



**Australian Government**  
**Department of Education and Training**

**Productivity Commission Inquiry into the  
National Education Evidence Base  
Department of Education and Training Submission**



## Contents

Executive Summary.....	1
Scope, Objectives and Framework of the Inquiry – the Department’s perspective.....	2
Scope of Inquiry.....	2
Objectives and Framework of Inquiry.....	3
Current challenges in data coverage, access and reporting.....	4
Data Gaps.....	4
Data Gaps in Early Childhood Education.....	4
Data Gaps in School Education.....	5
Gaps in Workforce Data.....	7
Student progression through education.....	7
Privacy.....	8
Other legislation and protected information.....	9
Role of the Productivity Commission in improving the Education Evidence Base.....	9
The Department’s response – future improvements.....	10
Data Access and Sharing.....	10
National approach to student identification.....	10
Technology - changing requirements and opportunities.....	11
Privacy.....	11
Governance.....	12
National Education Information Agreement.....	12
Conclusion.....	13
Attachment A.....	14
Governance and Reporting Framework and Early Childhood and School Education.....	14
Education Council and its governance of school and early childhood education.....	14
Reporting Framework for data.....	15
Data Strategy Group.....	15
Early Childhood Data Sub Group.....	16
School Education performance framework.....	16
School and early childhood education collections and reporting.....	17
Annexure A.....	20
Additional Data Collections.....	20
Attachment B.....	22
Progress on some current Data Gaps.....	22
National Consistent Collection of Data on Students with Disability.....	22
Workforce data gaps.....	22
Attachment C.....	24
Introduction of NAPLAN Online.....	24

## Executive Summary

Education plays a vital role in equipping young people with knowledge, understanding, skills and values to effectively participate in our increasingly interconnected and globalised society. The success of Australia's education system impacts all of our lives, families, business, industry and has important links to positive health and well-being outcomes.

Within the education sector there exists a variety of rich datasets. The volume of this data is rapidly growing and so too is its potential value. Unlocking this data can enable improved services and policy design, bringing wide-ranging economic and educational benefits to our children as future citizens. The education sector needs to embrace the opportunities that the availability of improved evidence offers. Enhanced evidence, through unlocking our data, will help create opportunities that will support our children and their educational outcomes as well as improving the ability of governments to respond to needs through using the best evidence available. For these reasons governments have committed to making more of our data open and accessible.

With the significant investment in education by governments (around \$50.4 billion<sup>1</sup> in recurrent spending on schools education in 2013-14 alone) it is crucial that the return on this investment is optimised to better understand the influences on education outcomes, improve well-being for society as a whole and lift productivity for all Australians. A high performing education system is vital to prepare our children and young people to succeed in a rapidly changing landscape. A comprehensive and high quality education evidence base, based on informative and accurate data, is required to support the development of education policy and continued improvement of outcomes. While progress has been made to improve the education evidence base through collaborative efforts to date, progress is slow and complex.

The 2008 Melbourne Declaration on Educational Goals for Young Australians<sup>2</sup> objectives are that Australian schooling promotes equity and excellence and that young Australians become successful learners, confident and creative individuals, and active and informed citizens. The Measurement Framework for Australian Schooling<sup>3</sup>, supported by Ministerial data protocols and decisions by Education Council, sets out arrangements for providing the evidence to improve transparency and public accountability of how these objectives are progressing. However, not all the information under these national processes is available for policy and research and a vast range of other information is collected that would provide further evidence to improve policy and practice. The capacity to link and fully utilise all the evidence available to bolster research, analysis and evaluation across the education system, sector and cohort level is minimal.

Gaps remain in the evidence that, if addressed, could support improved understanding of the differences between sectors and educational strategies. A lack of accessible nationally consistent data on the full range of early childhood education services inhibits any capacity of an evidence base to assess the overall performance, or to make informed judgements or comparisons between local, regional, service type and jurisdictional settings. For school education there is also a lack of accessible data on participation in critical subject areas, assessment, post school outcomes and the workforce, which are important in understanding the influences on educational outcomes.

---

<sup>1</sup> Report on Government Services 2016

<sup>2</sup>

[http://www.curriculum.edu.au/verve/\\_resources/National\\_Declaration\\_on\\_the\\_Educational\\_Goals\\_for\\_Young\\_Australians.pdf](http://www.curriculum.edu.au/verve/_resources/National_Declaration_on_the_Educational_Goals_for_Young_Australians.pdf)

<sup>3</sup> [http://www.acara.edu.au/verve/\\_resources/Measurement\\_Framework\\_for\\_Schooling\\_in\\_Australia\\_2015.pdf](http://www.acara.edu.au/verve/_resources/Measurement_Framework_for_Schooling_in_Australia_2015.pdf)

The establishment of a high quality comprehensive education evidence base would be a welcome addition in the education field. In both a monitoring and evaluative sense it would enable a more rigorous approach to determining what works and what does not and as a consequence aid decision making and investment. In terms of policy development it would provide a rich source of information to draw upon in formulating new policy proposals using data and information from current activities through to longitudinal analysis that assists with understanding the influences on education outcomes.

Achieving a more integrated and cost-effective national education evidence base would enable continual improvement of educational outcomes for young people and the systems that support them. Beyond the education context it would add to the stock of social policy evidence and add considerable value through data linkage work to support broader social policy development. It would also help underpin the sustainability and high quality of our education sector, recognising education is now a very significant export industry<sup>4</sup> for Australia.

## Scope, Objectives and Framework of the Inquiry – the Department’s perspective

The Department considers that the scope for the education evidence base should include a range of data and evidence including administrative and management data, qualitative data derived from surveys (for example, the Longitudinal Survey of Australian Children), assessment and performance information. Included in this scope should also be the outputs and datasets constructed for research and analysis activities across the sectors as well as data from outside of the education sector.

A national education evidence base should be a national resource to assist in identifying and driving improvements at the national, system and sector level, and for individual children, students and their cohorts and also sub-groups in the cohorts, (for example, Indigenous students) assisting them to achieve better education outcomes across all phases of early childhood and school education. As a national resource it would:

- Increase strategic policy formation, capability and evaluation at all levels of government
- Enable better differentiated policy responses based on evidence and dialogue
- Lead to better educational investment decisions in order to maximise student outcomes
- Add transparency in reporting and clarity to education discussion and debate
- Grow public confidence in educational decision making
- Enable better linkages for broader social policy responses.

### Scope of Inquiry

The Department proposes that the Inquiry’s scope span the early childhood education and care of children starting from the two years before full-time school (that is, children from three years of age). The Inquiry should also consider those children who are eligible to attend a quality early childhood programme in the year before full time school (referred to as preschool or kindergarten, depending on the jurisdiction) but do not attend.

The Department agrees the scope includes Australian school students from Foundation Year (the first year of compulsory schooling) to Year 12, as well as young people who are eligible to attend school but do not.

---

<sup>4</sup> <https://internationaleducation.gov.au/research/Research-Snapshots/Documents/Export%20Income%20FY2014-5.pdf>

While limiting this scope the Department considers that the national education evidence base should still have the capacity to make good connections to the destination of students once they leave the school education system for employment and higher education and the overall VET sector, including the VET in Schools sector.

### **Objectives and Framework of Inquiry**

A national education evidence base would provide the foundation for assessing progress on the Ministerial goals for education, the monitoring of educational outcomes and informing policy development and evaluation. The Department considers the national education evidence base must continue to mature so that young people can benefit from initiatives that are tailored to their individual needs and those of particular equity cohorts. Measuring outcomes for these groups not only enables rigorous assessment of policy interventions for equity groups, it also allows development of policy to improve the quality of the education system as a whole and across the broader employment, health and social services sectors. A national education evidence base would also support individual children on their journey through the education system.

Both cognitive and non-cognitive outcomes are important in the education sector. Ministers have agreed that education goes beyond literacy and numeracy skills, and that education plays a vital role in promoting the intellectual, physical, social, emotional, and other elements of well-being of young Australians. As part of a high quality education evidence base, issues such as measuring non-cognitive development are challenging. However, they are important to understanding the wider influences on learning and making young people active and engaged citizens.

To support individual students a significant challenge for the education evidence base is the limited availability of longitudinal information on students outside of their immediate school sector. This is important for two main reasons. The first is for students moving between schools, sectors and states/territories where teachers having relevant information immediately to hand will help support a student's transition and ensure that they receive the teaching support they require. The second is for the education system(s) where understanding cohorts of students and their movements between sectors can help identify what the influences may be that support improved outcomes. These are important for better teaching practices as part of an evidence base and can provide more timely interventions, both individually and system wide.

The evaluation of the impact, efficiency and effectiveness of policies and programmes also requires researchers and policy developers to be able to readily access quality and comprehensive data as part of developing better evidence. Governments have committed to making more of our data open and accessible to support policy analysis. Our data therefore needs to be well managed and appropriately governed and be balanced with sound principles and protocols in relation to confidentiality and privacy. The governance of the data should protect individuals' privacy, especially where information is to be made publicly available and support the ability of analysts to undertake projects in an environment that supports building high quality evidence outputs. This will allow for the development of evidence based approaches to tackle performance issues and highlight benefits across the education sector as well for the individual.

The issue of cost efficiency of the evidence base is an important consideration. The cost of collecting, managing and reporting data needs to be balanced with the consideration of the benefits of making information accessible. Capacity to undertake analysis and research also needs further consideration in education. In other sectors there are bodies that offer ongoing grants and funding available for research. For example, funding through the National Health and Medical Research Council supports the full spectrum

of health and medical research, from basic science through to clinical, public health and health services research. In the early childhood and school education sector the limited availability of data has proven to be challenging for many researchers. As well as improvements through more ready access to data sets, the setting of national priorities could be used to better target more generally available research funding in the education sector.

The following parts of this submission focus on current arrangements and measures to improve data access including the opportunities that are available. Current governance and reporting framework for data arrangements are covered in **Attachment A**.

## Current challenges in data coverage, access and reporting

An extensive amount of data is currently collected by early childhood and school education providers throughout Australia. Much of the data collected is required for administrative purposes (enrolment, hours of attendance, student reports, teacher workforce information, parental information) and there are also national collections that reflect a child's community capability and preparedness for school and student assessment, such as the Australian Early Development Census (AEDC) and National Assessment Program.

Data are collected by many governments and agencies and in a range of ways. This includes through direct source from students, parents, teachers and schools, surveys, research projects and individual and overlapping project work by officials groups and researchers. Some are collected and held at the local level (individual preschool/child care provider or school) only, while others are collected through centralised reporting systems like the Child Care Management System and those in education authorities.

A subset of the data collected is then provided for reporting purposes. Data are provided under a number of agreements, including through Ministerial agreed reporting to support a range of public information requirements. This data may be reported at different levels, from individual student information through to state/territory level aggregated data.

Only a small proportion of data collected in services and schools is used for purposes beyond the immediate need and it is difficult to obtain quality longitudinal data and evidence about an individual child's progression through education and at a cohort or national level to use as the basis for programme and policy development. It also makes it difficult to ensure a high level of accountability both internally and publicly, and to provide transparency about outcomes.

### Data Gaps

The purpose of an education evidence base is to support and evaluate progress towards national education objectives as well as progress for an individual child or student. This is achieved through monitoring of educational outcomes for children and students to better inform policy and programme development and evaluation. In order to achieve this, the underlying data needs to be consistent and of high quality, regular and timely, and be focused on what information is needed.

Under the current arrangements gaps in early childhood and school education data limits understanding the progression of students, the influences they encounter and the outcomes for individuals and cohorts. There is also a lack of information that details the expenditure involved for specific groups, particularly by states and territories, reducing our ability to understand the impact of investment.

### Data Gaps in Early Childhood Education

There are a range of gaps in nationally consistent data on the full range of early childhood education services. This inhibits assessing the overall performance, or to make informed judgements or comparisons between local, regional, service type and jurisdictional settings. For example, states and territories collect information about services they administer and fund (such as preschools delivered in standalone or government settings) and the Australian Government collects information about children in services that attract Commonwealth child care subsidies (such as long day care centres). The National Early Childhood Education and Care Collection (NECECC) brings that data together, albeit with some overlapping state and territory and Australian Government data, but this does not include the full range of early childhood education services (for example, family day care).

There is a need to improve measures of progress against the National Partnership Agreement on Universal Access to Early Childhood Education (UA NP) indicators, foremost being the availability of nationally comparable data. The NECECC is the most comprehensive and reliable national dataset for preschool currently available. It is the main dataset used for reporting against the UA NP and because of the known data limitations, the UA NP allows states and territories to provide supplementary data from their own sources to enhance the information available through the National Collection. While this process ensures a more accurate picture is reported for each state and territory, it raises difficulties in comparison and consistency in reporting.

Another data gap is on the quality of the preschool programme offered (such as qualification levels of educators and time devoted to quality programming). The NECECC uses a number of proxies to inform its understanding of the delivery of quality services, as outside of the service quality data collected through the Australian Children's Education and Care Quality Authority (ACECQA) for the National Quality Framework, there is limited comparable information available about early childhood educational outcomes and service quality contained within the collection's National Minimum Dataset<sup>5</sup>. While the quality of data improves each year, the National Collection continues to present some measurement challenges against the performance indicators.

There are opportunities to examine the timing and regularity of data collections within the early childhood education sector that also affect availability of information. For example, the AEDC - while providing a comprehensive and rich dataset on children that can be linked and integrated with a wide range of other datasets - is collected every three years.

### **Data Gaps in School Education**

Aligned with the 2008 Melbourne Declaration goals, Education Council's scope<sup>6</sup> includes improving the evidence base to inform policy development and priorities, including the availability of evidence on how the Australian education system is performing overall. There still remain significant gaps that limit capacity to compare performance and learn from others on the policy and programme interventions that are working in schools to improve student outcomes. Some of these gaps include participation in subjects within the curriculum, student attendance and engagement, participation in national assessments, participation of young people in vocational education and training and in post-school learning pathways and employment and information to support parents.

The data on enrolment of students participating in STEM subjects or how many Australian students are enrolled in languages in the curriculum across the school sector is inconsistent and limited. Ministers have

---

<sup>5</sup> *The Early Childhood Education and Care National Minimum Dataset*, AIHW, 2015

<sup>6</sup>

<http://scseec.edu.au/site/DefaultSite/filesystem/documents/Key%20Documents/COAG%20Education%20Council%20ToRs.pdf>



highlighted the need for students' to have deep knowledge in science and languages however it is difficult to develop policies and programs to improve students uptake of these important areas or even determine the workforce required to support them when we do not know how many students are doing these subjects or how successful their outcomes are. We are also unable to measure how many students attain Year 12; we can only measure those who complete 12 years of schooling. The lack of being able to measure whether students have achieved at a certain level nationally further limits our ability to understand what skills students have on finishing school and their transitions to further education and employment.

In relation to measures of equity there are gaps in the evidence available on specific student groups and their outcomes. While some reporting is undertaken on some cohorts, such as Indigenous, low socio-economic background and disability, the quality and availability of data is limited reducing our ability to understand what works for these groups.

There is also limited data on student attainment and outcomes, particularly for those students progressing through vocational programmes in schools. Data is collected through the National VET in Schools collection provided by the Boards of Studies in each jurisdiction. This data allows for analysis across a broad range of students and study characteristics, including age, gender, indigeneity, qualification level and field of study but there are gaps and quality issues due to inconsistencies across jurisdictions and their Boards of Studies. The ability to match VET in Schools data collections with other datasets (for example, longitudinally in relation to employment outcomes and further education and training) would support the assessment of the benefits of undertaking VET as part of a senior secondary certificate.

There has been some progress where a data gap previously identified has been addressed. Through the Nationally Consistent Collection of Data for School Students with Disability (NCCD) (**Attachment B**) annual collection, schools and governments are reporting for the first time in a nationally consistent way on the number of students in Australian schools requiring an educational adjustment because of a disability. This is a significant achievement and the result of years of collaborative effort by the Commonwealth, state and territory governments, non-government education authorities, disability stakeholders and schools themselves since the decision was made by Ministers in 2008 to initiate the project. As the collection is still in the early stages of implementation (2015 was the first year that nearly all schools participated), there is a way to go before the data will be considered to be reliable, especially at the school level. It is anticipated that once data quality is determined to be sufficient, the NCCD with other associated data will assist in providing improved evidence on students with disability in schools to inform policy development on how to best support this important cohort of young Australians.

Making data more available to support parental engagement in education is crucial so parents/carers are encouraged to understand their child's learning environment so they can support the school learning environment and also have constructive dialogue with schools and teachers about their child's progression at school. The Australian Government's independent Review of the *My School* website<sup>7</sup> highlighted the value of the website for parental engagement purposes. The site continues to evolve however, there is still a range of indicators and information that could be included that would further support parental engagement, including better data on gain over time, workforce quality information and senior secondary outcomes information. These and other key gaps in our data impede the capacity to develop better policies and programme to support students, families and schools.

---

<sup>7</sup> <https://www.studentsfirst.gov.au/news/making-my-school-better>

### **Gaps in Workforce Data**

A more regular approach to the collection of consistent workforce data for the early childhood and school education sector would assist in workforce planning and provide information about the quality of the workforce. Workforce data for early childhood education approved child care services is only collected every three years via the Early Childhood Education and Care National Workforce Census (with the 2016 collection beginning in May 2016) and teacher datasets have also been collected sporadically (see **Attachment B**).

Consistent and regular workforce data collections that allow analysis of age, subject and specialisation skill profiles of the workforce for the sector would encourage a more strategic approach to future workforce needs by governments, preschool, child care and teacher employers and also help linkages to early education and teacher education providers. In the case of the workforce for teachers, the Teacher Education Ministerial Action Group<sup>8</sup> (TEMAG) indicated in 2014 that there was a lack of clarity on the Australian teaching workforce and that a lack of consistent and timely national teacher data “hinders both continuous improvement in initial teacher education and workforce planning, including the ability to address shortages in specialist subject areas”.

TEMAG also suggested it was important that student intake into initial early childhood and teacher education programs more reflect workforce needs. Improved data on initial teacher education would enable improved student data, including in relation to specialisations, which would contribute to better national workforce planning and enable better anticipation and management of professional development requirements.

Early childhood and school workforce data and the movement of the workforce between the sectors are key factors to understanding the interactions between the workforce and educational outcomes and would potentially inform future workforce planning.

### **Student progression through education**

It is not possible in many situations for analysis to be undertaken on the progress of students from early education to the completion of their secondary school education, particularly if they move sectors or across jurisdictions. The inconsistency of data collections, the incompatibility of IT systems and the multitude of identifiers across the system requires complex data matching processes to link information for analysis to follow a student’s progress. Current methods of data linkage can be used but are time consuming and difficult.

For example, while NAPLAN data linkage is possible, the current matching process to generate student gain data affects the timeliness of reporting and the capacity for further analysis. Due to limited accessibility to information collected and reported, it is difficult to understand and compare performance across states and territories and between sectors within the same state or territory and/or at the school level.

Lack of accessible data limits the ability for researchers and policy analysts to gather evidence about what works and to respond through programmes or interventions. It is also hard to establish whether innovative practices and interventions are improving educational outcomes and whether there is benefit in applying these practices in other settings.

---

<sup>8</sup> [https://docs.education.gov.au/system/files/doc/other/action\\_now\\_classroom\\_ready\\_teachers\\_accessible.pdf](https://docs.education.gov.au/system/files/doc/other/action_now_classroom_ready_teachers_accessible.pdf)

When young people move from preschool/child care to primary school, primary to high school, from the government sector to the non-government sector, or from state to state, their education data does not automatically follow them, leading to delays in implementing support or interventions programmes as well as creating administrative inefficiencies.

Given Australia's increasingly mobile population, the understanding of outcomes for students who move and for the schools that support them is important. A recent study showed that in the NSW government school sector alone, 54,000 students in a given year make at least one school move; of these around 5,000 students changed schools twice and 800 students changed schools three times or more<sup>9</sup>. The Trans-Border Strategy (previously Tri-Border project)<sup>10</sup>, identified that over six years there were over 38,000 Indigenous student moves between three states and sectors. Furthermore, in 2013-14, the Australian Bureau of Statistics (ABS) estimated 349,000 people moved interstate; up 2.5 per cent from the previous year<sup>11</sup>.

## Privacy

Privacy is a significant issue in relation to the release and access to data. Without an agreed approach to data sharing and privacy issues, there are impediments to the flow of data across jurisdictions and sectors. Large scale projects are emerging that demonstrate the value of sharing data with associated high value datasets, however there are a range of issues associated with differing interpretations of privacy arrangements, interpretations of consent and governance requirements that have limited research in the education sector to do national projects.

These issues have directly affected a number of projects including the Trans-Border Strategy where work to expand the strategy nationally has halted pending resolution of privacy issues. The Strategy was originally developed to track highly mobile students' enrolment, attendance and schooling history in the tri-border region of Western Australia, Northern Territory and South Australia as a means of quickly identifying and meeting the learning needs of these 'at-risk' students. The expansion of the Strategy has been hindered due to issues associated with privacy legislation and parental consent and education about the project.

The issue of different privacy approaches is made more complex with the range of governance arrangements in place for access to data. Developing research and analytics projects is problematic as data are not easy to access and when available are provided in a variety of forms with different privacy requirements, leading to complex data matching processes. If researchers are seeking to undertake a national project they generally have to approach each state and territory education authority and non-government school directly with requests to access data. Each system uses different processes and procedures to release similar data.

Using NAPLAN data as an example, researchers can face a complex process in obtaining permission from data custodians and extracting results from participants whose parents or guardians have given consent. Although ACARA manages NAPLAN testing at a national level, the tests are administered in each state or territory by Test Administration Authorities (TAA), which is either the education department or an independent authority. Applications to access NAPLAN test results therefore have to be made separately to each state or territory. The process is complex and time consuming with each body having different application forms, different criteria for release of data and differing response times. Furthermore, while the TAA administers tests across all government, Catholic and independent schools, the requirement to

---

<sup>9</sup> Presentation by Dr Lucy Lu, Centre for Education Statistics and Evaluation (NSW DEC), *A system-wide study of student mobility in NSW government schools*.

<sup>10</sup> <http://www.nsip.edu.au/sites/nsip.edu.au/files/Pilot%20202.1%20Tri-Borders.pdf>

<sup>11</sup> ABS report *Migration, Australia, 2013-14* <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3412.0/>

gain permission to release data for research purposes for each jurisdiction and from Catholic and independent schools varies.

### **Other legislation and protected information**

In addition to privacy issues, information covered by the *A New Tax System (Family Assistance) (Administration) Act 1999* (Family Assistance Administration Act), such as child care administrative data and other child care data collected under the Act, is protected information and may only be used or disclosed in accordance with that Act.

An added challenge to the usage of the NECECC is the environment in which it is collected. The Department funds the ABS to deliver the collection each year, which it does under the *Census and Statistics Act 1905*. While it is right to protect the access and integrity of all data, this legislation places significant restriction around how NECECC data can be used by both the Australian Government itself, and its state and territory counterparts, thereby limiting its usefulness in contributing to the early childhood education evidence base.

### **Role of the Productivity Commission in improving the Education Evidence Base**

The Productivity Commission is well placed to contribute to development of an improved education evidence base. The Commission has a current role in data analysis producing a range of reports, such as the Report on Government Services (RoGs) which provides an authoritative source of comparative information on the efficiency and effectiveness of a wide range of services across governments, including for early childhood and school education. Its national report<sup>12</sup> on achievement of agreed national benchmarks and targets for national agreements and partnerships provides for improved transparency and accountability and is based on the need to have consistent and high quality data.

This work also supports improvement of the evidence base by seeking to address gaps in data and inconsistency across collections. The Commission has been a major catalyst for driving improvement in the consistency of data and supporting metadata for national collections through collaborative effort and agreement both with and between the sectors and jurisdictions that have supported the Commission in this work.

There is a key role for the Commission to continue to provide perspective across sectors, such as vocational education and training as well as health and social services. The Commission is well placed to better understand the complexities and interactions between these sectors and the early childhood and school education system to provide a more comprehensive national education evidence base on which to improve educational outcomes.

The Commission also has a role in examining issues that affect more than one sector, for example, in relation to privacy and legislative challenges. There would be great value in the Commission providing direction on the way to protect the privacy of an individual but not limit the capacity for information to be shared to improve the evidence base and policy development in Australia.

---

<sup>12</sup> [https://www.coag.gov.au/sites/default/files/coag\\_documents/PerformanceReport.pdf](https://www.coag.gov.au/sites/default/files/coag_documents/PerformanceReport.pdf)

## The Department's response – future improvements

The Department suggests that some initial steps could be taken towards promoting a national approach to enhance the evidence available to support improved educational outcomes both at an education system and sector level, and for the individual child. These mainly relate to improving data access and sharing and streamlining governance arrangements.

### Data Access and Sharing

Access to data that is consistent and comparable is essential to develop a comprehensive evidence base. This means there is a limited capacity to access and share data between jurisdictions and sectors without having to undertake complex matching activities and there is limited nationally comparable information on schools and students in Australia.

Governments are being more proactive in explaining the evidence used to inform policy formation. Governments are also the generators and guardians of extensive datasets on inputs, outputs and outcomes associated with the education sector. There are increasing ways and opportunities to provide more accessible data for the use of the public, stakeholders and service providers. Making more of our data openly accessible will support policy analysis and advice from outside the public sector.

### National approach to student identification

An identity management approach for students that is nationally consistent, that provides a student with a unique and persistent identity that remains with them during their progression through education would make it easier to access and share information across the education sector. It would support building an understanding of progression through education, and the influences that may impact on the path students have and their outcomes. It would remove the resource burden currently required by systems and researchers to undertake complex data matching processes and it would significantly improve the efficiency of the NECECC, the AEDC, and the national online assessment platform, which is currently under development to initially deliver NAPLAN.

Implementation of an approach that is nationally consistent for students would deliver the capacity for schools and jurisdictions to provide accurate longitudinal student level data enabling analysis of student cohorts to assess progress and transitions, make it possible to access 'gain' data over time (in the case of NAPLAN) and enable more timely responses for interventions through direct support and programme interventions. It would also help facilitate this for an individual child and/or student at a local level.

An identity management approach that is nationally consistent would provide improved efficiency in administration, higher quality reporting to parents and would support improvements in better sharing of information across education sectors. Enrolment information could be collected once and a student's documentation maintained across their entire child care, early childhood and school education, providing a comprehensive education record for students, parents, schools and systems. A simplified and streamlined approach to student identification, removing the need for complex data matching and integration procedures, would save time and effort for all education administrators and researchers leading to potential cost savings.

The VET data collections held by NCVER, and in particular the total VET activity collection and the introduction of the VET Unique Student Identifier, present opportunities for statistical data linkage to inform policy and research. Similarly, the development of an enduring dataset covering early learning and school experiences that can be linked to other datasets would enable support for policy development.

Implementation of data architecture that enables datasets from all education sectors to be linked together would provide opportunities to tell longitudinal stories about student progress across their life course, from early childhood, school, VET and higher education and at these transition points. The education evidence base could be further enhanced if evidence available on families and health could be appropriately accessed to develop policy to support and help streamline transition from early childhood to school education and from school to further education and employment. In addition, linkage to broader Commonwealth transactional datasets (for example, Australian Taxation Office, Australian Bureau of Statistics, Department of Social Services and Department of Employment) may assist in assessing the long-term impact of education and training interventions.

### **Technology - changing requirements and opportunities**

Technological change provides the opportunity for significant improvement. It is now widely acknowledged by governments that data can enable them to improve public services and policy design, bringing wide-ranging social benefits to citizens; relevant, reliable and up-to-date data is essential to achieve this. Along with other governments, the Australian Government, with its large transactional systems that make employment, health, family, child care and social security payments, recognises the impact that policy development based on Big Data<sup>13</sup> can have. Access to greater levels of data, both quantitative and qualitative, will increasingly be used to improve government business outcomes and services to tailor them to better meet the needs of people.

There are opportunities to harness technology in the collection and reporting of student information, such as through the implementation of NAPLAN Online (**Attachment C**). The technical challenges and obstacles of introducing NAPLAN Online are being steadily addressed and may help form the basis for how data can be shared more readily between interested jurisdictions and research institutions. There is potential to draw on the learnings from NAPLAN Online, once it is implemented successfully, to consider the use of technology for other data collections.

Technical and system changes to administrative data following reforms to child care proposed for introduction in mid-2018 may provide opportunities to enhance the potential for improved data collection with data access and sharing contingent on the examination of relevant legislation. It is acknowledged, however, that child care services and schools will need to build their capability and capacity to participate in the new platforms.

### **Privacy**

As outlined in the Issues Paper, privacy of individuals and protecting confidentiality of information is paramount in allowing access to education data by third party researchers and policy makers. The Trans-border Strategy discussed in the previous section highlights the significance of privacy acting as a barrier to sharing information. This issue needs to be addressed on a number of levels, including enrolment procedures and processes that accommodate parental agreement to share information, privacy disclosures and privacy legislation at the state and Commonwealth level. It is also necessary to consider other legislative arrangements (for example, family assistance law and the *Australian Education Act 2013*) that govern protected information on children and students and look to improving how these can promote sharing of education data in a confidentialised framework that accords with privacy principles within the education sector and for education researchers.

The issues associated with data ownership and custodianship across the child care, early childhood education and schools sectors also need to be addressed, not only in relation to privacy, but also in relation

---

<sup>13</sup> <http://www.finance.gov.au/archive/big-data/>

to children transitioning through the education system. The Department considers that issues associated with data ownership and custodianship across the child care, early childhood education and schools sectors should also be examined and clarified under this Inquiry. This issue will become more urgent as work progresses to achieve more open access to data across both the public and private sectors.

### **Governance**

Data collections are undertaken and owned by multiple agencies and reported with varying frequency. Most of the national data collections have developed as a result of a specific policy need, in response to an expressed desire for more public accountability for the performance of government services generally, or a desire to make information, including data about outcomes, more freely available to parents and the community. To improve the governance of data in the school education sector it is proposed that a national information agreement be developed.

### **National Education Information Agreement**

The development of a National Education Information Agreement (Agreement) would provide a cost-effective solid foundation and build momentum for the development of further initiatives in the data and evidence environment. A single Agreement would set out the structures and processes that Commonwealth and participating government and non-government jurisdictions and agencies will develop agreed initiatives to improve, maintain and share national early childhood education and schools data. A guiding principle for an Agreement would be the ideal of maximising the efficiency of data collection, provision and access on a 'single provision/multiple user' basis, while taking account of specific legislative and privacy requirements.

It would clearly state agreed principles about the collection, production, distribution, sharing and use of data and be designed to build links between data and evidence across the early childhood, school education and transition points. Existing data collections, agreements and processes related to data and evidence would continue and be brought under the umbrella of an Agreement by being listed in schedules to it. For example, the Australian Government's Intergovernmental Data Definition Agreements and Memorandum of Understanding between the Australian Government and ACARA related to licensing of data, would be listed under the umbrella of the Agreement. As such, the Agreement would provide a single source of reference for existing intergovernmental information agreements of this kind.

An Agreement would not be able to describe all scenarios and there is likely to be additional specificity required for particular data initiatives that are at different stages of development. The establishment of a common Agreement, however, will help build national consensus, identify gaps to prioritise and speed up data sharing process in the future. Rather than referring to a wide range of documents that effectively do the same things, a common document, would provide:

- nationally agreed principles for data development, reporting and sharing;
- a nationally agreed common basis for data linkage;
- agreed goals to work towards a future vision of nationally shared data collection, production, and usage across early childhood and school education.

An Agreement would also assist government data custodians, data providers and data users to facilitate data sharing between and across the early childhood and school education sectors and support the research and analysis demands of stakeholders. The lack of support and access to information limits the ability of the research community to develop projects that could provide a basis for insights into the influences and progression of children through education and their outcomes.

Underpinning the Agreement would be agreement to prioritise work on definitions, classifications and protocols to support access and sharing. In 2010, to assist jurisdictions in the collection of comparable early childhood data, the early childhood sector developed the Early Childhood Education and Care National Minimum Data Set (ECEC NMDS). The ECEC NMDS is administered by the Australian Government and state and territory jurisdictions through a National Information Agreement on Early Childhood Education and Care, which fully supports the COAG early childhood reform agenda. The Department is working closely with states and territories and the Australian Institute of Health and Welfare to examine ways in which the ECEC NMDS could be broadened to include other areas of early childhood education, particularly as they might relate to better outcomes for children.

It is accepted that establishing protocols for all early childhood and school education data to enable linkage across datasets will take time and needs to occur in a number of stages. It would also have resourcing implications. The build of a national platform to support NAPLAN Online may provide insights for such an approach.

## Conclusion

The Department supports a national approach to the collection, reporting and use of data in the early childhood and school education sectors to reduce duplication of effort, improve efficiency and effectiveness and to improve transparency, accountability and research capability of the education evidence base. A national approach to improve education data would provide an education evidence base that would:

- provide a more comprehensive picture of early childhood education and school and system performance for students and address data gaps to assist future education policy needs;
- enable the development and/or enhancement of indicators to monitor national trends and build on the targets already in place allowing more accurate monitoring of progress towards goals and a better understanding of Australia's performance internationally;
- enable teachers, schools and systems to better monitor student progress and assist in better measuring the impact of interventions
- allow the evaluation of policies by systems, schools and teachers that affect the education outcomes and those of their students;
- provide more accurate information on educational participation, attainment and pathways, particularly important for children with disability, vulnerable and disadvantaged children, and Indigenous children;
- provide better linkages with other relevant datasets that relate to children, for example, between early childhood and school education data and with data from outside the sector, such as vocational education and training, higher education and broader employment, health and social services data.

It is crucial that with the investment in education by governments (around \$50.4 billion<sup>14</sup> in recurrent spending on schools education in 2013-14 alone) the return on this investment is optimised for children and students to better understand education outcomes, improve well-being for society as a whole and lift productivity for all Australians. A reliable and comprehensive approach that supports a national evidence base will allow greater capability to analyse and evaluate the effectiveness of interventions and policy and programme initiatives that improve outcomes for all children in early childhood education and students in school.

---

<sup>14</sup> Report on Government Services 2016



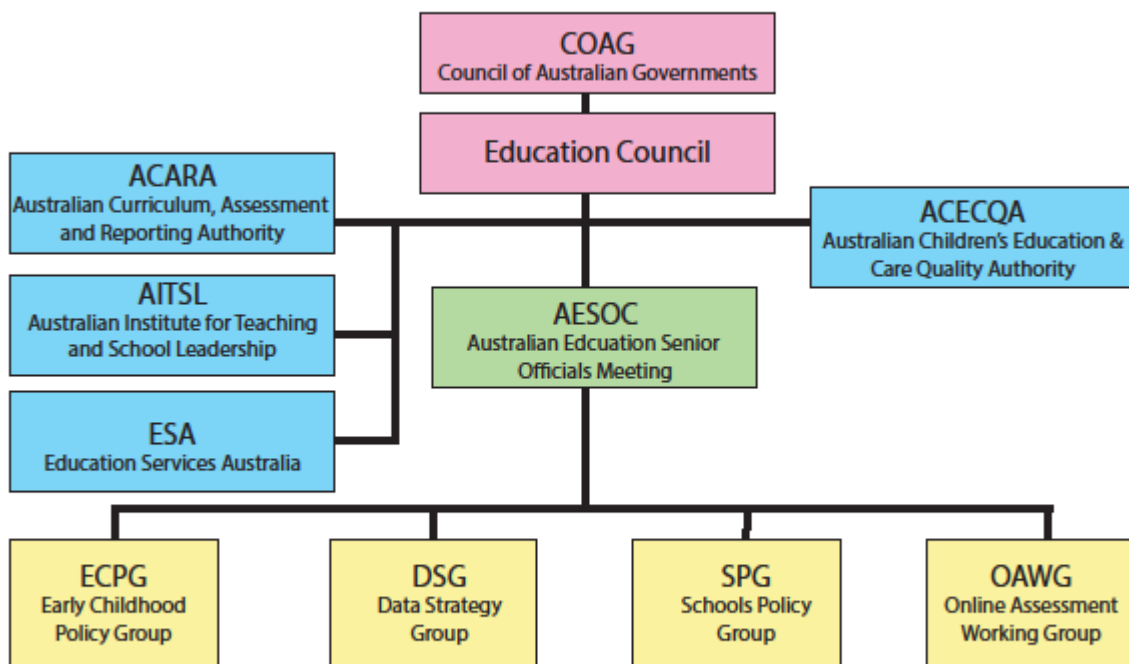
## Attachment A

# Governance and Reporting Framework and Early Childhood and School Education

### Education Council and its governance of school and early childhood education

The Council of Australian Governments (COAG) is the peak intergovernmental forum in Australia. The role of COAG is to promote policy reforms that are of national significance, or which need co-ordinated action by all Australian governments. The Education Council, one of the eight Councils under COAG, provides strategic policy direction and national co-ordination in relation to school education and early childhood development. A number of committees and working groups currently report to Education Council, as shown in the diagram below.

Australian Education Ministers, through the Education Council (see below), committed to taking action to achieve these educational goals for all young Australians, in partnership with all Australian governments, all school sectors, individual schools, parents, children, young people, families, communities and business.



Collaboration between the states and territories and the Australian Government is achieved through discussion and agreement at the COAG’s Education Council and its subsidiary bodies.

The Australian Curriculum, Assessment and Reporting Authority (ACARA)<sup>15</sup>, the Australian Institute for Teaching and School Leadership (AITSL)<sup>16</sup> and Education Services Australia (ESA)<sup>17</sup> support the school sector

<sup>15</sup> <http://www.acara.edu.au/default.asp>

to help drive reforms in the key areas of curriculum reform, transparency and accountability and quality teaching. The Australian Children's Education and Care Quality Authority (ACECQA) oversees the National Quality Framework (NQF), an agreement between all Australian governments to work together to provide better educational and developmental outcomes for children using early education and care services.

## Reporting Framework for data

### Data Strategy Group

The Data Strategy Group (DSG) consists of senior officials with responsibility for data strategy from the Commonwealth, and each state and territory department of education. The non-government school sector is represented by the Independent Schools Council of Australia (ISCA) and the National Catholic Education Commission (NCEC). The Australian Curriculum, Assessment and Reporting Authority (ACARA), Australian Institute for Teaching and School Leadership (AITSL) and Education Services Australia (ESA) are observers on DSG, and the Early Childhood Data Sub Group reports directly to DSG on early childhood related matters (see additional detail in this section below).

DSG is one of three Australian Education Senior Officials Committee (AESOC) Working Groups established to provide high-level advice to AESOC about ways to improve the national education evidence base. It works alongside the Schools Policy Group (SPG) and the Early Childhood Policy Group (ECPG). DSG reports to AESOC on how data can be improved to inform policy development and priorities, and how greater linkages of data through the life course can be made to better understand education outcomes and productivity for all Australians. In pursuing its priority actions, DSG provides advice to AESOC regarding:

- Education Council's national data priorities and the strategies to pursue these priorities, including directing data-related aspects of the Education Council work plan;
- opportunities to optimise efficiencies with respect to data-related matters that fall outside the existing national education architecture with a view to minimising duplication;
- assessment of data-related bids made under the National Project Fund;
- analysis in relation to priority national data work, either in response to a request or foreshadowing emerging trends;
- views on the creation, capture, collection, assembling, combining, extraction and use of data in relation to items related to the DSG work plan.

DSG currently has direct oversight of the following sub-groups:

- Early Childhood Data Sub Group (ECDSG)
- Government Schools Finance Statistics Group (GSFSG)
- National Schools Interoperability Program (NSIP)
- National Schools Statistics Collection Working Group (NSSCWG).

DSG maintains connections, and where appropriate, works with other relevant working groups, authorities and bodies, including but not limited to:

- Aboriginal and Torres Strait Islander Education Advisory Group (ATSIEAG)
- Australian Children's Education and Care Quality Authority (ACECQA)
- Australian Skills Quality Authority (ASQA)

---

<sup>16</sup> <http://www.aitsl.edu.au/>

<sup>17</sup> <http://www.esa.edu.au/>

- Australian Bureau of Statistics (ABS)
- Online Assessment Working Group (OAWG)
- Productivity Commission
- Australian Institute of Health and Welfare (AIHW).

### **Early Childhood Data Sub Group**

The Early Childhood Data Sub Group (ECDSG) provides high level advice and recommendations to the DSG, in support of:

- Education Council's national data priorities and strategies required to deliver and monitor them;
- informing national early childhood and education policy development and priorities, including contributing to better national monitoring, data linkage and research and evaluation outcomes for children and their families and early childhood services, with a view to increasing data quality, usability and minimising duplication;
- improving the quality of performance information and enhancing the evidence base to meet the reporting needs of early childhood education and care-related National Partnership Agreements;
- collaboration and consultation with Commonwealth, state and territory agencies, other data collection agencies, early childhood providers and the non-government sector to:
  - maintain good quality performance information that meets the reporting needs of any early childhood education and care-related National Partnership Agreements;
  - identify opportunities for strategic research and analysis into areas of common interest;
  - enhance and maintain an ongoing and accessible early childhood education and care evidence base, that:
    - supports transparent reporting and public accountability;
    - contributes to better national monitoring, research and evaluation outcomes related to children, families and early childhood services in Australia.

### **School Education performance framework**

#### ***Measurement Framework for Schooling in Australia and National Reporting***

The Education Council's Measurement Framework for Schooling in Australia (May 2015)<sup>18</sup> defines national key performance measures for schooling arising from the 2008 Melbourne Declaration and is the basis of reporting to Education ministers.

The agreed areas of performance monitoring established in the Measurement Framework include:

- Participation focusing on enrolment in school, student attendance, participation in the national assessments, participation of young people in vocational education and training and participation by young people in post-school learning pathways and work;
- Achievement in the National Assessment Program (NAP) focusing on literacy, numeracy, civics and citizenship, ICT literacy and science literacy;
- Attainment focusing on school completion and attainment, attainment of young people in post-school learning pathways, population-based attainment measures providing evidence of the outcomes of schooling;

---

<sup>18</sup>[http://www.acara.edu.au/verve/resources/Measurement\\_Framework\\_for\\_Schooling\\_in\\_Australia\\_2015.pdf](http://www.acara.edu.au/verve/resources/Measurement_Framework_for_Schooling_in_Australia_2015.pdf)

- Equity focusing on indigenous status, sex, language background, geographic location, socioeconomic background and disability.

A range of data collections and tools is used to measure and report performance in school education to Education Council and the Australian public.

### ***National Assessment Program for School Education***

The National Assessment Program (NAP) is the measure through which governments, education authorities and schools determine whether young Australians are meeting educational outcomes. It includes assessments endorsed by Australian Education Ministers and comprises:

- Full cohort literacy and numeracy tests (NAPLAN);
- Sample population assessments in Science Literacy, Civics and Citizenship and Information and Communication Technology Literacy;
- Australia's participation in the Programme for International Students Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS);
- Australia's participation in the Progress in International Reading Literacy Study (PIRLS).

ACARA manages NAPLAN and domestic NAP sample assessments in collaboration with Test Administration Authorities in states and territories. The Department manages the international NAP sample assessments (PISA, TIMSS and PIRLS), including contracting a National Project Manager on behalf of the states and territories. The Australian Council for Educational Research (ACER) currently acts as National Project Manager for each of the international assessments. The NAP provides a rich source of data with potential to expand use across sectors and between jurisdictions.

### **School and early childhood education collections and reporting**

The major school education and early childhood education data collections are the National Schools Statistics Collection (NSSC) (non-finance), Government Finance Statistics<sup>19</sup>, the Survey of Education and Work<sup>20</sup>, and the National Early Childhood Education and Care Collection (NECECC).

Some additional collections for school education and early childhood education are included at **Annexure A**.

### ***Major Education reports***

The key reports that focus on performance and reporting mainly for the school education sector are:

**The National Report on Schooling in Australia (ANR)**<sup>21</sup> produced by ACARA on behalf of the Education Council highlights progress towards the 2008 Melbourne Declaration on Educational Goals for Young Australians. It provides information about government and non-government schooling.

**The Report on Government Services (RoGS)** and its Indigenous Compendium produced by the Productivity Commission provides information on behalf of the Steering committee on the Review of Government Service Provision report on the equity, effectiveness and efficiency of government-funded

<sup>19</sup> <http://www.abs.gov.au/ausstats/abs@.nsf/mf/5519.0.55.001>

<sup>20</sup> <http://www.abs.gov.au/ausstats/abs@.nsf/dossbytitle/09F494FB1EA20EC8CA256BD00026A755>

<sup>21</sup> [http://www.acara.edu.au/reporting/national\\_report\\_on\\_schooling\\_in\\_australia\\_2012.html](http://www.acara.edu.au/reporting/national_report_on_schooling_in_australia_2012.html)

school education in Australia. Data for this report come from a variety of surveys, administrative collections and censuses. The report details early childhood education and school education, characteristics, performance and outcomes. Chapter 3 of the RoGs covers early childhood education and care<sup>22</sup> and Chapter 4 provides details on schools education.<sup>23</sup>

**The National Education Agreement (NEA): Performance Report** provided information about the achievement of agreed national benchmarks and targets. The Commonwealth Department of Prime Minister and Cabinet now undertake the role of monitoring and reporting on all National Agreements including the NEA and NERA.<sup>24</sup>

**NAPLAN** - The report of the national analysis of National Assessment Program Literacy and Numeracy (NAPLAN)<sup>25</sup> produced by ACARA is released to the public in two stages. The first stage provides preliminary results at each year level and domain by state/territory and nationally. The second stage is the full national report that includes final results by gender, Indigeneity, language background, parental occupation and education, and location (metropolitan, provincial, remote and very remote).

**The My School website**<sup>26</sup> is hosted by ACARA and provides **school level information** (government and non-government), including student numbers, numbers of students and their profiles, student attendance, staffing, NAPLAN results, school objectives and finance data. The data is updated annually.

**TIMSS and PIRLS** – a national report on Australia’s performance in TIMSS, and a second in PIRLS are published by the ACER. The most recent TIMSS reports are for the 2011 cycle. The report outlines student achievement in TIMSS against four proficiency measures set by the International Association for the Evaluation of Educational Achievement (IEA). 2011 was the first time Australia participated in PIRLS or any international study of reading. The report outlines student achievement in two overarching purposes of reading; reading for literary experience and reading to acquire and use information. The IEA also publishes reports summarising results from participating countries and an international database to support researchers.

**PISA** – The OECD publishes international reports including a separate report on Australia’s performance. The results from PISA 2015 will be reported in late 2016. PISA headline data is reported at a national level with a mean score and ranking for each domain, and trend data over time. Results are also reported to show distribution scores across six proficiency levels and percentages of students meeting minimum benchmarks. Results are also reported by sub-population groups.

**The OECD Teaching and Learning International Survey (TALIS)** – is the largest international survey of teachers. It is an OECD flagship activity and an important tool for the analysis of the teacher workforce and learning environments. Beginning in 2008 Australia has participated in all subsequent surveys and will be participating in the 2018 TALIS. Participation in TALIS provides an opportunity to gather

---

<sup>22</sup> <http://www.pc.gov.au/research/ongoing/report-on-government-services/2016/childcare-education-and-training>

<sup>23</sup> <http://www.pc.gov.au/research/ongoing/report-on-government-services/2016/childcare-education-and-training/school-education>

<sup>24</sup> [https://www.coag.gov.au/sites/default/files/coag\\_documents/PerformanceReport.pdf](https://www.coag.gov.au/sites/default/files/coag_documents/PerformanceReport.pdf)

<sup>25</sup> <http://www.nap.edu.au/results-and-reports/national-reports.html>

<sup>26</sup> <http://www.myschool.edu.au/>

information from teachers and school leaders on their workplaces and benchmark Australian practice against other participating countries.

The **OECD's Education at a Glance**<sup>27</sup> and Productivity Commission's *Overcoming Indigenous Disadvantage - Key Indicators*<sup>28</sup> reports provide information about a specific range of indicators while the Aboriginal and Torres Strait Islander Education Action Plan Annual Report provides information relating specifically to the strategies set out in that plan.

#### ***Australian Early Development Census (AEDC)***

Collected every three years (2009, 2012 and 2015). AEDC collections includes information on children's early childhood education and care experiences, including whether they participated in a preschool programme before starting full-time school.

Data from these collections provides the opportunity to identify educational disadvantage from data on particular sub-groups, for example, Indigenous, Students with Disability, different regions (metropolitan, rural and remote) and what this demonstrates for schooling outcomes.

#### ***The National Centre for Vocational Research (NCVER)***

The NCVER provides the main source of data on activity in Vocational Education and Training. The VET Activity collections provide information on engagement and completions in the VET sector. In addition to the total VET Activity collection providing information on engagement and completions in the VET sector, the NCVER also collects and produces a range of other information relating to young people, including:

- Apprenticeship and Traineeship commencements, attrition, and completion rates;
- Student outcomes;
- VET in Schools, providing information on VET delivered to secondary students;
- The Longitudinal Survey of Australia's Youth.

NCVER also produces an annual summary publication, collating information on the education and training engagement of young people across sectors.<sup>29</sup> Access to this data is publicly available through regular publications, as well as the Vocstats online data cubes.

---

<sup>27</sup> <http://www.oecd.org/edu/education-at-a-glance-19991487.htm>

<sup>28</sup> <http://www.pc.gov.au/research/ongoing/overcoming-indigenous-disadvantage/key-indicators-2014/key-indicators-2014-report.pdf>

<sup>29</sup> NCVER (2015), *Young people in education and training, 2014*

## Additional Data Collections

Name	Target group	Indicators and topics	Data Custodian	Access
<b>Child Care Data and Reporting System (CCDARS)</b>	Children in child care system	<ul style="list-style-type: none"> <li>Type of service</li> <li>Geographic data</li> <li>Number of families</li> <li>Age of children</li> <li>Family income (in bands)</li> <li>Child Care Benefit rate type (max, partial, nil)</li> <li>Indigenous status of children/families</li> </ul>	Department of Education and Training	Restricted access
<b>National Asian Languages and Studies in School Program (NALSSP)</b>	Years 1 – 12	<ul style="list-style-type: none"> <li>State and sector</li> <li>Number of Year 12 students and teachers who participate in the NALSSP</li> <li>Numbers of students studying the NALSSP languages from primary school to Year 12</li> </ul>	Department of Education and Training	Restricted access
<b>Non-Government Schools – Student Address Data</b>	Non-government schools, excluding special schools and special assistance schools.	<ul style="list-style-type: none"> <li>School</li> <li>Student education level (primary/secondary)</li> <li>Boarding status (Y/N)</li> <li>Residential address</li> </ul>	Department of Education and Training	Restricted access
<b>Non-Government Schools Census</b>	Non-government schools, their students and permanent staff	<p>School</p> <ul style="list-style-type: none"> <li>Schools / Campus Data</li> <li>Address</li> <li>State</li> <li>Characteristics (Type, Boarding, System Status, Affiliation)</li> </ul> <p>Student</p> <ul style="list-style-type: none"> <li>Student count</li> <li>Demographics</li> <li>Students with Disability (SWD)</li> <li>Special characteristics (Boarding, Visa types, Overseas students, Distance education)</li> </ul> <p>Staff</p> <ul style="list-style-type: none"> <li>Staffing count</li> <li>Detailed Function Category</li> <li>Demographics</li> <li>Education level</li> </ul>	Department of Education and Training	Restricted access

<b>Progress in International Reading Literacy Study (PIRLS)</b>	Year 4	<ul style="list-style-type: none"> <li>Covers student achievement data as well as student, teacher, school and curricular background data.</li> </ul>	International Association for the Evaluation of Educational Achievement (IEA)	Public at aggregate level
<b>State Government Schools Data Submissions</b>	All state government schools	<p>FTE enrolments by:</p> <ul style="list-style-type: none"> <li>State</li> <li>School</li> <li>Grade</li> <li>Indigenous status</li> <li>Sex</li> <li>Student with disability number</li> <li>School type variables</li> </ul>	Departments of Education across jurisdictions	Restricted access
<b>Survey of Education and Training</b>	All persons aged 15 years and over	<ul style="list-style-type: none"> <li>Demographics (age, sex, marital status, Indigenous status, etc.)</li> <li>Employment, Education, Training and Finance data</li> </ul>	Australian Bureau of Statistics	Public at aggregate level
<b>Survey of Education and Work</b>	All persons 15-64	<ul style="list-style-type: none"> <li>Demographics (age, sex, marital status, Indigenous status, etc.)</li> <li>Employment, Education, Training and Finance data</li> </ul>	Australian Bureau of Statistics	Public at aggregate level
<b>Trends in International Mathematics and Science Study (TIMSS)</b>	Year 4 and Year 8	<p><b>Subject Domains:</b></p> <ul style="list-style-type: none"> <li>Mathematics</li> <li>Science</li> </ul> <p><b>International Students:</b></p> <ul style="list-style-type: none"> <li>Country</li> <li>Gender</li> <li>Background questionnaires</li> </ul> <p><b>Australian Students (additional variables):</b></p> <ul style="list-style-type: none"> <li>State</li> <li>Sector</li> <li>Indigenous status</li> <li>Geographic Location</li> </ul>	IEA as above	Public at aggregate level



## Attachment B

### Progress on some current Data Gaps

#### **National Consistent Collection of Data on Students with Disability**

The development of the Nationally Consistent Collection of Data on Students with Disability (NCCD)<sup>30</sup>, a joint initiative of all Australian governments and all non-government education authorities, demonstrates the complexity and time involved to implement a nationally consistent dataset.

The Council of Australian Governments (COAG) agreed to work towards a NCCD in 2008. In 2011 an initial model was trialled to gather comparable data. The report on this trial found some refinements were required. In 2011 education ministers agreed to establish a joint working group to refine the model and develop a plan for implementing the data collection nationally. In 2012 education ministers agreed to trial a revised model. All Australian Governments and the Catholic and independent school sectors worked together to implement the trial in more than 200 schools nationally. This trial was evaluated in 2012 and found to be suitable for implementation subject to minor refinement. The trial was endorsed by the former Standing Council for School Education and Early Childhood (now Education Council) in 2013 and fully endorsed for phased implementation of the collections between 2013 and 2015.

The national data collection has been progressively implemented over the period 2013-2015. From 2015, all government and non-government schools will participate annually in the national data collection. The joint working group provides governance for this work and takes the lead on further development and refinement of this data collection, including ongoing efforts to improve data quality (for example, the development of national level resources to support principals and teachers to implement the NCCD in their schools, and other national level quality assurance projects) and work is currently underway to scope the potential reporting of the Student with Disability data on *My School*.

#### **Workforce data gaps**

While there is no national teacher workforce data collection, since 2012 the Australian Government, in collaboration with states and territories, has funded several teacher workforce data reports that have helped improve our knowledge of the national teacher workforce. These reports include the Staff in Australia's Schools (SiAS) surveys (2007, 2010 and 2013), The National Teacher Workforce Dataset (NTWD), the OECD Teaching and Learning International Survey, and the Longitudinal Teacher Education and Workforce Study.

The SiAS collected data on a range of topics including initial teacher education, employment status, job satisfaction, career paths and intentions, principal authority and teacher appraisal. There has been strong support for the continuation of SiAS and its future is being considered in light of the development of a national initial teacher education and teacher workforce data strategy. This work, being undertaken by AITSL, is described below.

In February 2015, the Teacher Education Ministerial Advisory Group published its report to the Australian Government Minister for Education, *Act Now, Classroom Ready Teachers* identifying that a lack of consistent and timely national teacher data "hinders both continuous improvement in initial teacher education and workforce planning, including the ability to address shortages in specialist subject areas".

---

<sup>30</sup> <https://www.education.gov.au/what-nationally-consistent-collection-data-school-students-disability>

In May 2015, AITSL was tasked by the then Australian Education, Early Childhood Development & Youth Affairs Senior Officials Committee (AEEYSOC) to bring advice to the Education Council on the need to inform research and analysis about initial teacher education as well as the broader teacher workforce. In March 2016 Education Council agreed for AITSL to continue this work and further develop a national data strategy for initial teacher education and teacher workforce data. This work will include development of data sets and collection mechanisms for consideration by Education Council later in 2016. The Department is working in close collaboration with AITSL in this endeavour.

## Attachment C

### Introduction of NAPLAN Online

The move to NAPLAN online commenced in December 2012, when all education ministers agreed that there was a strong rationale for online delivery of NAPLAN. In November 2013, education ministers agreed to establish an Online Assessment Working Group (OAWG) to steer the development and implementation of the move to NAPLAN online.

The OAWG has representatives from all key education stakeholders, including all state and territory governments, the Australian Government, Education Services Australia (ESA), the Australian Curriculum Assessment and Reporting Authority (ACARA), the National Schools Interoperability Program (NSIP), the National Catholic Education Commission (NCEC) and the Independent Schools Council of Australia).

In October 2014, the Australian Government announced it would provide \$24.7 million to ESA to develop the online national assessment platform to deliver NAPLAN online. An Australian Government ICT two pass review<sup>31</sup> was undertaken in order to assess and manage the technical risks associated with this investment.

Education ministers have agreed that the transition to NAPLAN online commence from May 2017 with voluntary take-up by jurisdictions and/or schools over two to three years. Concurrent use of pen and paper tests and NAPLAN online will be in place until full uptake by all schools.

#### **Platform**

In early 2015, ESA commenced development of the platform to deliver NAPLAN online. ACARA is also working on the development of the online test items. A comprehensive testing and trialling process for the online platform is occurring during 2016, with the NAP-Civics and Citizenship sample assessment to be delivered on the platform in October 2016, prior to the first NAPLAN online test in 2017.

Due to the range of different ICT systems, approaches to student identification and processes in place for data collection across the states and territories, it has been important to develop data sets for NAPLAN online that are agreed to by all jurisdictions. Agreement on the definition of the registration data for delivering NAPLAN Online was critical to ensuring consistency in supplying data to the assessment platform for NAPLAN online to enable the smooth management of the testing process, as well as the ability to distribute results data.

The National Schools Interoperability Program (NSIP) was tasked with coordinating the development of the NAPLAN online registration data set. NSIP undertook a series of consultation workshops in 2015 with each jurisdiction to develop the data set, working closely with ESA and ACARA. The data set was subsequently endorsed by the Data Strategy Group (DSG) and approved by the Online Assessment Working Group (OAWG) in December 2015. NSIP is currently coordinating another round of consultations which are considering the results and reporting data set for NAPLAN online.

---

<sup>31</sup> <http://www.finance.gov.au/policy-guides-procurement/ict-investment-framework/ict-two-pass-review/>

### ***Benefits***

Online delivery of NAPLAN holds many expected benefits for schools, teachers and parents over the current paper-based testing that are potentially translatable to the broader use of education data. These include:

- decreased turnaround time of results to teachers and students. This will enable schools and parents to quickly access diagnostic information from the test and develop strategies to support students.
- better measures of students' performance, as NAPLAN online will respond 'intelligently' to a students' ability by tailoring the level of difficulty of test items in response to a student's proficiency. This will provide more precise measurement of ability.
- increased accessibility of the NAPLAN test to students with additional learning needs.