**EVALUATION OF FEDERAL SCHOOL GRANT IMPACTS :- AN INNOVATIVE AGENDA UTILISING ROBUST EFFICIENCY, EFFECTIVENESS, ECONOMY AND EQUITY LOGIC MODEL FRAMEWORKS TO EVALUATE THE IMPACT OF FEDERAL GOVERNMENT SCHOOL PROGRAM GRANT FUNDING, USING FIT FOR PURPOSE PERFORMANCE MEASUREMENT AND GOVERNANCE ANALYTICS, OCTOBER 2022**

**TOWARD RENEWAL OF AUSTRALIAN FEDERAL STATE GRANT IMPACT MONITORING ANALYSES**

**Submission to the PC REVIEW OF THE NATIONAL SCHOOL REFORM AGREEMENT-INTERIM REPORT**

**VINCENT BLACKBURN, DIRECTOR, SCHOOL EFFICIENCY METRICS AUSTRALASIA, SEMETRICA HUB**

**Introduction**

A critical Australian National Audit Office (ANAO) Performance Audit Report of 6 December 2017 **“Monitoring the Impact of Australian Government School Funding”**, focused on the inadequate role of the Commonwealth Department of Education (CDET), now CESE, since 2013 in monitoring the impact of Federal School funding to Non - Government schools **(1)**. The **Joint Committee of Public Accounts** **and Audit Report, (JCPAA)** in February 2019 reinforced these criticisms of CDET **(2)**. In the absence of any improved Commonwealth Program Grant Impact modelling, **SEMETRICA** supports the creation of a robust, adjunct Commonwealth Treasury **'Evaluator General's Office',** initially proposed by Dr Andrew Leigh, **(16).** Both Nicholas Gruen **(19)** and Andrew Podger, **(18)**, also support the need for a detailed evaluation and monitoring of all Commonwealth grant impacts. Such Grant impact studies could use **SEMETRICA'S** proven **Data Envelopment Analysis, DEA** and **Stochastic Frontier SFA** methodologies in any future evaluations of diverse Federal Government Grant programs. **SEMETRICA** has previously completed several collaborative Grant Impact Evaluation studies focused on measuring the **Efficiency, Effectiveness, Economy and Equity (4E) dimensions,** of Commonwealth Grant Impact Governance, in **(3),(4), (5)**,**(6),(7),(8), (9), (10),(11), (12), (14), and (15).**

These innovative **4E** Grant Impact Evaluation studies measured both School Technical and Allocative Efficiency as well as Malmquist Productivity metrics covering all 2,240 Government schools in NSW. Such robust **DEA** modelling analytics which utilised detailed SAS Machine Codes, are contained in the collaborative book **“Nonparametric Estimation of Educational Production and Costs using DEA”,** **SPRINGER, Operations** **Research and Management Sciences Series, 2014, NEW YORK, (8).** Amorerecent updated Network School Efficiency modelling approach is outlined in the article, **"A Two Stage Cost and Learning Efficiency** **Driver 'Network' DEA Model of Australian Schools”,** **Applied Economics, 2016**, **(10)**. These latter Australian School 4E modelling studies utilised the innovative **NETWORK** **DATA ENVELOPMENT ANALYSIS-NDEA** methodologies drawn from the International Public Sector Budgetary Efficiency, Effectiveness, Productivity Monitoring and Evaluation literatures.

The proposed Evaluator General's Office could also be co-located within the existing ANAO portfolio to focus its Program Finance Policy Impact, Monitoring and Evaluation investigations to better inform robust future Parliamentary Committee Program Management debates. It would thus encourage a continuous evaluation cycle to measure the efficiency and effectiveness of existing or newly legislated Government Program Funding. The usefulness of these detailed evaluation analytics could also foster needed changes in Federal Grant Guidelines, thereby upgrading the Annual ANAO Program Evaluation cycle, by mandating robust fit for purpose 4E Metrics Applications. Such robust and persuasive 4E internationally recognised research methods could also underpin Public Sector Budgetary Governance reforms across each of the eight Australian State and Territory Governments .

This focus could be expanded to include reporting upgrades in recipient State and Local Government Grant Impact Evaluation activities across the eight centralised State and Territory Treasuries and Government Policy and Program Departments. Such robust grant oversight activities would enhance the ANAO and JCPAA's recent critical focus on the lack of Federal Grant evaluations, including the Non-Government School Grant Monitoring activities by CDET, (now CESE). These Improved Grant Evaluation Impact studies could utilise and expand the robust methodologies contained in **(3-15).**

**ANAO criticisms of the Commonwealth Education Department School Grant Monitoring activities**

In 2014/15, 72 per cent ($38.1 billion) of total recurrent public funding for schools ($53 billion) was provided by State and Territory Governments. The Australian Government provided $14.9 billion over the same period. The majority of State and Territory Government sourced funding (91 percent) was provided to government schools. Conversely, the majority of Australian Government funding (64 percent) was provided to non-government schools, ANAO Report, **(1)**, p7.

**The main ANAO conclusions**

This recent ANAO Report provides a timely ‘stocktaking’ review of the existing deficient approaches by the then Commonwealth Department of Education and Training, CDET, now CESE, to monitoring the impact of Australian Government School funding arrangements, in accordance with the ***Australian Education Act 2013***. The full ANAO Report is in reference **(1).** A summary of the main ANAO conclusions are :-

*“(1) The arrangements do not provide a sufficient level of assurance that funding has been used in accordance with the legislative framework, in particular the requirement for funding to be distributed on the basis of need.*

*(2) Further the department has not used available data to effectively monitor the impact of school funding and to provide greater transparency and accountability.*

*(3) As such the department is not well placed to determine whether the current policy settings are effective in supporting the achievement of educational outcomes.*

*(4) The department is yet to establish sufficiently robust arrangements to ensure system authorities have in place, and make publicly available, compliant needs based funding arrangements.*

*(5) There are also weaknesses in the arrangements established by the department to collect and validate the information provided by approved authorities to account for funding.*

*(6) These weaknesses have reduced the level of assurance the department has that funding is allocated in accordance with the needs-based principles established under the legislative framework.*

*(7) The Department has not effectively monitored the requirement for system authorities to have in place needs-based funding arrangements and, therefore, is not well positioned to determine whether the basis on which authorities are distributing Australian Government funding is in accordance with legislative requirements.*

*(8) Further, in the interest of reducing the regulatory burden on the sector, the department has not monitored whether approved system authorities’ funding models are publicly available and fully transparent as required.*

*(9) Such weaknesses in the current monitoring arrangements have undermined the department’s ability to appropriately verify reported schools’ data in order to assess progress against established policy objectives and to support accountability, transparency and analysis. This adversely impacts the level of assurance that the department has in relation to the use of Australian Government funding to progress agreed education policy objectives.*

*(10) Overall the arrangements established by the department have not delivered the level of transparency and accountability envisaged under the Act and the department has not fully utilised available data to inform the development of current and future education policy”.*

The ANAO concluded that any Commonwealth Grant Evaluation review enhancements should forensically upgrade the, *“Monitoring of the implementation of - and progress against- policy objectives”, (11). In this context “The department has not established robust arrangements to monitor the implementation plans that are required to be developed, published and maintained by authorities participating in the National Education Reform Agreement (NERA), or used the plans to measure progress against reform directions”( 11).*

Further, the department, (12), *“Has not conducted bilateral discussions, prepared annual progress reports or conducted a comprehensive review, as required under relevant bilateral agreements. As a consequence, the department is not well placed to determine the extent to which reform directions established under the NERA have been progressed by authorities. The department has made limited use of the available data to build its understanding of the impact of funding on school educational outcomes.”* SEMETRICA’s bold and practical evaluation study upgrades already completed would rectify such shortcomings, as outlined below.

An apparently belated sign of grudging attempts at renewal by CESE to the ANAO acknowledged that, (17*), “The department is, however, working to build its data and evidence capability, including through the establishment of a branch tasked with helping the department* ***to better manage its data assets.”***

**The Context for future Reform in Evaluating Commonwealth Grants to State / Local Governments**

As indicated any future reform of current Australian Government Grant accountability methods should focus on a more robust evaluation of the efficacy of the full range of Commonwealth funding levels, using clearly defined Efficiency, Effectiveness, Economy and Equity Dimensions. Such 4E determinants of Good Funding Governance would promote more effective Monitoring and Evaluation outcomes. The approaches outlined by SEMETRICA in **(3-12 and 14)**, indicate the steps needed in this urgent task of Policy Impact Measurement renewal. The recently enacted school grant increases by both the Commonwealth and State authorities for both Government and Non-Government sector schools from 2020-2026, requires more robust and ongoing School Grant Monitoring and Evaluation studies.

No comprehensive and rigorous CESE evaluation reports exist of the 4E “impact” of past school funding by both Commonwealth and State Governments from 2011-2022. This inadequate situation has been clearly identified in both the ANAO and JCPAA reports. School Funding Metrics should incorporate Evaluation studies which focus on determining the impact of existing and future Grant Funding levels. Robust **SFA/DEA** 4E Efficiency, Effectiveness, Economy and Equity Logic Model Frameworks, would enhance all Federal-State School Grant Governance and Performance outcomes.

Current Governmental 4E Audit standards for evaluating the spending of **all** Federal grants by both State and Commonwealth agencies are either unknown or being ignored. ***Such shortcomings could be eliminated by legislating a Treasury based 'EVALUATOR GENERALS OFFICE' to monitor all Commonwealth Grant Impacts****.* This move to seek a robust Commonwealth/State Agreement to Monitor and Report such an agreed 'Joint Reform Agenda' has also been proposed by the Australian Productivity Commission on a biennial basis, to be included in its **'5 Yearly Productivity Reviews'**.

**Potential new directions in Government School Grant Evaluations and Governance**

The need currently exists for such an Evaluator Generals' Office and also an Australian Productivity Commission Grant Impact Governance Unit to initiate rigorous 4E School and Health Governance Monitoring and Evaluation reporting studies. Such upgrades are clearly needed to improve the current deficient monitoring work undertaken by CDET, now CESE, as documented in the ANAO School Sector Funding Monitoring report of 6 December 2017, and subsequent JCPAA critical reports.

This ANAO report was buried in the rush to Christmas 2017, but now needs to be revisited in assessing any upgrades in CESE school grant monitoring procedures. Such concise, upgraded School Grant Monitoring and Evaluation reports need to be developed to determine the impact and efficacy of past Commonwealth school grants. Such renewal will meet the future needs for detailed, meaningful and robust Commonwealth legislated monitoring and evaluation reporting studies.

The response of the Australian Government to belatedly set up the National School Resourcing Board, (NSRB) in 2017 to provide greater independent research into the determination of Commonwealth recurrent school funding, however, is welcome. However further detailed Network DEA grant modelling work is urgently needed to ensure greater compliance with Legislated funding accountability standards for all Australian Government and Non-Government grants to schools

Such capabilities were originally intended in the recommendations of the 2011 ‘Gonski 1’ *Review of Funding for* *Schooling*. Also the report of the “*Review to Achieve Educational* *Excellence in Australian Schools*”, the “Gonski 2.0 Report,” emphasised the need to better evaluate the distribution of non-government grant funding in parallel with their revised needs-based school funding model." The New Zealand Productivity Commission recently advocated similar school grant impact studies **(15)**.

**Upgrading Federal School & Health Grant Evaluations by State Education and Health Departments.**

Robust Federal Grant Monitoring and Evaluation frameworks are clearly required in assessing the 4E impacts of Commonwealth Grants allocated to State and Territory Education and Health Departments. Parallel well-specified Government school Network DEA models could also inform innovative future Governance, Monitoring and robust Evaluation assessment upgrades in each State and Territory. Such work could also be informed by a well-crafted policy relevant contribution to this extensive debate on School Grant Governance by Professor Maddock, **(13)**.

This recent article by Professor Maddock, **“Why State Education Departments should be broken up”**, describes their current shambolic decision making environments as “All State Government Education Departments across Australia make policy, allocate funds, build schools, operate the largest players in the field, (public schools), and act as regulators as well”. “This bundle involves multiple conflicts of interest because the Departments operate the Public Education system but also regulate the Public, the Catholic and the Independent School systems**,”(page 2 of** **(13)**

Similar clear directions for change in all Australian State Government school agencies are also contained in the“Competition Policy Review” headed by Professor Ian Harper, who indicated that “Governments should retain a stewardship function separating the interests of policy (including funding), regulation and service delivery,” (**p 2 of** **(13**).

Professor Maddock also draws the following conclusions from this Review as “the implication is that State and Territory Education Departments need to be **BROKEN UP.** Responsibility for the operation of public schools needs to be separated from the policy making and regulatory functions and put into a separate authority, thereby ensuring robust evaluation studies".

“Having a single entity responsible for the delivery of public school education would also open up the way for other avenues of review, with the Auditor Generals (both Commonwealth and all State and Territory Audit Offices), being able to assess the value being delivered by benchmarking each State system against the others and also the non-government school systems, using ACARA Data”.

Another positive proposal that Professor Maddock identified was “the creation of an Office of the Education Ombudsman for all school systems, thereby increasing transparency and accountability. Also in their role as stewards, policy makers could be assessed with PISA, NAPLAN and other school level finance and staffing data for the overall performance of the system without distractions from operational considerations”. These are tasks for an adjunct **Treasury 'Evaluator General's Office'.**

Professor Maddock also makes reference to a follow up **Australian Productivity Commission** Review into the **“Delivery of Human Services”** which focused on Education and Health functions that reinforced the messages from the prior Professor Harper **PC ‘Competition Policy Review’**. “Such deliberations should result in Australia having a sensible Governance model for its School Education and Health funding systems”, Professor Maddock concluded.

SEMETRICA also acknowledges a recent innovative Commonwealth Budgetary oversight proposal by Professor Andrew Podger. This involved the '**Re-establishment of the previous COAG Reform Council as a** **Statutory Authority'**, with Legislative Authority powers, (a) to "Monitor improvement in the delivery of those Public Services where responses are shared, and, or (b) where cooperation can enhance the Efficiency and Effectiveness of Public Services and the Public Sector as a whole", **(18).**

**CONCLUSION**

**SEMETRICA** supports the creation of both a Treasury **Evaluator General's Office** and an **expanded role for Australian and State Productivity** **Commissions',** focused initially on robust School, and Health Program Grant Impact Evaluations. This could indicate that an upgraded Commonwealth Grant Performance Measurement, Benchmarking, Evaluation and Governance system would be 'within our grasp’. Such reforms would enable more detailed 'Good Public Governance' protocols to underpin Australian Government School, Health and other Grant Funding Impact Evaluation studies.

To embed such a robust system of Government Program Evaluation there is also a clear rationale for developing a once in a generation creation of a **Treasury Evaluator General’s Office, as well as an extension of the network of Australian** **and** **State** **Productivity Commissions'** **Public Sector Budget** **Evaluation roles**. Such changes would promote Efficiency and Productivity protocols to evaluate the sustainability and effectiveness of existing Australian School Education, Health and Transport Grants.

Similar Evaluation Performance reporting analytics could also upgrade the assessment of the 4E’s of Housing and Justice functional budgets. For example to accelerate such policy research efforts, a new "Good Governance" Program of Commonwealth and State Efficiency Metrics modelling could adapt and enhance the successful 4E Research Agenda pioneered by SEMETRICA in Australia. SEMETRICA's detailed ‘Logic Model’ Framework was first presented to the Australian Productivity Commission’s, **PC**, **2016 Inquiry** **“The Australian Education Evidence Base”,** **(14).**

An updated version of such methodologies was also presented to the **New Zealand Productivity** **Commission’s 2018 Inquiry into** **“Measuring and Improving State Sector Productivity”(15).** SEMETRICA also provided its 7 published School Efficiency Journal Articles and Springer book to the **Brookings Institute** to assist their recent review of US School level Efficiency Modelling, **(20).**

**Vincent Charles Blackburn, Director, SEMETRICA, SCHOOL EFFICIENCY METRICS AUSTRALASIA,**

**Bachelor of Economics, and Master of Political Economy, University of Queensland Economics Department, and Master of Administrative Studies, Australian National University Economics Department. Additional details are available by contacting,**

**REFERENCES**

**1.** The Auditor General, ANAO Report No. 18, ' Monitoring The Impact of Australian Government School Funding', Commonwealth Department of Education and Training, CDET, now CESE, December 6, 2017 , the **Australian National Audit Office, ANAO, Canberra.**

**2**.The Joint Committee of Public Accounts and Audit (JCPAA), Report 476, Findings on National Audit Office Report, ANAO, No.18 2017-1DET, "Monitoring The Impact of Australian Government School Funding," **JCPAA,** **AUSTRALIAN PARLIAMENT**, **February,2019, Canberra**.

**3**. V.C. Blackburn, “An Econometric Analysis of School Finance in Australia with special emphasis on measuring the impact of Commonwealth School Grants on Government School Budgets in the six Australian States from 1973/74 to 1982/83,” **The 1983 Annual Conference** **of the Australian Association for Research in Education, AARE, Australian National University, Canberra, November 23-27, 1983.**

**4.** V.C Blackburn, R. Gerlach and V. Sarafidis, " Dynamic Budgetary Adjustments in the Australian State Government Finance Sector: A VECM Econometric Approach, **Journal of Economics and Management, Vol.3, No. 2., 2007, 125-159.**

**5.** V.C. Blackburn, "Proposed Efficiency Benchmarking Agenda For New South Wales Government Schools**,' New DEC Departmental Directions', Seminar Presentation, July 2013.**

**6.** K. Chakraborty and V.C. Blackburn, "Efficiency and Equity in Funding for Government Schools in New South Wales, **Australian Economic Papers, Vol.52, No.3-4, 2013, pp., 127-142**.

**7.** V.C Blackburn, S. Brennan and J. Ruggiero, " Measuring Efficiency in Australian Schools: A Preliminary Analysis", **Socio** **Economic Planning Sciences, Vol. 48. No. 1, 2014, pp 4-9.**

**8**. V.C Blackburn, S. Brennan, and J. Ruggiero, “Non-Parametric Estimation of School Education Production and Costs Using Data Envelopment Analysis-DEA”, **Springer International Text Book Series in Operations Research and Management Sciences, New York, 2015.**

**9.** G. Pugh and V.C. Blackburn, "School Expenditure and School Performance: Evidence from New South Wales Schools Using a Dynamic Panel Analysis", **British Education Research Journal,** **April, 2015**.

**10.** P. Wanke and V.C. Blackburn, “Cost and Learning Efficiency Drivers in Australian Schools: A Two Stage Network DEA Approach,” **Applied Economics, February, 2016**.

**11.** A. Haug, and V.C. Blackburn, “Government Secondary School Finances in New South Wales Schools: Accounting for Student’s Prior Achievements in a Two Stage Data Envelopment Analysis at the School Level,” **Journal of Productivity Analysis, April, 2017.**

**12**. D. Dancer and V.C Blackburn, " What are the Effective Public Schools?. Insights from New South Wales' Secondary Schools using a Stochastic Frontier Analysis, SFA, with a Panel Data Set", **Australian Journal of Education, Vol 61, No. 2, 2018.**

**13**. R. Maddock and L. Campbell, “Why School Education Departments Should Be Broken Up,” **The Conversation, 1 June 2016**.

**14**. V C Blackburn, “SEMETRICA’s Logic Model of School Performance Measurement” submissions to the **Australian Productivity Commission’s inquiry into ‘The Education Evidence Base', 2016.**

**15,** V C Blackburn, 'SEMETRICA's submission to the **New Zealand Productivity Commission Inquiry ‘Measuring** **State Sector Productivity’ 2018.**

**16**. Andrew Leigh, MHR, **'Labor's Proposal to establish an 'Evaluation General's Office' in Commonwealth Treasury', 2019.**

**17.** The Auditor General's Report No. 37 of 2020-21, **"Monitoring the Impact of Government School Funding- Follow -Up", Commonwealth Parliamentary Tabling, Wednesday 12 May, 2021.**

**18.** Andrew Podger AO, **SUBMISSION TO SENATE FINANCE AND PUBLIC ADMINISTRATION LEGISLATION COMMITTEE : COAG LEGISLATION AMENDMENT BILL 2021, [Provisions] Submission 2, Canberra, September, 2021.**

**19.** Nicholas Gruen, **"Why Australia needs an Evaluator General",** **THE MANDARIN, Parts 1 and 2, 2021.**

**20.** Brookings Institute, Washington, DC, **" Transforming Education Systems- Why, What and How",** **D Sengeh and R Winthrop, 2022.**