20 May 2016

Jonathan Coppel and Julie Abramson
Commissioners
National Education Evidence Base
Productivity Commission
Locked Bag 2, Collins Street East PO
Melbourne VIC 8003

By email: education.evidence@pc.gov.au

Response to the Productivity Commission Inquiry into the National Education Evidence Base

Dear Commissioners

Thank you for the opportunity to comment on the Productivity Commission’s Issues Paper for the Inquiry into the National Evidence Base for School and Early Childhood Education.

The Australian Children’s Education and Care Quality Authority (ACECQA) is the independent national authority established under the Education and Care Services National Law to guide the implementation of the National Quality Framework (NQF).

The NQF is the national system for regulating education and care services, setting standards for safety and quality so that all children who attend long day care, preschool/kindergarten, outside school hours care and family day care are supported to have the best start in life. The NQF is jointly governed by the Australian Government and all state and territory governments as a means of driving continuous improvement in the quality of these services, and realising the efficiency benefits and cost effectiveness of a unified national system.

Of particular relevance to this inquiry, ACECQA collaborates with state and territory governments and the education and care sector to:

- evaluate the performance of the NQF
- undertake research relevant to the regulation of education and care service providers, and data analysis and reporting for both public purposes and reports to government
• develop business systems that support data collection and efficient operation of the NQF by state and territory regulatory authorities, and for service providers. The main system for this is the National Quality Agenda IT System (NQA ITS)
• support policy reviews relevant to the education and care sector
• improve sector practice by promoting research evidence relevant to education and care delivery
• provide training, workshops and resources for education and care service providers and regulatory authority staff to promote and support continuous quality improvement.

Please find attached ACECQA’s responses to the following topic areas raised in the issues paper that we consider most relevant to the national education evidence base within the context of the NQF (see Attachment A). These are:

• Scope of the inquiry
• Determinants of education outcomes
• What data are needed?
• Data sharing and Privacy
• Data capture, processing and management
• Analytical and research capacity
• Institutions, data governance and prioritising reform.

ACECQA strongly supports improved data linkages that would provide valuable information on the relationship between education and care and child outcomes, and facilitate evidence-driven policy, subject to appropriate data protection methods. ACECQA also supports a new Australian longitudinal birth cohort study to gather data on children who participated in early childhood services after the commencement of the NQF and its quality assessment system.

ACECQA agrees that our attached responses may be made publically available and attributable to ACECQA.

If you would like to discuss our responses to the issues paper, or would like further information, please contact Michael Petrie, General Manager Strategy, Communications and Consistency,

Yours sincerely

Karen Curtis
Chief Executive Officer
Attachment A: ACECQA responses to issues paper questions

**Topic 1: Scope of the inquiry**

- *Does this interpretation of the scope of the terms of reference accord with yours?*
- *In particular, should the scope of the evidence base include data on children younger than 4 years old (or prior to the year before compulsory schooling begins)? If so, why, and should it cover all children, or only those attending early childhood education and care programs outside the home?*

ACECQA believes that the scope of the terms of reference described in the issues paper should be broadened to include evidence for children aged birth to four and should cover all children, regardless of whether they attend early childhood education and care programs outside the home.¹

**Rationale for extending the scope of the evidence base**

Early childhood education and care is an integral part of the Australian education system and lays the foundations for children’s later learning and development. It is also an area of significant investment by government.² It is therefore important that governments and its stakeholders have a robust evidence base which measures the contribution early childhood education and care services make to children’s later educational and developmental outcomes, and the attributes of early education services that contribute most to these outcomes.

There is a vast body of research showing that high quality early childhood education and care leads to better health, education and employment outcomes later in life.³

Neuroscience confirms that children are born ready to learn, and that they learn best through nurturing relationships and being engaged in their environment.⁴

As brain architecture and function develops rapidly during early childhood, this time is critical for establishing self-esteem, resilience, and the capacity to learn – all of which are vital to a child’s long-term outcomes.

¹ It is noted that family day care is an approved service type under the NQF which is delivered in a service provider’s home.
² In 2014-15, the Australian Government invested $7.26 billion into the early childhood education and care sector. Of this total, 89% went to families through fee assistance to support children’s participation in child care benefit-approved services. The remaining 11% was provided to other areas of support, including operational and capital funding to some early childhood education and care providers and support for staff professional development, and funding to state and territory governments through National Partnerships. State and territory governments provided an additional $1.4 billion. (Source: Steering Committee for the Review of Government Service Provision (2016) Report on Government Services 2016, vol. B, Child care, education and training, Productivity Commission, Canberra).
Attendance at high quality early childhood education and care services is shown to contribute to children’s learning and development, including their health, social and emotional development.\(^5\) International research shows that service quality is significantly related to higher standardised test scores, increased independence, and decreased anti-social behaviour at entry to primary school.\(^6\)

In particular, evidence indicates that children from disadvantaged backgrounds stand to gain the most from quality education and care.\(^7\) It results in improved developmental outcomes including learning skills and improved quality of life.\(^8\) Children from disadvantaged backgrounds are also more vulnerable to negative impacts from poor quality services, meaning that the provision of low quality education and care can entrench disadvantage.\(^9\)

A longitudinal study into preschool provision in the United Kingdom which tracked children from the age of 3 years onwards found that high quality early childhood education and care ameliorates the effects of social disadvantage and prepares disadvantaged children for success at primary school. The authors concluded that ‘investing in good quality [early childhood education] can be seen as an effective means of achieving targets concerning social exclusion and breaking cycles of disadvantage.’\(^10\) Evidence from E4 Kids, a recent Australian longitudinal study which tracks children from the age of 3–4 years onwards,\(^11\) reiterates that access to early childhood education and care that involves high-quality interactions for all children is critical to achieve positive educational and developmental outcomes for individual children.

Families are children’s first educators and continue to play a critical role in their learning, development and wellbeing after they commence formal education and care. There is a large body of evidence which shows that children whose parents are engaged in their learning have higher levels of academic achievement and that parental engagement in children’s learning is a more reliable predictor of children’s educational attainment than socio-economic status.\(^12\)

The central role of families in their children’s learning, development and wellbeing also reinforces the need to expand the scope of the evidence base to include all children, including those engaged in informal forms of care such as parental and grandparent care.

---

\(^8\) PricewaterhouseCoopers (2011) A practical vision for early childhood education and care, PricewaterhouseCoopers.
As noted, there is a body of international evidence about the positive impact high quality early childhood education and care service attendance has on children’s later learning and development. Despite this, there are considerable gaps in the Australian evidence base and therefore significant opportunities to extend it. For example, as noted in the final report of the Productivity Commission’s Inquiry into Childcare and Early Childhood Learning, research indicates that the physical environment, programs and routines, staff qualifications and educator to child ratios all constitute aspects of high quality early childhood education and care, but more research is needed about their relative importance to delivering positive outcomes to children. The report noted that the inability to distinguish the benefits of different ratios and qualifications made this an area where the need for additional research was particularly acute. There is also a significant opportunity to test findings of overseas research in Australia, such as whether students from socio-economically disadvantaged backgrounds stand to gain more from high quality education and care than other students, and whether attendance at education and care services results in more positive outcomes than non attendance.

Opportunities for data linkage

ACECQA is the custodian of service-level data on the regulation of education and care for children aged birth to twelve. This includes data on service quality based on their rating against the seven quality areas, 18 standards and 58 elements that make up the National Quality Standard (NQS).

The NQS contains a wealth of information about all aspects of education and care services, including their educational program and practice, children’s health and safety, physical environment, staffing arrangements and leadership. At a standard level, the NQS measures a number of service attributes which readily lend themselves to being linked to other data sets, such as whether the educational program enhances each child’s learning and development (standard 1.1); whether staffing arrangements enhance children’s learning and development (standard 4.1); whether children are supported to build and maintain sensitive and responsive relationships (standard 5.2); and whether families are supported in their parenting role (standard 6.2).

The NQA ITS houses this detailed quality data together with data on serious incidents, complaints, waivers and other compliance and service context information recorded by regulatory authorities.

As noted in the covering letter to this submission, under the Education and Care Services National Law, ACECQA has been tasked with evaluating the NQF. In line with this statutory function, ACECQA has developed a draft Evaluation Framework, which aims to measure the short, medium and long term outcomes of the NQF.

---

ACECQA is currently consulting with our government partners on this draft, as well as with education and care sector peak bodies and other stakeholders.

Linking data on education and care service quality with data held by other agencies about outcomes for children and families\(^{14}\) will be critical to answering questions about the NQF’s contribution to children’s early development and education, including their preparedness for formal schooling. For example, this is expected to provide powerful evidence relating to the relative impact of higher and lower quality education and care, and whether this impact differs for certain groups of children and families. It could also be used to look at the relative impact of specific service attributes, such as effective leadership or respectful and supportive relationships with families, on outcomes for children and families. In combination, this information would also more accurately inform decisions regarding resource allocation.

Furthermore, expanding the scope of analysis to include all children regardless of their education and care circumstances would provide a comparison group of children not engaged in formal care. After addressing data privacy and confidentiality concerns, ACECQA-auspiced data on service quality could be combined with child outcomes data held by other agencies. Together, these data sets could answer important questions about the relative value of the formal education and care services covered by the NQF (long day care, family day care, preschool/ kindergarten, outside of school hours care) and those that are not regulated under the NQF (such as informal parental care, grandparent care, occasional care, playgroups and mobile services).

It should be noted that data linkage is not an end in itself. Considerable time, effort and expertise will be needed to realise the potential benefits that will be made possible through the linkage of education and care data sets. It should also be noted that the quantitative research in this area, while extremely valuable, can never tell a complete story. ACECQA supports continued qualitative research to compliment quantitative analysis to create a truly valid and robust national evidence base.

\(^{14}\) Examples of existing dataset which could be linked to the ACECQA-auspiced NQA ITS include the Child Care Management System (Australian Government); National Early Childhood Education and Care Collection (Australian Bureau of Statistics (ABS)); Australian Early Development Census (Australian Government); National Assessment Program – Literacy and Numeracy (Australian Curriculum, Assessment and Reporting Authority).
Topic 2: Determinants of education outcomes

- Do you agree that the objective of a national education evidence base should be to improve education outcomes? Are there other objectives that should be included?

- What education outcomes do you see as relevant? For example, outcomes in traditional academic domains (such as literacy and numeracy), outcomes in non-cognitive domains (such as communication and interpersonal skills).

ACECQA agrees that the primary objective of a national education evidence base should be to improve educational and developmental outcomes for all children, regardless of their education and care circumstances. The national evidence base should encompass the full spectrum of learning, from early childhood education to primary and secondary school and beyond. In the early years, this should include formal care regulated by the NQF (long day care, family day care, preschool/kindergarten, outside of school hours care), informal care (such as parental or grandparent care) and formal care unregulated by the NQF (such as budget based funded services, occasional care, playgroups and mobile services).

ACECQA believes that a national education evidence base should measure a broader set of educational outcomes than traditional academic metrics such as those measured by the National Assessment Program – Literacy and Numeracy (NAPLAN). Research shows that quality education and care can lead to positive social outcomes, such as improved quality of life\textsuperscript{15}, decreased disadvantage\textsuperscript{16} and better health.\textsuperscript{17}

It is also important to measure a broader set of outcomes at a child level, such as children’s physical health and wellbeing; social competence; emotional maturity; communication skills and general knowledge (as is already being collected by the Australian Early Development Census (AEDC)).\textsuperscript{18}

There is a significant opportunity to link results of the AEDC to the ACECQA-auspiced data on service quality to see whether children who attend higher quality education and care services have more seamless transitions to school than other children and whether they have better educational and other development outcomes than children who attend lower quality services. Linking these data sets could also help compare outcomes for children attending formal education and care services with those engaged in other forms of care such as informal parental care, grandparent care, occasional care, playgroups and mobile services. These comparisons could inform policy and program development and inform government funding decisions.

---
\textsuperscript{15} PricewaterhouseCoopers (2011) A practical vision for early childhood education and care, PricewaterhouseCoopers.
\textsuperscript{16} Sylva, et al. (2004), pp iii.
\textsuperscript{17} Elliott, A. Australian Council for Educational Research (2006) Early Childhood Education, Pathways to quality and equity for all children, Australian Education Review, Volume 50. (Note A. Elliot is a former member of the ACECQA Board).
### Topic 3: What data are needed?

- **What data should be collected nationally?**
- **How would these data support the objective of improving educational outcomes?**
- **What characteristics should the data possess in order to support the processes of monitoring progress, evaluating policies and programs and/or informing policy development?**
- **What additional research or policy activity would be enabled by this data collection?**

In addition to leveraging existing education and care data sets through data linkage initiatives, ACECQA supports the creation of a new Australian longitudinal birth cohort study.

Australia’s major national birth cohort studies, the Longitudinal Study of Australian Children (LSAC) and Longitudinal Study of Indigenous Children (LSIC) commenced in 2004 and 2008 respectively. Although both studies have relatively large (and, in the case of LSAC, nationally representative) samples, they were established before the creation of the NQF.

These surveys are consequently limited in the insights they can provide into the current early childhood education policy context and the NQF’s contribution to positive outcomes for children and communities.

There are also recognised limitations in the LSAC and LSIC study designs and opportunities to improve the design of new birth cohort studies. The sample sizes of these studies do not enable robust analysis of sub-populations that are now relevant to policy, such as families who experience persistent disadvantage. Contemporary birth cohort studies established since 2010 have also included a number of additional features including early-life measurement and have collected prenatal and postnatal information that has been shown to predict future life outcomes.¹⁹

A new birth cohort study with sufficient sample size could provide important data about the impact of higher and lower quality early childhood education and care on later outcomes such as social wellbeing, school attendance and achievements in language, reading and mathematics. It could also provide valuable insights into how individual student characteristics, early childhood setting and school characteristics, and aspects of the broader social and economic contexts influence later outcomes and how these outcomes differ for children from different family and community backgrounds.

In addition to education, a new birth cohort study could contribute to research and policy

---

creation in a large range of complex and intersecting social and economic policy domains including employment, cognitive development, mental health, family formation, disadvantage, physical health, and lifetime wellbeing.\textsuperscript{20}

The burden on study participants is one of the costs of such a study although, like LSAC and LSIC, data linkage with existing administrative data could be used to reduce the burden of the research for study participants and to leverage the policy value of existing data.

\textsuperscript{20} Western, M., et al. (2014), pp 7.
ACECQA supports increased data linkage in the education and care sector and the national expansion of the Unique Student Identifier to students in primary and secondary school and in early childhood education and care.

In line with recommendation 13.2 of the Productivity Commission’s Inquiry into Childcare and Early Childhood Learning, ACECQA supports efforts to share information across government agencies to reduce the administrative burden on families and education and care services.

Subject to appropriate data protection assurances, linkage of ACECQA-auspiced data on service quality with data held by other agencies about children and families would provide valuable information on the impact of quality on child outcomes, and facilitate evidence-driven policy.

Such a network of linked data sets could inform future longitudinal research on the impacts of the NQF, including the effect of improved educator-to-child ratios and qualification requirements, on child outcomes.

This would align with international best practice research in this area as there is a large body of evidence which shows that educator qualifications are often positively associated with higher quality early childhood education programs and higher quality of educator interactions with children, particularly when the qualification specialises in early childhood education.

Through the 2014 Council of Australian Governments Review of the National Partnership Agreement on the National Quality Agenda, ACECQA identified some aspects of the information sharing and disclosure National Law provisions that could serve to impede the promotion of a

---


22 Examples of existing dataset which could be linked to the ACECQA-auspiced NQA ITS include the Child Care Management System (Australian Government); National Early Childhood Education and Care Collection (ABS); Australian Early Development Census (Australian Government) and National Assessment Program – Literacy and Numeracy (Australian Curriculum, Assessment and Reporting Authority).


number of the objectives of the NQF. These were considered through the Consultation
Regulation Impact Statement process. At the time of writing, any final decisions on this matter
are subject to consideration by governments.

ACECQA notes that a number of data linkage initiatives are currently underway in the education
and care sector. The Australian Government is developing a new information technology system
(the Child Care IT System), which will include data currently hosted in a number of distinct
databases.

ACECQA is also currently collaborating with the Australian Government, Australian Bureau of
Statistics (ABS) and other agencies on a data linkage project (the National Early Childhood
Education Database (NECED)) for the Australian Education Senior Officials Committee
(AESOC) and the Early Childhood Data Sub-Group (ECDSG). The project aims to identify potential
areas for intervention to minimise developmental vulnerabilities for Aboriginal and Torres Strait
Islander children in their transition from early childhood to school education. This data linkage
project will also contribute to a broader ECDSG agenda to develop an enduring National Dataset
on Early Childhood Education, designed to support research, analysis, policy design and
implementation.

The expansion of the Unique Student Identifier to cover all stages of a person’s education (from
early childhood into adulthood) would have enormous benefits for researchers and
policymakers. It would create a stable identifier that would assist researchers to track a
(de-identified) individual’s trajectory through the education system and look at the impact of
early childhood education and care and other factors on later outcomes.

To clarify, ACECQA is not proposing individual child assessment in the years prior to school, but
rather the ability to trace individual children from the point at which they enter the regulated
education and care system through their entire education journey.

As noted above, with implementing data linkage in the education sector, the main challenges
and impediments to the expansion of the Unique Student Identifier are legislative restrictions
limiting data sharing between agencies and jurisdictions, and privacy and confidentiality
concerns, although the latter of these concerns can be addressed by appropriate consultation
and community engagement. The financial cost of expanding the identifier may also be an
impediment. However, the fact that the Unique Student Identifier has been implemented across
all nationally recognised Vocational Education and Training courses, including public and private
providers, indicates that a unified Unique Student Identifier system can be rolled out to a large
number of students across a diverse range of providers and educational settings.

Since its establishment, ACECQA has been committed to making more and more information
regarding the quality of education and care services publicly available. This is primarily done
through ACECQA’s public registers, which include information about the performance of
education and care services against the NQS, as well as through ACECQA’s NQF snapshots and annual report.

The quarterly NQF snapshots (the 13th edition of which was published earlier this month) provide analysis and information on the state of the sector, progress of assessment and rating, quality rating of services and waivers held by services.

To complement the publication of the latest snapshot, ACECQA launched an on-line version of the snapshot. The map, graphs and tables used in the on-line version allow users to interact with the information by hovering over, sorting and searching. The information used is also available to download as an Excel spreadsheet by clicking the ‘Get the data’ link available at the bottom of each figure.

ACECQA is also exploring options to make available the full dataset of service level performance against the NQS, including all of the individual standard level ratings – comprising more than 200,000 ratings and growing each quarter. This will allow any interested party to analyse the detailed performance of services against the NQS, including variation in performance by standard, provider, and geographic and socio-economic area.
<table>
<thead>
<tr>
<th>Topic 5: Data capture, processing and management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How could the creation and processing of national education data be improved to reduce system administrative or financial costs and better meet education objectives?</td>
</tr>
<tr>
<td>• What lessons can be learned from other countries, or other sectors within Australia, about effective and efficient data collection and processing?</td>
</tr>
</tbody>
</table>

As mentioned in earlier sections of this submission, the NQA ITS is the main repository of data on the NQF. The database supports the collection of detailed data on the quality of education and care services together with data on serious incidents, complaints, waivers and other compliance and service context information recorded by regulatory authorities.

Regulatory authority staff can enter and manage assessment and rating and compliance data, and plan visits to services through a customer relationship management (CRM) interface. Education and care service providers are able to access an online portal, which allows them to submit notifications of serious incidents and changes to staff and nominated supervisors, amongst other things.

The NQA ITS helps facilitate the efficient operation of the NQF by regulatory authorities, and for service providers. It is flexible enough to accommodate differences in jurisdictions’ approaches to their regulatory work. For example, two jurisdictions – New South Wales and Queensland – have developed tablet and iPad applications which allow their officers to more efficiently record assessment and rating evidence while visiting education and care services. Data from these applications can be imported directly into the NQA ITS, increasing efficiency and reducing the administrative and financial costs of data entry. These strengths of the NQA ITS – supporting a national education and care system while allowing for jurisdiction-specific variation and a variety of data entry methods – could be leveraged when developing and refining other parts of the national education and evidence base.
**Topic 6: Analytical and research capability**

- *What are the most effective ways of enhancing the capabilities of parents, schools and teachers to use the education evidence base to improve student outcomes?*

It can be difficult to engage with parents and families about using the education evidence base to improve student outcomes. ACECQA developed StartingBlocks.gov.au, a new, family-friendly resource to provide parents with information about early childhood education and care to help them make the best choice for their child and family.

Based on research undertaken prior to its development, ACECQA intentionally positioned the Starting Blocks website to appeal to expectant parents and parents of very young children to try to engage them before their children enter formal education and care.

Starting Blocks is a starting point for families to:

- learn about children’s developmental milestones
- understand what to expect from an early childhood education and care service
- find services and learn about their quality ratings
- get tips on starting child care or preschool, and what can be done at home to encourage their child’s learning and development.

Starting Blocks’ point of difference is that it provides uncluttered, simple resources with a quality focus.

Starting Blocks has been promoted through a number of channels, including Facebook, Twitter, targeted Google advertising, flyers and posters at general practitioner offices, maternal and child health services and pregnancy and baby expos, and through developing relationships with publications and blogs targeted at expectant and new parents. These approaches may prove fruitful when trying to encourage parents to use the education evidence base in the future.

ACECQA also suggests that the approach of identifying critical juncture points for parents, for example prior to their children commencing formal schooling, and prior to their children commencing secondary schooling, may offer opportunities for engaging parents and enhancing their capabilities to use the education evidence base.
**Topic 7: Institutions, data governance and prioritising reform**

- What institutions should be assigned responsibility for, and be held accountable for, the different aspects of the national education data resource? Are new institutions needed?

ACECQA does not believe that it is necessary to create any new institutions to oversee the different aspects of the national education data resource. ACECQA believes that existing authorities such as the ABS have the capability to develop and improve the national education evidence base. ACECQA also believes that the ABS and similar authorities have sufficient credibility in the community to ensure that governments, education and care service providers, sector peak bodies, families and other users of education data have the confidence to trust the statistics produced.