Recent Changes in Accounting Enrolments, 1989–1999

Andrew Worthington and Helen Higgs
School of Economics and Finance, Queensland University of Technology

Abstract

This statistical note examines trends in Australian accounting enrolments and student load, together with the composition of enrolments and course completions, over the 1990s. Unpublished higher education statistics from the Department of Employment, Training and Youth Affairs (DETYA) is extracted at the specific and broad field of study level for the purposes of the analysis. Three main trends are noted. First, in spite of moderate growth rates in most Australian states, the relative position of the accounting discipline in terms of all business-related enrolments and student load has declined over the last decade. Second, Australian growth in accounting enrolments and student load is not evenly distributed across all States and Territories with annual growth rates higher in Queensland, Tasmania and Western Australia and lower in Victoria and the ACT. Finally, the composition of accounting enrolments and course completions has changed markedly during the last decade. Female participation rates have increased, with the exception of doctoral programs and masters by coursework, and the share of enrolments by overseas fee-paying undergraduates/postgraduates and domestic fee-paying postgraduates has also increased.

In Australia, as elsewhere, there has been a dramatic increase in the number of students undertaking business-related studies, with enrolments in all Australian business-related degrees (including business, administration and economics) increasing by nearly eighty-five percent over the period 1989 to 1999 (DETYA 2000). In relative terms enrolments in undergraduate business-related degrees have kept pace with the increase in non-business related disciplines, still accounting for some twenty-five percent of all undergraduates, while thirty percent of postgraduates are now in business-related fields (up from seventeen percent in 1989).

Unfortunately, this national increase is not evenly distributed across States, or between universities within States, nor within particular disciplines within this broad field of study. For example, while the three most populous states of New South Wales, Victoria and Queensland experienced increases in enrolments greater than the national average, enrolments in the remaining States and Territories increased by as little as forty percent and no more than seventy-three percent. Similarly, while enrolments in business-related studies at some teriary institutions have doubled or even tripled through the 1990s, many others have experienced more modest increases of ten or twelve percent, and some have suffered falls in the order of twelve, twenty-five or even seventy-five percent.

Nevertheless, the most alarming changes in Australian business-related studies throughout the 1990s concern the relative positions of the disciplines found within this broad field of study. Of these, the most notable case is economics. While postgraduate enrolments in economics have increased by eighty-five percent in the period 1989 to 1999, undergraduate enrolments have grown by only thirty percent. In terms of the total undergraduate student population, the percentage of students undertaking a degree in economics has fallen from 2.5 percent in 1989 to less than 1.6 percent in 1999. Alvey and Smith noted similar trends in New Zealand (1991). These figures are also comparable to the decline in the number of undergraduate economics degrees experienced in the United States. For instance, Siegfried (1995) documented a fall of 12 percent in 1993 and 9 percent in 1994, while Siegfried (2000: 296) commented *inter alia* on "…the precipitous 30 percent drop in degrees awarded from 1990-91 through 1995-96".

Andrew Worthington is a Senior Lecturer in Finance in the School of Economics and Finance at the Queensland University of Technology. Helen Higgs is a Lecturer in Econometrics in the School of Economics and Finance at the Queensland University of Technology.
Correspondence to: Dr. Andrew Worthington, School of Economics and Finance, Queensland University of Technology, GPO Box 2434, Brisbane, QLD 4001. Tel. (07) 3864 2658, Fax (07) 3864 1500, Email a.worthington@qut.edu.au

While the decline in the popularity of economics degrees has already received much attention [see, for instance, Lewis and Norris (1997) and Milmow (1995; 2000)], far less has been given to another business-related area that has also experienced a falling share of enrolments, that of accounting. This is an important omission on a number of counts, not the least being the importance of this information for staff planning and development, promotional activities by educators and professional associations, and for the purposes of comparative performance assessment. Reasons for the changes themselves are only partly understood. Foremost amongst these is the belief that the fall in the number of students undertaking 'traditional' business-related studies in areas such as accounting can be attributed, at least in part, to the rising popularity of business study programs in management, marketing, human resource management and finance. This reasoning is often thought to encompass the perception that these subjects are more interesting and vocationally orientated than accounting.

Similarly, there are other disturbing parallels between the conditions already manifested in economics enrolments and those beginning to be noted in accounting. These encompass notions of the persistent gender bias in accounting enrolments and performance, the degree of mathematical preparation and abstraction necessary for undertaking studies in strongly quantitative areas, and the (declining) employment pattern in some destination industries for accounting graduates. The potential impact of the relative decline in the quantity of accounting enrolments on academic staffing, the progression of students into postgraduate offerings, and the reorientation of teaching resources to 'service teaching' requires no further comment, and has already been noted in a number of institutions.

Accordingly, the limited purpose of the present note is to investigate the changing enrolments in accounting courses over the 1990s as part of this nascent debate. The note itself is divided into three main parts. The first section examines the trends in enrolments and student load in accounting courses and units over the period 1989 to 1999. The second section discusses the changing profile of accounting students over this same period. Both of these sections use the database of Higher Education Annual Student Data Collections obtained from the Department of Employment, Training and Youth Affairs (DETYA). While some statistics are printed at the 'broad field of study level' i.e. 'Economics, Administration and Management' (DETYA 2000) no comparable information is currently made available in published form at the 'specific field of study level'. The note ends with some brief concluding comments in the final section.

(1) Accounting enrolments and student load

Table 1 shows trends in the number of students enrolled in accounting over the years 1989 to 1989. In aggregate terms, the number of students enrolled in accounting in Australia has increased from 22,517 in 1989 to 29,946 in 1999. Of these enrolments, the largest enrolments in 1999 are in NSW with 10,707 students (36 percent), followed by Victoria with 6,323 students (21 percent), Queensland with 4,467 students (15 percent), with the remaining States and Territories providing the final 28 percent. Compared with a decade earlier, NSW and Queensland have marginally increased their share of enrolments (from 33 and 13 percent respectively), while Victoria has experienced a relative decline (from 32 percent). In the remaining States and Territories, Western Australia's share has increased from nine to fourteen percent and Tasmania from two to five percent; South Australia's share has remained constant at eight percent of enrolments, while the ACT has declined from five percent to one-and-a-half percent. In terms of composition by course type, enrolments in doctorates have more than tripled, while enrolments in masters by coursework have increased by nearly three hundred and sixty percent. A more modest increase of twenty-seven percent is calculated for the number of Bachelor pass degrees over the decade.

TABLE 1. *Enrolments in accounting courses by type and state, 1989-1999*

Year	Course type	NSW	VIC	QLD	WA	SA	ACT	TAS	AUST	Year	NSW	VIC	QLD	WA	SA	ACT	TAS	AUST
1989	Doctorate	25	2	15	1	0	0	1	44	1995	64	26	28	15	0	0	0	133
	Masters by research	24	2	1	2	0	1	1	31		30	10	0	17	0	2	1	60
	Masters by coursework	433	40	15	17	2	0	0	507		1019	293	192	17	14	50	5	1590
	Other postgraduate	212	453	89	247	141	98	0	1240		141	416	274	100	122	16	0	1069
	Bachelors - Honours	3	0	14	9	3	1	0	30		38	8	37	10	10	0	10	113
	Bachelors - Pass	6700	6761	2680	1691	1548	1010	441	20605		8401	6445	3353	2795	1974	951	1216	25023
	Other undergraduate	0	60	0	0	0	0	0	60		8	0	8	0	0	0	0	16
	Total	7397	7318	2814	1967	1694	1110	443	22517		9701	7198	3892	2954	2120	1019	1232	28004
1990	Doctorate	31	5	11	4	0	0	0	51	1996	64	31	24	16	0	0	0	135
	Masters by research	18	8	0	5	0	1	1	33		25	10	1	22	0	3	3	64
	Masters by coursework	718	57	10	11	3	1	0	800		930	321	268	166	13	50	4	1750
	Other postgraduate	133	527	125	275	132	116	0	1308		197	455	292	69	109	9	0	1130
	Bachelors - Honours	8	0	16	13	0	2	5	44		32	4	27	13	10	0	4	90
	Bachelors - Pass	7431	7269	2940	1950	1881	1271	1152	23735		8879	6496	3217	3067	2084	1090	1261	25979
	Other undergraduate	0	63	0	0	8	0	0	71		18	1	8	0	0	0	0	27
	Total	8339	7929	3102	2258	2024	1391	1158	26360		10145	7318	3837	3353	2216	1152	1272	29175
1991	Doctorate	35	3	17	8	0	0	0	63	1997	68	42	25	17	0	0	0	152
	Masters by research	14	5	0	7	0	0	1	27		16	6	1	12	3	0	5	43
	Masters by coursework	845	120	20	19	9	0	0	1013		958	309	466	263	10	54	1	2052
	Other postgraduate	180	577	147	237	126	120	0	1387		467	527	156	79	61	3	0	1292
	Bachelors - Honours	12	0	38	24	8	5	6	93		29	4	23	15	11	0	5	87
	Bachelors - Pass	8655	7419	3045	2332	2061	1322	560	25359		9294	6349	3265	3591	2073	445	1220	26091
	Other undergraduate	0	1	0	0	18	0	0	19		5	0	28	0	0	0	0	33
	Total	9741	8125	3267	2627	2222	1447	567	28031		10837	7237	3964	3977	2158	502	1231	29750
1992	Doctorate	52	10	19	13	0	0	0	94	1998	67	50	19	19	0	0	0	155
	Masters by research	18	8	0	18	0	2	0	46		13	4	0	8	4	0	2	19
	Masters by coursework	926	148	41	30	10	0	0	1155		929	346	512	306	15	55	1	2163
	Other postgraduate	146	610	205	179	159	110	0	1409		430	405	251	56	54	10	0	1206
	Bachelors - Honours	21	4	50	33	19	4	1	132		40	5	40	21	12	0	9	127
	Bachelors - Pass	8922	7177	1959	2293	2090	1272	525	24222		9179	6059	3291	3792	2152	433	1246	26152
	Other undergraduate	0	0	0	0	15	0	0	15		5	0	30	0	0	0	0	22
	Total	10085	7957	2274	2566	2293	1388	526	27073		10663	6869	4143	4202	2237	498	1258	29844

Year	Course type	NSW	VIC	QLD	WA	SA	ACT	TAS	AUST
1993	Doctorate	51	15	29	21	0	0	1	117
	Masters by research	21	6	0	28	0	3	0	58
	Masters by coursework	904	180	50	27	26	34	0	1221
	Other postgraduate	140	538	221	151	132	67	0	1249
	Bachelors - Honours	24	10	51	24	27	8	1	145
	Bachelors - Pass	8545	6051	1621	2449	1940	1224	533	22360
	Other undergraduate	0	0	25	0	11	0	0	36
	Total	9685	6800	1997	2700	2136	1336	535	25186
1994	Doctorate	56	21	26	21	0	0	1	125
	Masters by research	35	5	0	16	0	2	1	59
	Masters by coursework	859	252	100	25	21	43	2	1302
	Other postgraduate	94	471	253	118	154	31	0	1121
	Bachelors - Honours	50	10	43	21	14	3	4	145
	Bachelors - Pass	8040	6548	3243	2672	1857	1104	558	24022
	Other undergraduate	4	0	16	0	0	0	0	20
	Total	9138	7307	3681	2873	2046	1183	566	26794

Year	NSW	VIC	QLD	WA	SA	ACT	TAS	AUST
1999	81	52	25	24	0	0	0	182
	18	4	1	7	4	0	2	36
	990	463	545	273	14	53	1	2329
	353	309	314	39	29	14	0	1057
	40	4	38	29	7	0	12	130
	9225	5491	3512	3798	2421	376	1357	26180
	0	0	32	0	0	0	0	32
	10707	6323	4467	4170	2475	443	1372	29946

Notes: Total for Australia (AUST) excludes enrolments from Northern Territory (1989-99) and multi-state institutions (i.e. Australian Catholic University) (1995-99). Category 'Doctorate' includes higher doctorates, Doctor of Philosophy and doctorate by coursework, 'Other postgraduate' includes postgraduate qualifying/preliminary courses and graduate diplomas and certificates, 'Other undergraduate' includes all associate degrees, advanced diplomas, enabling courses, non-award and open learning enrolments taught at higher education institutions.

A different perspective of these changes is provided in Table 2, with calculations of the annual percentage change in undergraduate and postgraduate enrolments by state. Across Australia, enrolments in all accounting degrees increased annually from more than seventeen percent in 1990 down to an annual decrease of nearly seven percent in 1993. Across the states, the greatest annual percentage changes have been in Tasmania, albeit from a relatively small base, with a percentage increase of 161 percent in 1990, and a decrease of 51 percent in 1991.

TABLE 2. *Percentage annual change in accounting enrolments by state, 1989-1999*

Year	Enrolment	NSW	VIC	QLD	WA	SA	ACT	TAS	AUST
1990	Postgraduate	30.27	20.12	20.90	11.59	-7.53	20.00	200.00	20.73
	Undergraduate	10.91	7.49	9.70	15.32	22.03	25.84	161.22	15.20
	Total	12.73	8.35	10.23	14.79	19.48	25.32	161.40	17.07
1991	Postgraduate	19.60	18.09	37.04	-4.22	5.93	4.17	116.67	15.52
	Undergraduate	16.47	1.20	3.57	19.59	10.06	4.01	-51.39	6.60
	Total	16.81	2.47	5.32	16.34	9.78	4.03	-51.04	6.34
1992	Postgraduate	7.09	10.64	41.89	-7.46	31.47	-7.20	-85.71	9.79
	Undergraduate	3.08	-3.27	-35.67	-1.67	1.25	-3.78	-6.25	-4.50
	Total	3.53	-2.07	-30.39	-2.32	3.20	-4.08	-7.23	-3.42
1993	Postgraduate	-1.98	-3.97	11.43	-8.06	-1.60	-3.45	100.00	-1.62
	Undergraduate	-4.23	-15.69	-15.98	6.80	-7.32	-3.77	1.52	-7.60
	Total	-3.97	-14.54	-12.18	5.22	-6.85	-3.75	1.71	-6.97
1994	Postgraduate	-4.04	1.34	20.23	-19.92	2.16	-29.46	300.00	-1.36
	Undergraduate	-5.86	8.21	98.00	9.11	-4.82	-9.80	4.69	7.35
	Total	-5.65	7.46	84.33	6.41	-4.21	-11.45	5.79	6.38
1995	Postgraduate	18.10	-0.79	25.83	-20.90	-22.75	-13.92	100.00	7.74
	Undergraduate	4.54	-1.57	3.13	4.60	6.30	-13.86	117.92	4.15
	Total	6.16	-1.49	5.73	2.82	3.62	-13.86	117.67	4.52
1996	Postgraduate	-3.41	9.03	15.25	79.87	-9.59	-8.82	-31.25	6.88
	Undergraduate	5.80	0.81	-4.05	9.73	5.57	14.62	3.70	3.86
	Total	4.58	1.67	-1.41	13.51	4.53	13.05	3.25	4.18
1997	Postgraduate	23.24	8.16	9.64	34.97	-35.61	-8.06	0.00	14.42
	Undergraduate	4.52	-2.28	2.11	17.09	-0.53	-59.17	-3.25	0.45
	Total	6.82	-1.11	3.31	18.61	-2.62	-56.42	-3.22	1.97
1998	Postgraduate	-3.84	-8.78	22.50	6.22	0.00	14.04	9.09	1.21
	Undergraduate	-1.24	-4.57	0.85	5.60	3.81	-2.70	2.13	0.19
	Total	-1.61	-5.08	4.52	5.66	3.66	-0.80	2.19	0.32
1999	Postgraduate	0.20	2.72	12.29	-9.27	-36.47	3.08	25.00	1.74
	Undergraduate	0.45	-9.37	6.71	0.16	12.50	-13.16	8.91	0.15
	Total	0.41	-7.95	7.82	-0.76	10.64	-11.04	9.06	0.34

Notes: 'Postgraduate' includes doctorates, masters by research and coursework, other postgraduate courses as defined in Table 1 and Bachelors – Honours. The percentage change for 1989 is not calculated due to lack of comparable data for 1988. Total for Australia (AUST) excludes enrolments from Northern Territory (1989-99) and multi-state institutions (i.e. Australian Catholic University) (1995-99).

Annual percentage changes from Table 3 indicate that, on average, enrolments in accounting courses increased by some 3.07 percent per annum over the period, with postgraduate enrolments growing at an annual rate of 7.51 percent, and undergraduate enrolments at 2.59 percent. Average growth rates in all enrolments have been highest in Tasmania (23.96 percent), Western Australia (8.03 percent) and Queensland (7.73 percent), and lowest in Victoria (-1.23 percent) and the ACT (-5.90 percent). And in general, postgraduate enrolments in each state have experienced higher growth rates than undergraduate enrolments, with the exception of Western Australia and South Australia. For example, in Western Australia postgraduate enrolments have grown at 6.28 percent per year (34.78 percent overall) while undergraduate enrolments have grown at 8.63 percent annually (124.60 percent overall). Nevertheless, enrolments over the period have been extremely volatile, with variability in growth rates (as measured by standard deviation) highest in Tasmania

(61.22), followed by the ACT (20.42) and Queensland (28.11). Overall, enrolments in all Australian accounting degrees have increased by 33 percent over the decade in question. The largest increases in enrolments have been in Tasmania (209 percent), Western Australia (112 percent) and Queensland (59 percent), and largest decreases in the ACT (-60 percent) and Victoria (-14 percent).

TABLE 3. *Average and overall percentage change in accounting and business enrolments by state, 1990-1999*

Area	Period	Enrolment	NSW	VIC	QLD	WA	SA	ACT	TAS	AUST
Accounting	Average 1989-99	Postgraduate	8.53	5.65	21.70	6.28	-7.40	-2.96	73.38	7.51
		Undergraduate	3.44	-1.90	6.84	8.63	4.89	-6.18	23.92	2.59
		Total	3.98	-1.23	7.73	8.03	4.12	-5.90	23.96	3.07
		Standard deviation	6.85	6.55	28.11	7.37	7.50	20.42	61.22	6.23
	Overall 1989-99	Postgraduate	112.63	67.40	588.81	34.78	-63.01	-33.00	650.00	101.62
		Undergraduate	37.69	-19.50	32.24	124.60	56.40	-62.77	207.71	26.84
		Total	44.75	-13.60	58.74	112.00	46.10	-60.09	209.71	32.99
All business	Average 1989-99	Postgraduate	25.91	21.15	26.05	17.53	17.11	19.40	22.72	22.84
		Undergraduate	4.63	5.69	5.01	4.47	3.49	5.09	4.63	4.95
		Total	7.15	6.59	6.58	4.97	4.09	5.68	5.73	6.37
		Standard deviation	3.68	4.03	7.44	5.08	10.45	6.06	5.66	4.20
	Overall 1989-99	Postgraduate	334.62	183.25	330.22	101.63	87.09	140.55	212.67	232.40
		Undergraduate	56.18	72.93	59.15	53.32	32.36	61.16	54.69	60.88
		Total	98.72	88.28	85.10	60.72	42.22	71.21	72.32	84.40

Notes: 'Business' includes all enrolments in DETYA broad field of study category 'Economics, Administration and Management' (including general business, economics, finance, marketing, general management, public administration and hotel and hospitality management); 'Average' is the average annual change, 'Overall' is for the period 1989 to 1999. Total for Australia (AUST) excludes enrolments from Northern Territory (1989-99) and multi-state institutions (i.e. Australian Catholic University) (1995-99).

Table 3 also includes comparative overall and average growth rates for all Australian business-related degrees. These figures therefore include the disciplines of general business, economics, finance, management, international business, marketing, hotel and hospitality management, industrial relations, and human resource management. Across all states, these figures generally indicate that the specific field of study in accounting has lower growth rates than the broad field of business study. Postgraduate enrolments in all business-related degrees have grown on average by nearly 23 percent over the period 1989-1999, while accounting enrolments have increased on average only by some 7.5 percent. Similarly, undergraduate enrolments in accounting have increased by 2.59 percent per annum over the period, while all undergraduate business enrolments have increased by 6.37 per annum. Over the entire period the number of students enrolled in postgraduate business offerings has more than tripled, when accounting enrolments have doubled, and the percentage change in undergraduate business enrolments is more than double the change for accounting. These annual growth rates and overall increases in business enrolments are also more evenly spread across the states than is the case with accounting enrolments. On average, postgraduate business enrolment growth rates in all states range between 17.53 and 26.05 percent, while undergraduate enrolments grew between 3.49 and 5.69 percent per year.

These figures are suggestive of the fact that the relative importance of the accounting discipline (at least in terms of enrolments) has declined relative to other business related studies. In fact, the share of total enrolments in accounting degrees of all types within the business-related field has fallen from 24.59 percent in 1989 to 17.65 percent in 1999. Though enrolments in accounting postgraduate offerings have generally grown faster than the undergraduate enrolments, the share of all postgraduate business enrolments held by accounting has still declined continuously over the decade, from 14.54 percent in 1989 to slightly more than 8.05 percent in 1999.

However, the relative decline in students enrolled in accounting degrees vis-à-vis other business-related study is generally less severe when changes in student load, that is, changes in all students enrolled in accounting units, are examined. This is indicative of the fact that accounting units are taken by a variety of students who are mostly studying for degrees other than accounting. Table 4 presents effective full-time student units (EFTSU) by state over the period 1989 to 1999. Both EFTSU and the annual change in EFTSU are included. With the exception of the ACT and Tasmania, the annual growth rate in accounting load has been marginally higher than the growth rates in accounting enrolments. For example, in NSW growth in load averaged 4.28 percent over the period while growth in enrolments averaged 3.98 percent. Likewise, the overall percentage increase in NSW accounting enrolments was some 33 percent over the decade, while load increased by 46 percent. Across Australia student load in accounting units increased by 3.56 percent in annual terms and 38.20 percent overall. Nevertheless, the relative decline in accounting within business-related study is also reflected in student load. In 1989 accounting load amounted to some 24.76 percent of all business-related load, whereas in 1999 this had fallen to 17.77 percent. Unfortunately, figures are not currently available to verify if this trend is likely to continue into the new millennium.

TABLE 4. *Equivalent full-time student unit (EFTSU) load for all accounting units by state, 1989-1999*

State	1989	-	1990		1991		1992		1993		1994	
NSW	5412	-	6071	*12.17*	7768	*27.95*	8032	*3.41*	7618	*-5.15*	7110	*-6.67*
VIC	4917	-	5747	*16.86*	6044	*5.18*	5755	*-4.78*	4703	*-18.28*	5219	*10.97*
QLD	2283	-	2649	*16.04*	2809	*6.02*	1910	*-31.99*	1604	*-16.02*	2845	*77.35*
WA	1494	-	1780	*19.17*	2045	*14.90*	2001	*-2.15*	2081	*3.97*	2258	*8.53*
SA	1189	-	1484	*24.82*	1731	*16.65*	1752	*1.25*	1608	*-8.21*	1530	*-4.85*
ACT	1058	-	1182	*11.72*	1225	*3.67*	1183	*-3.45*	1126	*-4.82*	1055	*-6.30*
TAS	371	-	868	*133.68*	500	*-42.41*	456	*-8.69*	457	*0.11*	482	*5.49*
AUST	16724	-	19780	*18.27*	22122	*11.84*	21091	*-4.66*	19198	*-8.97*	20500	*6.78*
BUS	67537	-	77303	*14.46*	85468	*10.56*	87014	*1.81*	87973	*1.10*	88992	*1.16*
SHARE	24.76	-	25.59	*3.33*	25.88	*1.16*	24.24	*-6.35*	21.82	*-9.97*	23.04	*5.56*
	1995		1996		1997		1998		1999		Average	Overall
NSW	7400	*4.08*	7593	*2.61*	8189	*7.84*	7925	*-3.22*	7910	*-0.19*	4.28	46.15
VIC	5449	*4.40*	5634	*3.39*	5685	*0.91*	5360	*-5.72*	4995	*-6.81*	0.61	1.57
QLD	2955	*3.85*	3018	*2.14*	3157	*4.62*	3265	*3.41*	3515	*7.66*	7.31	53.97
WA	2404	*6.44*	2747	*14.27*	3257	*18.59*	3409	*4.66*	3405	*-0.13*	8.82	127.92
SA	1622	*5.99*	1691	*4.27*	1676	*-0.93*	1751	*4.51*	1888	*7.80*	5.13	58.81
ACT	855	*-18.89*	1023	*19.53*	380	*-62.82*	369	*-2.87*	316	*-14.31*	-7.85	-70.08
TAS	956	*98.34*	988	*3.36*	940	*-4.87*	986	*4.90*	1083	*9.88*	19.98	191.73
AUST	21641	*5.57*	22694	*4.87*	23284	*2.60*	23065	*-0.94*	23112	*0.20*	3.56	38.20
BUS	96038	*7.92*	107480	*11.91*	117711	*9.52*	124933	*6.14*	130083	*4.12*	6.87	92.61
SHARE	22.53	*-2.18*	21.11	*-6.30*	19.78	*-6.32*	18.46	*-6.67*	17.77	*-3.76*	22.27	-2.49

Notes: Total for Australia (AUST) excludes EFTSU from Northern Territory (1989-99) and multi-state institutions (i.e. Australian Catholic University) (1995-99). Business (BUS) includes all EFTSU in DETYA broad field of study category 'Economics, Administration and Management' (including general business, economics, finance, marketing, general management, public administration and hotel and hospitality management). SHARE is the percentage of business EFTSU in accounting units. Figures in italics are annual percentage changes. 'Average' is the average annual change, 'Overall' is for the period 1989 to 1999.

Mixed findings are obtained from an examination of accounting enrolments and load over the 1990s. On a superficial level, accounting enrolments in Australia and most states have grown on average by three percent per annum over the period, and there are now thirty percent more students enrolled in accounting courses than at the beginning of the decade. Likewise, accounting load has also increased, growing by nearly four percent per annum and nearly forty percent higher than in 1989. However, these figures obscure several important considerations. First, the relatively modest national growth rates have not been reflected across all Australian States and Territories. For

example, while growth in accounting load has been strong in NSW, South Australia, Queensland and Western Australia, it has been less so in Victoria and the ACT.

Second, growth rates have not been consistent across the division between postgraduate and undergraduate offerings. For instance, growth in enrolments has been higher for postgraduates than undergraduates in NSW, Victoria, Queensland and Tasmania, while the reverse holds in Western Australia and South Australia. Finally, it is without doubt that in common with economics, accounting has suffered a relative decline within the broad scope of business-related studies. The share of enrolments held by accounting courses has fallen throughout the decade (from 24.76 to 22.27 percent), a condition also reflected to a lesser extent in accounting load. But once again this is not evenly distributed across all course types, with postgraduate accounting enrolments now providing somewhat less than half of the share of enrolments in business-related courses that it did at the beginning of the decade.

(2) Composition

An equally important concern, if not more so, than the level of accounting enrolments and student load is an understanding of the composition of accounting courses and units. Justification is not hard to find, taking into mind the prospects for revenue raising by accounting departments and desired equity outcomes. Four issues are thought of most interest in the Australian tertiary sector. These are: (i) an examination of the purported gender bias of accounting studies, especially at the postgraduate level; (ii) the participation of Aboriginal and Torres Strait Islanders in accounting courses at all levels; (iii) enrolments by overseas students and the implications for teaching pedagogy and assessment styles; and (iv) prospects for growth in fee-paying income for both overseas postgraduates and undergraduates and domestic postgraduate students.

The first issue addressed is the gender balance in accounting education. Table 5 provides the percentage of female accounting enrolments by course type for the period 1989 to 1999. In 1989 some 38.40 percent of all accounting enrolments were female students, and this had increased to some 52.51 percent in 1999 – an absolute increase of 13.11 percent and a relative increase of 34.14 percent. By way of comparison, female participation rates in 1999 in general business studies were 50.55 percent, 42.88 percent in management, 42.06 percent in finance, 69.53 percent in hotel and hospitality management, 54.39 percent in marketing and only 40.27 percent in economics. Overall, female students accounted for some 48.60 percent of all enrolment in business-related studies in 1999. On this basis, it would appear that accusations of a persistent gender bias in accounting education might lack foundation.

However, the figures provided in Table 5 also indicate that participation by females in accounting studies varies dramatically by course type. The most notable improvements appear to have been in enrolments in Honours and Masters by research programs. In 1989 less than a third of all Masters by research students and only one-fifth of Honours students were female, but by 1999 this had increased to more than fifty percent in both instances. The least improvement is in doctoral programs, encompassing all higher doctorates, Doctor of Philosophy and doctorates by coursework. In 1989 only 31 percent of all accounting doctoral candidates were female, and this had only increased to 34 percent by the end of the decade. Of course, these figures concern only enrolments and may not be indicative of completion rates by female doctoral candidates and whether this is higher or lower than their male counterparts.

TABLE 5. *Percentage of female enrolments in accounting courses by type, 1989-1999*

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Overall
Doctorate	31.82	29.41	34.92	30.85	35.90	35.20	36.09	41.48	40.13	38.06	34.62	1.80
Masters by research	29.03	42.42	48.15	45.65	31.03	28.81	31.67	31.25	41.86	51.61	52.78	22.75
Masters by coursework	28.60	26.13	26.65	27.36	29.73	31.11	35.53	36.72	38.84	42.97	45.04	15.44
Other postgraduate	29.44	31.80	36.05	37.40	36.51	40.77	41.63	42.23	50.58	51.73	53.37	22.93
Bachelors - Honours	20.00	36.36	29.03	34.85	37.93	37.24	36.28	36.67	49.43	44.09	53.85	32.85
Bachelors - Pass	39.19	41.00	42.57	43.72	44.89	46.72	47.50	49.26	50.68	51.87	53.45	13.26
Other undergraduate	45.00	40.11	41.61	42.62	25.00	45.00	50.00	51.85	60.61	62.86	48.64	2.64
Total	38.40	40.09	41.61	42.62	43.60	45.56	46.47	48.13	49.62	50.90	52.51	13.11

Notes: Category 'Doctorate' includes higher doctorates, Doctor of Philosophy and doctorate by coursework, 'Other postgraduate' includes postgraduate qualifying/preliminary courses and graduate diplomas and certificates, 'Other undergraduate' includes all associate degrees, advanced diplomas, enabling courses, non-award and open learning enrolments taught at higher education institutions. 'Overall' is the change in the percentage share of female accounting enrolments from 1989 to 1999.

A second issue is the level of participation by Aboriginal and Torres Strait Islanders (ABTS) in accounting courses. Table 6 lists enrolments in all accounting courses by Aboriginal and Torres Strait Islanders over the 1990s. Notwithstanding the high number of enrolments where ethnic background is not declared, the percentage of enrolments by ABTS students has grown only marginally over the sample period. In 1989, ABTS students amounted to some 0.23 percent of accounting enrolments, and this had increased to 0.40 percent in 1999. However, while this is comparable for ABTS student enrolments in all business-related studies (0.43 percent) it is still significantly below the levels of participation by these students in other faculties, especially health and education.

TABLE 6. *Percentage of accounting enrolments by Aboriginal and Torres Strait Islanders (ABTS), 1989-1999*

	Aboriginal or Torres Strait Islander	Non-Aboriginal or Torres Strait Islander	Ethnic background not defined	Total enrolments (including not defined)	Percent Aboriginal or Torres Strait Islander
1989	52	22203	714	22969	0.23
1990	61	23948	2351	26360	0.25
1991	87	27221	723	28031	0.32
1992	76	26641	388	27105	0.28
1993	87	24975	130	25192	0.35
1994	87	26159	548	26794	0.33
1995	102	27827	299	28228	0.37
1996	91	29098	222	29411	0.31
1997	106	29800	156	30062	0.35
1998	107	29522	254	29883	0.36
1999	119	29621	228	29968	0.40

Notes: Enrolments include the Northern Territory and multistate universities (i.e. Australian Catholic University). Calculation of percentage share of Aboriginal or Torres Strait Islander does not include undefined ethnic background enrolments.

A third issue of concern is the level of participation of overseas students in Australian accounting courses. There are at least two dimensions at play in this regard. In the first instance, overseas students are an important, though not the exclusive, source of fee-paying income for Australian accounting departments. In the second, the increasing participation of overseas students has important implications for accounting pedagogy and teaching styles, including commitments to internationalisation of course content, the provision of enabling and preparatory programs for

postgraduate study, and other support schemes. In the longer term, the role of graduate teaching assistants and the changing emphasis of alumni programs is highlighted.

Table 7 details the proportion of enrolments accounted for by overseas students at all levels over the sample period. In 1989 overseas students represented on average some 8.59 percent of total enrolments in accounting. However, one quarter of institutions had overseas enrolments in excess of 11.79 percent, with a further quarter having less than 1.95 percent of their enrolment provided by overseas students. By 1999, an average of 18.45 percent of accounting enrolments were held by overseas students, with twenty-five percent of Australian accounting departments having overseas enrolment rates above 28.36 percent, fifty percent between 6.38 percent and 28.36 percent, and a final twenty-five percent with less than 6.38 percent. By way of comparison, overseas student enrolments in all business-related studies were 8.55 percent in 1989, 13.03 percent in 1993, 17.94 percent in 1996 and 24.50 percent in 1999.

TABLE 7. *Percentage of accounting enrolments by overseas students, 1989-1999*

Year	1989	1990	1991	1992	1993	1994
First quartile	1.95	3.20	6.19	6.49	5.37	7.25
Second quartile	4.82	6.64	10.86	12.05	10.43	12.64
Third quartile	11.79	11.46	16.28	15.62	15.14	18.47
Highest quartile	57.14	71.93	36.39	35.76	38.13	39.60
Mean	8.59	10.01	12.02	12.32	12.02	13.77
Standard deviation	10.57	12.65	8.38	9.00	9.46	9.72
Five highest proportions of overseas enrolments	Wollongong	Wollongong	Murdoch	Murdoch	Murdoch	Murdoch
	Murdoch	Murdoch	ANU	Curtin	Curtin	Curtin
	ANU	ANU	Monash	Monash	UWA	UWA
	Curtin	Curtin	Curtin	ANU	Monash	USQ
	Flinders	NTU	NTU	UWA	ANU	Monash
Five lowest proportions of overseas enrolments	Edith Cowan	UWS	Queensland	Edith Cowan	QUT	Edith Cowan
	Charles Sturt	Melbourne	Melbourne	UTS	USQ	Griffith
	UWS	Griffith	Edith Cowan	USQ	NTU	Sth. Cross
	UTS	Newcastle	Newcastle	Melbourne	UTS	UTS
	Monash	Sydney	Griffith	Griffith	Melbourne	Melbourne
Year	1995	1996	1997	1998	1999	
First quartile	7.46	5.07	7.20	6.77	6.38	
Second quartile	11.39	13.03	11.73	13.04	18.41	
Third quartile	20.34	24.23	25.08	26.47	28.36	
Highest quartile	41.14	50.00	51.37	56.17	55.69	
Mean	14.44	15.36	16.06	17.12	18.45	
Standard deviation	10.36	13.59	13.96	14.04	14.61	
Five highest proportions of overseas enrolments	Murdoch	Murdoch	Curtin	Curtin	Curtin	
	Curtin	Curtin	Murdoch	UWA	UWA	
	UWA	UWA	UWA	Murdoch	RMIT	
	USQ	USQ	NTU	RMIT	Murdoch	
	NSW	NTU	NSW	NSW	NSW	
Five lowest proportions of overseas enrolments	La Trobe	SCU	Deakin	La Trobe	Flinders	
	Flinders	Deakin	Sth. Cross	Deakin	Deakin	
	Melbourne	Melbourne	La Trobe	Sth. Cross	ANU	
	Sth. Cross	UTS	Flinders	Flinders	Sydney	
	UTS	NTU	ANU	Sydney	Sunshine	

Notes: Current institutional names were used for pre-Dawkins' reform component institutions: UTS (1989) relates to the Kuring-gai College of Advanced Education, UWS (1989/1990) is the Macarthur Institute of Higher Education and Charles Sturt (1989) is the Mitchell College of Advanced Education.

It is evident from Table 7 that there are at least some unifying traits in the institutions that have relatively higher or lower enrolments by overseas students. In at least a few cases, institutions with very low overseas enrolment rates are mostly large, post-Dawkins, metropolitan universities (UTS,

QUT, UWS) or 'sandstones' (Melbourne, Sydney, ANU). However, institutions with relatively high rates of enrolments by overseas students tend to be biased heavily to a broader cross-section in Western Australia (Curtin, UWA, Murdoch). Nevertheless, participation rates of overseas students in accounting vary dramatically from year to year and institution to institution. For example, from 1989 to 1995 ANU had one of the five highest proportions of overseas enrolments, but by 1997 had fallen to one of the five lowest. Conversely, USQ was in the lowest five in 1992/93 but placed in the highest five in 1995/1996.

TABLE 8. *Percentage of fee-paying students in accounting completions by state, 1989-1998*

		NSW	VIC	QLD	WA	SA	ACT	TAS	AUST
Undergraduate and postgraduate overseas fee-paying students	1989	0.37	0.09	0.00	5.65	0.00	0.00	0.00	0.57
	1990	2.22	1.39	0.25	8.52	1.01	1.30	0.00	2.08
	1991	4.00	2.49	1.56	26.77	2.49	4.12	0.00	5.28
	1992	10.60	11.93	3.20	26.83	4.58	9.65	1.65	11.52
	1993	16.23	10.23	8.32	33.41	12.91	18.87	12.00	15.74
	1994	16.27	16.98	5.75	37.50	13.57	18.35	11.11	18.03
	1995	18.26	22.59	6.61	39.98	12.88	21.19	15.63	20.08
	1996	15.73	26.99	9.07	42.76	7.73	26.04	11.06	21.33
	1997	20.47	33.54	13.14	45.19	11.09	20.13	19.61	25.80
	1998	21.27	36.38	15.19	54.13	10.28	12.50	26.28	29.63
Postgraduate domestic fee-paying students	1989	1.19	0.00	2.99	0.00	0.00	0.00	0.00	0.95
	1990	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.07
	1991	2.88	1.89	0.11	0.00	0.00	0.00	0.00	1.41
	1992	3.76	1.52	0.69	0.00	0.00	0.00	0.00	1.78
	1993	4.52	3.80	1.33	0.00	0.00	0.00	0.00	2.77
	1994	3.88	5.29	2.57	0.00	0.00	0.00	0.00	3.10
	1995	3.77	6.06	2.82	0.00	0.00	0.00	0.00	3.25
	1996	6.16	4.91	2.43	0.00	0.00	0.00	0.00	3.52
	1997	8.04	4.82	3.53	0.00	0.00	0.00	0.00	4.30
	1998	8.59	6.97	4.67	0.00	0.00	0.00	0.00	5.05

Notes: Total includes completions in the Northern Territory and multistate universities, i.e. Australian Catholic University. Figures currently unavailable for 1999.

An alternative perspective on revenue raising is given in Table 8 where the share of accounting completions by overseas postgraduate and undergraduate fee-paying students and domestic postgraduate fee-paying students is provided. Unfortunately, fee-paying students are not identified in the enrolment data provided by DETYA, and the fee-paying identifier for completions is only current to 1998. Equally important, the fee-paying proportions provided in Table 8 lag actual fee-paying enrolments by several years. Nonetheless, the figures in Table suggest that the proportion of fee-paying students in accounting courses has steadily increased over the decade. At the beginning of the 1990s overseas fee-paying students represented some 0.57 percent of all accounting course completions, and by 1998 this had increased to 29.63 percent. Reinforcing earlier suggestions, the proportion of fee-paying overseas students completing accounting courses was relatively higher in Western Australia (54.13 percent), followed by Victoria (36.38 percent) and Tasmania (26.28 percent). South Australia and the ACT have the lowest proportion of fee-paying accounting completions by overseas students (10.28 and 12.50 percent respectively). These figures are broadly comparable to the share of overseas fee-paying completions in all business-related disciplines. These increased from 1.05 percent in 1998, to 12.01 percent in 1993, 19.42 percent in 1996 and 26.81 percent in 1998.

Table 8 also presents the percentage of accounting course completions for fee-paying domestic postgraduate students. However, in sharp contrast to the widespread participation of fee-paying overseas students in accounting courses, fee-paying domestic postgraduate students (at least in terms of completions to 1998) are concentrated in NSW, Victoria and Queensland. Of these states,

NSW has the highest share of fee-paying domestic postgraduate completions with 8.59 percent of all completions; Victoria has 6.97 percent and Queensland 4.67 percent. However, unlike the experience with fee-paying overseas students, the share of accounting completions held by fee-paying postgraduates is significantly less than business-related disciplines in general. In 1989 1.20 percent of all business-related completions were fee-paying domestic students, 7.71 percent in 1993, 11.01 percent in 1996 and 12.59 percent in 1998. Combining the figures in Table 8 together, the share of non-fee-paying Australian accounting completions, both postgraduate and undergraduate, has fallen from 98.48 percent in 1989 to 65.32 percent in 1998. The share of non-fee-paying completions in all business-related programs was slightly more than 60 percent in 1998.
In common with the trends in accounting enrolments and student load over the 1990s, the composition of accounting courses has also changed. The participation of female undergraduates and postgraduates in accounting courses has increased dramatically, placing it well ahead of finance, economics and management, though enrolment rates in doctoral programs and Masters by coursework are only marginally higher than what they were a decade before. In sharp contrast, enrolments by Aboriginal and Torres Strait Islander students have barely increased in relative terms, though this is consistent with the experience across all business-related programs. Lastly, enrolments and completions by overseas fee-paying students have increased dramatically, though as with overall enrolments this is not evenly spread across all institutions or states. Finally, the share of completions accounted for by domestic fee-paying students has also increased, though at much slower rates than found in business-related studies in general.

(3) Concluding Remarks

The preceding analysis of trends in Australian accounting enrolments and student load over the period 1989 to 1999 highlighted the emergence of three main trends. First, despite the fact that accounting enrolments, both postgraduate and undergraduate, have grown nationally since 1989 the relative position of accounting within the broad field of business-related studies has declined. While it is not purpose of this note to comment on the causes of this decline, at least part can be attributed to the growth in popularity of courses in general business, marketing, finance and management, amongst others. The accounting discipline therefore has disturbing parallels with the experience of economics throughout the 1990s. However, unlike the experience in economics the gender balance of accounting cohorts over the period has apparently improved. Female enrolment rates in accounting courses are now among the highest in the business-related disciplines, though there appears to have been little progress over the decade in increasing the participation rates of female students in doctoral programs.

Secondly, the changing level of accounting enrolments is not reflected uniformly across all Australian states and territories. While the authors believed it inappropriate to single out individual institutions in this regard, it is readily obvious accounting departments across Australia have experienced varying fortunes over the period. In some states, especially NSW, Queensland and Western Australia, growth rates have been relatively strong in undergraduate and/or postgraduate enrolments. However, even within these three states there appear to have been varying responses to the changing tertiary environment. In NSW and to a lesser extent Queensland, growth in postgraduate numbers, especially fee-paying enrolments, have been much stronger, whereas in Western Australia growth rates have been relatively higher in undergraduate fee-paying enrolments. Present trends are suggestive of moderate growth in accounting enrolments for fee-paying students, both domestic and overseas, for at least the foreseeable future.

A statistical note of this type is bound to raise more questions than answers and these are suggestive of future directions of research. Foremost amongst these is explaining the relative decline of accounting courses. Whether this is tied to specific labour market conditions, declining interest in the subject matter or the profession by secondary students, or pedagogical factors, is as yet untested. Another direction for future work concerns the ability of accounting departments to attract fee-

paying student income. Obviously geographical, institutional and educational differences have a role in this regard. Finally, there are some findings in this paper that may serve to heighten discussion of other aspects of accounting education that have received little attention. One of these is the perennially low rate of participation by Aboriginal and Torres Strait Islanders in accounting courses. Another is the fact that the share of accounting course completions by overseas students is significantly higher than that suggested by their share of enrolments.

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