines on a care and maintenance basis if there is permanent employment. Separately located administrative offices and ancillary units are not counted as additional establishments (see

paragraph 6) although their particulars are included in other data items.

Employment at end of June. Working proprietors at end of June and employees on the payroll of the last pay period in June 1988, including those working at separately located administrative offices and ancillary units.

Wages and salaries. The wages and salaries of all employees of the establishment, including those working at separately located administrative offices and ancillary units. Drawings of working proprietors are excluded.

Turnover. Sales of minerals (net of coal export levy and petroleum production excise duty payments) and other goods whether produced by the establishment or not, plus transfers out of minerals and other goods to other establishments of the same enterprise, plus bounties and subsidies on production, plus all other operating revenue from outside the enterprise (such as commission, repair and service revenue and rent, leasing and hiring revenue) plus capital work done for own use, or for rental or lease. Receipts from interest, royalties, dividends and the sale of fixed tangible assets are excluded.

Value added. Turnover plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Fixed capital expenditure less disposals. Outlay on new and second-hand fixed tangible assets less disposals. Includes fixed capital expenditure on mining establishments not yet in operation.

Related publications

22. Mining and related statistics are contained in a number of other publications produced by the ABS, the Australian Bureau of Agricultural and Resource Economics (ABARE), the Bureau of Mineral Resources, Geology and geophysics (BMR) and also appear in the annual reports of certain State Mines Departments.

23. A list of the ABS, ABARE and BMR publications may be found in ABS publication *Mining Establishments: Details of Operations by Industry Class, 1987-88* (8402.0).

24. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia*

(1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

Symbols and other usages

- nil or rounded to zero
- .. not applicable
- n.e.c. not elsewhere classified
- n.p. not available for separate publication (but included in totals where applicable)
- ASIC Australian Standard Industrial Classification.

25. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

26. The figures shown for previous years have been revised where necessary and, as a consequence, may not agree with similar data shown in previous publications. Details of industry classes for which revisions have been made can be obtained by contacting the ABS.

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