
B Education preface

Education is a lifelong activity, delivered both informally (for example, by family or at work) and formally by the education sector (for example, by schools, technical and further education institutes (TAFE) and universities). The education sector has a range of objectives, of which some are common across all levels of education (for example, to increase knowledge) and others are more specific to a particular level of education (for example, with vocational education and training (VET), to provide skills and learning directly related to work).

Formal education services are delivered through both government and non-government agencies. Government education agencies include government primary and secondary schools, technical and further education institutes and universities. Governments also fund services delivered by non-government providers in the school and vocational education and training sectors. This Report covers the performance of all these education services (except universities).¹ The effectiveness and efficiency of preschool programs, which provide a variety of educational and developmental experiences for children before full time schooling, are covered in children's services (see chapter 14) but learning outcomes are not reported.

Profile of education

Roles and responsibilities

The roles and responsibilities of administering, funding and determining the objectives of school education encompass different levels of government and non-government school authorities. Government and non-government institutions are involved in the delivery of school education. State and Territory governments have constitutional responsibility for the provision of schooling to all children of school age. To this end they determine curricula, regulate school activities and

¹ The education preface provides a sectorwide picture of education. The activities of universities may affect other sectors of education, so they are discussed generally in this preface but are not examined elsewhere in this Report.

provide the majority of funding, and they are directly responsible for the administration of government schools.

Non-government schools operate under conditions determined by State and Territory government registration authorities. Commonwealth, State and Territory governments provide some funding to non-government schools.

The Commonwealth funds government and non-government schools through specific purpose payments. The Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) — comprising Commonwealth, State and Territory education ministers — is the principal forum for developing national priorities and strategies for schooling.

The national VET system is a cooperative arrangement between Commonwealth, State and Territory governments; industry (represented by Industry Training Advisory Bodies); and private and public providers. The bodies that provide funds, advice and decisions are not necessarily the same. State and Territory governments play dual roles as both purchasers of VET services (from private providers and adult and community providers) and direct deliverers of services (through TAFE institutes and universities with TAFE divisions) in the publicly funded VET system. In addition, each State and Territory government is responsible for administering its training system, setting fees and determining exemption, concession and loan arrangements for students.

Funding

Education is a major area of government expenditure and activity. Total operating expenses for all governments in 1998-99 were approximately \$31.5 billion, which is equivalent to 5.3 per cent of gross domestic product. The States and Territories (including local governments) provided \$21.2 billion of this total. The Commonwealth Government provided \$11.5 billion, including \$8.8 billion comprising grants to other levels of government, including to universities (ABS 2000a).

With the introduction of accrual accounting, there is no comparability in the education expenditure series between 1998-99 and earlier years. As a result, trend growth in education expenditure is calculated between 1992-93 and 1997-98.

Between 1992-93 and 1997-98, the average annual real growth rate of Commonwealth Government expenditure on education was 3.1 per cent. For State and Territory governments, the average annual real growth was 1.8 per cent with growth mainly occurring from 1995-96 (table B.1).

Table B.1 Commonwealth, State and local government expenditure on education (1997-98 \$ million)^a

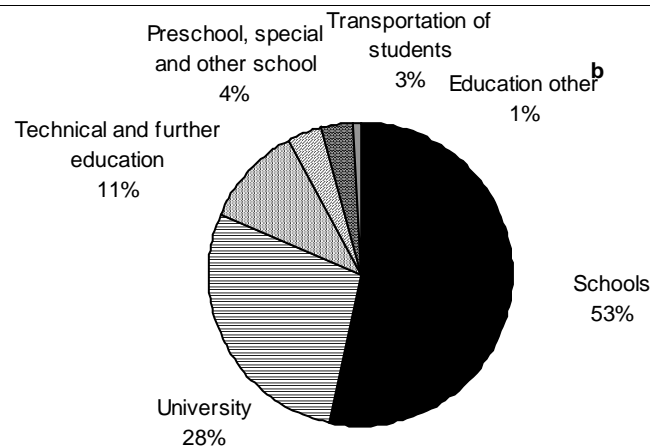
	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	Average annual real growth (%)
Commonwealth ^a	9 218	9 743	10 264	10 365	10 523	10 730	3.1
State and Territory expenditure financed from own resources	12 934	12 621	12 694	13 112	13 878	14 128	1.8
Local government expenditure financed from own resources	21	18	18	22	26	28	5.9
Universities expenditure financed from own resources	210	109	203	-86	159	292	6.8
Less inter-sector taxes	70	79	80	89	89	95	6.3
Total government	22 313	22 412	23 099	23 323	24 497	25 083	2.4

^a Includes general government final consumption expenditure, personal benefits payments, and grants (current and capital) to State and Territories, local governments, universities and non-profit organisations.

Source: ABS (1999b).

In 1998-99, schools accounted for the highest proportion of education expenditure (53 per cent), followed by universities (28 per cent) and technical and further education institutes (11 per cent). Expenditure on preschool, special and other schools accounted for 4 per cent (figure B.1).

Figure B.1 Total government expenditure on education, 1998-99^a



^a Based on accrual operating expenses for education, net acquisition of non-financial assets. ^b Includes tertiary other.

Source: ABS (2000a).

Excluding NSW and SA, the breakdown of State and Territory government expenditure across the education sector varied across jurisdictions in 1998-99. The

NT had the highest proportion of expenditure on preschool and special education, the WA had the highest expenditure on primary and secondary education (77.9 per cent), and the ACT had the highest proportion of expenditure on technical and further education (16.3 per cent) (table B.2).

Table B.2 State, Territory and local government expenditure, 1998-99

		<i>Units</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Total</i> ^a
Preschool and other special	%	na	5.5	8.8	6.2	na	5.7	8.8	10.9	4.8	
Primary and Secondary	%	na	74.1	77.1	77.9	na	67.2	72.2	70.4	74.9	
Technical and further	%	na	16.1	10.5	13.0	na	15.7	16.3	6.2	14.0	
University	%	na	0.6	0.6	0.0	na	0.3	1.3	3.2	0.4	
Other Tertiary	%	na	0.0	0.0	0.8	na	0.0	0.0	4.7	0.2	
Other ^b	%	na	3.6	3.0	2.2	na	10.9	1.1	4.9	4.0	
Total	%	na	100	100	100	na	100	100	100	100	
Total	\$m	na	5 058	3 929	2 218	na	598	453	405	21 627	

^a Includes NSW and SA. Education purpose data are not available from NSW and SA given to data quality concerns. Data are based on reported accrual operating expenses, net acquisition of non-financial assets. ^b Includes transportation of students and education services not elsewhere classified.

Source: ABS (2000).

Size and scope

In 1999, approximately 5.7 million people aged 5–64 years participated in some form of education and training, mainly in school education (60 per cent). It is not possible to provide a profile of the participation rate of vocational educational and training students and higher education students in tertiary studies due to the blurring of the boundaries of these categories (ABS 1999c).

In 1999 approximately 3.2 million full time students were attending school (2.2 million in government schools and one million in non-government schools) (ABS 2000b). Approximately 270 000 students left school in that year to work, to attend university or vocational training, or to undertake combinations of work and education. Of these students, 29 per cent were early school leavers. Higher education institutions attracted around 94 000 school leavers in 1999, or 35 per cent of all school leavers. Technical and further education institutions attracted 63 000 school leavers (23 per cent) (table B.3).

Table B.3 School leaver destinations, 1999^a

Type of institution attending in May 1999	Year 12 leavers			Early school leavers ^b			All school leavers			
	Unit	Male	Female	Total	Male	Female	Total	Male	Female	Total
Higher education	%	47.1	49.2	48.2	0.8	2.8	1.6	31.1	38.6	34.8
TAFE	%	22.6	18.1	20.2	33.9	27.0	31.2	26.5	20.1	23.3
Other study ^c	%	2.9	5.1	4.1	5.8	10.1	7.5	3.9	6.3	5.1
Not attending	%	27.4	27.6	27.5	59.5	60.2	59.7	38.5	35.0	36.8
Total	'000	89.7	103.1	192.8	47.3	30.2	77.5	136.9	133.3	270.3

^a Those who left school in the previous year. ^b Those who leave school earlier than year 12. ^c Includes business colleges, industry skills centres and other educational institutions.

Source: ABS (1999a).

Expanded options for students

One of the major objectives of schooling is to provide students with employment related skills, career options and skills for further education and training. In 1996, the Ministerial Council of the Australian National Training Authority (ANTA) agreed to allocate \$20 million of ANTA funds each year (for four years, commencing in 1997) to vocational education and training in schools. This program involves Commonwealth, State and Territory education and training departments and agencies and the nongovernment sectors working in partnership with industry, to bring about a major change in the programs that schools provide for students in their senior secondary years.

Approximately 116 991 students were enrolled in vocational education and training in schools programs in 1998 — a 24 per cent increase on the previous year's enrolments. Enrolments were highest in tourism and hospitality, and business and clerical programs. In 1998, approximately 50 per cent of students took up work placements as part of their course (MCEETYA 2000).

Within the Australian qualification framework, both the school sector and the vocational education and training sector offer certificate level qualifications (box B.1). Schools can thus provide dual award courses, which combine school and vocational education and training studies and recognise the achievement with an award from both sectors.

The number of students in post-school vocational programs increased by 7 per cent between 1998 and 1999 to reach over 1.65 million. The participation rate in vocational education and training for people aged 15–19 was 23 per cent and 18 per cent for people aged 20–24 (NCVER 2000).

Australia's post-school sectors (vocational education and training, and higher education) have become more diverse in recent years. Both offer courses at the diploma and advanced diploma level, and an evolving system of credit transfers between vocational education and training providers and universities has facilitated the flow of students from one sector to the other (box B.1).

Box B.1 Choices of educational setting^a

Both the school and the vocational education and training sectors offer courses at certificate levels 1 or 2 or higher. The vocational education and training and higher education sectors both offer diploma and advanced diploma courses.

Australian Qualification Framework

<i>School sector</i>	<i>Vocational education and training sector</i>	<i>Higher education Sector</i>
		Doctorate
		Masters degree
		Graduate diploma
		Graduate certificate
		Bachelor degree
	Advanced diploma	Advanced diploma
	Diploma	Diploma
Senior Secondary	Certificate IV	
Certificate Of Education	Certificate III	
	Certificate II	
	Certificate I	

^a The Australian Qualification Framework Advisory Board members are currently discussing the relationship between the senior secondary certificate and vocational education and training qualifications.

Source: Australian Qualification Framework Advisory Board (1998).

Participation in education and training

Successive Australian governments have viewed education as a means to improve economic and social outcomes and equity across all sections of society. Thus, they have sought to increase rates of participation in education.

Enrolment in a post-school education and training institution

From 1996 through to 1999, the proportion of the population (aged 15–64 years) applying for enrolment in post-school education and training was fairly stable at around 20 per cent (of which less than 10 per cent deferred their studies). The proportion that applied to enrol but did not gain placements rose steadily from 1997, but in 1999 was still below the proportion of 1996. The majority of those unable to gain placements were seeking places in technical and further education (table B.4).

Table B.4 Applications to enrol in a post-school education and training institution, 15–64 years of age, 1996–1999, ('000)^a

	1996	1997	1998	1999
All persons studying in May that year	2 128	2 132	2 143	2 258
Gained placement but deferred study	199	183	176	188
Unable to gain placement	106	75	84	92
<i>of which</i>				
Technical and further education	48	35	44	46
Other vocational education and training	14	13	4*	13
Total vocational education and training	62	48	48	59
Higher education	25	18	24	20
Other education institutions	19	9	12	13
Applied to enrol for that year	2 433	2 392	2 403	2 538
Total population	12 042	12 187	12 341	12 483

^a Reasons for applicants not receiving a place in post-secondary education include: the course was full; the course was cancelled; they were not eligible/their entry score was too low; they applied too late; or other reasons. * This estimate has a relative standard error of greater than 25 per cent, so care should be exercised when using it.

Source: ABS (1999a).

The proportion of the population (aged 15–64 years in each jurisdiction) applying for enrolment in post-school education and training ranged from 19 per cent in Tasmania to 28 per cent in the ACT in 1999. Of those who were unsuccessful in gaining placements, the majority had applied to technical and further education institutions (table B.5).

Table B.5 Applications to enrol in a post-school education and training institution, 15–64 years of age, by State and Territory, 1999 ('000)^a

	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>
Applied to enrol in 1999	865.6	634.2	452.1	254.0	193.1	56.1	59.7	22.8
All persons studying in May 1999	786.4	567.2	394.6	219.2	166.1	49.6	53.9	20.2
Gained placement but deferred study	49.2	47.7	34.1	27.2	19.5	4.3	4.1	2.0
<i>TAFE</i>	18.1	11.5	12.1	8.6	8.0	1.7	0.5	0.2
<i>Study not for recognised qual*</i>	7.6	9.3	6.1	5.7	4.7	1.3	1.4	0.2
Total VET	25.7	20.8	18.2	14.3	12.6	2.9	1.9	0.5
Higher education*	13.9	18.7	10.2	7.6	3.2	0.8	1.8	1.6
Other education	30.9	8.2	5.7	5.2	3.6	0.5	0.4	0.0
Unable to gain placement	30.0	19.3	23.5	7.6	7.5	2.2	1.7	0.6
<i>TAFE</i>	16.9	7.1	12.0	4.2	3.8	1.3	0.6	—
<i>Study not for recognised qual*</i>	3.3	3.7	2.9	0.9	1.7	0.3	—	0.2
Total VET	20.2	10.8	14.9	5.1	5.6	1.6	0.6	0.2
Higher education*	3.4	6.4	5.8	1.7	1.2	0.3	0.8	0.4
Other education	6.4	2.1	2.7	0.9	0.7	0.3	0.3	—
Did not apply to enrol in 1999	3 349.3	2 496.7	1 849.7	988.6	779.4	246.6	151.8	83.0
Total	4 214.9	3 130.9	2 301.8	1 242.6	972.5	302.6	211.5	105.7

^a Reasons for applicants not receiving a place in post-secondary education include: the course was full; the course was cancelled; they were not eligible/their entry score was too low; they applied too late; or other reasons. * These estimates have a relative standard error of greater than 25 per cent, so care should be exercised when using them. — Estimates which are close to zero or have relative standard errors of 50 per cent have not been reported.

Source: ABS (1999d).

Progress towards Finn targets

In 1991 'Finn targets' were set by vocational education and training ministers for the participation of young people in post-compulsory education and training (box B.2). The targets relate to national participation and qualification attainment for 19 and 22 year olds in schools, vocational education and training and higher education, and indicate overall outcomes for the education sector (figure B.2).

The ANTA has noted that progress towards the Finn target for 19 and 22 year olds is not in line with Finn targets, but it is improving. It projects, however, that if the current participation and attainment trends continue for 19 year olds and 22 year olds, the achievement of the Finn target for these age groups by 2001 will not be reached (ANTA 1999). Schools, universities, and the vocational education and training system all affect the rate of progress towards these targets.

Box B.2 Finn targets

By 2001, 95 per cent of 19 year olds will:

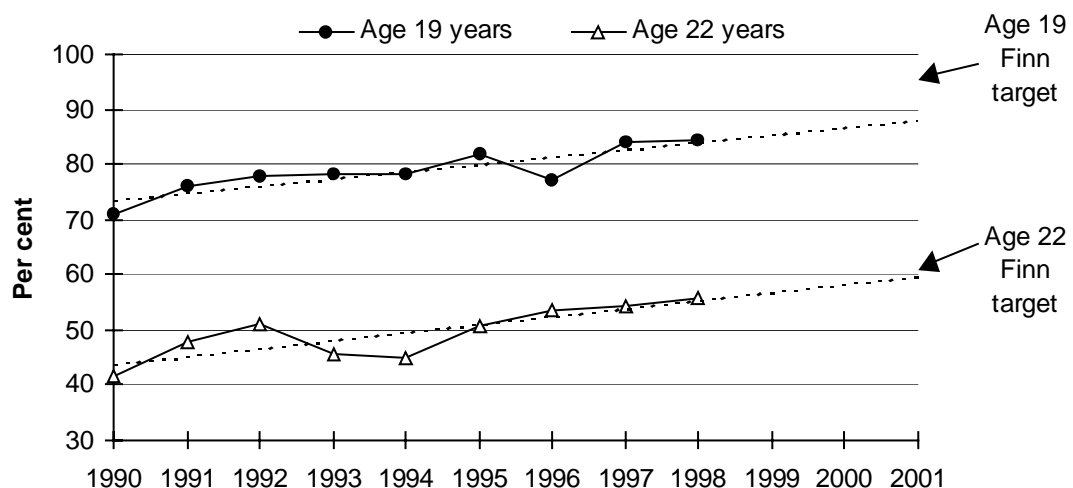
- be participating in, or have completed, year 12; or
- have completed years 10 or 11 and will be participating in, or have completed, some formally recognised education and training.

By 2001, 60 per cent of 22 year olds will:

- be participating in education or training programs that lead to level 3 awards; or
- have attained level 3 or above qualifications; or
- be participating in, or have completed, higher education studies such as diplomas and degrees.

Source: ANTA (1999).

Figure B.2 Participation and qualification attainment by 19 and 22 year olds in post-compulsory education^{a, b, c}

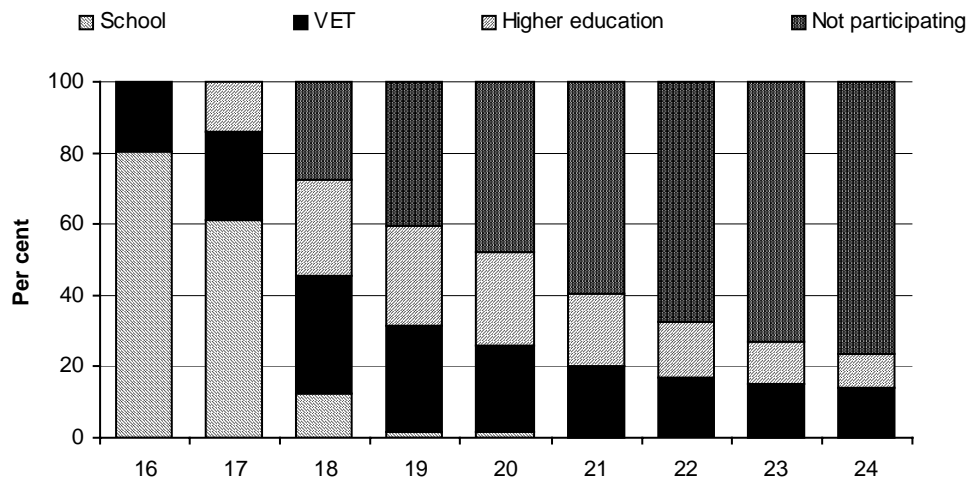


^a Targets for the participation of young people in post-compulsory education and training are also known as Finn targets. ^b The dotted lines are yearly projections set by the Australian National Training Authority to meet the Finn targets (see box B.2) set for 19 and 22 year olds at year 2001. ^c The approach adopted to monitor Finn targets was revised in 1999. Some previous data used to measure attainment against the targets have been revised.

Source: ANTA (1999).

The majority of people aged up to 17 years who were participating in education and training in 1999 were at schools. The proportion of 18–24 year olds participating in vocational education and training and in university education was approximately the same. More 16–24 year olds are participating in vocational education and training than university education, with this higher level of participation concentrated most in the 16–18 year age group. The proportions not participating in education increased with age (figure B.3).

Figure B.3 Participation in education and training by people aged 16–24 years, by sector, 1999^{a, b}



^a In schools, the 20 year old cohort includes those aged over 20 years. ^b In higher education, the 16 year old cohort includes those aged under 16 years.

Source: ANTA (2000).

Skill profile of Australia

Another important objective of education and training is to improve the skill base of the economy. In turn, this may facilitate higher productivity growth by enhancing the country's overall ability to adapt to technological change.

There were 4.4 million people aged 15–64 years (or 51 per cent of employed people aged 15–64 years) with recognised post-school qualifications in 1999 (ABS 1999d). Of this group, 27 per cent had a bachelor degree as their highest qualification, 27 per cent had a skilled vocational qualification, and 18 per cent had a basic vocational qualification. Generally, a greater proportion of those with post-school qualifications at May 1999 tended to be employed as managers, administrators, and professionals (61 per cent), while those without post-school qualifications tended to be employed as clerical, sales and service workers (table B.6).

Table B.6 Educational attainment of employed persons aged 15–64 years, May 1999 ('000)^a

<i>Occupation in current job</i>	<i>Total with post-school qualifications</i>	<i>Total without post-school qualifications^b</i>	<i>Completion of highest level of secondary school</i>	<i>Non-completion of highest level of secondary school</i>	<i>Total^c</i>
Professional ^d	2 224	838	402	434	3 066
Trades people and related workers	750	387	119	267	1 140
Clerical, sales and service workers ^e	998	1 602	767	835	2 739
Intermediate production and transport workers	216	525	129	396	759
Labourers and related workers	198	577	160	416	823
Total	4 387	3 929	1 578	2 347	8 527

^a As defined under the Australian Bureau of Statistics Classification of Qualifications (ABSCQ). ^b Includes persons who never attended school. ^c Includes persons still at school. ^d Includes managers, administrators, professional and associate professionals. ^e Includes advanced, intermediate and elementary clerical, sales and services workers.

Source: ABS (1999d).

Literacy levels

The literacy level and general level of education (qualification) of a society are important determinants of growth and improved living standards. In 1996, the ABS conducted a national literacy survey to assess the literacy skills of people aged 15–74 (ABS 1996). The test ranked literacy skills on a scale from 1 to 5 (with higher numbers representing higher skill levels). Nationally, about half the adult respondents had a low level (that is, skill level 1 or 2) of literacy. However, the proportion of respondents in each skill level varied across jurisdictions; for example, the ACT reported the highest level (with 68 per cent of respondents at level 3 or higher) and Tasmania reported the lowest (with 48 per cent of respondents at level 3 or higher) (table B.7).

Table B.7 Literacy skill level of persons aged 15–74 years, 1996 (per cent)^a

<i>Literacy skill level</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
1	22	22	16	16	17	20	12	12 ^b	19
2	28	26	29	29	27	31	20	28	28
3	35	35	37	36	36	35	40	40	36
4–5	15	17	18	19	19	13	28	20	17

^a The levels represent a continuum of how well people were able to interpret and use material printed in English for each of the three types of literacy (prose, document and quantitative material). Progression along the continuum is characterised by increased ability to process information (for example, to locate, match and generate information) and to draw correct inferences from the information being used. ^b Sampling variability was too high for comparisons for most practical purposes.

Source: ABS (1996).

International comparison of education levels

The proportion of Australia's workforce (population aged 25–64 years) with a post-compulsory school qualification increased by 4 per cent (to 63 per cent) from the level reported in 1995 (59 per cent) (ANTA 2000). It is lower than the proportion in many other industrialised countries, such as France (66 per cent), Germany (86 per cent) and Denmark (71 per cent) (table B.8). The relative qualification level of a country's workforce does not directly reflect its relative skill base, because skills are acquired at different educational levels in different countries.

Comparing unit costs across jurisdictions

Comparing unit costs of a particular service for a specified outcome across jurisdictions can help to identify whether States or Territories have the scope to improve their performance. However, special characteristics within jurisdictions mean it would be hard for all jurisdictions to attain the same level of unit costs, while achieving similar outcomes. One way of better understanding how special circumstances may affect costs is to compare the variations in the unit costs across jurisdictions for services that have some similarities in outcomes, such as government school education and vocational education and training (table B.9). The greater variation in the unit costs of vocational education and training than in those of schools raises interesting questions about the likely causes. Further analysis would be necessary to identify, for example, whether the effects of scale or dispersion are greater for vocational education and training than for schools, whether the mix of costly and inexpensive courses differs (although the ANTA has adjusted data on recurrent costs to allow for that difference), and whether the quality of the services or their efficiency differs more.

Table B.8 Highest completed level of education — international comparisons, 1998 (per cent of labour force aged 25–64 years)^a

	<i>Post-compulsory school</i>				<i>Total post-compulsory school</i>
	<i>Less than upper secondary</i>	<i>Upper secondary^b</i>	<i>Non-university tertiary education^c</i>	<i>University level education</i>	
United States	11	51	9	29	89
Czech Republic	11	78	d	12	90
Germany	12	56	15	16	87
Norway	14	57	3	26	86
Switzerland	16	59	10	15	84
Canada	16	28	36	21	85
United Kingdom	14	59	9	17	85
Sweden	21	49	16	14	79
Denmark	17	54	22	6	82
Finland	26	41	18	15	74
Netherlands	28	43	d	28	71
France	33	43	11	12	66
New Zealand	23	41	22	14	77
Australia	38	33	10	19	62
Italy	47	36	6	12	54
Portugal	79	11	3	8	22
Country mean^e	32	42	10	16	68

^a The differences in data definitions and variations in collection methods across countries should be noted when measuring the gap between Australia's skill base and that of other countries. ^b Includes vocational equivalents such as apprenticeships and traineeships. ^c Several definitional and data issues that may influence the ranking of countries include: the definition used for non-university tertiary (particularly for vocational education and training courses); the OECD education classification levels, which are based on UNESCO's International Standard Classification for Education (for example, primary education is defined as beginning at age 5, 6 or 7 years and lasting for four to six years); and variations in survey data (for example, Denmark's 24–64 year old group actually includes all ages). ^d Data not applicable or included within another column of this table. ^e The country mean includes the countries in the table plus Korea, Austria, Belgium, Greece, Ireland, Luxembourg, Spain, Poland and Turkey.

Source: ANTA (2000).

Unit cost differences across education sectors should be used for further analysis rather than interpreted in isolation from other performance indicators such as outcomes and outputs (see chapters 2 and 3). Further, comparing the performance of education sectors requires a cross-sectoral approach to measuring and classifying educational participation and attainment, and such a system does not yet exist in Australia.

The Australian Bureau of Statistics has been partly addressing this issue by reviewing its Classification of Qualifications and developing an Australian Standard Classification of Education that covers all education sectors and can be used in both administrative systems and surveys. This classification is expected to be finalised by early 2000 and introduced into the Australian Bureau of Statistics statistical

collections from 2001. In addition, the development of a conceptual framework for education and training statistics is planned following the establishment of a National Centre for Education and Training Statistics.

Table B.9 Education institution unit costs, 1998-99

	<i>Unit</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>WA</i>	<i>SA</i>	<i>Tas</i>	<i>ACT</i>	<i>NT</i>	<i>Aust</i>
Government primary schools										
In-school cost per full time student										
	\$	5200	5295	5636	5284	5270	5850	5309	7808	5379
Difference from lowest cost State										
	%	a	1.8	8.3	1.6	1.3	12.5	2.0	50.1	3.4
Government secondary schools										
In-school cost per full time student										
	\$	7233	6514	6814	8143	7902	7156	7135	11667	7148
Difference from lowest cost State										
	%	11.1	a	4.6	25.1	21.3	9.8	9.5	79.1	9.7
Vocational education and training ^{b, c}										
Cost per adjusted annual curriculum hours										
	\$	16.43	10.75	15.08	13.25	14.8	18.29	17.35	23.33	14.32
Difference from lowest cost State										
	%	52.84	a	40.28	23.26	37.67	70.14	61.40	117.02	33.21

^a Lowest cost State. ^b Vocational education and training data are based on 1999 calendar year. ^c Includes payroll tax estimates for the ACT.

Sources: Chapters 3 and 4.