

## ABS Comments on the Productivity Commission's Inquiry into a National Education Evidence Base Draft Report

## Summary

This paper comments on the recent Productivity Commission's Inquiry into a National Education Evidence Base Draft Report.

For inquiries about these comments please contact Michelle Marquardt, Program Manager, Education, Crime and Culture Branch.

## Key points

The ABS notes with interest, the Commission's proposal to put in place an institution (Draft Recommendation 7.3) with a prime purpose of pursuing the development of a high-quality and relevant evidence base about what works best to improve school and early childhood outcomes (Draft Recommendation 7.2). If such an institution was to be created, the ABS anticipates working very closely with them to ensure that education datasets created or managed by the ABS align with anticipated research needs.

The Draft Report also recognises the value that could be achieved by bringing datasets together to build national dataset(s) for the types of research proposed for building the expanded evidence base (Chapter 6). The ABS agrees that accessible, integrated and authoritative datasets that can be recommended to researchers by the new institution will be a valuable contribution to the development of an improved education evidence base.

With the strong support of the Australian Government Department of Education and Training and the State and Territory Education departments the ABS has recently made significant progress in bringing together some important education datasets and making them more accessible to government and other researchers. These initiatives include:

i. A new data integration project undertaken to bring together data from the 2015 Australian Early Development Census (AEDC), the 2013 and 2014 National Early Childhood Education and Care Collection (NECECC), and the National Quality Framework (NQF). This linked dataset contains information about children's development in their first year of full-time schooling (physical health and wellbeing, social competence, emotional maturity, language and cognitive skills, and communication and general knowledge); information about preschool enrolment and attendance; and the assessed quality of education and care service providers. Key education stakeholders are reviewing the de-identified dataset in the secure ABS DataLab<sup>1</sup> prior to considering making the dataset more widely available. It is anticipated that, with agreement of the various data custodians, other datasets could be added to further enhance the value of this dataset. The dataset has already been used heavily to assist in understanding the relationships between early childhood education programme enrolment and attendance and vulnerability as measured by the AEDC. Analysis on these relationships was undertaken by the ABS in conjunction with the Australian and State and Territory Education departments to assist with the *National Aboriginal and Torres Strait Islander Education Strategy 2015*. The analysis identified potential areas for intervention to minimise the developmental vulnerabilities of Aboriginal and Torres Strait Islander children in their transition from early childhood education to school.

- ii. De-identified microdata files of child unit records from three years of Preschool Education, Australia (2013 – 2015) based on the NECECC are now available through the ABS DataLab<sup>2</sup>. ABS has invested heavily and worked closely with Australian, State and Territory Education departments to address real and perceived limitations to enable safe access to these unit record data files in a way that is compliant with the *Census and Statistics Act 1905*, the *Privacy Act 1998* and *Financial Assistance Administration Act 1999* (regarding discussion on pages 135 and 136 of the Draft Report). This has significantly improved accessibility to this rich source of information about children in early childhood education (preschool) programs. These files are de-identified and made available based on the principles of the 5 Safes Model referred to in the Draft Report (p153, Box 6.4). Access to the microdata from the NECECC enables researchers to perform detailed analysis and modelling using unit record data, and complements the ability for researchers to access and prepare tailored detailed aggregate data through the associated TableBuilder files for this collection. Both the secure DataLab and TableBuilder products provide access to data for subpopulations such as 3 year old children in early childhood education.
- These datasets join the Vocational Education and Training, 2006 and 2011 Australian Census of Population and Housing integrated dataset which was released into the ABS DataLab on 2 November 2015<sup>3</sup>. Analysis of this dataset has already been undertaken and new education stakeholders are requesting access for additional research projects.

<sup>&</sup>lt;sup>1</sup> See Australian Bureau of Statistics, 2016, Responsible Use of ABS Microdata, User Guide, cat. no. 1406.0.55.003, ABS, Canberra

http://www.abs.gov.au/ausstats/abs@.nsf/mf/1406.0.55.003

<sup>&</sup>lt;sup>2</sup> See Australian Bureau of Statistics, 2016, Microdata: Preschool Education, Australia, 2015, cat. no. 4240.0.55.003, ABS, Canberra, <a href="http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4240.0.55.003Main+Features12015">http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4240.0.55.003Main+Features12015</a>

<sup>&</sup>lt;sup>3</sup> See Australian Bureau of Statistics, 2015, Microdata: Outcomes from Vocational Education and Training in Schools, Australia, 2006-2011, cat. no. 4260.0.55.001, ABS Canberra, <a href="http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4260.0.55.001Main+Features12006-2011">http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4260.0.55.001</a>

- The ABS is also involved in preliminary discussions with the Tasmanian and Queensland
  Departments of Education regarding the possibility of releasing into the ABS DataLab the deidentified unit record data created as part of the earlier data integration activities<sup>4</sup>.
- v. Many Australian, state and territory departments of education have already undertaken ABS DataLab training and are now using the data accessible in the ABS DataLab remotely from their premises.

More broadly the ABS has taken the lead in integrating a range of significant national datasets relating to health, the Australian Census of Population and Housing, social security and business for statistical and official research. Further information about these projects is outlined in the ABS' submission to the Productivity Commission Inquiry on Data Availability and Use. Recommendations for streamlined approval processes (Section 5.3) are strongly supported by the ABS, as stated in our submission to the issues paper. The high cooperation and support from the Australian Government Department of Education and Training and the State and Territory Education departments throughout the various data integration projects that have already occurred has been invaluable in enabling timely deliverables.

Further, the ABS has gained valuable insights and tangible experience from the Australian Longitudinal Learning Database (ALLD) proposal and Transforming Education and Training Information in Australia (TETIA)<sup>5</sup> pathway projects and is applying these to the most recent education data integration project and associated activities.

In reference to linkage to de-identified Population Census data on page 134, the ABS would like to note that for most statistical purposes, valid inferences can be drawn from linked datasets created with imperfect linkage rates by use of statistical techniques such as weighting/calibration.

## Suggested additional references

The ABS suggests the following specific amendments additions to the draft:

• Adding the *Childhood Education and Care Survey* and the *Survey of Education and Work* to Table 6.1 'Australia's education data custodians' on page 151, and amending the name of the 'Population Census' to the *Australian Census of Population and Housing*.

http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4261.6?OpenDocument and Australian Bureau of Statistics (ABS), 2014, *Educational outcomes, experimental estimates, Queensland, 2011*, cat. no. 4261.3, ABS, Canberra,

http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4261.3?OpenDocument

<sup>&</sup>lt;sup>4</sup> See Australian Bureau of Statistics (ABS), 2014, *Educational outcomes, experimental estimates, Tasmania, 2006-2013*, cat. no. 4261.6, ABS, Canberra,

<sup>&</sup>lt;sup>5</sup> The Transforming Education and Training Information in Australia (TETIA) initiative included the development of a multi-year work program, improvement to the quality and coherence of information across sectors, and capability building in data linkage involving education data. The initiative was developed on behalf of the Strategic Cross-sectoral Data Committee (SCDC) for Early Childhood, Education and Training, through extensive consultation with education and training stakeholders and endorsed by Ministers of the Standing Council on School Education and Early Childhood (SCSEEC) and Standing Council on Tertiary Education, Skills and Employment (SCOTESE) in 2013.

- Amend the content of the *Childhood Education and Care Survey* row in Table C. 2 on page 218, 2<sup>nd</sup> dot point to include reference to informal care, viz, Usual care arrangements (types of care <u>– including informal care</u>, duration and cost).
- Adding Australian Census of Population and Housing, and the National Regional Profile cat. no. 1379.0.55.001, 2010-14 to Table C. 11 in Appendix B as they hold community and child level data.
- Adding the following to the reference list on page 235:

Australian Bureau of Statistics (ABS), 2014, *Outcomes from Vocational Education and Training in Schools, experimental estimates, Australia, 2006 - 2011*, cat. no. 4260.0, ABS, Canberra, <a href="http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4260.0?OpenDocument">http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4260.0?OpenDocument</a>

Australian Bureau of Statistics (ABS), 2014, *Research Paper: Assessing the Effect of Geographic Information on Data Linkage Quality Using Vocational Education and Training in Schools Data, 2014,* cat. no. 4269.0.55.001, ABS,

Canberra, <a href="http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4269.0.55.001?OpenDo">http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4269.0.55.001?OpenDo</a> cument

Australian Bureau of Statistics (ABS), 2014, Educational outcomes, experimental estimates, Queensland, 2011, cat. no. 4261.3, ABS,

Canberra, <a href="http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4261.3?OpenDocument">http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4261.3?OpenDocument</a>

Australian Bureau of Statistics (ABS), 2016, *Microdata: Education and Work, May 2015,* cat. no. 6227.0.30.001, ABS,

Canberra, http://www.abs.gov.au/ausstats%5Cabs@.nsf/0/4985F229045DE899CA256ECF0001B891 ?Opendocument

Australian Bureau of Statistics (ABS), 2016, *Microdata: Preschool Education, Australia, 2015,* cat. no. 4240.0.55.003, ABS,

Canberra, <a href="http://www.abs.gov.au/ausstats%5Cabs@.nsf/0/D1A57857AF1EB6A3CA257CC90014404F">http://www.abs.gov.au/ausstats%5Cabs@.nsf/0/D1A57857AF1EB6A3CA257CC90014404F</a> ?Opendocument

Australian Bureau of Statistics (ABS), 2016, *Responsible Use of ABS Microdata, User Guide,* cat. no. 1406.0.55.003, ABS, Canberra http://www.abs.gov.au/ausstats/abs@.nsf/mf/1406.0.55.003

Australian Bureau of Statistics (ABS), 2015, *Microdata: Outcomes from Vocational Education and Training in Schools, Australia, 2006-2011*, cat. no. 4260.0.55.001, ABS, Canberra, <u>http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4260.0.55.001Explanatory%20Notes 302006-2011?OpenDocument</u>

Australian Bureau of Statistics (ABS), 2015, *Microdata: Childhood Education and Care, Australia, June 2014*, cat. no. 4402.0.55.001, ABS,

Canberra, <u>http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4402.0.55.001?OpenDo</u> <u>cument</u> Education and Training Statistics Section Australian Bureau of Statistics