



MONASH UNIVERSITY - ACER

CENTRE FOR THE ECONOMICS OF EDUCATION AND TRAINING

An evaluation of education and training financial statistics

Report to the Australian Bureau of Statistics

Gerald Burke, Ross Harrold & Phillip McKenzie

25 October 2001



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Ross Harrold

Ross died on 1 October 2001. He had played a major role in developing the economics of education in Australia over the last thirty years, through his teaching at the University of Western Australia and the University of New England, through his extensive publications including seven books, through his formation of the economics of education network that brought together researchers across Australia in the field and most recently in this study.

Ross was a person of the highest integrity and sense of justice. He had enormous energy, strong views, great goodwill and humour. He was a much loved friend and colleague.

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Executive Summary

This report develops a framework for financial statistics for education and training in Australia, it reviews the current Australian education and training financial statistics against that framework and makes recommendations for further developments of financial statistics by the National Centre for Education and Training Statistics.

The need for this study arises from known gaps in current data, inconsistencies or lack of important detail in the available data sets and new needs for education and training data arising from the changing nature of the workforce, globalisation and the increasing attention to lifelong learning both in and out of education and training institutions.

The study was undertaken against the background of the overall framework that ABS is developing for education and training statistics. Consultations were held or comments sought from a wide range of providers and users of financial data to establish the main needs and also the difficulties in meeting those needs. Financial data for policy development and administration within various government bodies often draws heavily on their internal budget and financial data. But for the purposes of broader policy development, review and research data is needed on a consistent and coherent basis across sectors, levels of government, for public and private spending, in public and private institutions and outside institutions.

The OECD together with EUROSTAT and UNESCO has been developing international collections of education and training statistics over the last decade. The OECD's framework for financial data is reviewed in the report and it provides a base for the recommended framework.

The main elements for the proposed financial framework are:

- Scope—institutional education and other forms of education and training including training in the workplace and identifiable non-taught learning.
- Sources of funds—public and private, actual and imputed (by Commonwealth, State and Local Governments, by Private corporations, quasi corporations and non-profit institutions, by Households and by the Rest of the world).
- Uses of funds—education and training expenditure on institutions and outside institutions. Institutional expenditure classified by
 - i. resource category such as employee expenses, non-employee expenses and depreciation, and by
 - ii. service category such as instruction (e.g. delivery, delivery support, administration) and ancillary services (such as transport, books and student living costs) and research in universities.
- Links to output—the data must potentially be able to be linked to units of output and must be available in constant price or volume measures for comparisons over time.

- Accruals-based reporting—rather than cash based—compatible with Government Finance Statistics.

The existing main financial data sets are reviewed against this framework. The only data set published in Australia attempting to span education sectors is that produced by the ABS. The ABS provides a coherent framework for reporting government financial statistics but the coverage even of government data is quite aggregated. Only very broad aggregates are available for private spending. Attention is confined to education and training institutions and to associated spending such as student financial assistance and transport. Separately ABS has undertaken surveys of employer spending.

Data for government schools, non-government schools, publicly funded higher education and publicly funded VET institutions are considered against the framework. They differ in their coverage of private spending. In the school sector per student measures are produced in the data sets but not in the official higher education or VET statistics, though other users have produced such estimates. There is no consistent production of data in volume or constant price measures. There is very little disaggregation of data and identifying expenditures by particular fields of study or levels within tertiary education is not possible with the existing data sets. There are differences too in the treatment of payroll tax. Accrual accounting procedures are bringing about greater commonality. There are however considerable differences in depreciation procedures, valuing of capital and the extent to which a capital charge is applied to public sector education.

The data are patchy on preschool education and Adult and Community Education and the financial data will not be advanced until more consistent definition of the sectors is finalised.

There is information readily available at fairly aggregate level on government financial assistance to students through grants and loans such as HECS. There is little information available on non-institutional spending.

Recommendations are made for NCETS on the acceptance of the framework in this report. They are discussed in more detail in the conclusion.

1. Prepare a publication in 2002 on the finance of education and training based on the framework, using existing data and identifying what can and cannot be reported.
2. Review the need for price deflators for the main sectors of education.
3. Liaise with MCEETYA to extend the government schools collection.
4. Liaise with DETYA to extend the reporting of available data on non-government schools.

5. Liaise with ANTA and NCVER on VET financial data, in particular on links to output.
6. Liaise with DETYA on increased detail on the reporting on higher education.
7. Liaise with DFACS, Centrelink and DETYA to develop a detailed reporting of student assistance, of HECS assistance and of other measures of student support.
8. Review employer training expenditure measures to increase comparability with institutional expenditures.
9. Improve coverage of preschool and adult and community education.
10. Develop priority list for filling of other gaps in the framework and addressing conceptual issues.

1. Introduction

The purpose of this consultancy was to develop a framework for financial statistics for education and training in Australia and to critically review current Australian education and training financial statistics against that framework.

The consultancy is part of the activities being undertaken to develop a framework for education and training statistics by the National Centre for Education and Training Statistics (NCETS). In conjunction with the development of a broad framework NCETS is giving particular attention to several priority areas. Assessment of financial data on education and training is one of these areas.

It is a requirement of this consultancy that the framework for financial statistics should:

- be consistent with the broader conceptual framework for education and training statistics being developed by NCETS;
- cover all institutional sectors; and
- be able to be viewed from a number of perspectives including type of learning provided and characteristics of providers of education and training.

The current and potential needs of the users of financial data were the major factors considered by the consultants in the development of the framework. The scope of the statistics and the degree of detail have to be closely connected with the uses that will be made of the data. Hence an important part of the study was the consideration of the views of a range of major users of data. The framework that is developed is a set of requirements for the data so that they can be arranged in a coherent way to provide usable information for the major needs.

Using financial data for policy purposes

The framework is being developed by the NCETS and the term national collection is used in this report. By national collection is meant data compiled on a consistent and coherent basis for Australia, States and Territories and which will be reported by NCETS. This is in distinction from data compiled for the purposes of particular education sectors, particular States and Territories or for individual education and training institutions.

In this project the main use of the data is taken to be policy development and policy review. Those concerned with policy include a wide range of stakeholders, e.g.:

- all levels of government;
- various members and groups in the education sector;
- political, social, industrial and other interest groups;
- parents and other citizens; and

- researchers.

Financial data are also needed for purposes other than for policy—such as accountability and program administration—and these needs may also have implications for the way data are collected by the major agencies.

It is possible to classify the policy issues for which data are required but the degree of detail and disaggregation will vary with the issue under consideration. The questions that the statistical data will be called on to help answer will change over time. For example, the emergence of lifelong learning, stimulated by changes in the nature of work and the ageing of the population, is giving rise to an increased need for data on workplace learning and learning by older persons. Related to this is the concern with data on the finance for mature-aged persons to continue their learning and data to help monitor the impacts of different forms of household subsidies.

There are a range of policy questions which can be informed by financial data on education and training. Some of the main types of questions and the sorts of data to help answer them are:

i. How much is/should be provided?

Indicated by:

- the resources for education and training in total, for each sector and as a share of GDP;
- the sources of public finance by level of government and share of government activities; and
- the sources of private finance.

ii. How efficient is the provision of education and training?

Indicated by:

- resources per unit of output, such as cost per student per year, compared across levels and types of education and training;
- how the resources are deployed on personnel and other uses;
- changes in resources per unit over time, measured in constant prices; and
- relation between funding mechanism and efficiency.

iii. How effective is the provision of education and training?

Indicated by:

- the relation of resources per unit of output to measures of outcomes in aggregate; and
- resources per unit of output and outcomes for particular forms of learning and groups of learners.

iv. How equitable is the provision of education and training and who should pay?

Indicated by

- the distribution of education and training resources by various equity target groups including age gender ethnicity and socio-economic background.; and
- the sources of funds, by various groups.

The framework developed in this report is designed to help in the organisation of data so that it is useful for policy issues in these areas. The framework aims to cover:

1. the sources of funds for education and training and support for students and trainees, from governments, individuals/families and other entities e.g. employers;
2. the types of resources purchased with the funds;
3. the deployment of those resources in the process of educational production; and
4. the links between the process of production, educational outputs and various outcomes.

In the major sectors—schools, TAFE and universities—the financial collections can be aligned with the first three items. On the fourth item, it may be unrealistic and too expensive at the present time within a national financial collection to achieve links with output much beyond broad measures such as number of equivalent students per year or hours of training delivered. There is an increasing emphasis on collection and public reporting of student learning outcomes data but as yet there is no easy way to link these data to financial inputs.

There are limits to the detail in a national collection. For most policy issues a national data set is rarely the source of most of the information needed. The national collection will often need to be complemented with in-depth research and surveys directed at the particular policy issue. Nevertheless, the scope of the national collection must be clear and its content categorised in a manner which is likely to be consistent with the needs of those who intend to undertake in-depth research and surveys and to use the national data in providing benchmarks for comparisons within the more detailed studies.

Even among the major sectors there are considerable differences in the current treatment of aspects of financial data, for example of capital expenditures. There are also gaps particularly in the coverage of private expenditures and of private institutions. Outside the major education sectors the gaps in data are large. This applies to training in the workplace which is not part of a publicly funded program, pre-school education and adult and community education.

Structure of the report

Section 2 sets out some of the features the framework for financial data should have to fit within the overall framework of education and training statistics.

Section 3 outlines the approach used by the OECD in its education statistical collection. The OECD approach is considered here because of the need for international comparability of data but also because the OECD framework represents the outcome of expert analysis taking account of both the need for financial data and feasibility of supplying it.

Section 4 reports the needs for financial data indicated by the consultations with major users and of organisations reporting financial data.

Section 5 outlines the proposed framework.

Section 6 reviews the main sources of financial data in Australia against the proposed framework. It identifies data gaps, issues of data quality and differences in definitions and standards across sectors.

Section 7 suggests priorities for filling gaps and improving data taking account of user needs and the feasibility and cost of providing data of adequate quality.

The appendices include a glossary of key terms, some detail on the consultations undertaken, and a more detailed discussion of the issues relating to Adult and Community Education than included in the report.

2. Financial data within the education and training statistics framework

The overall framework for education and training statistics being developed by ABS uses an education activity model to serve as a basis for organising the statistics (ABS *A Framework 2000*). The model represents education and training taking place in a social and economic context in which the major groups are:

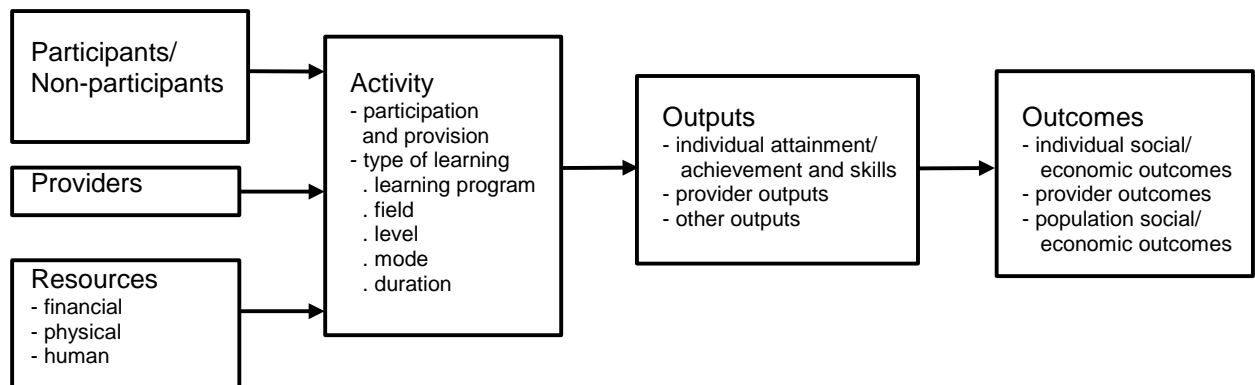
- individuals, family and community;
- governments; and
- organisations and employers.

These groups are largely responsible for:

- the inputs to the process, including the participants, the teachers and other staff, the providers (public/private, large/small) and the financial resources that are a major determinant of the size and mix of the physical inputs;
- the process or activity of education and training, including the type of learning, field of study, mode of delivery and duration of study;
- the outputs, such as the learning attained; and
- the outcomes, such as labour market and productivity outcomes and effects on equity and social cohesion.

Diagram 1 from the ABS Framework (2000) represents the inputs, activities, outputs and outcomes of education and training.

Diagram 1 Direction of resources and activity in education and training



A number of features of the finance statistics are specified by the need to comply with the requirements of the overall framework, eg

- data in a consistent and comparable format across the system;
- data available by
 - type of learning,
 - sector,
 - public and private provider
 - jurisdiction,
 - region, and
 - designated target groups,
- data available over time,
- data in a format permitting international comparisons; and
- data available in a form to allow examination of the achievement of efficiency and effectiveness.

Financial statistics are primarily concerned with inputs. They report the actual or imputed flows of funds which finance the purchase of physical resources and human resources in the education and training process or support the living expenses of persons participating.

The actual or imputed funds are provided by the groups considered above: individuals, family and community; governments; and organisations and employers. These groups are either Australian or overseas based. They provide finance for the inputs either directly or indirectly via transfers to other entities.

For example the inputs of staff and other resources used by education and training providers depend on funds from governments and from private sources. Households and employers are the main private sources. Households support the participation of individuals. Households' capacity to do this is affected by their own incomes, the level of fees and living costs, the degree of assistance from governments and employers, and the households' capacity and willingness to borrow funds. Employers provide support for education and considerable support for workplace training, sometimes with assistance from governments.

It is desirable to be able to analyse the capacity/willingness of the major groups to support education and training. Hence the education and training data should be able to be related to measures such as household income and the revenue of governments and enterprises. The framework for financial education and training data should therefore be compatible with government financial statistics and the national accounts.

Inputs are deployed in the process or activity of education and training which leads to outputs of learning, usually measured by units or courses completed. The financial data should be in a form compatible with data on student enrolment by type of learning—the process of education and training—and the subsequent outputs. For example, the scope of the financial statistics should be the same as that of enrolment statistics

The education and training financial data should be able to be used with economic and social data so that relationships can be investigated on the outcomes of education and training, such as subsequent income and employment.

3. OECD statistics

The OECD's approach to financial data for education and training deserves very close consideration because of the aim of increased international comparability of education and training data. The OECD's approach is also important because its framework represents the considered view of the member nations and their expert groups. It is a guide to the importance of particular data, the extent to which countries can provide those data and effective forms of presentation of the data.

The OECD framework attempts to 'model' the education system by tracing through the ways that funds purchase resources that are used in educational processes to affect student learning and broader social and economic outcomes. The format of the data presented by the OECD is one devised collectively by UNESCO, the OECD and EUROSTAT (UOE). The OECD prepares a major annual compendium of statistics, *Education at a Glance*.

The OECD indicators framework classifies educational expenditure in three dimensions as shown in Diagram 2 (OECD 2001 p.55). The first dimension indicated in the horizontal axis relates to whether the spending takes place in educational institutions or outside educational institutions. Not all spending on educational goods and services occurs within educational institutions, e.g. families may pay for private tutoring and for textbooks.

The second dimension, represented by the vertical axis, classifies the goods and services that are purchased: for

- instruction/educational expenditure;
- for research at tertiary level; and
- ancillary services such as transport and for support for living costs.

The third dimension, represented by the shading, distinguishes between the sources from which the funds originate. Public funding (and international agencies) is not shaded. Households and other private entities funding are indicated by the darker gray). Private expenditure on education which is subsidised by public funds is indicated by cells with lighter shading.

Diagram 2. OECD classification of educational finance

	Spending on educational institutions E.g., schools, universities, educational administration and student welfare services	Spending on education outside educational institutions E.g., private purchases of educational goods and services, including private tutoring
Spending on instruction	E.g., public spending on educational services in educational institutions	E.g., subsidised private spending on books
	E.g., subsidised private spending on instructional services in institutions	E.g., private spending on books and other school materials or private tutoring
	E.g., private spending on tuition fees	
Spending on research and development	E.g., public spending on university research	
	E.g., funds from private industry for research and development in educational institutions	
Spending on educational services other than instruction	E.g., public spending on ancillary services such as meals, transport to schools, or housing on the campus	E.g., subsidised private spending on student living costs or reduced prices for transport
	E.g., private spending on fees for ancillary services	E.g., private spending on student living costs or transport

The diagram is useful in clarifying the scope of the educational finance under consideration in the various indicators prepared by the OECD.

Against this framework the OECD presents data mainly for educational institutions both publicly and privately funded and for public subsidies to the private sector. Its indicators are arranged to present:

- what is spent on education and at what levels (indicator B1 Expenditure on institutions per student and B2 Expenditure on institutions relative to GDP);
- who pays for education, public and private spending and the changes over time (indicators B3 Relative public and private spending on institutions and B4 total public expenditure);
- how funds are allocated—
 - subsidies to households for educational expenses and living costs (as distinct from direct payments to institutions) (indicator B5);
 - how funds are apportioned in institutions across teachers and other resources for instruction, for research and for ancillary services (indicator B6).

Some aspects of the OECD statistics that are particularly relevant in the development of the framework in this report relate to:

- the levels of education
- definition of education—concentration on formal education
- levels of government
- source of funds
- uses of funds
- GDP and total outlays
- links to output—per student measures, and
- price adjustments.

Levels of education

The OECD identifies financial data for¹:

- pre-primary (International Standard Classification of Education ISCED 0);
- primary (ISCED 1)
- lower secondary (ISCED 2)
- upper secondary (ISCED 3)
- post-secondary non-tertiary (ISCED 4)
- tertiary type B (ISCED 5)
- tertiary type A (ISCED 6).

The classification separates upper secondary education from junior secondary and provides information on two levels of tertiary education. Special education e.g. for the disabled, is not separately identified in the financial data, though the OECD does present data on students for whom additional resources are provided (indicator C5) and special payments for teachers qualified to teach such students (indicator D1).

¹ Expenditure is the term used by OECD. In some of the later discussion in this report of accrual accounting the more technical word 'expenses' is used.

Definition of education: excludes most workplace training or other learning

The UOE 2000 refers to the very broad definition of education in the ISCED. In practice the scope is much more limited². With the exception of apprenticeship tuition delivered in the workplace, the OECD specifically excludes training in the workplace. For Australia, apprenticeship training delivered by Registered Training Organisations (RTOs) is included in the data under the OECD guidelines but employer expenditures in the workplace related to the training of apprentices and all other employer financed workplace training is excluded³.

Levels of government

Most countries have two or three levels of government with varying responsibility as a source of funds for education and training and the use of funds. In general, there are transfers of funds from higher to lower levels of government, especially for primary and secondary education⁴.

Sources of funds

As indicated by Diagram 1, the OECD's framework includes public and private sources of funds and subsidised private spending for both educational institutions and for spending outside institutions.

Direct public expenditure includes expenditure on government institutions and also direct payments to private institutions.

Some public funds provided to households subsidise tuition payments for instruction in institutions (e.g. government outlays for HECS). But some are not tied and can be used

² In defining the scope of education the UOE (2000 p.1) *refers to* the International Standard Classification of Education (ISCED) where education is defined as “*organised and sustained communication designed to bring about learning*”. But the current data collection of the OECD is much more narrowly defined. The UOE advice is that the data supplied should cover national education systems regardless of ownership or sponsorship of the institutions concerned and regardless of the education delivery mechanism. Correspondingly, the coverage of the data collections should extend to all types of students and to all age groups, extend to children (including children classified as exceptional), young people, and adults that attend programmes or undertake studies which fall into the categories described in the UOE (2000) document. However the following types of education and training are to be excluded: Vocational and technical training in enterprises with the exception of combined school- and work-based programmes ... that are explicitly deemed to be parts of the education system.. Entirely work-based education and training for which no formal education authority has oversight is not covered included. All continuing training of employees by their employers is excluded.

³ It appears that Germany is one of the only countries where employer training is counted in the financial data by the OECD.

⁴ The OECD reported the level of government responsible for initial sources of funds and the government that finally purchased resources for education and training in its 2000 edition but omitted it from the 2001 edition .

for services other than instruction and for spending outside institutions including living costs (eg Youth Allowance).

Currently, the OECD treats government outlays on student loans as public expenditure and excludes the repayment of loans from consideration. This is partly on the grounds that the loans represent financial aid to the current participants in education whereas repayments are by former students. It is also noted that in most countries repayments are not allocated to the education budget.

The UOE guidelines (2000 p.60) noted that stated some countries offer special tax benefits to students or their families -- for example deductions from taxable income. They concluded:

Although it might be desirable, in principle, to take these into account in comparing countries with respect to financial aid to students, the complex issues of how tax benefits should be measured have not yet been addressed or resolved. ... The development of a set of financial aid categories sufficiently comprehensive to include tax subsidies remains a task for the future.

Uses of funds

The OECD presents information in indicator B6 on the *institutional* expenditure by *resource category* and by *service category* for tertiary and for other levels of education. Table 1 shows the format used for resource categories. The OECD does not use an accrual accounting framework. It includes outlays on capital formation but not depreciation or capital charges. However, actual or imputed expenditures for superannuation by employers are included in current expenditures and rental charges are included by some countries.

Table 1. OECD framework: Educational expenditure by resource category for public and private institutions by level of education

Current			Capital
Compensation of teachers	Compensation of other staff	Other current expenditure	

Source: OECD 2001 Table B6.1

The 2001 edition of *Education at a Glance* includes detail on the types of services purchased in institutions: instructional services, ancillary services and research and development, and an estimate of private payments for instructional services outside institutions for some countries. These data are presented in percentage shares of the total, as per cent of GDP and as expenditure per student. (For Australia just over a quarter of tertiary expenditure is attributed to research; see Table B6.2).

Table 2. OECD framework: Educational expenditure for public and private institutions by service category

Direct expenditure on educational institutions			Private payments on instructional services/goods outside educational institutions
Instructional services	Ancillary services (transport, meals, housing provided by institutions)	Research and development at tertiary institutions	

Source: OECD 2001 Table B6.2

Alternative measures of inputs

The OECD reports in Chapter D considerable detail on the remuneration of teachers, the number of teachers, their workloads and the ratio of students to teachers. As teachers are the major resource in providing instruction there is a need for a close link between teacher data and financial data. In particular the *ratio of students to teachers* (Indicator D5) and the changes in it over time is an important indicator of the level of resources provided. As nearly all financial statistics are subject to measurement difficulties an alternative indicator of this type is useful.

GDP, institutional expenditure and other outlays

For comparisons across countries and over time OECD indicator B2 presents public and private expenditure on institutions as a percentage of GDP. Indicator B4 provides further detail on public outlays including subsidies to the private sector and households as percentage of the GDP and as a percentage of all government outlays.

Linking expenditure to output

Expenditures per student, based on full-time equivalent enrolments⁵; are reported in the 2001 edition as the first financial indicator B1. The data is provided:

- in US\$ by ISCED level,
- as a percentage of per capita GDP of each country for 1995 and 1998; and
- for the average duration of tertiary studies.

The OECD has been concerned that finance data be provided for identifiable groups of students, e.g. public funding and students enrolled or hours of training in publicly funded programs. It has tried to ensure that the coverage of the student collection and the finance collection be the same.⁶

⁵ Australian data on expenditure per student is reported to the OECD for all levels of education with the exception of early childhood.

⁶ 'A mismatch in coverage occurs when the enrollment statistics and the supposedly corresponding expenditure statistics do not pertain to exactly the same activities or the same sets of students. Either

It can be noted that the OECD to date it has not been able to provide the financial data by student characteristics such as age, gender or social background.

Price adjustments

Expressing expenditures in relation to GDP makes international comparisons more meaningful across countries and over time. The OECD presents some expenditures in constant prices with the nominal expenditures deflated by the CPI in earlier publications and by the GDP deflator in the 2001 edition. The issue of appropriate price deflators is discussed in more detail later in this report.

students are counted for whom expenditures are not included, or expenditures are included for students who are not counted. As a result, expenditures per student are understated or overstated, respectively'. Barro 1997 p.10.24

4. Consultations with major users

Compromises must be made in the scope and detail of the data system if it is not to be excessively expensive. It is important to establish the main priorities of users before settling on the most suitable form for a framework.

The consultants held discussions with or received comment on a draft paper circulated earlier this year from a range of government bodies, non-government organisations and researchers as listed in the Appendix. The focus of the discussions was on the main data needs of the organisation or individual, the limitations of the existing data sets, priorities for financial data and difficulties in extending or changing the data collections. The main points are outlined here and as far as possible are taken into account in the framework and the review of data in the following sections.

Scope

- The need for clarity on the definition of education and training and was stressed. This applied to the framework of the ABS education and training statistics and to the need for the framework for financial statistics to be consistent with it. The very broad definition in the ISCED was noted, though the OECD places more narrow practical limits on the scope of its collections.

Sources of funds

- The capacity to identify the public and private sources of funds for each sector of education and for support of students and trainees is important.
- There is little data on private contributions to pre-school education.
- There is very little data on the finances of fully private VET or private higher education. Obtaining data of decent quality of the sources of funds and expenditures of private tertiary institutions is seen as an important and challenging issue.
- Data on both public funds by level of government and private funds are currently published for private primary and secondary schools by State and Territory. The published data on government schools reports expenditures but does not report funds by level of government or private payments to public schools⁷. Survey data on private expenditures on government and non-government schools is available from the ABS household expenditure survey. More detailed data requires expensive additional collections.

⁷ But as pointed out in comments on the draft report data on funding for government schools by level of government are available in Commonwealth and State budget papers.

- For consideration of equity, data is needed on the distribution of student support and education by a range of student characteristics including, age, gender indigenous, region and socio-economic background.

Types of resources and deployment of resources

- The main sectors provide information on the use of funds e.g. employee expenses, other operating expenses, depreciation, but there was only limited indication of the use of such data in policy related work. As noted below States and Territories use their internal budget analyses and student data rather than the later published statistics for most of their policy work.
- Details of the distribution of expenses between institutions and State and other central offices were seen as useful by some organisations.
- The need to distinguish more sub categories of non-personnel expenditures was indicated—in particular expenditure on information technology.

Linking finance to outputs

- It is desirable that disaggregated expenditure data can be combined with student data by age and socio-economic status, so that it can be used to construct measures of expenditure per student for a range of groups.
- Data are needed on funding by age and target group to indicate progress towards targets for youth and for lifelong learning for all.
- There was support for the separation of secondary education expenses into lower (Years 7/8 to 10) and upper (Years 11 and 12) and for the work of the Ministerial Council on Education, Employment Training and Youth Affairs (MCEETYA) in its developing of this information.
- Data providers indicated that the linking of expenditure to outputs was desirable but financial data can be provided by State and Territory only for the main sectors and by broad level but not at this stage for field of study or mode of delivery (including flexible delivery).
- There was a need for developmental and research work into ways in which expenditure and outputs could be linked.

Cross sectoral and sectoral issues

- Financial data in all education sectors and in all states and territories need to be compiled on a similar basis. Current differences in approach seem to be greatest in depreciation, debt charges and superannuation.
- Employer provided training is seen as very important and collection of some form of expenditure data is strongly endorsed in the VET sector in addition to

any data that will be available through the ABS survey of education, training and information technology in 2001.

- There are problems in definition and substantial data gaps for ACE but some recent scoping work by National Centre for Vocational Education Research (NCVER) has improved the prospects for data collection.
- There are difficulties in obtaining a consistent definition of ‘preschool’ among all states and in separating the finance of preschool education from that of childcare or early primary education in some jurisdictions.
- There has been no attempt to date to examine the financial aspects of self-education outside the institutional framework.

Accrual accounting

- Accrual-based reporting is not regarded as a major issue by most groups consulted; it was strongly endorsed by some users as a means of making public and private school data more comparable.
- Inclusion of a user charge for capital in government expenses was seen as useful only if it affected decision-making. The practice of State governments charging e.g. 8 per cent on the estimated value of assets and then funding this charge was not seen as affecting decision making in the use of assets.
- The main concern with accrual accounting was that it should not lead to a form of reporting that makes it harder to interpret financial data for policy purposes. The ABS Government Finance Statistics, Education, were seen to be too aggregated for most uses and difficult to understand.

Organisation of data and degree of detail

- The first concern must be to collect data in a consistent method across the various sectors and areas of concern with similar levels of disaggregation. One policy analyst stressed the difference between the basic data on finance and the derivation of indicators such as expenditure per student. Derivation of indicators might not necessarily be the role of the ABS.
- It is important to recognise that State and Territory governments base their policy work on their own budget and related data and *not* on the collections that are produced in an ex-post environment with limited resources e.g. the MCEETYA (2001) finance data.
- The data that is desirable on some matters e.g. special education or senior secondary schooling is not available directly from school or system records. Some classifications can only be derived by modelling and estimation. In addition there may be differences among the State and Territory resourcing systems. The cost burden of producing additional classifications can be large.

- The capacity for all data to be reported for a common time period was stressed. Some sectors' data are for financial years and some for calendar years.
- The capacity to make transparent reconciliation of the Australian data collection with the OECD data is important. The scope and definitions of the finance statistics developed by UNESCO, OECD and EUROSTAT (UOE) differ in several respects from those used by the ABS.
- For comparisons over time it was important to have constant price estimates of expenditures which requires the further development of relevant price measures.
- For comparisons over time it is necessary to have a system for reconciling data when changes in scope and classifications are made.
- Increased information on international trade in education is needed.
- Clarity and simplicity are major virtues in the provision of financial data.

5. Proposed framework for financial data

Key elements

A framework is set out in this section. It is based on the major data needed for policy, the OECD framework, the consultations, and the requirement of the ABS overall framework. The framework is intended to be comprehensive and coherent. As with the OECD framework, it will not be practical that all the elements of the framework be estimated or reported in detail. Comment will be made, mainly in section 6, on the practicality of providing statistics in line with the framework.

Even where the framework goes beyond the practical, it can be useful in promoting an understanding of what is covered and what is not covered in any statistics presented.

The main issues addressed in the framework are:

- **Scope**—institutional education but also other forms of education and training including training in the workplace but excluding incidental learning.
- **Sources of funds**—public and private sources of funds and flows of actual and imputed funds among levels of government and the private sector.
- **Uses of funds**—expenditure by *resource category*, such as employees expenses and depreciation, and by *service category* or activities such as instruction (and elements such as delivery and support, administration) ancillary activities and research.
- **Links to output**—the data must potentially be able to be presented in constant prices and linked to units of output (to equivalent full-time students (EFTSU) or to hour of training by type of education, or to number of unit completions/graduates) so that expenditure per unit time series data estimates can be produced.
- **Accruals-based reporting**—rather than cash based as in the OECD statistics.

Scope of activity covered

Based on the ABS framework and the OECD classification summarised in Diagram 2, the suggested activities to be covered by the finance collection are:

1. instruction—education and training activities directed at learning;
2. research in tertiary institutions; and
3. ancillary services for education and training such as transport and for support for living costs.

The spending on these activities can take place both inside and outside education and training institutions. The scope proposed in this report is broader than for the OECD which in application specifically excludes most employer training in the workplace. It is

important to distinguish the activity of research in education and training institutions not only because of its importance but also so that the expenditures on activities directed to learning can be separately identified. However research that takes place outside education and training institutions is not covered in the education and training statistics.

Table 3 attempts to capture the scope of education and training activities directed at instruction/learning (but not research or ancillary services). Table 3 provides a matrix of broad types of learning for which it is desirable that financial data be provided, together with the main types of providers. The matrix includes learning in the workplace and other learning, as well as institutional learning. It includes employers who are not registered training organisations.

Much of the education and training supported by the providers listed in columns 2 to 9 is formal, institution-based education and training and can be aligned with the Australian Standard Classification of Education (ASCED) categories given in the first column. The providers in columns 7 to 9, together with those in 10 to 12, are also engaged in a range of activities outside formal education. Employers support a range of non-formal education and training which does not have a student/teacher relationship or structured content. Much workplace learning is in this category. Column 12 is for learning in the home and self provided learning which in some cases could be directed at ASCED levels.

Data relating to students within the school sector and the public tertiary sectors is currently collected, in some cases at a more detailed level than the cells of Table 3. Financial data for some classes of providers (those where **X** is shown in the first row) is available in considerable detail but usually only for the aggregate of the types of learning in the areas shaded in the matrix. Only very limited links can be made to outputs. That is, the financial data cannot be readily attributed to a particular level of learning and even less to a particular field of study⁸.

It is desirable that financial data be provided by levels of learning indicated by the cells of Table 3, and also by fields of study. Whether this is feasible and whether uses would justify the cost of achieving this level of data are matters to be considered.

⁸ ASCED broad fields of education are: 01 natural and physical sciences, 02 information technology, 03 engineering and related technologies, 04 architecture and building, 05 agriculture, environmental and related studies, 06 health, 07 education, 08 management and commerce, 09 society and culture, 10 creative arts, 11 food, hospitality and personal services, 12 mixed field programmes (see ABS Cat no 1271.0).

Table 3. Instruction/Learning activities in and outside education and training institutions

	1	2	3	4	5	6	7	8	9	10	11	12
		Education and training institutions										
	Childcare	Pre-school	Primary school	Secondary school	Special school	TAFE and other gov't providers	Community education providers	Higher education	Other registered training orgs	Employers other than registered training orgs	Other non-registered training orgs	Home and self learning
<i>ASCED level:</i>			X	X		X	X	X				
1 Postgraduate degree level												
2 Graduate dip & graduate cert level												
3 Bachelor degree level												
4 Advanced diploma and diploma level												
5 Certificate level												
6 Secondary education												
61 Senior secondary												
62 Junior secondary												
7 Primary education												
8 Pre-primary education												
9 Other education												
Work related structured training												
Other intentional learning												

X indicates that some/substantial financial data are available

Shaded area indicates the learning areas generally associated with each sector or provider.

There are many institutions that cover more than one of the provider sectors listed in this table and some that cover only a subset of the typical provision

Sources and uses of funds

The revenues to be considered are much broader than the receipts of education and training institutions. They include student assistance and employer support for training in the workplace.

Diagram 3 provides a simplified overview of the sources of funds, the ways they move among major entities and the use of the funds to purchase resources. It provides a simplified outline of the paths by which the flows of funds from the main sources of finance reach the eventual users of the funds. The major suppliers of funds, listed in the boxes 1 to 4 in Diagram 3, are:

1. governments at all levels;
2. private corporations and non-profit institutions⁹;
3. households; and
4. the rest of the world.

Diagram 3 shows that funds flow directly and indirectly to their ultimate use. The final uses are made by

- educational and training organisations (which are government units or private corporations or non-profit institutions, shown in box 5);
- other providers of education and training (which are corporations or non-profit institutions shown in box 6); and
- students and trainees (members of households, shown in box 7), for living costs and other costs related to education and training.

Table 4 provides additional detail on the sources of funds for spending *on* education and training institutions in Australia and spending *outside* education and training institutions. Table 4 attempts to be comprehensive in including sources of funding such as the reduction in taxation for organisations' or individuals' expenditure on career related education and training that is not included currently in education statistics. It includes also student living costs (as distinct from government support for them). Table 4 also includes several items related to training in the workplace which are usually reported separately from statistics on education. The matrix in Table 4 is meant to be evolutionary in that the examples in the cells are likely to change as new means of supporting students and educational institutions are developed. A brief explanation of the main elements is set out below.

⁹ It is arguable that Box 2 should be split to separately identify non-profit institutions. However it seems unlikely in practice that data can be provided for a more detailed framework.

Diagram 3. Major sources and uses of funds for education and training

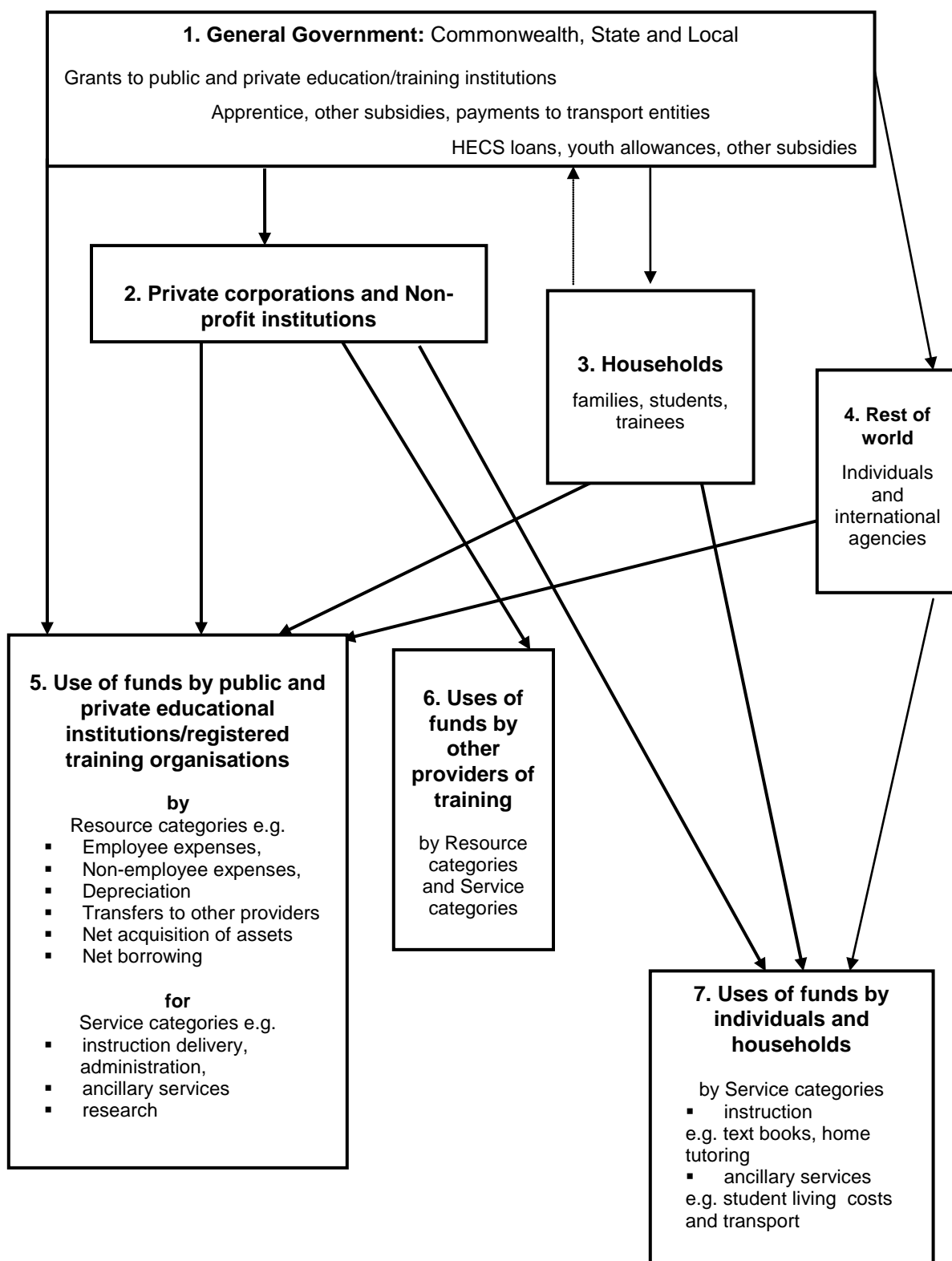


Table 4. Matrix for sources of funds for education and training

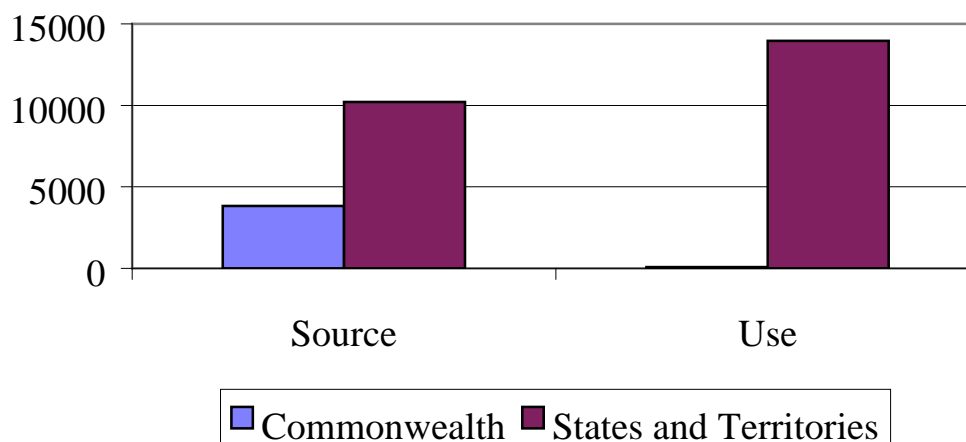
Funding Classifications		Suppliers of Finance			
		Commonwealth, State and Local government	Private corporations, quasi corporations & non-profit institutions	Households	Rest of world
Education and training Institutions in Australia	Funding for public education or training institutions	Direct Grants and loans to other governments and to government institutions for education and training (including research grants and training under labour market programs provided by institutions) Grants and loans to non-government pre-schools, schools and tertiary institutions and purchasing of training from training organisations Indirect Advances for HECS (loans) AUSAID support for student fees	Direct Workplace training provided by education and training organisations Payment of fees for employees Research contracts Donations Purchase of other services from education and training organisations	Direct Payments of fees (for 'sales of goods and services') Indirect Repayment of HECS to Commonwealth government	Payment of fees
	Funding for private education or training institutions				
Outside education and training institutions in Australia	Payments other than to education or training organisations for education services or education related goods and services	Direct Training elements of labour market programs not paid to education and training organisations Payment for transport Indirect Youth Allowance, Austudy and other student assistance Subsidies to employers e.g. for apprentices Living allowances for overseas students Taxation reductions for non-institutional training for corporations and other entities	Direct Workplace training provided by other than education and training organisations Indirect Private scholarships for living expenses Wages/salaries paid during education and training by employees	Outlays on private coaching and tuition Outlays on study equipment and books Outlays on transport. Outlays on students' living costs Outlays on students' living costs	Consultancy contracts
	Payments to rest of world				
		Payment for courses overseas	Payments for education and training overseas	Tuition fees for overseas study	

Shaded areas indicate where some or reasonable financial data available

The Commonwealth government provides funds through specific payments to State/Territory governments for education and training and by payments to universities which are classified as multi-jurisdictional institutions (due to their unusual status as State institutions receiving public funds largely from the Commonwealth).

State/Territory governments use the Commonwealth specific payments for education and other revenues which include their own tax revenues and financial assistance grants from the Commonwealth that are not earmarked for education and training. As an example Diagram 4 shows the level of government responsible for the source of funds and that responsible for its final allocation to both government and non-government schools.

Diagram 4: Source and use of government funds for government and non-government schools Australia 1997-98, \$m



Source: ABS *Expenditure on Education Australia*, Cat no. 5510.0

Governments pay funds to a range of private education and training institutions:

- private non-profit institutions, such as non-government schools and preschools;
- private registered training organisations which are often profit making corporations;

Government provide funds such as HECS which supports the payment of fees and payments such as youth allowances which support living costs and other educational expenses.

Governments, particularly the Commonwealth, make payments to other countries as part of overseas aid for the fees and living costs in Australia of selected overseas students.

Governments also make payments that are final expenditures outside Australian education and training institutions e.g.:

- payments to corporations or unincorporated businesses to support the employment of apprentices;
- payment of living allowances such as Youth Allowances;
- payments for Australians to study overseas; and
- payments to corporations for the transport of school students¹⁰.

Private corporations and non-profit institutions receive government monies as specified. They also receive some reduction in tax liability for their expenditure on education and training. These government funds represent only a minor part of the financial support these entities provide for the payment of fees to education or training institutions and for the training in the workplace for employees.

Households receive assistance from governments and from employers. Households also repay HECS loans to the Commonwealth government and these form part of the funds for government expenditure on higher education. Households undertake expenditure on education and training institutions, they make payments outside education institutions for private coaching, books and transport and student living expenses.

Overseas students make payments to educational institutions and training organization particularly for higher education and VET. In some cases they are supported by international organisations. Some overseas students are also supported by scholarships provided by Australian agencies such as AUSAID. Such support includes payment to institutions of tuition and administrative charges and allowances for living expenses and transport to and from Australia.

Resource category and service category for institutional expenses

For education and training institutions the types of information required for analysis of policy issues relate to what are termed (following the OECD) resource categories and service categories. A proposed structure for the major items is given in Table 5.

The main *resource* categories are employee expenses, non-employee expenses, depreciation and amortisation. These cover the main resources used in education and training. It is arguable that finer classifications are needed; for example the identification of those non-employee expenses directed at information technology or to outsourced services. However such detail may be more appropriate for the separate collections of the main sectors rather than for the national collection where each additional classification creates difficulties in developing definitions that can apply across all sectors.

¹⁰ The precise definitions of the various entities are included in the glossary and discussed in ABS *Standard Economic Sector Classifications of Australia* (SESCA).

In the lower section of Table 5 are shown other items that are not part of the current operating expenses but on which information is required both for analysis of efficiency in education provision but also for coherence with other economic data sets such as the national accounts and government finance statistics. These are information on transfers, mainly to other providers, the net acquisition of buildings and equipment and the net borrowing or lending incurred.

For analysis of the deployment of inputs to the education process it is useful to have information on resources devoted to *service* sub-categories such as the direct delivery of education and training, for delivery support and administration expenses and for ancillary services such as general student support and counselling. For the higher education sector research is a major activity to be separately identified¹¹. As mentioned some sectors of education and training may need a more detailed classification and it is appropriate that they report in the way needed in the sector. However it is important that the data from all sectors can be mapped into a classification of the form in Table 5.

Non-institutional expenditures

For expenditure outside education and training institutions a different type of classification is needed. Two major categories are suggested:

- expenses related to instruction/training such as private coaching, purchase of text books and workplace training not provided by education and training institutions; and
- expenses for ancillary items such as transport and general living expenses while undertaking education and training.

¹¹ Users of data also support the collection of data on those expenses incurred at institution level and those undertaken by the system coordinating authority.

Table 5. Proposed classification for uses of funds by education and training organisations or other providers

Resource category	Service category
Employee expenses including superannuation	Instruction
Non-employee expenses	- Delivery provision and support
Depreciation and amortisation	- Administration and general services
	Ancillary student services
	Research
Transfers (mainly to other providers)	
Net acquisition of non-financial assets	
Net borrowing or lending	

Links to output

The boundaries of the collection of data on students or trainees must match the scope of the collection of financial data so that per student or other unit estimates can be prepared.

It is desirable for the education expenses (and revenues) to be linked to outputs such as students in a particular level or field of study or completion of a qualification. Discussion with the providers of data for the sectors does not suggest that any substantial advances in doing this will be easy.

A first step will be to provide the expense data and the student data so that average per student or unit estimates can be prepared on a comparable basis across sectors. Then it will be possible to combine these estimates with other data—such as estimated cost relativities (for VET see ANTA 2000 p.157)—to derive estimates of expenses in particular fields of education.

Adjustment for price changes

For comparisons over time it is desirable to remove the effect of price changes (see NCES 2001). To do this it is necessary to adjust the current price measure of expenditures by appropriate price deflators¹².

The appropriate form of deflation depends on the purposes for which the price adjustment is made. If the purpose is to see whether the resources available for education and training have increased then it is appropriate to make the adjustment using a price index that measures the prices of the main resources used in education and training e.g. teachers, non-teaching staff, non-employee current resources and capital. This means the

¹² These were regularly prepared for schools (the Schools Price Index) until the early 1990s and for universities up to 1996 (indices for academic and general salaries, non-salary costs equipment and capital) but these measures are no longer calculated. It may be noted that the Australian Institute for Health regularly publishes indexes for a range of medical and hospital services.

calculation of an index based on the cost of a 'basket of education resources'. Due to substitution among resources over time e.g. the increased use of information technology relative to teachers, the basket of resources will need to be revised. As will be discussed, the chain-volume technique used in the National Accounts in effect uses the previous year's pattern of resource use as its basket and the resulting data are most comparable for the current year against the previous year.

The deflator for the GDP is sometimes used in removing the effects of price changes. The GDP deflator is the measure of the average of price changes across all goods and services in the country. If applied to expenditure on education and training the result is *not* a measure of the change in resources in education and training but rather of the demands that education and training make on the community's resources.

The best known measure of price change is the Consumer Price Index (CPI). The CPI is a measure of the change in prices the basket of goods and services that household consumers buy. It is not necessarily a good measure of the change in the cost of the resources used in education and training institutions, which are heavily labour intensive. It is a good measure for changes in student living costs and student financial assistance such as the Youth Allowance.

The ABS has recently developed a Wage Cost Index (WCI) which provides a measure of the changes in wage and salary costs unaffected by the quality or quantity of work performed (ABS 6346.0). For education *as a whole* this should provide a good measure of changes in personnel costs. The education sectors differ in the composition of resources used and it may be appropriate as in the past to develop indexes for the major sectors.

For some purposes it is possible to make comparisons over time without resort to adjustment for price changes. This can be done by relating the measure of education and training expenditure to the GDP, both expressed in current prices. However a decline in the share of the GDP going to education and training can occur when expenditure on education is rising in real terms—if the GDP is increasing still faster. Hence the measure does not have unambiguous meaning. While useful for comparisons over time or across countries on education 'effort' it is not a complete substitute for measures adjusted for price changes¹³.

Accruals-based reporting

Government finance statistics are now on an accrual accounting basis, the system of national accounts implemented from 1998 is largely compatible with accruals-based accounting and accruals reporting is used by nearly all government agencies and in the

¹³ This discussion relates to measuring of inputs. Most volume measures in the National Accounts relate to measures of outputs. Some work on this has been undertaken by ABS and research overseas has considered alternative measures (Konijn & Kleima 2000).

private sector. In these circumstances it is essential that accruals-based reporting be used universally in the education and training framework. However not all parts of the accruals framework are important in providing data for policy purpose. This is discussed further in the review of ABS statistics in the next section.

6. Review of current financial data against the framework

This section reviews the main sources of financial data in Australia against the proposed framework, it identifies data gaps, issues of data quality and differences in definitions and standards across sectors.

Only the ABS in Australia aims to report financial data across the whole education system. Financial reports for the separate education sectors are provided by:

- NCVER for VET data;
- MCEETYA for government schools data; and
- Department of Education, Training and Youth Affairs (DETYA) for higher education and for non-government schools.

There are various sources of data on pre-school education and on adult and community education (as distinct from VET) but they are far from complete and not consistent across jurisdictions.

There is little current data available on employer training expenditure. The ABS has undertaken surveys of employer training expenditure, the last in 1996, and plans another for 2002-03 financed by ANTA.

ABS

The ABS in various publications reports aggregate public and private expenditures on education. The most detail is provided on public expenditures on education. This is reported in the special data service *Government Finance Statistics, Education*, Cat no 5518.0.48.001. There is also a range of important additional aggregate information in the *Australian System of National Accounts* (5204.0) and detail on universities revenues and expenses in *Government Finance Statistics* (5512.0).

Scope

Government Finance Statistics, Education is confined to the formal education system and does not include workplace training other than that provided as part of the education and training system by public and private registered training providers.

The statistics provide data on spending on:

- educational institutions (including private spending in public institutions) and on
- public spending (not private) outside educational institutions.

The spending on institutions does not differentiate spending for instruction from research or services other than instruction. The public spending outside educational institutions is almost all for services other than instruction e.g. transport and student financial support.

The main focus of the publication is public spending. Private spending on private institutions is only estimated as part of aggregate private spending across the whole education system.

The data are reported against the Government Purpose Classification (GPC) which identifies:

- Primary and Secondary education
 - Primary education
 - Secondary education
 - Primary and secondary education not elsewhere classified (n.e.c.)
- Tertiary education
 - University education
 - Technical and further education
 - Tertiary education n.e.c
- Pre-school education and education not definable by level
 - Pre-school education
 - Special education
 - Other education not definable by level
- Transportation of students and education n.e.c.
 - Transportation of non-urban students
 - Transportation of other students
 - Education n.e.c.

The GPC is tends to be based on the different types of providers rather than on levels or types of learning e.g. ASCED levels). It is more limited in the range of providers than the list in Table 3. For example it does not identify separately:

- providers of community education from other tertiary providers; and
- senior secondary from junior secondary education.

Sources of funds

The current format of the ABS financial statistics for education focuses on the use of funds rather than the sources and does not easily allow the identification of the various sources of funds e.g. as listed in Table 4.

The ABS *Government Finance Statistics, Education* excludes:

- government subsidies to employers of apprentices;
- government subsidies to education and training through reduction in personal income tax or in other taxes;
- the implicit loans by the government to students for HECS (however they are identified separately as an advance and hence the information is available for policy analysis); and

- funds directed to workplace training other than that by registered training organizations.

Uses of funds

The ABS *Government Finance Statistics, Education* identifies funds used by public institutions. It identifies resource categories e.g. employee and non-employee expenses, depreciation and amortisation and net acquisition of non-financial assets, in line with the framework suggested in Table 5 above. It does not provide information on spending by 'service' categories such as instruction, ancillary services or research but it does separately identify one ancillary service, transport and it identifies public funds flowing to students to support living costs. It does not report on the expenditure of those funds or the use of private funds for those purposes¹⁴.

Links to output measures and price adjustments

The ABS data in the finance reports and the national accounts do not relate the financial measures directly to any measures of output. That is, they are at the moment entirely separate from any measure of student numbers, hours of training or course completions.

However the ABS in the *Australian System of National Accounts* (Cat. no.5204.0) now provides a range of aggregate information on education and training in both current and chain volume measures. For example the total quantity value added in education from 1992 to 2000 is estimated to have increased by 22 per cent. This is a measure of inputs, mainly labour and does not indicate the change in outputs such as the number of students undertaking or completing courses.

The implicit deflator for education can be derived from these data, as shown in Table 6. The education deflator, mainly reflecting wages and salaries, increased much more in the period shown than the deflator of GDP. This is to be expected as, across the economy, part of the impact of wage and salary increases on the general level of prices is offset by productivity increases.

The implicit price deflator for education in Table 6 is the deflator not for total production of the education industry but for value added which excludes the value of goods and services purchased from other sectors. (An implicit deflator can also be derived for private education expenditure). For the framework proposed in this report, deflators are needed for the whole of education and for the major sectors of education. The Wage Cost Index (WCI) which has been produced on a quarterly basis from late 1997 might be used in this development. The WCI for the education industry is shown in Table 6 along with two other price measures, the Consumer Price Index and Average Weekly Earnings. The Consumer Price index as already discussed is a measure of the change in price of items

¹⁴ This also implies that the ABS does not report earnings foregone by students. This would require imputation. The ABS is exploring estimates of the value of unpaid work but it these data would not be incorporated in government finance statistics.

purchased by households and is therefore suitable as a deflator of student assistance. Average Weekly Earnings is regarded as inferior to the Wage Cost Index in that it can be affected by changes in quality of labour and changes in hours worked.

Table 6. Indicators of Education and GDP volume and price changes, Australia, 1991-92 to 1999-00

Year ended June	1992	1996	1998	1999	2000	change 1992 to 2000 %
Education Gross Value Added, Current Prices, Education \$b	18.3	22.2	25.1	26.6	28.0	53
Education Gross Value Added, Chain Volume Measure, \$b	21.5	24.3	25.9	26.6	26.3	22
Implicit Deflator Education Gross Value Added (1999=1.00)	0.85	0.91	0.97	1.00	1.07	25
Implicit Deflator GDP	0.92	0.97	1.00	1.00	1.02	11
Wage Cost Index hourly rate of pay Education industry	na	na	0.96	1.00	1.03	na
Consumer Price Index CPI all groups	0.88	0.97	0.99	1.00	1.02	16
Average Weekly Earnings adult persons ordinary time	0.78	0.89	0.96	1.00	1.03	32

Source: ABS *Australian System of National Accounts* Cat. no. 5204.0 and ABS *Wage Cost Index* Cat no. 6345.0, ABS *Consumer Price Index*, Cat no. 6401.0

Structure of accounts

The ABS has recently introduced an accruals-based framework to the Government Finance Statistics. It is intended that a number of separate statements be prepared within an overall framework of stocks and flows. The statements are:

- Operating statement—revenues and expenses, the net acquisition of non-financial assets and the consequent net borrowing or lending;
- Statement of stocks and flows—opening balances of financial and non-financial assets and financial liabilities, flows during the reporting period and the closing balance;
- Balance sheet—the opening and closing balances of the statement of stocks and flows; and
- Cash flows—flows of cash within the accounting period (whereas the operating statement reports on an accrual basis, that is when the economic event occurred).

The ABS in *Government Finance Statistics* (Cat no. 5512.0) provides an operating statement, a cash flows statement and a balance sheet for universities. The reason for this separate analysis is that universities are treated as 'Multi-jurisdictional' institutions (not as part of Commonwealth or State or Local government). The operating statements for

universities in 1999-00 is given in Table 7. Further disaggregation of the revenue items is desirable. For example it would be useful for the various levels of government to be identified as the source of current grants and subsidies; and to have the 'sale of goods and services' separated into sales to the private sector and sales to the public sector.

The classification of expenses also is compatible with the proposed framework as set out in Table 5. Transfers represent funds transferred to non-university institutions, households or to government rather than expenditure by the universities. In the case of universities the main transfer item is for payroll tax. Note that the statement does not distinguish research or ancillary services from instruction.

Table 7. Universities' Operating Statement, Australia 1999-00

Revenue	1999-2000
Current grants and subsidies	4312
Sales of goods and services	3976
Interest and dividend income	287
Other	519
TOTAL	9094
Expenses	
Gross operating expenses	
Employee expenses	5053
Other operating expenses	2746
Depreciation	641
Total	8440
Other interest expenses	21
Current transfers	
Grant expenses to private sector .	12
Subsidy expenses	7
Other current transfers	303
Capital transfers- other	1
TOTAL	8785
Net operating balance	308
Less Net acquisition of non-financial assets	
Gross fixed capital formation	949
less depreciation	-641
plus change in inventories	1
plus Other transactions in non-financial assets	25
	334
Net lending	-25

Source: ABS *Government Finance Statistics*, Cat no. 5512.0

For the purposes of policy analysis and reporting on education by the NCETS it is not clear that the provision of the cash flows statement and balance sheet are of major importance. Cash flow statements are important for management purposes and as integral

parts of government finance statistics and the national accounts—rather than for the national collection of education and training statistics.

The range of information given by ABS for universities, as a multi-jurisdictional sector, is not provided for the whole of education. The ABS in its government finance statistics on education (Cat no. 5518.48) does not include a statement of stocks and flows, a balance sheet or statement of cash flows. It provides tables on:

- Operating Expenses i.e. part of an operating statement;
- Net acquisition of non-financial assets, i.e. part of an operating statement; and
- Sales of goods and Services, i.e. part of the revenues for the operating statement.

However the list of expenses is more extensive than reported for universities in the Government Finance Statistics. Details of the major categories of expenses are given in Table 8.

Table 8. ABS—main operating expenses

Employee expenses	Wages salaries, and supplements Superannuation both funded and unfunded Other employee expenses.
Non-employee expenses	Benefits to households in goods and services (e.g. school transport) Other non-employee expenses Bad debts written off.
Depreciation and amortisation	
Current transfer expenses	Current grant expenses (e.g. transfers to non-government entities and Commonwealth transfers to States and to Universities) Current Monetary Transfers to Households (e.g. Youth Allowances) Tax Expenses (listed nearly entirely for Multi-jurisdictional - universities).
Capital transfer expenses	Transfers to non-government entities for capital

Source: ABS, *Government Finance Statistics Education Australia 1998-99* Cat. no. 5518.48.001 Table 1

Aggregation issues

The data published by the ABS is at a high level of aggregation. For example the only information relating to financial assistance to students is given under the heading 'Current monetary transfers to households'. The total for 1998-99 was \$2,072 million, with \$1,783 million from the Commonwealth \$245 million from the States and \$44 million from the universities. Until there is extra information about the schemes covered by this category and the number and types of students assisted the information is at best a very broad indicator of the level of funding to students.

A second example: the operating expenses for primary and secondary education totalling \$16,870 million in 1998-99. There is no detail on how much is the expense of government schools as distinct from government transfers to private schools. The figure includes expenditures financed from sales of goods and services for government schools but only the public revenues of non-government schools. Failing additional detail, it is not possible to couple the expenditure data with student data to derive the type of per student estimates that users indicate they want.

Summing up ABS

The ABS data for universities is in a form compatible with the framework though additional detail is needed. For the whole education sector the detail on revenues is less than required by the framework. Overall, the level of aggregation in the data is too high for it to be useful in most policy matters. There is little prospect of linking the data with measures of output such as students enrolled or courses completed¹⁵.

The ABS finance statistics on education being primarily part of the government finance statistics excludes workplace training other than that provided by education and training organisations. This points to a need not to enlarge the government finance statistics but to provide estimates of workplace training in a form compatible with the government finance statistics.

The framework proposed in this report suggests that more 'purposes' or 'sectors' be identified than are distinguished by ABS. In particular there is a need to distinguish senior secondary education from junior secondary.

Transport is treated as a separate purpose. It may be better to treat it as an ancillary service expenditure related to particular levels of education, mainly school education

The funds transferred to households for education and training purposes are indicated but there is no identification of the expenditure of these funds or of additional household funds used for these purposes. This may not be feasible but the framework needs to clarify what is and what is not to be covered in the reporting of finance statistics.

The system of national accounts implemented from 1998 provides a range of chain volume and current price data. Currently these data are at an aggregate level for the whole education sector. Provision of these data for the main education sectors such as schools, TAFE and universities would be very useful for comparisons of the provision of education and training over time.

¹⁵ The ABS is experimenting with output measures for education for the national accounts but the value of these will be limited until the issues of common scope for statistics for finance and for student hours or numbers and graduate numbers are addressed.

The ABS reports are for financial years whereas the data considered for the main sectors, except for government schools, are reported for calendar years. Consideration could be given to the preparation of data that can be reported on both bases.

Institutions: government schools

MCEETYA produces the National Schools Statistics Collection (NSSC) which includes the *Finance Statistics from the Government Section of the National Schools Statistics Collection*. This is produced annually, on a financial year basis. The scope is:

government establishments which administer and/or provide full-time day primary or secondary education in schools or ancillary education establishments (eg hospital and prison schools) or education by radio or correspondence.

The concern of MCEETYA has been to inform School Education Ministers of government expenditure on school education within and between states and territories on a consistent basis and 'specifically to allow them to make assessments on the relative costs and performances of the education system'. It aims to 'integrate national level finance, other resourcing and derived statistics on a trend basis to link resources and outputs' (MCEETYA Taskforce 2000).

The notes of the Taskforce acknowledge that the finance statistics are now being used by others for wider purposes, for example as the basis for the estimate of Average Government Schools Recurrent Costs (AGSRC) by the Commonwealth, used most notably as the basis for annual adjustment to grants to non-government schools. The finance statistics are also used by the Productivity Commission in its Reports on Government Services for the Steering Committee for the Review of Commonwealth, State Service Provision (SCRSSP). The SCRSSP seeks to link inputs, outputs and outcomes of government school systems.

The finance statistics have been presented on an accrual basis for the first time for 1999-00. For a two-year transition period both cash and accrual statistics will be reported. Except for the Northern Territory, all States and Territories have fully adopted accrual accounting, although there are some variations in bases for valuation of the expense items reported. Table 9 is the proforma used in reporting the accrual expenses of each State and Territory.

Employee-related expenses include gross salaries plus all on-costs including superannuation. Redundancy payments include accrued leave, other entitlements, superannuation payments and severance payments.

Other operating expenses include student and staff travel, cleaning (departmental and contract), utilities, repairs and maintenance, minor stores, plant, equipment, rentals and leases. Grants and subsidies are funds paid to schools for purposes including cleaning

staff and cleaning contracts. However the published tables do not provide details of these expenses.

Table 9. MCEETYA, Government schools, format for expenditure statistics

State:	Total Expenses for the year ended 200X			
Expenses	In-school	Out-of-school	Total	Secondary education apportionment
	Primary education	Secondary education		Junior secondary Senior secondary
Employee related expenses:				
Teachers				
Administrative and support staff				
Redundancy payment				
Total employee related expenses				
Other operating expenses				
Grants and subsidies				
Depreciation				
Total operating expenses				
Investing costs				
TOTAL				
Total Value of Capital Assets for School Education Activities and related Corporate Entity:				
Source: MCEETYA, Taskforce on Government Schools Finance Statistics Collection, Notes, Instructions & Table, 2000 Issue				

Investing costs include purchase of land and buildings, plant and equipment, infrastructure systems and investment. While all States value land at market prices and buildings at written down replacement cost they adopt different methodologies to obtain and revise these prices and values. States vary in their estimates of what is meant by 'expected useful life' and the treatment of 'scrap values'. There are differences in the current capitalisation threshold for plant and equipment. In view of the heavy investment by all public systems in computer technology in recent times, these different thresholds have potentially major impacts on the scope of capital asset valuations and of depreciation allowances.

Features of the MCEETYA collection in relation to the framework proposed in this report:

- The classification covers the uses of public funds, but not the source of funds. However there are readily available Commonwealth and State data that would allow NCETS to report the funds provided by each level of government.
- Private expenditures e.g. spending from school fees, funds raised by schools, school councils or community organisations are not included. However the ABS Government Finance Statistics Education reports the sale of goods and services of government schools (presumably based on data from the ABS Household Expenditure Survey Cat no. 6537.0).
- There is no estimation of the value of contributed services to schools.
- The classification of resource categories in the operating expenses is similar to that proposed in this report and that used by ABS: employee and other operating expenses, depreciation, grants and subsidies.
- It is not clear that the treatment of capital is in the same format as net acquisition of non-financial assets in the ABS collection or the framework proposed.
- The cost of capital is not included (e.g. interest on debt is included in non-government school expenditures, considered in the next section but not in the expenses for government schools).
- Expenses are reported by primary, junior secondary and senior secondary as suggested in this report.
- There is no classification of the service categories provided. The only classification relating to activities is the division into in-school and out-of-school expenditures.
- Transport payments are included in Other operating expenses and Grants and Subsidies but are not identified in any publication - whereas ABS provides separate aggregate data on transport expenses;
- Special education is not identified separately from other schooling—it is in ABS education statistics).
- Payroll tax is excluded—most if not all schools are exempt (see SCRCSSP 1999 p.23).
- Per student expenditures *are* provided for each of the purpose categories.
- Constant price estimates are not yet provided (though the Productivity Commission does estimate constant price measures based on the MCEETYA data).
- Reporting is for the financial year, as for ABS data, whereas all other sectors report for the calendar year.

Institutions: non-government schools

DETYA collects data from non-government schools on income and expenditure. Summary tables are published in the MCEETYA *National Report on Schooling* on a per student basis for:

- each State and Territory;
- primary schools, secondary schools, and primary-secondary combined schools;
- Catholic schools and for Other non-government schools.

Table 10 shows the detail of sources and uses of funds *currently reported*. In addition the level and changes in loans of non-government schools is reported.

Table 10. DETYA framework for non-government schools: Income and expenditure of schools by affiliation, States and Territories, calendar year

Income	Expenditure
Fees and charges	Recurrent expenditure
Private donations and income	– Teaching staff salaries
State government grants	– Non-teaching staff salaries
Commonwealth government grants	– Staff related expenditure
	– Debt servicing
	– Other Operating expenditure
	Capital expenditure

Source: MCEETYA: *National Report on Schooling in Australia*.

Notes: Size and change in loans is also reported; excludes amounts related to boarding facilities; excludes depreciation and amortisation; includes debt servicing of loans; expenditure of schools systems is allocated across schools pro rata and not separately identified.

Much more data is collected on non-government schools than is reported by DETYA. The Financial Questionnaire for Non Government Schools completed annually requires very detailed data on all categories of income and expenditure. For example there are more than 25 different categories of recurrent income to be reported. The questionnaire also requires information on:

- sources of income for capital purposes,
- recurrent expenses for salaries, for salary related and other expenses (including interest payments on loans and depreciation) and for
- capital expenditures and changes in loans.

On the basis of the information requested it should be possible:

- to report expenses in the detail suggested for the framework;
- to report in an accrual framework.

The new system of funding of non-government schools, based on socio-economic status of the place of residence of parents, adopted for all but Catholic systems from the beginning of 2001, means that information on the finances of non-Catholic schools is not needed to estimate the grant to each school. However it is intended to continue the collection of finance data.

Summing up the non-government schools data in relation to the proposed framework:

- detailed components of expenditures are not published but the data should be available to DETYA to provide the information suggested in the framework;
- there is no information on the service categories/activities to which the expenditure is directed;
- financial reporting is by type of school and a large proportion of schools span both primary and secondary schooling;
- senior secondary schooling is not distinguished from junior secondary;
- recurrent expenditure includes debt servicing of loans and this is separately reported;
- payroll tax is excluded—most if not all schools are exempt; and
- information on depreciation is not published though the data are collected by DETYA.

Institutions: VET

VET data for publicly funded institutions and public funding of private institutions has been presented on an accrual basis since 1997 for each State and Territory. They are reported in NCVER *Australian Vocational Education and Training Statistics Financial Data*. Details of the framework are provided in NCVER *AVETMISS, The Standard for VET Financial Data*. The implementation of accrual reporting has been taken furthest of all sectors for the VET data. The main details of the operating revenues and expenditure for public institutions and public funding of VET are shown in Table 11.

In addition to the Operating Statement the VET financial data include a

- Statement of Financial Position;
- Statement of Cash Flows, and
- Notes to those statements.

**Table 11. NCVER framework for VET: operating revenues and expenditures-
public institutions and other public funding of VET**

Operating Revenues Fee for service Government agencies Other- including overseas students Adult and Community Education- Stream 1000 Student fees and charges Ancillary trading Other revenues Profit on sale of non-current assets Investment income Residential charges Recoveries Other State government Recurrent Capital Commonwealth government Recurrent Capital Specific purpose Government other	Operating Expenditures Employee costs Salaries, wages, overtime and allowances Superannuation Payroll tax Other salary and wage related costs Supplies and services Consumables Communications and energy Rent and leasing Contracted services Repairs and maintenance Travel and transfer Other Grants and subsidies Apprentice and trainees (not employer subsidies) ACE (administration and infrastructure) VET in schools Skill centres Other VET programs Payments to non-TAFE providers for VET delivery Private enterprise, community, Industry and Local Government Secondary schools – public and private Other government providers Depreciation and amortisation Change in Net Assets Before Abnormal and Extraordinary Items Abnormal Items Extraordinary Items Change in Net Assets Capital Charge Net Assets Received/(Transferred) on Restructure Change in Net Assets Resulting from Operations
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Source: NCVER 2001, *Australian Vocational Education and Training Statistics 2000 Financial Data*.

This complies with the ABS plan for Government finance statistics in general though there is no statement of Stocks and Flows in relation to assets. It differs from the government finance statistics in that the change in net assets at the end of the operating statement are those resulting from *operations*. In government finance statistics (e.g. see Table 7 above for universities) the operating statement adds the net acquisition of non-

financial assets (purchase of assets less depreciation) to the operating balance and the final balancing item is the net lending (or borrowing) of the sector

NCVER reports variations across States and Territories in the valuation and revaluation of assets, methods of depreciation and in thresholds for inclusion in capital (NCVER AVETMISS 1999, section 3, p.11-14).

The VET financial data is largely presented in a form compatible with the framework proposed in this report but it does not include:

- any direct link to measures of output such as qualifications or modules completed; or
- constant price estimates.

However the data have been used in the provision of expenditure per unit of output, with the information in constant prices. This is done by ANTA in its *Annual National Report* combines the VET Financial Data with data on publicly funded hours of training provided to estimate public expenditure per hour of publicly funded VET and per hour of successfully completed hours of VET¹⁶.

ANTA presents the resulting estimates in constant prices using the deflators for Gross Non-Farm Domestic Product to adjust for changes (ANTA 2000, pp108-14, 156-60). As discussed in section 5 the use of the average level of prices in the community, such as the GDP deflator, provides an estimate in constant prices that represents the demands made on the resources of the community. But deflation by a price index that measures the actual costs in the education sector would provide an indication of changes in resources used in the sector. The choice of price index is an important matter as there are large differences among price measures, as illustrated in Table 6.

Depreciation is shown as an operating expense in the operating statement. The VET financial statistics also include an item for capital charges within 'Change in net assets' in the operating statement. The figure is \$51 million for 2000 and this was entirely attributable to Queensland with zero shown for all the other States and Territories. In contrast to this the Productivity Commission in its annual review of VET applies an 8 per cent user cost of capital to all non-current physical assets and working capital, less costs of government capital charges and interest on borrowings. Their estimated charge for VET for 1999 was \$439 million (Productivity Commission 2001 p.125). The government

¹⁶ Note that this requires considerable unpublished data. The data used for the calculations are:

- publicly funded module hours with adjustments for invalid enrolments and enrolments directed at recognition of prior learning;
- publicly funded successfully completed module hours;
- total operating expenditure *less* fee for service revenue, ancillary trading revenue, other operating revenue, revenue from specific purpose Commonwealth funds, VET-in-schools funding, redundancy payment external to VET budgets, and skill centre capital revenues.

finance statistics to date do not include a capital charge. This is a matter to be considered further in the final section of this report.

Institutions: higher education

The main source of official financial information about Australia's publicly funded universities is *Selected Higher Education Finance Statistics* (SHEFS) published by DETYA on a calendar year basis. It is supplemented by DETYA *Selected Higher Education Research Expenditure Statistics* (SHERES).

The SHEFS are derived from each university's Annual Financial Report to DETYA in meeting the financial reporting requirements of the Higher Education Funding Act (1998). There is no separate reporting of information from the separate campuses of multi-campus institutions. There is no information from private universities, or from subsidiary commercial campuses of funded universities, which do not receive Commonwealth operating grants.

The type of information published in 2001 for 1999 is shown in Table 12. It lists the revenues and the resource categories to which the expenditure is directed. The third column of Table 12 shows the activities (service categories) for which expenses are made and these are reported in the DETYA statistics.

Table 12. DETYA reporting framework for 1999 higher education finance statistics

Operating revenues	Operating expenses by resource categories	Operating expenses by activities/functions/service categories
Commonwealth government grants	Salaries	Academic activities and research
Operating excluding HECS	Academic Staff	Libraries
Other	Non-academic Staff	Other academic support services
HECS	Salary Related Costs	Student services
from Trust fund, and	Academic Staff	Public services
from up-front payment	Non-academic Staff	Buildings and grounds
State Government	Depreciation and other expenditure	Administration and other general institution services
Investment income		Deferred employee benefits for superannuation
Fees and charges		Other operating expenses
From fee-paying overseas students		
From fee-paying postgraduate students		
From fee-paying undergraduate students		
Other fees and charges		
Other operating revenue		

Source: DETYA 2001, *Selected Higher Education Finance Statistics* 1999

For 2000 data DETYA has adopted a more explicit accrual reporting basis. It requires among other information a Statement of Financial Performance (which includes an operating statement), a Statement of Financial Position (a balance sheet) and a Statement of Cash Flows.

While there are differences in detail there would seem to be little difficulty in aligning the revenue section of the DETYA collection with the framework suggested in this paper or with the ABS Operating Statement for universities shown above in Table 7. The mapping of the DETYA activities to those proposed in the framework is more difficult though it should be noted that the OECD 2001 Table B6.2 provides information on Australian tertiary institution expenditures classified by instructional services, research, and ancillary services. It shows the 67 per cent of expenditure for Instructional services, 5 per cent for Ancillary services (such as transport, meals, housing provided by institutions) and 28 per cent for Research and Development.

The further documentation on the way the OECD arrives at its allocation would assist in providing this sort of information in the Australian collection on a continuing basis. It can be noted that Student services accounts for about 5 per cent of the operating expense in the SHEFS and this may be the source of the OECD estimate of Ancillary services. Research expenditure is not separated from other academic activities in SHEFS. As mentioned DETYA does produce an annual publication *Research Expenditure: Selected Higher Education Statistics* (SHERES) the primary source of which is an ABS survey of research and experimental development¹⁷. It provides the information at an institutional, state/territory and national level. Table 2 of SHERES for 1998 shows a total university research expenditure of \$2.602 million for 1998. This appears to be somewhat higher than the 28 per cent shown by OECD but the reconciliation should not be a major issue.

The importance in isolating if only approximately the research function in universities is emphasised following the publication of the 1999 Green Paper on research and research training, *New Knowledge, New Opportunities* and the subsequent White Paper, *Knowledge and Innovation*. The connection to the financial data is indicated in the following statement:

The development of a policy for research and research training ahead of a more general framework for tertiary education was designed in part to decouple financial arrangements for research training students from those that might apply more broadly across post-compulsory education and training. (Gallagher 2000)

From 2001 each university will provide a Research and Research Training Management Plan which will be 'auditable' by the new Australian Universities Quality Agency. This exercise will produce a range of information not previously reported. More explicit

¹⁷ ABS publishes data from the survey of universities at an aggregate level in *Research and Experimental Development Australia -Higher Education Organisations* Cat No. 8111.0.

expenditure commitments to research and research training will be part of this new information.

Per student data

The OECD (2001 Table 6.3) also produces its estimates for Australia and other countries on a per student basis. This is not provided in DETYA publications.

The Australian Vice-Chancellors Committee (AVCC 2001) uses DETYA data to derive estimates of Commonwealth funding per equivalent full-time student. It uses information on the base operating grant for which the main source is the annual *Higher Education Report for the...Triennium* (Kemp 2000) rather than the Selected Higher Education Finance Statistics. This raises questions of the ways in which data on finance is made available to the users of statistics.

Other measures

DETYA's *Selected Higher Education Staff Statistics* provides very detailed non-financial statistics on staff. The *DETYA Selected Higher Education Student Statistics* identifies students by HECS and other fee paying status for Australian and overseas students. There is the potential therefore to link the finance data with these staff and student data. DETYA uses its data to provide a considerable amount of information on the performance of universities. But there is no direct way to link the expenditure data to output data such as award course completion by level of course and field of study or to link it to the wide range of information about special groups e.g. Aboriginal and Torres Strait Islander students and ethnicity-related data.

Summing up

For comparison with framework proposed in this report it can be noted of the DETYA higher education finance collection that:

- sources of both public and private funds are reported but only for publicly funded institutions;
- data are published for each institution, for each State and Territory and for Australia;
- data have been provided in a fairly consistent manner over a long period of time;
- expenses are published by resource category for Salaries, Salary related costs and Depreciation and other expenditure and for a range of activities or service categories;¹⁸

¹⁸ DETYA 1999c p.33 discusses some of the differences in treatment of capital and superannuation between VET and higher education.

- research is not distinguished in SHEFS from teaching in the activities to which expenses are directed but the separate research expenditure estimates in SHERES can be used to provide at least an approximate allocation; the OECD publishes estimates for instruction, ancillary services and research;
- per capita estimates are not reported by DETYA but some estimates are provided by OECD and by the AVCC;
- there is no information on expenditure by outputs such as level of course or field of study;
- an accrual framework is in the process of being implemented; and
- SHEFS does not include constant price data¹⁹.

Other institutional finance

The main other areas of institutional spending on education are in preschool education and in adult and community education. There is a lack of regular reporting at a national level for these areas. The major issues relate to consistent definitions of types of learning or funding and data sources to provide estimates. Until these are resolved for the broader framework of education and training statistics the finance statistics will remain piecemeal and inconsistent. Discussion in this section is directed at some of the issues to be addressed. In general it seems that as a first step attention should be concentrated on consistency in scope and definition for provision within similar institutions across Australia.

Preschool education

There are two scoping problems which need to be resolved before detailed consideration can be given to the collection and presentation of preschool finance statistics. The first is the range of *educational* activities which are to be considered 'preschool'. The second is the drawing of a clear distinction between educational and other care services for young children. The first problem should be resolved more readily than the second.

The Productivity Commission presents data on pre-school education in its annual review of government service provision. For nearly all States and Territories it reports aggregate data on government expenditure on administration, service provision and on assets (Productivity Commission 2001, Volume 3, Chapter 13).

These figures are an underestimate of all expenditures on pre-school education, for at least two reasons: no expenditure data is available on private expenditures on pre-school education, and no account is taken of the expenditures of the many long-day-care centres

¹⁹ DETYA produces annual estimates of grants adjusted by a Cost Adjustment Factor (CAF) which they state 'does not reflect actual factor price movements, but reflects the increase the Commonwealth provides to institutions each year toward the increase in salary and non-salary costs' (Kemp 2000 p.199).

which engage in preschool education activities. The recent study by Kirby and Harper (2001, Section 6.1) report that "more than eighty percent of (Victorian) long day care centres are believed to be involved in pre-school education program delivery, but only a proportion receive funding".

The collection of reliable, comprehensive preschool financial statistics is further complicated by the very different administrative and funding arrangements which currently operate among the States and Territories of Australia (Press & Hayes, 2000, Table 11, Kirby & Harper, 2001, Section 11)²⁰.

Despite these definitional and attributional problems, each state and territory has submitted *government expenditures* on preschools to the SCRCSSP. Since private and community providers of preschool services must be required to submit audited annual accounts to state and territory regulatory authorities, there should be sources of information about the privately financed expenditures on preschool education. But these data would still suffer from the inability to separate preschool from day care services in the expenditures of community-based long day care centres.

Adult and community education

There are issues of scope that need to be resolved for Adult and Community Education before student data or finance data can be compiled on a consistent basis. They are discussed in more detail in Appendix 2.

The Australian Association for Adult and Continuing Education (1992) identified four broad, overlapping categories of adult and community education provision:

- *General (adult) education* – undertaken primarily for personal enrichment and general interest (traditionally called Stream 1000); also referred to as 'liberal education'.
- *Adult basic education* – encompassing literacy, numeracy, communication skills and basic education skills which can be included in what was called Stream 2000 in vocational education and training.

²⁰ Preschool services in the ACT are the responsibility of the Department of Education and Community Services. In NSW preschool services attached to schools (about 70) are the responsibility of the Department of Education and Training and others (about 800) are the responsibility of the Department of Community Services. The Department of Education has responsibility for preschool services in the Northern Territory. Education Queensland has responsibility for preschool services attached to schools. The Department of Families, Youth and Community Care has responsibility for licensing of community preschool centres. The Department of Education, Training and Employment in South Australia has responsibility for preschool services; In Tasmania preschool services are the responsibility of the Department of Community and Cultural Development. The Education Department of Western Australia has responsibility for all preschool services

- *Vocational training* – career-related training, industry training, special purpose training for organisations, skills upgrades and vocational preparation.
- *Public education* – health, lifestyle, environmental education and campaigns designed to address and change public attitudes

The publicly funded sections of ACE that are classified as vocational training and as adult basic education are already measured within the VET statistics collection, though the financial data published by NCVET do not readily allow the separate identification of those parts attributable to ACE.

As with preschool education, a difficulty in obtaining nationally comparable data on ACE is that it is organised differently among the states.

A recent Scoping Study (Borthwick *et al*, 2000) addresses non-vocational education supplied by community-based organisations, as well as TAFE-based vocational education. It acknowledges those providers for which ACE is an adjunct activity (e.g. health and cultural centres). It does not include intentional educational programs offered by the mass media and other non-education institutions. (The Report acknowledges that data on the activities of the University of the Third Age and Schools for Seniors are not currently captured and reported.)

The NCVET produces an annual statistical publication on Adult and Community Education but its data is limited to:

- all educational and training activity delivered by community based or community managed organisations for adults which receive public funding; and
- non VET activity delivered by TAFE institutes and other VET providers in receipt of public funding.

However to date no financial statistics are presented. It can be added that the prospects for measuring the financial aspects of non-institutional learning are even more difficult.

Tax concessions for education and training

Reductions in tax are available for employment related education expenses undertaken by individuals and employers can claim training expenses prior to estimation of taxable income. These can be for both institutional and non-institutional expenditures. Tax deductions are also available for donations to a range of activities including educational building programs. Employers of apprentices in some states are exempted from payroll tax on the wages paid. These tax concession in effect shift the burden of expenditure from the private to the public purse.

As stated earlier the UOE (2000 p.60) concluded that the development of a set of financial aid categories sufficiently comprehensive to include tax subsidies remains a task

for the future. In Australia there are however a range of data from the Department of Treasury and the ABS that should allow at least partial estimation. For example 1997-98 tax statistics show claims for self-education expenses by over 500,000 persons for over \$500 million deductions. Claims for gifts and donations also are in excess of \$500 million though how much of them are attributable to education is not identified in the readily available statistics. A study of the possibilities for reporting could be undertaken by the NCETS.

International spending

Expenditure by overseas students as distinct from Australian households or enterprises is not separately identified in any of the ABS. There is however a range of information on the number of students and the fees paid in higher education and in vocational education and training by DETYA (Overseas Student Statistics) and by NCVER (Statistics 1998 and 1999 Overseas Students). A good approximation to the expenditure on instruction and on ancillary spending from overseas is possible and together with the extent and type of participation in education institutions. Estimation of sources of funds for that spending may be more complex. Identification of Australian government support for overseas students is also feasible.

The estimation of Australian spending overseas is not so readily provided and an investigation into sources of data could be undertaken by NCETS.

Non-institutional spending

Spending outside education and training institutions for instruction or for ancillary services includes private tutoring, spending on text books or educational software, spending on student living costs, spending on transport and employer training in the workplace. Comment is made on the more important areas.

Publicly funded labour market programs

A range of labour market programs are funded by governments. Some of these include training. These programs are not included in education in the government finance statistics. Some information on the expenditure and extent of participation in training programs by OECD member countries, including Australia, is regularly reported by the OECD in its annual publication *Employment Outlook*. For the framework as presented in this report it is desirable that statistics on the training elements of labour market programs be provided. It should be possible to identify funding relating to instruction and ancillary funding such as support for the trainee living costs. There may be some issues for arbitrary demarcation as it may be unclear in some cases whether a payment is a job subsidy or a training subsidy.

Publicly funded student finance

The ABS reports data on financial benefits to students but so aggregated that it is difficult to use it for any analysis. They are included in Current Monetary Transfers to Households (see Table 8 above).

Government funding for the implicit loans to students for the Higher Education Contribution Scheme (HECS) and the proposed Postgraduate loans scheme (PELS) is not currently included in the government finance statistics for education though it is intended that the ABS bulletin will include separate reference to it. This is because the expenditure on higher education from HECS is treated as private expenditure and the funds implicitly provided to the students treated as an advance. This may be appropriate for the Government Finance Statistics. For a more comprehensive report on education and training it is necessary to have a more explicit treatment of HECS and PELS as a source of finance for higher education. There may also be a case for an extensive explanatory note on this item within the Government Finance Statistics Education.

Various documents are available from the Department of Family and Community Services (DFACS) relating to student support (e.g. DFACS 1999, 2000). DFACS is carrying out a range of detailed research studies on its assistance to students including the Youth Allowance. The potential for quite detailed reporting in the near future of student allowances by type of learning and student characteristic appears large.

The estimation of that part of student living costs supported by households, employers or private loans is rarely undertaken. The Australian Vice-Chancellors' Committee has recently published a study based on a survey of student finances (Long and Hayden 2001). It may be appropriate to report such information on an occasional basis but unless such surveys are undertaken on a regular basis across the whole student population this is likely to remain one of the unfilled cells of the framework.

Private non-institutional spending relating to instruction

In some countries private tuition for primary and secondary level education outside education and training institutions is of major importance (Bray 1996). It appears to be growing rapidly in Australia, though there is little data available. Consideration is needed on the importance of such data and the ways in which it might be collected and reported

Employer spending on training

A considerable amount of training is provided in the workplace. Where public funds are paid to the public or private providers of that training especially under New Apprenticeships the expenditures are included in the NCVER VET Finance Data—though they could be more clearly identified. As already mentioned government subsidies to employers of apprentices are currently not included in education expenditure but are treated as support for employment rather than of education and training by the ABS in the national accounts and the government finance statistics. Similarly payroll tax exemptions

provided in some states for employers of apprentices are not recorded in education and training finance collections.

The main national data on employer training expenditure have been compiled through ABS employer surveys (Catalogue no. 6353.0) with the last one in 1996. The ABS has agreed to undertake a further survey in this area in 2002-03 funded by ANTA. The survey concerns employer expenditure on structured training—all training activities which have a predetermined plan and format designed to develop employment-related skills and competencies. The employer surveys included data on training expenditure by States and Territories, by public/private sector and by industry. Table 13 shows the main data items in the last survey in 1996.

Table 13. ABS employer expenditure survey: main items

Number of employees by sex and employee status
Number of trainers and support staff
Total training expenditure
Expenditure on structured in-house training
Expenditure on structured external training
Field of training by employee costs for time receiving training and training hours
Employers' trainers and support staff gross wages and salaries
Fees paid for conducting in-house and external courses
Other training expenditure for in-house and external training including equipment
Travel etc, training rooms, payment to industry training bodies
Training subsidies received from government sources
Payment received for employees of other organizations attending training

Source: ABS *Employer Training Expenditure* Cat no. 6353.0

The format of the collection allows expenditure related to instruction to be distinguished from spending for ancillary matters such as wages and salaries for those undergoing training.

The survey provided some information on the sources of funds such as employer and government subsidies. It also includes a range of information on expenditure on the inputs to training:

- hours of training;
- in-house and external training; and
- payments to trainers, payments for other resources and payments to the trainees.

The expenditure survey provided data by the type of recipients (males, females, full-time, casual), and by the outputs such as by type of training and field of training,

There are some difficulties in using data on employer expenditures along with data on the formal education system. There is the danger of double counting as some of the employer training expenditure for external training is received by education institutions.

7. Conclusion and recommendations

The purpose of this consultancy was to develop a framework for financial statistics for education and training in Australia and to critically review current Australian education and training financial statistics against that framework.

The key factors considered in developing the framework were:

- the need for financial data suitable for policy development and review in a changing social and economic context;
- the views of key stakeholders on the needs for data and the feasibility of improving existing data;
- the OECD's approach to financial data;
- the ABS overall framework for education and training statistics and especially the need for the framework to cover all directed learning, not just the education sector.

The main elements for the proposed financial framework are:

- (i) Scope—institutional education and other forms of education and training including training in the workplace and non-taught learning.
- (ii) Sources of funds—public and private, actual and imputed (by Commonwealth, State and Local Governments, by Private corporations, quasi corporations and non-profit institutions, by Households and by the Rest of the world).
- (iii) Uses of funds—education and training expenditure on institutions and outside institutions. Institutional expenditure classified by
 - resource category such as employee expenses, non-employee expenses and depreciation and by
 - service category such as instruction (delivery and support and administration) and ancillary services or spending such as transport, books and student living costs.
- (iv) Links to output—the data must potentially be able to be linked to units of output and must be available in constant price or volume measures for comparisons over time.
- (v) Accruals-based reporting—rather than cash based.

The proposed framework was outlined in section 5 and summarised in Tables 3 to 5 and Diagram 3. The financial statistics currently provided by the ABS and for the main education sectors have been reviewed against the proposed framework. Assuming the adoption of this framework a series of recommendations are provided for its implementation and for reporting with the framework. The detail of the discussion in this

report cannot be reproduced here and it is assumed that it would be taken into account in the implementation.

Short term

1. Prepare a publication in 2002 on the finance of education and training based on the framework, using existing data and identifying what can and cannot be reported

NCETS should produce a publication presenting the agreed framework and should use available statistics to report on public and private spending for the main institutional sectors and for some non-institutional spending. The report would indicate the sectors of the framework for which data can be reported.

It is suggested that the publication should go beyond reporting of financial data to also include derived statistics such as expenditure per unit - e.g. per EFTSU in higher education.

The publication should use the statistics and unpublished data currently prepared for the Government Finance Statistics Education, Government Finance Statistics and the National Accounts and the main education and training sectors. It is assumed here that the current publication by ABS on education *Government Finance Statistics, Education*, Cat. no. 5518.0.48.001 which is a by-product of government finance statistics and is unlikely to be expanded to meet the broader needs outlined in this report. Issues for consideration include:

- Reporting data on a consistent basis across sectors. This requires an attempt to reconcile the differences across collections, e.g. in reporting periods and payroll tax;
- Data on non-institutional spending not currently included in education statistics - in particular this includes employer expenditure on training and labour market programs directed to training;
- Taxation data to be examined to see the extent to which this form of public support can be identified and reported;
- Identification of service categories such as instruction, research and ancillary matters such as student financial support and transport;
- Identification of international expenditures; and
- Reporting of the Australian data published by the OECD in Education at a Glance with details of the definitions used and data sources.

2. NCETS should review the need for price deflators for the main sectors of education

Price and wage changes over time mean that financial data for different time periods are not comparable. As discussed, the CPI is a relevant measure in relation to financial

support for student but is less relevant for the resources within education institutions where wage costs commonly increase more than CPI.

There needs to be a review of the various purposes of preparing constant price or chain volume measures and the suitability of existing price measures for those purposes.

Short to medium term

3. Liaise with MCEETYA to extend the government schools collection

There are a number of changes needed to bring the government school collection more closely in line with the framework. Some could be undertaken by NCETS, such as the provision of information on the sources of government funds by level of government. Others require changes in the MCEETYA collection and could be expensive and only be possible over a longer period of time. MCEETYA has provided detailed comments on the draft framework and these could provide the basis of NCETS liaison in relation to:

- information on the private expenditures and donations for government schools
- estimation of the value of contributed services;
- expenditure reported by activities eg Delivery provision and support; Administration and general services and Student services and other services;
- estimation of the user cost of capital;
- resolution of differences in treatment of capital across jurisdictions;
- provision of data on special education separately from other schooling; and
- identification of transport expenditures.

4. Liaise with DETYA to extend the reporting on non-government schools

As discussed considerable detail is available in the information provided to DETYA by non-government schools that is not reported publicly at present. NCETS should liaise with DETYA regarding:

- more details of the resource categories of expenditures such as compensation of employees, non-employee expenditures, depreciation;
- details of the service categories to which the expenditure is directed;
- estimation of expenses by primary, secondary and senior secondary schooling (whereas much of the non-government data is for combined schools);

5. Liaise with ANTA and NCVER on VET financial data

The VET financial data is already presented in a form generally compatible with the framework proposed in this report but there is no link in the expenditure data to measures of output such as qualifications or modules completed. Increased detail on a number of items of expenses would prove helpful for policy related research.

ANTA uses unpublished data to provide some measures of expenditure per unit but it is desirable that the capacity to provide such measures be available to interested researchers and interest groups.

6. Liaise with DETYA on the higher education collection

DETYA receive greater detail from universities than currently is reported. NCETS could seek in the short term:

- more detail on the expenses which are currently reported only for Salaries, Salary related costs and Depreciation and other expenditure;
- appropriate ways of reporting research expenses which are already available in a separate publication and in OECD data for Australia, and
- appropriate ways of reporting expenditure per EFTSU currently undertaken for Australian students by the AVCC.

7. Liaise with DFACS, Centrelink and DETYA to develop a detailed reporting of student assistance, of HECS assistance and of other measures of student support

The data on student financial assistance is quite extensive but not presented on a regular and consistent basis. Work should be undertaken with the relevant authorities so that more detailed regular comprehensive reporting be undertaken

HECS and PELS are repayable form of student assistance and it would be appropriate to see if they can be include in a consistent manner with other forms of student support.

8. Review employer training expenditure measures to increase comparability with institutional expenditures

Some employer expenditures for training are payments to education institutions. The previous surveys of employer training expenditure have identified this. In developing the new survey of employer training expenditure for ANTA NCETS could examine the extent to which expenditure on training institutions can be identified and the extent to which other expenditures can be reported on similar lines to institutional expenditures. However the achieving of increased compatibility may not justify increased cost or increased complexity.

9. Improve coverage of pre-school and adult and community education

The limitations in the areas of pre-school and ACE are largely in defining the scope of the areas of learning and in measuring participation on a consistent basis. Good financial data will not be available until these issues are addressed. This applies even more so to areas of non-institutional learning. However a mapping of the possible extent of these areas of learning should be attempted and some broad approximations attempted even if precise measurement is not possible even in the longer term.

Longer term

10. Develop priority list for filling of gaps in the framework and for conceptual development

The proposed framework lists a number of items such as the purchase by households of private tuition on which little if any data are currently available. NCETS could develop a priority list for issues to be examined and the costs of obtaining data. There could also be further developmental work on conceptual issues such as capital charges, the volume measures and ways of deriving links between education and outputs where direct measures are not available.

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Glossary

ASCED Australian Standard Classification of Education which comprises two component classifications: Level of Education and Field of Education. It is designed as a replacement for the Australian Bureau of Statistics Classification of Qualifications (ABSCQ) and for a range of classifications of level of education, field of study, and discipline groups currently used for data from the various sectors of the Australian education system.

Corporation a legal entity that is created for the purpose of producing goods and services for the market; may be a source of profit or other financial gain to its owner(s); and is collectively owned by shareholders who have the authority to appoint directors responsible for its general management.

Economic Type Framework (ETF) the main classification of stocks and flows in government finance statistics. The ETF resembles a set of financial statements, with sections for an operating statement, a cash flow statement and a balance sheet. In addition, there are sections to cater for the reconciliation of accounting net operating result measures with cash flows from operating activities and to capture items like assets acquired under finance leases, intra-unit transfers, and revaluations and other changes in the volume of assets.

Enterprise all legal entities within an enterprise group that are classified to the same institutional subsector.

General government sector an institutional sector comprising resident government units and non-market NPIs that are controlled and mainly financed by government units. It includes universities as non-market NPIs and other government education providers.

Government unit a legal entity, which is established by legislation, regulation or government administrative action; is financed mainly from taxation or government transfers; exercises legislative, judicial, or other government authority over other units within a given area; and mainly provides its services free or at economically insignificant prices. The majority of government units are readily identifiable in that their operations are mainly financed from taxation and they redistribute income by means of transfers (eg subsidies, grants, welfare payments) or engage in other forms of non-market production, which means they provide government services (eg defence, education, health services, economic advice) free of charge or at nominal prices.

Household a small group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food.

Households sector an institutional sector comprising resident households, including resident household unincorporated enterprises.

Household unincorporated enterprise an unincorporated enterprise that is owned by a household and does not qualify as a quasi-corporation and is therefore included in the household unit.

Jurisdiction the jurisdiction of a unit is the government (the Commonwealth or an individual State or Territory Government) which controls the unit or, if the unit is a local government authority, the government that administers the legislation under which the unit was established.

National collection data compiled on a consistent and coherent basis for Australia, States and Territories which will be reported by NCETS. This is in distinction from data compiled for the purposes of particular education sectors or education and training institutions

Legal entity in the ABS business register, the statistical unit which (1) is the first unit classified to institutional sector, (2) is the ABS unit closest in concept to the SNA93 *institutional unit*, and (3) is defined as a unit covering all the operations in Australia of an entity that possesses some or all of the rights and obligations of individual persons or corporations; or that behaves as such, in respect of those matters of concern for economic statistics.

Level of government a three-way classification of public sector units based on whether the role, function and geographical extent of the units' political authority is National, State/Territory or Local.

Market non-profit institution a non-profit institution that either mainly disposes of its output at economically significant prices; or is established, financed or controlled by corporations and mainly provides services to member corporations.

Multi-jurisdictional the classification given to a public sector unit that cannot be allocated unequivocally to a single jurisdiction, currently only applying to universities.

Non-market non-profit institution a non-profit institution that disposes of its output free or at prices that are not economically significant.

Non-market production production of output which is disposed of free or at prices that are not economically significant.

Non-profit institution (NPI) a legal entity which is created for the purpose of producing goods and services; and is not authorised to be a source of income, profit or other financial gain to the units that establish, control or finance the legal entity.

Non-profit institutions serving households (NPISH) sector Economic sector comprising non-market NPIs excluding those controlled and mainly financed by governments. Includes non-government schools.

Non-resident unit a legal entity with a centre of economic interest outside the economic territory of Australia.

Private sector the combination of the household sector, the NPISH sector and all resident corporations and quasi-corporations not controlled by the general government sector.

Public non-financial corporation a resident non-financial corporation or quasi-corporation that is controlled by a unit of the general government sector.

Public sector the combination of the general government sector, all resident public non-financial corporations and all resident public financial corporations.

Quasi-corporations the following types of unincorporated enterprises are recognised as quasi-corporations: unincorporated financial enterprises, except for financial auxiliaries; unincorporated partnerships of companies and trading trusts; unincorporated enterprises owned by government which sell output at market prices; and unincorporated enterprises assessable for income tax purposes as companies.

Resident unit a legal entity that has a centre of economic interest within the economic territory of Australia.

Rest of the world sector an institutional sector comprising all non-resident units that engage in transactions with resident units, hold financial claims against resident units, or have financial claims against them that are held by resident units.

Statistical units units about which statistics are tabulated, compiled or published.

Unincorporated enterprise: an entity that engages in market production but does not qualify as a quasi-corporation and is included in the statistics as part of the government unit, household or NPI that owns the enterprise.

Acronyms

ABS	Australian Bureau of Statistics
ACE	Adult and community education
AGSRC	Average Government Schools Recurrent Costs
ANTA	Australian National Training Authority
CAF	Cost Adjustment Factor used by DETYA for adjustment of annual grants to universities
DETYA	Department of Education, Training and Youth Affairs
EAG	OECD <i>Education at a Glance</i>
EFTSU	Equivalent full-time student unit (for full year)
GFS	Government Finance Statistics
GPC	Government Purpose Classification
HECS	Higher Education Contribution Scheme
ISCED	International Standard Classification of Education
JUR	Jurisdiction
LOG	Level of government
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
n.e.c.	not elsewhere classified
NCVER	National Centre for Vocational Education Research
NCETS	National Centre for Education and Training Statistics
NETSU	National Education and Training Statistics Unit
NPI	Non-profit institution
NPISH	Non-profit institution serving households
PELS	Postgraduate Education Loans Scheme
PPP	Purchasing power parity
ROW	Rest of the world
RTO	Registered training organization
SESCA	Standard Economic Sector Classifications of Australia
SNA93	System of National Accounts 1993
UOE	UNESCO, OECD and EUROSTAT
VET	Vocational education and training
WCI	Wage Cost Index

Appendix 1. Consultations

Organisations and Persons consulted

Please note - some names not yet included

Association of Independent Schools of Victoria	Peter Devine
Australian Bureau of Statistics (ABS)	Mel Butler, Jenny Dean, Kirsty Goodie, John Sant, Frances Pollard, Tulsi Ram, Pam Cahir, Gini Udy.
Australian Early Childhood Association Inc.	
Australian Education Union (AEU)	Roy Martin, Michaela Kronnemann
Australian National Training Authority ANTA	Kaye Bowman, Peter May, Claire Field, Steve Bain
Australian Vice-Chancellors Committee AVCC	John Mullarvey, John Chan
Don Brewster Consulting	Don Brewster
Commonwealth Grants Commission	Stephen Tregea-Collett and others
Commonwealth Parliamentary Library	Carol Kempner, Kim Jackson, Coral Dow
Department of Education, Employment and Training (DEET) Victoria	Michael Ryan, Peter Stricker
Department of Education, Training and Industrial Relations (DETIR) Queensland	Peter Noonan, Mark Driver and others
Department of Education, Training and Youth Affairs DETYA	Tom Karmel, Wayne Shipley (Higher Education) William Thorn, Brendan O'Reilly, Phil Aungles, Chris Lawson, Terry Murphy, Sally Borthwick, (Research and Evaluation) Chris Evans (Schools Budget and Coordination) Phil Brown, Ann McConnell, Harold Wilkinson
Department of Family and Community Services	
Department of Industry, Science and Resources	Bob Bennett
Education Queensland	Ian Cosier
MCEETYA Finance Committee	Chris Taggart, Michele Bruniges, Jim McMorro, John McArthur
National Catholic Education Commission NCEC	David de Carvalho
National Centre for Vocational Education Research NCVER	Jessie Borthwick, Mathew Hardy
National Council of Independent Schools of Australia NCISA	Fergus Thomson, Pauline Nesdale,
Productivity Commission	Robyn Sheen, Annie Savvas

Email prepared for consultations

Education and training financial statistics

The Australian Bureau of Statistics has contracted CEET to propose a conceptual framework for education and training financial statistics, to evaluate the current financial statistics against this framework and to suggest priorities for improvements in financial statistics. The consultancy is to be completed by February 2001 and is being conducted by Gerald Burke, Ross Harrold and Phil McKenzie. Our contact details are given below.

We would appreciate the opportunity to discuss this work with you. In particular we would like to know:

- * what education and training finance statistics are important to your organisation;
- * what use you make of existing finance statistics;
- * what you see as the main deficiencies or gaps in existing financial data sets; and
- * what additional financial statistics are of greatest priority.

The ABS through its National Education and Training Statistics Unit is developing an overall framework for education and training statistics. An objective in developing a framework for statistics is to allow analysis of the connections between the inputs, process, outputs, outcomes and context, with a view to obtaining a greater understanding of efficiency, effectiveness and equity.

The ways in which funds are provided and expended have considerable impact on the equity of access to education and training and on the efficiency and effectiveness of the use of inputs. This consultancy on finance statistics will examine the extent to which financial data can be linked with other education and training data and in particular to data on outputs. Greater attention is being given to examining changes over time. For financial statistics this will require attention to price indexes so that clearer measures are available of changes in the real level of education resources.

There are many legal and resource constraints on the nature, scope and presentation of financial statistics, for example the requirement to use accrual accounting procedures. There is an increasing requirement for the collections to be consistent with international criteria. Within these constraints, however, there is still scope for flexibility and adaptation to meet the specific needs of major users. We hope our discussions will help in clarifying these needs and the extent to which they can be met.

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Appendix 2. Scope of Adult and Community Education

The Australian Association for Adult and Continuing Education (1992) identifies four broad, overlapping categories of adult and community education provision:

- General (adult) education – undertaken primarily for personal enrichment and general interest (traditionally Stream 1000); also referred to as 'liberal education'.
- Adult basic education – encompassing literacy, numeracy, communication skills and basic education skills.
- Vocational training – career-related training, industry training, special purpose training for organisations, skills upgrades and vocational preparation.
- Public education – health, lifestyle, environmental education and campaigns designed to address and change public attitudes.

This classification is broader than that used in the NCVER *ACE Scoping Study* (Borthwick et al 2000, p.6). In this latter study the focus is on institutional provision of ACE and so does not consider the last AAACE category, which includes such important *ad hoc* projects as the Australian Broadcasting Commission's 1995 informal literacy development program, *The Reading. Writing Roadshow*.

One difficulty in obtaining nationally comparable data on ACE is that ACE is organised differently among the states, so the meaning and breadth of coverage of ACE statistics varies. Specifically, Kay Schofield (1996) maintains that data limitations and lack of comparable national data are due to the extent to which States & Territories:

- Distinguish between ACE providers (that is, community-based providers) and other providers (public or private)
- Coordinate the provision by ACE providers in State or Territory;
- Fund provision by ACE providers in the State or Territory;
- Regard ACE as Stream 1000 courses
- Collect data on other than TAFE Stream 1000;
- Distinguish between ACE provision of accredited courses and ACE provision of non-accredited courses in Streams 2000 and 4000.

Table 1 tries to indicate the diverse scope of data collections among the states by showing the sources of ACE statistics reported in the national collection in 1997.

Table 1: Sources of ACE statistics reported in 1997

Provider type	ACT	NSW	N T	Qld	SA	Ta s	Vic	WA
ACE centres		√			√		√	
Community-managed organisations specialising in adult education								
Adult secondary			√					
Courses for adults run by secondary schools								
AMES						√	√	
Adult migrant education services								
Community access		√			√		√	
Community-based centres providing ed'n as one of their services								
TAFE		√		√	√		√	√
Personal enrichment programs								
Universities			√					
Personal enrichment programs								
Public ACE providers	√					√		
Managed by public authority								

Source: Campbell, A. and Curtin, P. 1999, *ACE - Some Issues*, Adelaide: National Centre for Vocational Education Research for the Australian National Training Authority Table 2.3, p. 13.

State differences aside, Table 2 attempts to summarise the different types of providers of adult education and gives examples of the types of institutions which engage in the provision.

The right hand side provides a subjective estimate of the levels of the different provider involvement in the four categories of adult education which have already been listed. As Table 1 shows, data collection of (the finances of) government agencies and departments and of publicly funded formal educational institutions is reliable and comprehensive but that of independently-funded community providers, private sector and labour market organisations is much more problematic - particularly in some states. Campbell and Curtin (1999, p.13) comment:

ACE statistics for both vocational and personal enrichment programs are reported under the national collection depending on the scope of each State's data. This is generally the case for community education and private providers. In some States and Territories no statistics are currently collected from community-managed education providers; however, their TAFE data on personal enrichment programs (non-vocational Stream 1000 activity) are accepted as ACE data. Only personal enrichment (Stream 1000) activity is reported as ACE activity for programs taken in universities, TAFE and other government providers. For these reasons there is considerable under-reporting of ACE activity. The non-reporting of ACE data outside ANTA's scope and boundaries (non-publicly funded activity) further exacerbates the under-reporting of adult education statistics.

Table 1. Major Providers of Adult Education in Australia and their Focus of Activities

Provider	Type of Provision	Adult basic ed.	General interest	Training/ vocational	Public education
Formal educational institutions	Schools, TAFE, (i.e. Stream 1000 personal enrichment) and higher education (ie continuing education programs) in which participants predominantly pay full fees.	*****	**	***	*
Government departments and agencies	Such as departments that offer agricultural extension, marriage guidance counselling, advice to small business, health education or consumer affairs	**		***	*****
Community providers	Such as learning centres and neighbourhood houses which offer community-owned and managed adult basic education and general interest programs.	***	****	**	*
Private sector providers of adult and community education and training	Usually small organisations and secretarial colleges.		*****	*****	
Labour market organisations (enterprises, unions, professional associations).	Includes employer organisations, industry training bodies, enterprises and unions.	*		*****	*

Note: The * to ***** rating gives an indication of where the five provider sectors each concentrate their effort. It does not indicate in any way the relative volume of effort of the different provider agencies.

Source: Campbell, A. &Curtin, P. 1999, *ACE - Some Issues*. Adelaide: National Centre for Vocational Education Research for the Australian National Training Authority, Tables 2.1 and 2.2, p. 12.

The *Scoping Study* (Borthwick et al, 2000) does try to remedy this deficiency in the reporting of ACE activity by addressing non-vocational education supplied by community-based organisations, as well as TAFE-based vocational education. It also acknowledges those providers for which ACE is an adjunct activity (e.g. health and cultural centres). Despite this recognition, the *Scoping Study* still treats the collection of ACE data as a by-product of the national collection of information on the public VET sector and focuses on those institutions for whom adult and community education is a core activity (Borthwick et al, 2000, p. 7). It does not include intentional educational programs offered by the mass media and other non-education institutions. (The Report acknowledges that data on the activities of the University of the Third Age and Schools for Seniors are not currently captured and reported.)

There is thus a close relationship between the public funding of ACE institutions and the their reporting of statistics. This is simply because those who receive public funds for teaching have an obligation to report annually on their use. Not all funding in ACE is for teaching, however. Some payments are for administrative and support payments to head offices of 'umbrella' ACE organisations, for which comprehensive reporting of numbers of students and teaching hours is not always required.

Table 3 below provides a breakdown of all ACE activities (including VET) reported by every ACE provider in receipt of State/Territory or Commonwealth recurrent or specific purpose allocations for VET, plus data that is reported voluntarily to State authorities.

Table 3. ACE Activity by Program Type

<i>Program Type</i>	<i>Students %</i>	<i>Annual hours %</i>
Formal VET (accredited programs)	22.3	46.6
Informal VET (non-accredited programs)	20.7	14.7
Total VET	43.0	61.3
Personal enrichment	61.5	38.7
Total (%)	100	100
Total	582,000 students	21.2 million hours

Source: Borthwick, J. et al 2001, Table 2.1, p. 10.

While numbers of students and taught hours on these ACE programs are reported, together with their trends over time, the Study makes no reference to expenditures. The annual *Financial Data Statistics* publication of NCVER reports total grants to ACE organisations by Commonwealth and State/Territory authorities but not the actual expenses nor (fee) incomes of those organisations.

In Section 3 of the *Scoping Study*, considerable attention is given to statistical collection and reporting issues of ACE community not-for-profit agencies. But this does not include collection of expenditure and revenue information, nor to recommendations that such

information should be collected. The gaps identified in the information collected are listed as:

- Socio-economic information relating to clients;
- Whether clients were returning or repeat custom;
- Mode of transport to and from course;
- What goals and outcomes had been achieved through training;
- Pathways before and after experience in adult and community education;
- Retention or information;
- Sources of information about adult and community education;
- Retention of information;
- Sources of information about adult and community education; and
- Local and regional level information, both about existing clients and potential clients.

In Section 4 the *Scoping Study* looks at the feasibility and costs of expanding collection requirements. No proposals are made to widen the scope of data to include financial information. This is presumably because of the authors' perception that already the level of detailed information collected for publicly funded VET is at the outer limit for ACE-sector activity. 'In fact, the NCVER suggests that the requirements for a limited set of national KPIs could be met by collecting information in considerably less detail than applies to VET' (Borthwick et al, 2000, 19).

The authors are not encouraging about prospects for collecting information from providers not in receipt of public vocational education and training funds Borthwick et al, 2000, p.21):

Any information collected would be likely to suffer from the defects of lack of comparability, accuracy and depth which would limit its usefulness except as an estimate of the quantum of the activity taking place. Its utility for research, management or planning would be reduced.

A companion volume to the *Scoping Study* divides the nationally reported ACE sector into six 'segments' and reports estimates of the numbers of students, taught hours and modules (but not financial data) in each. These segments are as follows:

1. Personal enrichment programs delivered by community centres and reported through ACE provider umbrella organisations
2. VET programs delivered at community centres and reported through ACE provider umbrella organisations
3. Personal enrichment programs delivered by providers other than community centres but reported through ACE provider umbrella organisations

4. Personal enrichment programs delivered by providers that are not community centres and do not report through ACE provider umbrella organisations
5. VET programs delivered by community centres which do not report through ACE provider umbrella organisations
6. VET program not delivered by community centres but reported through ACE provider umbrella organisations.

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