



**PERFORMANCE MEASUREMENT AND REPORTING
TASKFORCE**

Principles and Protocols for the Collection and National Reporting of MCEETYA Key Performance Measures for Schooling in Australia

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KEY PRINCIPLES AND PROTOCOLS FOR NATIONAL REPORTING

The purpose of this document is to guide and inform the collection, storage, use and publication of data generated in support of the Key Performance Measures for schooling in Australia.

Central to this objective are the underpinning principles and protocols that support meaningful and comparable reporting across Australia.

Key Principles

- The primary purpose of national reporting is to inform the Australian public, particularly the education community and parents, of progress in achieving the *National Goals for Schooling in the Twenty-First Century* (the National Goals).
- Published information should be constructive and solely in the public interest.
- The ethical principles underpinning the publication of reports are:
 1. Truth in reporting: the information reported should be as accurate as possible.
 2. Community's right to information: the right of the public to access information that has been collected by government/s for public purposes.
 3. The avoidance of harm to members of the community: this could occur where the privacy of individuals would be compromised or where the reputation of an institution or group of people would be damaged through the publication of misleading information or stereotyping.

Key Protocols

- All reporting will be against the nationally agreed Key Performance Measures that complement the priority areas in the National Goals.
- Nationally consistent definitions of students with particular characteristics are agreed upon and the data are to be collected in accordance with these definitions.
- All data should be nationally comparable, that is: reported against common standards, collected on a nationally consistent basis, with common, standardised processes for calculating and reporting known forms of error and appropriate caveats where necessary.
- A time-series and longitudinal reporting should be used wherever possible. Readers should be made aware of any statistical limitations in comparing the performance and trends of different cohorts and data series.
- Cross-jurisdictional comparisons should be made with caution and policy and external factors taken into account. Further disaggregation to the system and sector level should only occur where there is reliable data and adequate contextual information.
- Reports of international studies should provide contextual information that assists in interpretation of the information.
- Before data are deemed to be of a standard appropriate for publication they should have been subjected to rigorous review by the organisations providing the data.
- Data should be presented so that it can be clearly understood without the need for complex statistical knowledge, with clear headings and adequate source notes for tables and graphs, and contextual information about any performance measures.

- Error margins should be published alongside the data to ensure accurate interpretation. Caveats and explanatory notes should be placed as close as possible to the data.
- Organisations responsible for producing data should arrange for its systematic storage and establish their own protocols for accessing the data that they hold. Data and technical information should be made accessible for auditing and verification purposes, for example, information about sampling or statistical analysis.
- No information that permits the identification of individual schools or students should be reported publicly without explicit permission.
- To the extent practicable and appropriate, information should be provided in advance, for both administrative forms and statistical surveys, about how that information will be reported.
- Organisations providing information for publication in the National Report on Schooling in Australia will be provided with the opportunity to review the draft material prior to publication and to provide any further analysis or interpretative comment.

Accessing MCEETYA Data

Data collected through MCEETYA processes is available for access and research in accordance with Section 2.7.1 of these protocols which provides information about the type of data available for research purposes and how that data may be used.

Organisations seeking to access MCEETYA data should refer to Attachment B, *National Assessment Program – Data Access Process*, which provides information about how to apply for access to the data sets.

1. BACKGROUND

The *National Report on Schooling in Australia* (ANR) is published annually by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). The ANR contains a wide range of information on education in Australia including statistics and data on the context of schooling, the resourcing of schools and progress towards the *National Goals for Schooling in the Twenty-First Century* (the National Goals).

The MCEETYA Performance Measurement and Reporting Taskforce (PMRT) manages the annual preparation of the ANR.

The data reported in the ANR are collected by a range of agencies including the governments of the States and Territories, the Commonwealth of Australia, the Australian Bureau of Statistics (ABS) and various MCEETYA taskforces. The data are owned, stored, retrieved, managed and controlled in a variety of locations using endorsed processes.

The document outlines the processes used by the various agencies that provide data for the ANR in collecting, managing, analysing and reporting on these data. The document is intended for reference by members of PMRT, its sub-groups, PMRT Secretariat and the Benchmarking and Educational Measurement Unit (BEMU). It will also be of value to other MCEETYA taskforces as well as persons preparing chapters for the ANR or those using educational statistics for research or policy development.

Seven major activities contribute to the ANR:

- National Schools Statistics Collection: Finance Statistics (Government Schools)
- National Schools Statistics Collection: Students, Staff and Schools (Government Schools)
- Financial Questionnaire for Non-Government Schools
- Census of Non-Government Schools
- Vocational Education and Training in Schools
- Survey of Education and Work
- National Assessment Program:
 - Literacy and Numeracy Years 3, 5, 7 and 9
 - Science Literacy, Civics and Citizenship, and Information and Communication Technology Literacy sample assessments
 - Programme for International Student Assessment (PISA)
 - Trends in International Mathematics and Science Study (TIMSS).

Section 2 of this document identifies the organisations that own the data in each collection and describes for each:

- the characteristics of the data
- the processes used for collecting the data
- how the data are managed and controlled, and
- how the data are accessed and reported.

Section 3 sets out the principles and protocols that guide the reporting of data in the national context by MCEETYA. The principles and protocols were prepared by MCEETYA for use by those persons and agencies involved in the preparation of the ANR.

Attachment A provides a brief explanation of the Key Performance Measures (KPMs) and how they differ from Program Measures (PMs).

Attachment B details the application and approval process that applies for accessing National Assessment Program data sets.

1.1 The nature of Key Performance Measures (KPMs)

A key role of the PMRT is to develop national KPMs as defined by MCEETYA. The PMRT does not have a role in the development of Program Measures (PMs). In order to clarify the responsibilities of the PMRT, it is useful to distinguish between KPMs and PMs.

KPMs have been developed to ensure that key indicators of the outcomes of schooling in Australia are publicly available. In March 2000, Ministers endorsed the definition of national KPMs ‘...as a set of measures limited in number and strategic in orientation, which provides nationally comparable data on aspects of performance critical to monitoring progress against the National Goals for Schooling in the Twenty-First Century’. KPMs have been, or will be, developed for each of the priority areas within the National Goals.

Within that context, KPMs quantify the dimensions of student participation, attainment or achievement and enable progress to be monitored against the National Goals. KPMs are expressed as a percentage or proportion of students participating in, or successfully completing, programs of a particular duration or standard.

KPMs reflect good assessment practice, support open transparent reporting and are published in a manner that facilitates access by the public. They are policy-relevant, cost-effective and practical to collect, and of interest to the public. As a set, the national KPMs are limited in number, strategic in orientation, balanced in coverage across the priority areas, and provide nationally comparable data on aspects of performance critical to monitoring progress against the National Goals.

In July 2001, MCEETYA endorsed the definition of PMs as:

A set of measures to describe the scope and coverage of a particular program and the performance of that program.

A comparison of KPMs and PMs assists in distinguishing between the measures. The information in Attachment A compares the measures across six dimensions.

In some cases, it may be possible for PMs to be developed so that they can be related to the KPMs. While this is desirable, it is not essential. If there is value in consistency with the national measures, program managers should try to achieve this when establishing their performance-monitoring procedures.

Alignment of KPMs and PMs should not be taken to imply the establishment of a comprehensive national performance monitoring system other than that developed by the PMRT for national reporting purposes, and approved by MCEETYA.

2. MANAGEMENT OF DATA COLLECTIONS

2.1 MCEETYA National Schools Statistics Collection: Finance Statistics (Government Schools)

The data in this collection are concerned with the costs and expenses incurred by government schools. The MCEETYA Schools Resourcing Taskforce (SRT) collects the data on a financial year basis from the government department responsible for school education in each State and Territory.

The data collection is a collaborative arrangement between State, Territory and Commonwealth of Australia education authorities, managed by the SRT.

The data are used to inform education Ministers regarding government expenditure on school education within and across States and Territories. The Commonwealth of Australia uses the data to determine the supplementation of funding to the States and Territories. Supplementation is based on the movement in Average Government School Recurrent Cost (AGSRC).

The specific finance data collected are:

Recurrent

- government school unit costs
- employee-related expenses
- redundancy payments
- grants and subsidies
- depreciation
- other operating expenses
- user cost of capital

Capital

- capital/investing costs
- value of capital assets for school education activities.

The data are collected annually for the previous financial year, and are required to be supplied from States and Territories by late November/December. The collection covers the majority of establishments administered by the department concerned. In order to ensure consistency, each State and Territory is required to add the necessary data to supplied spreadsheet tables. Definitions and standardised terminology are specified in the *Notes, Instructions and Tabulations* (NIT) document supplied to States and Territories by the working group.

Each State or Territory is responsible for the storage and security of its own data.

2.2 MCEETYA National Schools Statistics Collection: Students, Staff and Schools (Government Schools)

The data in this collection are concerned with the numbers and distribution of government schools, their school staff and students.

The National Centre for Education and Training Statistics (NCETS) collects this data on behalf of MCEETYA. NCETS is an element of the ABS.

The data collection is a collaborative arrangement between State, Territory and Commonwealth of Australia education authorities, managed by PMRT.

The State and Territory departments of education compile the statistics from their internal sources. Internal processes vary in methodology, from accessing central administration records to direct collection of data from schools.

NCETS coordinates the collection of these data in liaison with officers in each State and Territory as well as representatives from MCEETYA and the Commonwealth of Australia's Department of Education, Employment and Workplace Relations (DEEWR). A PMRT sub-committee, the Schools, Student and Staffing Data Working Group (SSSD), which reports to the PMRT through the Data Collection and Reporting Sub-group, acts as an advisory group to the ABS for the collection.

The collection occurs by census on the first Friday in August each year and the age reference date is 1 July. Returns are forwarded to NCETS by mid-November.

The data are collected in order to provide nationally comparable statistics on primary and secondary schools, students and staff. They are used by governments and by private organisations in a range of industries that service the education market.

The specific data collected or derived for publication include:

- apparent retention rates
- estimates of school participation rates
- the numbers of schools by level and size of student enrolments
- the numbers of students (persons and full-time equivalents (FTEs) by age, sex, year level, Indigenous status and full/part-time)
- the numbers of staff (persons and FTEs) by area of activity, sex, level of schooling and major function
- the numbers of full fee-paying international students (persons and FTEs) for monitoring purposes.

The collection applies to all government establishments that have, as their major activity, the administration or provision of:

- full-time day, primary, secondary and/or special education, or
- primary or secondary education by distance education processes.

Data collection templates are provided to the States and Territories, which utilise their own data collection systems and processes to furnish the required data.

Definitions and standardised terminology are specified in the NIT documentation maintained by the ABS and agreed to by the members of the SSSD. Final data are published by the ABS in *Schools, Australia* at the end of February in the following year. Supplementary tables are available on the ABS website.

While the States and Territories are responsible for the storage and security of their own data, the raw data provided are retained and stored by ABS. NCETS maintains hard copy records and electronic input data files collected from both government and non-government organisations since 1993. NCETS also retains some time-series data, which are backed up daily with copies being retained for a limited period.

MCEETYA developed a partnership arrangement with the ABS in 1984, which provides that schools' aggregated data are stored electronically on the ABS Corporate Data Storage Facility (ABSDB). This facility is backed up daily and held for a week. A full copy of ABSDB is produced monthly and stored off site for an unspecified period of time. Hard copies of all publications prior to 1960 are held by NCETS and some publications are held in the ABS library.

Requests for unpublished data can be negotiated with NCETS. The price is based on labour cost and the number of data cells requested. A quote is prepared by ABS and, when accepted, the data are supplied electronically.

2.3 Financial Questionnaire for Non-Government Schools

The data in this collection are concerned with the income and expenditure patterns of non-government schools and school systems.

The Financial Questionnaire is an annual DEEWR finance data collection that covers non-government schools in receipt of general recurrent grants from the Commonwealth of Australia.

The data are collected on a calendar/school year basis and the results are used for policy development, research and accountability purposes. The data are also used to meet national and international obligations for statistical reporting.

Data are collected in the following broad categories:

- student fees and charges for tuition
- other private income for recurrent purposes
- Australian and State/Territory governments recurrent grants
- student fees and levies for capital purposes
- Australian and State/Territory government capital grants
- expenditure on salaries and allowances
- expenditure on other recurrent purposes
- expenditure on capital
- auxiliary trading
- financing.

During the Financial Questionnaire data collection period, nominated members of schools, diocese offices or system offices enter their data via the Internet into a DEEWR online application called the Schools Service Point (SSP) portal. A security administration system controls access for each user based on client and function. All communication via the Internet is encrypted using Secure Socket Layer (SSL) at 128-bit cipher strength. The data collected are stored in a database and used as a repository for non-government schools' finance information for DEEWR. The database is backed up daily, with hourly transaction log backups. This system maintains data back to 2001. The Schools Outcomes National Reporting and Data Services Unit in DEEWR also maintain Financial Questionnaire data back to 1985.

While some aggregated data are published annually in the ANR, financial data about individual non-government schools and systems are not made available publicly. Sets of prepared tables are available on request.

2.4 Census of Non-Government Schools

The data in this collection are concerned with the numbers of students and staff in non-government schools.

The data definitions are consistent with those used in the National Schools Statistics Collection (NSSC) Students, Staff and Schools (Statistics in Government Schools) collection (Section 2). Census day is the first Friday of August and the age reference date is 1 July.

The specific data collected are:

- the number of schools by level, affiliation and size of student enrolments
- the number of students by age, sex, year level, Indigenous status and full/part-time status
- the number and FTEs of staff by area of activity, sex, level of schooling and major function.

During the annual census data collection period, nominated members of schools, diocesan offices or system offices enter their data in the *Census on the Internet* application, which resides within DEEWR's SSP online application. A security administration system controls access for each user based on client and function. All communication via the Internet is encrypted using SSL at 128-bit cipher strength.

The data collected are stored in a database which is currently backed up daily with hourly transaction log backups. Data are collected and stored for each year from 1998. The Schools and E-Business Section accesses the data on an *ad hoc* basis using Microsoft Access, SAS and Brio.

Data from earlier collection systems, back to 1985, are stored by DEEWR's Schools Outcome National Reporting and Data Services Unit.

Final data are published by ABS in *Schools, Australia* at the end of February in the following year. Supplementary tables are available on the ABS website.

2.5 Vocational Education and Training in Schools, and School-Based New Apprenticeships

The data in this collection are concerned with enrolments and participation by industry groupings in two types of programs:

- Vocational Education and Training in Schools (VET in Schools)
- School-Based New Apprenticeships (SBNAs).

The arrangements for collecting and reporting the data are in a state of transition. Since 2006, the nature of the statistics that are reported has been slightly different from previous years. Since 1997, data on VET in Schools and SBNAs has been collected by education authorities in the States and Territories.

States and Territories also provide data to the National Centre for Vocational Education Research (NCVER), which include them in the national VET provider statistics collection managed by the Centre.

The data provided by States and Territories has been used to document the status and trends associated with VET in Schools and SBNAs. The data covers the following categories:

- the numbers of students enrolled in VET in Schools programs by jurisdiction and by industry grouping, curriculum hours and Structured Workplace Learning (SWL) hours
- the numbers of SBNA commencements by industry area and by jurisdiction.

The data are collected by jurisdictions in February or March of each year for the previous year. Some States or Territories submit a single return covering both government and non-government schools, while others submit separate returns for the government, Catholic and independent sectors.

The raw data from these collections are retained by the respective States and Territories. The aggregated data are retained by the sub-committee responsible for drafting the Vocational Education chapter in the *National Report on Schooling in Australia*.

In 2003, MCEETYA agreed to a strategy to expand the scope and improve the consistency of VET in Schools data reported nationally. The strategy, which took effect in 2005, ensures that VET in Schools data are consistent with the statistical standard that underpins data collection and reporting in the VET sector generally: the Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS).

From 2005, responsibility for the data collection transferred from the TST to the individual senior secondary assessment authority in each State/Territory, which reports the data to the national VET database managed by the NCVER.

Since 2006, the ANR has reported against national key performance and program measures for VET in Schools agreed by Ministers for the purpose of reporting progress towards achievement of the National Goals. These measures provide information about the numbers of students:

- undertaking VET in Schools and SBNAs as part of their senior certificate
- completing at least one VET unit of competency/module.

It should be noted that the VET in Schools collection does not provide information about SWL which is currently outside the scope of the AVETMISS. Data on SWL will be reported by

jurisdictions independently of the core data collection process for VET in Schools outlined above.

The collection process will also enable consistent data on SBNA to be reported at the national level. Additional information on SBNA will be available from the NCVER, which collects data on all New Apprenticeships direct from State and Territory training authorities. In relation to SBNA, these 'additional' data supplement the data collected and reported by school accrediting authorities, and covers the following fields:

- number of SBNA commencements and completions
- cancellations/withdrawals from contracts of training
- number of SBNA in training by occupation group
- training packages underpinning the training
- the levels of qualifications being offered through SBNA
- the age and sex of new apprentices.

2.6 Survey of Education and Work

The data in this collection are concerned with the participation in education and work by Australians aged 15 to 64 years.

The Survey of Education and Work (SEW) is conducted by the Australian Bureau of Statistics (ABS) in May, throughout Australia, as a supplement to the monthly Labour Force Survey (LFS) according to the ABS survey schedule. Respondents to the LFS who fall within the scope of the supplementary survey are asked further questions.

The SEW collects data on:

- people presently participating in education and training
- the level of highest non-school qualification and level of highest educational attainment
- participation in education in the previous year
- the characteristics of people's transition between education and work
- apprentices.

The management and coordination of the supplementary SEW collections are undertaken by ABS through NCETS. The role of NCETS is to provide timely and relevant data covering a wide range of education and training issues and to coordinate the development and provision of national statistics in the field of education and training.

The scope of the SEW is persons aged 15–64 years, excluding the following:

- members of the permanent defence forces
- certain diplomatic personnel of overseas governments customarily excluded from the census and estimated resident population figures
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants)
- persons permanently unable to work
- institutionalised persons such as patients in hospitals, residents of homes (e.g. retirement homes, homes for persons with disabilities) and inmates of prisons.

The survey is conducted in both urban and rural areas in all States and Territories, but excludes persons living in very remote parts of Australia. Excluding these persons has only a minor

impact on any aggregate estimates that are produced for individual States and Territories, with the exception of the Northern Territory where such persons account for around 20 per cent of the population.

Information is collected by face-to-face or telephone interviews conducted by trained interviewers who ask members of each household, or a responsible adult answering on behalf of other household members, detailed questions about their educational attainment and recent participation in education.

In 2005 and 2007, about 30,000 dwellings were surveyed using multi-stage area sampling. This sampling resulted in data for approximately 44,000 individuals for each survey.

The data, with both input and output values, are stored and maintained by NCETS. Historical data have been migrated to up-to-date storage and retrieval systems. In addition, publications containing the data are stored in the ABS library.

The compiled data for the 2005 and 2007 surveys are also available from the ABS in the form of Confidentialised Unit Record Files (CURFs) on CD-ROM. CURFs are made confidential by removing name and address information, by controlling the amount of detail and by changing a small number of values. CURFs contain the most detailed statistical information available from the ABS and are used by researchers and analysts who wish to interrogate the data using statistical software packages.

Requests for unpublished data can be negotiated with NCETS. The price is based on labour cost and the number of data cells requested. A quote is prepared by ABS and, when accepted, the data are supplied electronically.

2.7 National Assessment Program

The National Assessment Program is the name given to the set of nationally agreed assessment programs that are used to report on student performance and achievement. The National Assessment program is made up of the:

- (a) National Assessment Program – Literacy and Numeracy assessments** of all students in years 3, 5, 7 and 9 (which from 2008 replaces the former State/Territory-based assessment programs in literacy and numeracy).
- (b) National Assessment Program – triennial sample assessments in:**
 - Science Literacy (Year 6 students)
 - Civics and Citizenship (Year 6 and Year 10 students), and
 - Information and Communication Technology (ICT) Literacy (Year 6 and Year 10 students).
- (c) International Assessments - PISA and TIMSS as approved by MCEETYA**

These assessments form part of a program to monitor progress towards the National Goals. The results of the National Assessment Program are released on the MCEETYA website (<http://www.mceetya.edu.au>) as they become available.

All requests for data arising from the National Assessment Program are subject to the following protocols.

2.7.1 National Assessment Program – data access protocols

National Assessment Program data sets are available for research purposes, subject to protocols and processes managed by the PMRT.

In general, the data refers to de-identified data from the Ministerial Council on Education, Employment, Training and Youth Affairs' (MCEETYA) National Assessment Programs in literacy and numeracy and for the sample assessments in science literacy, civics and citizenship, and information and communication technology literacy that have not been released in the public domain.

Requests to access these data are to be submitted, in writing, to the PMRT Secretariat which will assess applications on a case-by-case basis against the criteria set out in Section 2.7.2 below. Applicants should also note that:

- Intellectual property of the data is retained by MCEETYA.
- Researchers must return or destroy all originals and copies of the data on completion of the research.
- The PMRT Secretariat will advise State and Territory, Catholic and independent PMRT representatives of any data requests received. A report of requests will also be provided by the PMRT to the Australian Education Systems Officials Committee (AESOC) on an annual basis.
- The PMRT will be consulted on all applications and it reserves the right to accept or reject applications on the basis of the relative merits of the research, as assessed against the criteria.
- Access to data will be limited to researchers who have demonstrated to the satisfaction of the PMRT Secretariat that they have a research interest in information at this level and who have agreed to the terms and conditions outlined in this document.
- Researchers are to maintain the confidentiality of the data in accordance with the principles and protocols detailed in this paper which is available on the MCEETYA website (http://www.mceetya.edu.au/verve/resources/Protocols_for_Collection_Reporting_of_KPMs.pdf).
- The data must be stored securely at all times.
- The data are to be used solely for the research purposes described in the application.
- The data will be de-identified prior to delivery to researchers so the data cannot be used to identify individual students, schools or sectors. Under no circumstances will data that can identify individual students be released.
- The data may also be stripped of State identifiers if PMRT has previously determined that the particular data in question is only reliable at the national level and has therefore only been reported publicly for Australia.
- Any data released that contains State/Territory identifiers must have been approved for release by the relevant State/Territory.
- When reports and/or publications are generated, acknowledgment of the source of the data must be made.
- One electronic copy and one hard copy of any report or publication based directly or indirectly on use of the data must be provided to the PMRT.
- Attachment B details the processes that apply for accessing National Assessment Program data sets.

2.7.2 National Assessment Program – data access criteria for approval

Approval to access National Assessment Program data sets will be based on the following criteria:

- merit and viability of the proposed research, including the use of sound methodology
- demonstrated need to access the data
- expertise and ability of researchers to carry out the work
- written agreement:
 - to the key principles and processes of this document
 - that one electronic copy and one ‘hard’ copy of any report or publication based directly or indirectly on the data will be provided to the PMRT
 - that reports and/or publications using the data contain an explicit acknowledgment of the source of the data.

2.7.3 National Assessment Program - Literacy and Numeracy Years 3, 5, 7 and 9

The data in this collection are concerned with student achievement in literacy and numeracy.

Up until 2008, States and Territories conducted annual assessments of literacy and numeracy in Years 3, 5 and 7. Some States and Territories also conducted assessments at Year 9. Each State and Territory had a cut-score for each test, which was used to determine the percentage of students who achieve the national benchmark. The original cut-scores were determined on common national scales then translated to equivalent positions on each State and Territory scale. These cut-scores did not change from year to year, but each jurisdiction was required to calibrate each year’s tests to its own historic test scales to determine the raw score needed to meet the national benchmark.

Up until 2008, Catholic and independent schools may have used either:

- the assessments developed for government schools in their own or another State/Territory
- the Literacy and Numeracy National Assessment (LANNA) was developed and administered by the Australian Council for Educational Research (ACER).

The tests were held annually in Term 3 for Years 3 and 5 and either Terms 1 or 3 for Year 7 students. Literacy and numeracy testing for Year 9 has also been conducted in some jurisdictions at different times of the year.

In 2008, common national tests in literacy and numeracy commenced for all students in Years 3, 5, 7 and 9. The common national literacy and numeracy tests occur in May each year.

The States and Territories administer the common national assessments in their own jurisdictions. Catholic and independent schools may directly contract for services associated with test administration. The tests are designed to reflect common curriculum requirements and patterns of schooling as well as to meet the MCEETYA and PMRT agreements regarding the assessment and reporting of literacy and numeracy performance on a common scale and against six achievement bands for each year level as well as against any agreed national standards.

The tests are intended for all students but exemption may be given to individual students in accordance with AESOC or MCEETYA approved policy positions.

Students exempted from testing are deemed to be below the national minimum standard and reported in the national results in this category. Students absent on the day of testing or withdrawn at the request of a parent/caregiver are not included in the test results.

States and Territories retain their individual jurisdictional test results. Through the PMRT, nationally agreed analytical and statistical procedures are used to prepare literacy and numeracy data for the ANR. These include using appropriate statistical modelling software to calculate the percentage of students achieving the national minimum standard.

Under the State/Territory based testing arrangement prior to 2008, the Benchmarking and Educational Measurement Unit (BEMU) collected summary student information from jurisdictions. These data are held by BEMU on a secure network hosted by the Department of Education and Training in Western Australia and are backed up in accordance with the Department's Information Technology Standards. The data from equating processes are also held by this agency.

Under the National Assessment Program – Literacy and Numeracy, data is managed under strict protocols for statistical analysis and the preparation of data for reporting purposes is done in accordance with the processes approved by AESOC or the delegated entity responsible for the oversight of the National Assessment Program – Literacy and Numeracy.

States, Territories and sectors retain ownership of their own data. All data provided by States and Territories for analysis is to be de-identified to the student, school and sector level. Identified data are retained by States/Territories and are subject to local access and release provisions.

The States and Territories provide detailed test results to the schools in their jurisdictions and notify parents of the achievement of their children on the standardised tests.

BEMU has access to de-identified aggregated State and Territory data for reporting purposes. MCEETYA assigns a high level of confidentiality to the data held by BEMU and any release is subject to approval through the research application processes detailed above or through PMRT approval processes covered by the MCEETYA confidentiality protocols.

Data sets established on the basis of the results from the National Assessment Program - Literacy and Numeracy tests must be approved by AESOC or the delegated entity responsible for the oversight of the National Assessment Program – Literacy and Numeracy and any release of these data is subject to the access and approval processes detailed above.

2.7.4 National Assessment Program – sample assessments

The data collected under the National Assessment Program – sample assessments is used to monitor progress towards the achievement of the National Goals. The sample assessments report on student performance in:

- Science Literacy (Year 6)
- Civics and Citizenship (Years 6 and 10)
- ICT Literacy (Years 6 and 10).

Assessments are conducted on the basis of a triennial cycle using representative samples of students from both government and non-government schools in all States and Territories.

Key Principles for the conduct of the assessments are published on the MCEETYA website (http://www.mceetya.edu.au/verve/_resources/sample_assess_protocols_file.pdf). Technical standards are developed by PMRT to ensure national consistency and comparability over time. The PMRT's Key Performance Measures (KPM) Sub-group is the steering committee for the NAP – sample assessments, which are managed on a day-to-day basis by BEMU. The tests are developed and administered by agencies contracted through the PMRT's processes.

To minimise the impact on schools, these sample assessments are administered between September and November to separate them from the literacy and numeracy assessments conducted in May.

The data and associated documentation from these sample tests are held by the Department of Education and Training in Western Australia and are backed up in accordance with the Department's Information Technology Standards.

Results of the assessments are published in national reports in the public domain. Summaries of results are also published in the ANR.

Access to assessment de-identified data is determined by PMRT on application in accordance with the data access and use protocols and processes detailed above. No information identifying individuals, schools or sectors is available to any person or agency other than the person, school or sector concerned.

2.7.5 National Assessment Program - international assessments

The data in this collection are concerned with international assessments that include samples of students in Australian schools.

The purpose of Australia's participation in international student assessments is to monitor the achievement of Australian students, relative to that of students in other countries.

The Organisation for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA) assesses the reading, mathematical and scientific literacy skills of 15-year-old students in a three-year cycle (mainly Year 10 students in Australia, but including some students in Years 9 and 11). In 2000, Ministers agreed that PISA would provide the measure for student performance in science at the end of compulsory schooling for reporting against the National Goals. Subsequently, they endorsed PISA as the basis for reporting the literacy and numeracy performance of Australian 15-year-olds.

The PISA assessment process is managed, coordinated and administered nationally by a contractor, assisted by a National Advisory Committee which includes representation from the States, Territories and the Commonwealth of Australia. Internationally developed and agreed protocols are used to ensure the consistency and quality of data. For the first three cycles (PISA 2000, PISA 2003 and PISA 2006) and PISA 2009, the Australian Council for Educational Research (ACER) has and will manage the Australian component of PISA and led the consortium managing the international study.

The PISA assessments are administered in July and August for selected schools across Australia.

The OECD publishes the results internationally. The contractor publishes the Australian results and a summary is provided for inclusion in the ANR. The contractor and the OECD hold the data and associated documentation. A considerable amount of data is currently available on the ACER website (<http://www.acer.edu.au/research/>). No individual schools or students can be identified in these reports.

The Trends in International Mathematics and Science Study (TIMSS, formerly known as the Third International Mathematics and Science Study) is conducted by the International Association for the Evaluation of Educational Achievement (IEA) to assess student achievement in mathematics and science in Years 4 and 8. TIMSS is conducted on a four-year cycle (1994/95, 1998/99, 2002/03 and 2006/07). The next assessment will occur in 2010/11.

The TIMSS assessment process is managed, coordinated and administered nationally by a contractor and is assisted by a National Advisory Committee which includes representatives from the States, Territories and the Commonwealth of Australia.

The TIMSS assessments are administered in October and November for selected schools across Australia.

IEA publishes the results internationally. The contractor (presently ACER) publishes the Australian results and a summary is included in the ANR. The contractor and the IEA hold the data and associated documentation. A considerable amount of data is currently available on the

ACER website (http://www.acer.edu.au/research_reports). No individual schools or students can be identified in these reports.

The PISA and TIMSS assessment instruments and associated questionnaires are developed internationally, then implemented at the national level according to agreed processes that are monitored to ensure quality and consistency across countries. The assessments are administered to students in a selected sample with exclusions being permitted only according to agreed international criteria.

The data and associated documentation arising from Australia's participation in PISA and TIMSS is subject to the data access protocols associated with those assessments.

3. KEY PRINCIPLES

Principles and protocols have been developed to provide guidelines for nationally comparable reporting by MCEETYA. The primary purpose of national reporting is to inform the Australian public, particularly the education community and parents, of progress in achieving the National Goals.

National reporting takes place primarily in the ANR, but may also occur in other MCEETYA publications and in a range of State, Territory and Commonwealth of Australia publications that reproduce data from the ANR.

National reporting is an increasingly important aspect of the Australian education environment. The main publication is the ANR, but the Productivity Commission also prepares an annual *Report on Government Services* (ROGS) that includes a chapter on school education. This report forms part of the Council of Australian Governments (COAG) Review of Australian Government/State Service Provision. Since 2001, a national report on Indigenous education published by DEEWR has been presented to the Australian Parliament.

The protocols are based on a set of ethical principles that are designed to guide people involved in preparing and analysing the ANR and to assist the general public in accessing and interpreting the report. The use of these protocols will assist the provision of better information about educational standards and will support informed decision-making for improving student learning outcomes.

3.1 Ethical Principles

MCEETYA publishes the ANR on behalf of the States, Territories and the Commonwealth of Australia. The educational performance information published by MCEETYA needs to be objective and credible. The performance information has the potential to significantly influence decision-making in relation to government and non-government schools and to affect the quality of the educational experiences provided to current and future school students.

There are general principles that apply to reporting by all government agencies. It is important that agencies act with proper purpose and intention. They should be disinterested bodies and non-partisan. Published information should be for constructive purposes and solely in the broader public interest. Agencies' actions should be authorised under the relevant legislation, regulations or agreements.

The ethical principles and protocols outlined in this paper are primarily for the use of people involved in collecting nationally comparable performance information and preparing the ANR. Nevertheless, there is also a responsibility for secondary users of the information, such as politicians, education bureaucrats and the media, to be aware of the ethical principles underpinning the preparation of the report. There are three fundamental ethical principles that apply in this context:

- truth in reporting
- the community's right to information
- the avoidance of harm to members of the community.

3.1.1 *Truth in reporting*

Information reported on the national outcomes of schooling should be valid, comprehensive and reliable. The community can justifiably expect that governments will report information honestly, without fear or favour. The information should be as accurate as possible. Reporting should not be selective or partial and all relevant information should be reported. Data reported should contain appropriate references to the confidence intervals/error bands that apply to the published data and should be read in that context.

3.1.2 *Community's right to information*

This principle is based on the assumption that it is the right of the public to access information that has been collected by the government for public purposes. Governments collect education performance information on behalf of the community and this should be available without discrimination to all members of the community. The information reported on the national outcomes of schooling should be pertinent and of use to the community.

Access to the information published in the reports should provide parents and citizens with a measure of the health of the national education system. It should offer a window on the work and performance of the various jurisdictions and should be used as a basis for accountability and to assist governments and the community to make informed decisions.

Because of the potential for harm to occur to individuals or institutions, there can be no absolute right of publication. Harm could occur where the privacy of individuals would be affected or where the reputation of an institution or group of people would be damaged through stereotyping or the publication of misleading information. Care should be taken that the means of publication do not invalidate the ends that are sought from the National Goals.

The potential for harm to occur through the publication of information is recognised in the legislation and policies of several jurisdictions and sectors.

Responsible national reporting involves a balancing of the principles of the right to know and the avoidance of harm. Adherence to the right to know may seriously damage people or institutions. Adherence to the avoidance of harm restrict the flow of information to such an extent that only limited nationally comparable performance information can be published.

Ethical dilemmas can best be addressed by thoughtful consideration of these principles rather than by recourse to detailed regulations.

3.2 Nationally Comparable Data

An analysis of the decisions of MCEETYA in relation to the development of KPMs gives a clear indication of the importance to Ministers of publishing data that are nationally comparable and which reflect the application of common and consistent standards for data collection across jurisdictions.

3.2.1 Publishing nationally comparable data

In order to ensure a consistent approach to national comparability, publications should include the following features:

- data should be published within the timeframe endorsed by MCEETYA. Any missing or preliminary data should be covered in explanatory comments or footnotes
- national student achievement data should be reported against common standards, e.g. the literacy and numeracy national minimum standard
- data collection should be undertaken on a nationally consistent basis
- for student achievement data there should be common standardised processes for calculating and reporting the known forms of error
- appropriate caveats and information to aid interpretation should be included in the ANR and in any other publications where the data are reproduced
- processes for determining the extent to which data are comparable should be objective and should involve States, Territories, the Commonwealth of Australia and non-government sector
- there should be continuous improvement over time in the quality of data and the reporting processes.

3.2.2 Defining 'nationally comparable'

The following standard should be used when assessing the national comparability of data.

For the purposes of the ANR, nationally comparable data are:

- collected through the National Assessment Program
- collected on a consistent basis by each jurisdiction using an agreed methodology
- valid and appropriate for the measure being reported
- reliable over time.

The national comparability of data is an ongoing focus of the PMRT. In cases where data are not strictly comparable, the Taskforce may decide to add explanatory comments and footnotes to assist the reader with the interpretation of data.

Depending on the degree to which the data being examined are considered to be comparable, there are four possible courses of action:

- data that are clearly not comparable are rejected for publication
- data are published with appropriate explanations of the quality of the data in both explanatory text and footnotes
- data are published with appropriate explanations of the quality of the data in the text accompanying the data

- data are published with appropriate explanations of the quality of the data in the footnotes published with the data.

3.3 Reporting Guidelines

These guidelines are designed to assist those involved in the development of measures and the reporting of outcomes against these measures in publications such as the ANR.

3.3.1 *Monitoring progress against the National Goals*

KPMs have been developed to ensure that key indicators of the outcomes of schooling in Australia are publicly available. In March 2000, Ministers endorsed the definition of national KPMs '*...as a set of measures limited in number and strategic in orientation, which provides nationally comparable data on aspects of performance critical to monitoring progress against the National Goals for Schooling in the Twenty-First Century*'. KPMs have been, or will be, developed for each of the priority areas in the National Goals.

3.3.2 *Time-series reporting*

Time-series data are preferable to single-year data and should be provided, where possible, with descriptive comment regarding trends. Where changes in the statistics result from factors such as survey re-design, breaks in statistical series or the availability of additional information, these should be brought to the attention of the reader.

3.3.3 *Cross-sectional or longitudinal reporting*

Most education performance measures are currently of a cross-sectional nature and readers should be made aware of any statistical limitations in comparing the performance of different cohorts. Longitudinal reporting has the potential to provide rich information and should be employed wherever reliable data are available.

3.3.4 *Reporting at the jurisdictional level*

Any reporting of educational outcomes by jurisdiction identifies different States and Territories as relatively successful or unsuccessful. Comparisons made on the basis of outcomes, which are not qualified, may be misleading due to the impact of a range of factors that have influenced the outcomes. Comparisons need to be made with caution. Factors relating to system policy and to the external environment should be taken into account.

National reporting should be primarily at a State and Territory level and further disaggregation of the data to sector or systems level should occur only where agreed and the sample sizes result in reliable data, and where adequate contextual information is provided to help explain variability in performance.

3.3.5 *Use of disaggregated data*

The use of disaggregated data to provide information about population sub-groups has the potential to raise the awareness of problems being experienced by particular groups but it also has the potential to generate prejudice or reinforce stereotypes. Data should be published on sub-groups only where nationally consistent definitions of students with particular characteristics are agreed upon and the data have been collected in accordance with these definitions.

The public reporting of information by schools has not been agreed to by MCEETYA. Several jurisdictions have legislation in place that prevents the public release of certain data by schools or which could lead to the identification of individual students.

3.3.6 *International comparisons*

Where international studies are reported, contextual information should be provided to aid the reader in interpreting the information. Where relevant, explanations of factors like curriculum differences, curriculum priorities and years of prior schooling should be provided with the data.

3.3.7 *Data quality*

Data published in the ANR should be of high quality. Before data are deemed to be of a standard appropriate for publication they should have been subjected to rigorous review by the organisations providing the data. Data should be published within a reasonable period following collection to ensure that the community is properly informed and that emerging trends are identifiable for jurisdictions to take appropriate action.

3.3.8 *Presentation of data*

Data and information should be presented in such a way that, as far as is practicable, they can be clearly understood without the need for complex statistical knowledge.

Tables and graphs should be clearly sourced, including references to Internet links. They should be self-explanatory with clear headings that enable the reader to obtain a basic understanding of the information without reference to text.

All measurements are subject to a margin of error and explanatory information about limitations in the data should be provided. When data is published, error margins, where calculated, should also be published alongside the data to ensure accurate interpretation of the figures presented.

Performance measures should be accompanied by prominently displayed contextual information to help the reader take a considered and critical view of the measures. When additional information is necessary to explain the data, then caveats should accompany the data. Caveats should be placed as close as possible to the data and not separated from them in an appendix. Such contextual information and caveats must be used if the data are reproduced in other publications.

3.3.9 *Storage and access*

Data should be stored in a systematic way by the organisation responsible for producing the data. Where this is not possible, for instance data produced by MCEETYA's sub-committees, the data should be stored by the MCEETYA Secretariat.

In general, government and non-government organisations should make data and technical information accessible for data auditing and verification purposes (for example information about sampling or statistical analysis). However, the organisations involved have a responsibility to establish their own protocols for accessing the data that they hold. The MCEETYA Secretariat is responsible for establishing access policies for the NSSC and other data that it holds.

3.3.10 Privacy and confidentiality

Most jurisdictions have privacy and freedom of information legislation in place to govern the manner and purpose of collection of personal information, solicitation of information, storage and security and access to information. The protocol that applies to reporting of KPMs is that no information should be reported publicly by MCEETYA that permits the identification of individual States, sectors, schools or students without their permission. To the extent practicable and appropriate, students taking part in surveys reported in the ANR should have been informed, for both administrative forms and statistical surveys, about the statistical use to which their information may be published.

3.4 Publication

The *ANR Information Framework* is revised annually by the PMRT and approved by MCEETYA. The PMRT's Data Collection and Reporting (DCR) Sub-group then updates the *ANR Writing Guidelines* to assist contributors and authors with preparation of the report. The guidelines include the agreed nationally comparable KPMs and requirements for a range of other data and information. These guidelines are distributed to the various organisations and individuals that contribute to the ANR.

The data provided by any MCEETYA taskforce should have the formal endorsement of the taskforce chair. The DCR Sub-group can then assume that the data provided are accurate and meet the specifications outlined in the *ANR Information Framework* and *ANR Writing Guidelines*.

Organisations providing information for publication in the ANR will be provided with the opportunity to review the draft material that is to be published and any analysis or interpretative comment.

The ANR is a public document. Copies of all MCEETYA publications are deposited with libraries and made available on the MCEETYA website (<http://www.mceetya.edu.au>).

ATTACHMENT A

Key Performance Measures and Program Measures

Dimension	Key Performance Measures	Program Measures
Links to goals and objectives	KPMs relate to the National Goals for Schooling in the Twenty-First Century.	PMs may relate to the objectives of the Commonwealth of Australia, individual State or Territory, sector, system or school programs. They are derived from the particular program parameters.
Endorsement	States, Territories and the Commonwealth of Australia have agreed KPMs through MCEETYA.	The program managers or those who fund the program endorse PMs. They may be nationally comparable but are more likely to be specific to local programs and subject to local decisions.
Reporting	KPMs are reported in the ANR for all States and Territories and are part of the agreed accountability requirements between the States and Territories and the Commonwealth of Australia.	PMs may be reported in a variety of reports including State or Territory and system annual reports, MCEETYA Taskforce reports, or Commonwealth of Australia reports and evaluations. There is no requirement to report PMs in the ANR.
Disaggregation	Reporting of the KPMs is (where possible) by the student characteristics approved by MCEETYA: sex, geographic location, language background, Indigenous status, and socioeconomic background.	PMs may be reported by the nationally agreed student characteristics, where this meets program needs, or by other definitions specific to the particular program.
Data collection	KPMs data are supported by a set of collection rules to ensure consistent measurement and reporting over time.	PMs have collection rules determined to suit the needs of the program.
Data provision	Data for reporting the KPMs are provided annually in accordance with the Information Framework and Writing Guidelines for the ANR.	PMs may be reported consistently over time or be reported in accordance with the duration of the program.

ATTACHMENT B

National Assessment Program – Data Access Process

The following process must be read in conjunction with Section 2.7.1 National Assessment Program – data access protocols and it applies to all requests for access to any National Assessment Program data held centrally.

1. The applicant must submit, in writing, a request to access the data to the PMRT Secretariat.
2. The application must include the following:
 - title of research project
 - name of the principal researcher
 - the Curriculum Vitae of all researchers who will be working on the project
 - department/organisation (if applicable)
 - a short description of the research project
 - a description of how the results of the research will be used, including plans for public dissemination
 - data requirements
 - expected project start and completion dates
 - acceptance of the principles outlined in this document.
3. The PMRT Secretariat will assess all applications in accordance with principles and protocols detailed in this document and advise PMRT of such applications.
4. Within eight weeks of the date of application, the PMRT Secretariat will inform applicants of the outcome of their application. Unsuccessful applicants will be provided with a brief explanation of the decision.
5. MCEETYA's Benchmarking and Educational Unit (BEMU) is responsible for supplying the de-identified data and informing the Secretariat that the request has been filled.
6. For international assessments (PISA and TIMSS), data access will be subject to the protocols established for those assessments.