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Abstract

This brief is critical of a number of important premises that lie behind the Gonski report on school funding and the proposed reforms based on that report by the Australian government. Specifically, we: see no reason to make performance on international tests an objective of Australian schooling; doubt the wisdom of increasing the role of the Australian government in schooling; argue the impact of additional resources on student achievement is likely to be small; view the resource standards calculated in the Gonski report as unlikely to achieve what they are intended to do; and believe there is really no possibility of constructing any such objective resource standards.

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The Gonski Report offers many valuable insights on Australia's education and puts forward far-reaching recommendations aimed at standardizing the formula that governs public funding of Australia's primary and secondary schools; removing the current division of funding that has the federal government supporting private schools and state governments funding public schools; and implicitly expanding the role of the federal government in Australian schooling.

The report by the committee of review, released in February 2012, was limited by its terms of reference to focus predominantly on funding, but recognised that funding was only one issue affecting student and school performance. It led to the reform agenda outlined by the Australian government in September 2012, in response to the report, which linked additional funding for schools to reforms aimed at raising teacher quality, increasing school-level autonomy and providing parents with better information. While promoting greater school-level autonomy, the Government at the same time claimed a greater role for itself in school education, a direction envisaged in the Gonski report itself.

While the general goals underlying the report, "that Australia must aspire to have a schooling system that is among the best in the world for its quality and equity" are certainly shared by all Australians, the report and the government's reform agenda rest on five faulty premises that undermine their usefulness as a cornerstone of Australian education policy.

1. International test rankings

The first faulty premise is that international tests—notably the OECD-administered Programme for International Student Assessment (PISA)—are a useful and reasonably precise measure of the quality of education in Australia.

PISA simultaneously tests a large sample of fifteen-year olds in reading, scientific and mathematical literacy in each of over sixty countries; and in 2009 Australia slipped to seventh place in reading and scientific literacy and to thirteenth place in mathematical literacy from its better placings in 2000.

The report finds cause for grave concern in this modest decline. It rightly notes that most of the "countries" that outperformed Australia in 2009 are located within the Asia-Pacific region (they include, as separate entities, the city of Shanghai and the territory of Hong Kong, neither of which participated in PISA in 2000), but then ominously repeats the OECD's warning that "advanced economies, like Australia, must not take for granted that they will always have skills and capabilities superior to those in other parts of the world."

This seems to ignore the fact that Australia outperforms the vast majority of countries that are culturally and economically similar to it. Improving its standing in PISA so that it becomes "one of the five leading countries in the PISA rankings", as the Prime Minister announced in September 2012 is probably as relevant a goal for the future of Australia's economy or society as regaining the dominant position it once enjoyed in international tennis.

International tests such as PISA are set by multinational teams of experts to reflect what they believe young people should know to prepare them for the future. It is not intended necessarily to reflect the curriculum taught in schools. Further, with the acceleration of technological change, these future needs are becoming more and more difficult to anticipate. Moreover, the challenges that education systems need to meet vary greatly from country to country. Australia's circumstances are in many

respects unique. It is not clear at all that aligning Australia's education system more closely with PISA standards, when it is already performing well on these tests, will produce any economic or social benefits.[1]

Australia's economy and society have two defining features that set it apart from most other OECD countries. First, it is a resource-rich frontier nation whose prosperity depends in large measure on successfully mining and harvesting these riches, often in difficult and dangerous physical conditions. This requires elements of personal fortitude, of physical stamina and resilience and of cooperation. Second, its situation on the outskirts of Asia's booming economies renders its economic prosperity increasingly dependent on its ability to assimilate the many new and diverse elements of its population in an integrated society, and prepare its students to function effectively in foreign cultures.

For young Australians, meeting these challenges may be no less important than acquiring the language, mathematics and science skills tested in PISA and similar international tests. The "top tier" school system required in this context must do much more than produce students who perform well in international tests. Australian parents, educators, administrators and politicians sense this, and have fashioned schools that strive to strike a balance between these diverse goals. It is a formidable challenge, which must be pursued with determination and imagination. If Australia is failing in these efforts it is cause for concern, but this will not show up on PISA.

2. Why should school systems be centralized?

The second faulty premise on which the Gonski Report and its associated reforms rest is the notion that a more centralized education system will function more efficiently, an assumption underlying its call for a larger role for the federal government in education. It is mistaken, in the first instance, because our knowledge of what works in education is still very imperfect and largely tacit. We may "know a good school when we see it," but that is very far from being able to identify "good" and "bad" schools in the systematic, objectively measurable way that centralized systems require. And we are even further away from being able to determine—in that same systematic, generalizable way—how to improve schools. Given our largely tacit understanding of what makes for a good school and how to make schools better, it is more effective to allow decisions to be made closer to the ground. We do not yet have the knowledge base for effective centralization. In any event, international evidence indicates that systems with strong central examinations and substantial school-level autonomy are most effective in promoting student achievement (for example, see Woessmann, Luedemann, Schuetz, and West 2009).

It is mistaken also because the circumstances of the various states are sufficiently different to warrant substantial differences in their education systems. Indeed, this variety in Australian education is not a weakness of the system but one of its key strengths. The autonomy of the states in education promotes innovation, and allows new ideas to be tried out on a relatively small scale. This is not to say that the federal government does not have an important role to play in

[1] To be clear – the authors support participation in large scale, standardised international test programs, but do not believe school system's objectives should be linked to the outcomes of these programs.

education—but it is essentially the facilitating role it plays today in testing, in brokering the flow of new ideas and new knowledge on education, and in disseminating new ideas from abroad.

Indeed, whatever policy reforms are implemented in the wake of the Gonksi report, they offer a unique opportunity to learn what works by systematically evaluating their impact on student outcomes. To this purpose, the decentralized structure of Australian education can be used to identify the *causal* impact of these reforms on student achievement by staging their implementation differentially across jurisdictions and comparing the "treated" to the "untreated". This would provide us, at the very least, a better evidence base for further education reforms.

3. Is student achievement really affected by resources?

The third flawed premise on which the Gonski Report rests is that additional resources to schools will have a substantial impact on student achievement and improve their performance on standardized tests. The professional literature in economics and education suggests that the effect of additional resources on standardized test scores is, at best, small (see Kreueger 2003 and Hanushek 2006 in economics, while Hattie 2008 provides a summary of the education literature). This is true of both across the board increases in school resources, and of increases targeted specifically at disadvantaged students or schools.

Of course, if additional resources are focused specifically on the grade levels and subject matter of an international test such as PISA, earmarking added hours of instruction to this purpose and following a curriculum closely tailored to the test, this will surely improve Australia's standings in the test tables. Such an effort was recently implemented in Israel and sharply improved its relative performance on another international study, the Trends in International Mathematics and Science Study (TIMSS), and a similar earlier effort improved Germany's standings in PISA. But would such an effort truly serve the best interests of Australian education? It seems an unacceptably narrow view of the purpose of the school system and of the set of skills it should equip young Australians with.

Applying added resources more equally, to all grade levels and subjects, will diffuse their impact and have a much smaller effect on achievement. This means that any substantial improvement in achievement can only be "bought" with a very large increase in resources, probably much larger than that envisaged in public debate since the release of the report. This presumably is why the Australian government linked the additional resources to other reforms to improve student achievement. The evidence is much stronger that organizational and operational arrangements can influence achievement, though exactly which package of reforms might achieve this remains contentious.

4. What's wrong with the Gonksi resource standard?

A further flawed element of the Gonski Report is in its proposed calculation of the Schooling Resource Standard (SRS)—the base funding level per student all schools would receive. Partly this reflects the role played by so called Reference Schools in the calculation of the SRS, and partly the flawed logic of the methodology used to estimate the SRS, which does not stand up to scrutiny.

Analysis undertaken for the Gonski report identified a set of "Reference Schools" that were used implicitly to assess the level of resources necessary for all schools to achieve a desirable standard of achievement. These were schools whose students meet a specified achievement standard—that

80% of students at the school met or exceeded the national minimum standard for their year level in reading and numeracy, in all calendar years from 2008 to 2010. By this standard, Reference Schools constituted around one-sixth of Australian schools.

This approach to the selection of Reference Schools is flawed because it fails to control for the impact of student background on student achievement, confounding it with the contribution of the school itself to the achievement of its student body. Only when the effect of student background is subtracted from the nominal school effect, in identifying "good" or successful schools, can the relationship between resources and school performance be meaningfully investigated.

The technical documentation to the Gonski report indicates that these Reference Schools are then used in a very puzzling way to estimate the SRS. While the Gonski report is premised on the idea that resources can affect achievement, the SRS is based on estimates that reflect the reverse relationship —one where the level of resources available to schools are explained by their characteristics, including whether they are a Reference School (i.e. a high performing school or not).

At the end of all the "science" in the technical documentation, the main factor that determines the general level of the resource standard is an assumption made with very little discussion or justification, namely that it should be based on a particular set of regression estimates that relate school characteristics to resource levels.[2] There is absolutely nothing about these estimates that produces resource standards associated with any specified level of student achievement, since no achievement standard was built into the regression equation. There is nothing about the procedure that justifies any claim that the resulting resource standard will allow schools receiving them to educate students to "top tier" status in either international tests or any broader domain of real importance. This leads us to conclude that the actual Schooling Resource Standards used in the Gonski report are essentially arbitrary, and despite the veneer of technical sophistication in their construction, do not have a sound methodological basis.

5. Can there be any objective resource standard?

The final flawed premise on which the Gonski Report rests that we deal with here—and politically this may be its fatal flaw—is the notion that there can be any objective, professional basis for determining the appropriate level of public funding of private schools. This goes beyond any methodological criticism of the specific formula used to argue more generally that there is no objective criterion that can possibly resolve this inherently political issue. Public financing of private education promotes individual choice and obviously benefits those who choose private education. At the same time, by predominantly helping the stronger elements of Australian society avoid the relative deprivation of public schools for their children, it widens socio-economic gaps and undermines the country's social and cultural cohesion.

Public education In Australia accounts for only 60 per cent of students in primary and secondary schools, much less that in the United States and most European countries. There clearly is a case to be made for putting more money into public schools to make them more attractive to students from stronger socio-economic backgrounds, but it is inherently a political case, and given the large share

[2]The specific set of regression estimates were for schools at the 25th percentile of resources—rather than the 50th, 75th or any other percentile.

of Australians with a personal stake in private education, it is quite possibly not one that can be made successfully. The status quo reflects a political balance; it can be challenged directly, but it is not likely to be upended by a scientific formula, correct or incorrect, devised by a panel of experts. Whatever formula is proposed will be judged by the ultimate subjective criteria: Am I getting more than before? Am I getting as much as others are getting? Such concerns cannot be countered by arguing that these changes are necessary for raising PISA scores.

A crisis might "help": a crisis followed by general agreement that the present situation is disastrous and anything else would be better. But there is no such crisis. Most people would say that schools could be improved (though there may be less agreement on exactly how); all education systems face problems and challenges on an ongoing basis. The current funding system is certainly untidy and difficult to administer. But none of this amounts to a state of crisis that has everyone setting aside their individual concerns and rallying round a concerted effort to "put things right."

In the absence of such a crisis, and of a compelling case for greater centralization, and in light of a general intuitive understanding that further incremental improvements in PISA rankings are not all that significant, the public debate over the Gonski Report, as a cornerstone of federal education policy, will continue to focus on who gets what, and who retains control over what. This has already generated a great deal of heat while drawing attention away from a useful public discussion of the challenges facing Australian education today, for which the non-prescriptive parts of the Gonski Report provide a very useful basis.

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