



A collaboration between



Government of South Australia
Department for Education and
Child Development



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Dear Commissioners,

The Fraser Mustard Centre would like to thank the Productivity Commission for the opportunity to respond to the National Education Evidence Base Issues Paper. In the following letter we respond to sections 4 and 5 of the paper.

About Us

The Fraser Mustard Centre is a collaboration between the South Australian Department for Education and Child Development (DECD) and the Telethon Kids Institute, and is named in honour of the late Canadian researcher and former Adelaide Thinker in Residence Dr Fraser Mustard. Dr Mustard (1927-2011) was a world leader in early childhood development and the social and economic influences on human development and health. His diverse career spanned health sciences, research and the public sector and he was the man behind Canada's Institute for Advanced Research and a Canadian Medical Hall of Fame inductee.

The Fraser Mustard Centre collaboration aims to:

- Improve and promote the health and wellbeing of all children and young people in South Australia through the unique application of multidisciplinary research.
- Help shift focus from the historical delineation between health and education services to an integrated approach with a focus on child development.
- Build capacity amongst public sector staff and academic researchers to design, undertake and use research to improve the environments in which children live and the service systems which support families.
- Attract funding for shared priorities for research that leads to improved developmental, education, health and wellbeing outcomes for children.

Introduction

The position we present echoes those outlined in the Productivity Commission's issues paper, namely that the current use and dissemination of education data is currently fragmented with multiple issues concerning capture, ownership and inequitable access.

Commonwealth and State governments have made 'open data declarations' committing government agencies to make available data that can contribute to the advancement of an education evidence base. Such an evidence base is needed to enable informed policy making and service provision. We make our recommendations based on our experience in working with data custodians around the country, government departments, and policy makers.

Presently, mechanisms to support the secure, timely, and cost effective sharing of data are lacking. In our response we outline the policy, infrastructure and capability advances that we believe are required to enable government departments to release data for the public good. The absence of systemic supports along with a lack of understanding about the benefits of sharing data, and a risk-averse culture of data protection means that those requesting data must demonstrate why it should be released. The present system creates long delays before data can be released; with the default position of departments being a 'no' to data requests. We propose that the default answer to requests for administrative data be a 'yes', with the responsibility falling on departments to demonstrate why data should not be released. We explain this position further in our response.

Importantly, the current system contributes to a continued dearth of evidence about what makes a difference to children's educational, health, and wellbeing outcomes or poor policy driven by popular opinion rather than evidence.

Institutions data governance and prioritising reform

Governance

Whilst there are currently rules and frameworks in place to support data release and sharing, too often these provide few incentives to individual decision makers to decide in favour of releasing data or to direct the resources required to deliver data quickly. Researchers requesting data rely on the judgement of individuals rather than on nationally held standards for data release.

Refusal to release data can take the form of outright denial of access or, more often, intractable delays in approval or release. This concerns researchers who have expressed fears that increased regulation and defensive decision-making is hampering valuable research (Allen, Holman et al. 2013). Additionally, the current system creates biases where data is more freely shared with some institutions rather than others based on historical relationships. Moreover, it makes utilising data for research expensive and impractical for many researchers and research institutions (Allen, Holman et al. 2013).

When political will at a senior executive level is favourable a cultural shift can occur that enables data to be shared, however; data release and sharing practices should be standardised and guided by nationally accepted standards to ensure equity in access for institutions. Accordingly we suggest:

- Introduction of clearly stated government policies which place onus on departments to release data, research reports or evaluation reports unless an exemption from this rule can be justified. This change would provide public servants at an officer level with a clear mandate to release data. A decision to withhold the release of data must be justified and documented. This policy would introduce a level of transparency to this process.
- In implementing such a policy, there would need to be a stated timeframe for (a) advising applicants of the decision and (b) advising of the time required to supply the data. This timeframe would need to be determined in consultation with the potential users of information supplied (both within and outside of government). However, agencies would need to reallocate resources to ensure that requests can be decided upon and delivered within a period of time that is reasonable. Typically, what is 'reasonable' will depend on who the audience for the final product may be (e.g., data supplied within government will typically be required within a shorter space of time than university-based research). The timeframes and evaluation of the efficiency of data release policies should therefore be made with reference to the users of the data and the public benefits to be derived from this use.
- A distinction needs to be made between the use of identified data for operational purposes and de-identified data. The latter can be shared for research purposes under conditions which often result in a very low risk of re-identification and breach of privacy.
- Nongovernment school systems which receive public funding should be held to the same standards as the government schooling system in relation to data collection and release. Conditions attached to the provision of funding to nongovernment schools should stipulate the requirement to make data available for research, evaluation and statistical analysis. Centralised management of nongovernment school data would be a necessary feature of

this arrangement in order to achieve the economies of scale for the consideration of requests to use data and the preparation of data extracts.

Technology

Data Linkage

The South Australian Department for Education and Child Development has been a funder, governance partner and data provider for data linkage projects through SA NT DataLink since its establishment in 2009. This provides a low-cost means of tracking the later consequences of program participation and thus facilitating quantitative evaluations at scale. DECD has invested significant resources in establishing an enduring 'researchable linked dataset' which would provide linked data to policy makers, program managers and university-based researchers regarding children and young people in South Australia.

The Fraser Mustard Centre has also been involved in a national data linkage project initiated in 2013 aiming to link the perinatal data of children born in 2006/2007 to their 2009 AEDC data and year 3 NAPLAN results across all states and territories in Australia utilising the NCRIS funded data linkage infrastructure. To date this has required 18 ethics applications and approvals from over 25 custodians of data, and despite positive support from all education based custodians involved, we are yet to receive linked data from any state or territory. By the time any linked data is received, the data will have been superseded by both the 2012 and 2015 AEDC cohorts of children. We provide this as an example to highlight the complexity and the protracted and overly bureaucratic processes required for such national projects, particularly those involving commonwealth and jurisdictional data across the health and education sectors.

A major source of delays and duplicated effort in data linkage projects is the complex set of tasks relating to the initial approval processes and then the creation of de-identified, but linkable, datasets. This has led to DECD seeking to establish an enduring linked dataset for several cohorts of children and young people in South Australia (rather than individual project by project). As such, we recommend:

- Commonwealth and state agencies should complete the building of data linkage facilities across Australia and ensure timely and affordable linkage of data.
- There is a need to complete the creation of linkage files in all jurisdictions which would see education data linked to a range of other datasets, embed the updating of the linkages into the normal operations of education authorities, work with nongovernment sectors to see their data added to this growing evidence base and ensure that linked data can be extracted and delivered in an efficient way which meets the needs of researchers, policy makers and program managers.
- To achieve this will require the medium to longer term funding for data linkage units to be determined. It would also be significantly assisted through a coordinated approach to the management of data repositories.
- The funding for the establishment phase of data linkage has been provided through infrastructure grants (e.g., NCRIS), funding from state government agencies and, to a much lesser degree, fees from data linkage projects. Core-funding from government would be a means of ensuring that projects proceed even if separate funding had not been sourced, thus maximising the use of data and yielding the greatest possible return on the investment in the transfer and processing of data.
- There is a need for investment in data safe houses/data banks to enable efficient data sharing. The establishment of government data repositories, for the entire population aged from birth to 25 years, would facilitate data sharing, reduce duplication of effort, and promote efficiencies in data collection and management, not to mention address the inequity in access to data that currently exists. This would see data which had been already merged and checked for quality available for use, subject to approval of the release of those specific records required for a given research or statistical project.
- Data can only be used effectively if accurate meta-data is accessible for both current and historical data collections. This could be advanced through a commitment from education authorities to agree to an annual program of documenting core data holdings and keeping this documentation up to date.

Education Research Evidence

Research and evaluation capacity

In the education system there is a lack of research capacity to conduct high quality rigorous research that can help inform policy making. Much of the research is qualitative in nature and does not routinely determine student level impact or outcomes. In part, this is due to a lack of understanding and training in the education system about research methods and misdirected concerns and nervousness associated with randomised trials.

Additionally, unlike in the health sector where there is the National Health and Medical Research Council, there is no contestable research fund for basic or applied research in the education sector. Of all public investment in Research and Development, only 0.57% is made in the education sector. This is less than 1/25th the amount of funding directed to the medical and health sector.¹ This disconnect is not in keeping with the total investment in education made by government and the impact of education on the national economy. We recommend:

- Instituting new University programs involving the combined skills of research methods, impact evaluation and education.
- Building a high quality evidence base using trials and rigorous program evaluation. This could be progressed through the implementation of a contestable, peer reviewed research funding scheme, funded through a Commonwealth appropriation in a similar way as to how the National Health and Medical Research Council (NHMRC) operates in the health sector. For example, the NHMRC's budget was \$796,265 million in 2015-16² and \$771.2 million in 2013-14. No similar mechanism supporting high quality contestable research or public investment exists in the education sector.
- Such research should capitalise on important national data collections such as the AEDC and NAPLAN, linked with state based data collections, such as attendance, running records and the Middle Development Index to investigate the developmental and educational trajectories of children taking a lifecourse approach. Taking a longitudinal lifecourse approach, building on cross sectional data collections through data linkage systems can provide a powerful resource for the evaluation of the education system in Australia.
- With a subsequent increase in the capacity to conduct high quality research, there should be an introduction of evidence quality standards that are applied to programs run in education departments. Requirements should stipulate a minimum level of evidence for any new initiatives and funding should be made available to trial the effectiveness of any new large initiatives before these are taken to scale. Contestable, peer reviewed research funding appropriation would improve the quality of education research to facilitate sound policy decision-making.
- Education authorities should discuss and adopt a joint position concerning the development of research capacity, especially quantitative research focused on program design, delivery and impact.
- Any funding increase to educational research must be accompanied by conditions regarding the independent assessment of the merits of research, transparency as to what is funded and delivered and the open publication of findings.
- Governments should discuss the establishment of a contestable grant funding scheme whereby education authorities could apply for funding to implement controlled trials of programs and policies. This could be separated from the horizontal fiscal equalisation process and thereby provide an incentive for state governments to implement trials in their jurisdiction. A condition of the provision of these funds would be the sharing of data and evaluation findings with all other education systems thereby guiding program continuation and redirection of resources at a national level.
- Economic modelling approaches are another key area of evidence which could be progressed in the future. A paper prepared by South Australia in September 2013 for the national Early Childhood Development Data Sub-Group, "Economic Modelling of Early Childhood Interventions: Making better decisions about investments and reforms in child development" found that there is limited evidence available about the Australian context which brings together data on the resource inputs

¹ Australian Bureau of Statistics. 81090DO002_201213 Research and Experimental Development, Government and Private Non-Profit Organisations, Australia, 2012-13.

² Budget Paper Number 4, Part 1: Agency Financial Resourcing. Estimated actual 2015-16, Receipts (Appropriated).

for programs, the rates of uptake and completion of programs for different types of families or children and the causal impacts of the programs estimated from randomised or quasi-randomised trials.

We would be more than happy to expand on any of the comments and suggestions we have made, and to supply further details on any of the examples we have provided in our submission. We also extend an open invitation for the Commission to visit the Fraser Mustard Centre and to see our internationally unique model of partnership in operation.

Yours sincerely

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