
Advancing Australia's 'Human Capital Agenda'*

Gary Banks
Chairman, Productivity Commission

Introduction

It is a privilege to have been invited to give the fourth Lecture in this annual series in honour of Ian Little.

Ian was a passionate advocate for good public policy and for reform — within his own state and nationally. This was grounded in an equally strong attachment to good analysis and evidence in support of policy decisions. As Secretary of the Victorian Treasury, he championed the use of quantitative analysis, including the development of an input/output based model of the Victorian economy, to gain a better understanding of the effects of policy changes on different industries and on the State's overall economic performance.

It was under his and John Brumby's stewardship of the Treasury portfolio that the Victorian Competition and Efficiency Commission was established, to provide rigorous arms-length analysis and advice on key policy issues affecting the welfare of Victorians (akin to the role of the Productivity Commission at the national level).

Victoria's more systematic attention to good analysis and policy innovation commenced in the 1990s. It has yielded considerable benefits for Victoria's citizens since then, not only in the comparative economic performance of this State, but also in its achievements in the social and environmental domains.

Victoria was a first mover in the 'second wave' of economic reforms in the 90s — reforms that culminated in the National Competition Policy (or NCP). And Victoria was the first jurisdiction to recognise the need to pursue a 'third wave' of reform, one that would not only address the unfinished business of the NCP, but would also encompass reforms and policies in human services, to ensure that this State and this

* The fourth Ian Little Lecture, Melbourne, 13 April 2010.

country could get the best out of its most important resource — its people — or, to use the economic jargon, to ‘develop its human capital’.

As you know, the Victorian Government pushed for a new National Reform Agenda (NRA) to this end back in 2005. As Ken Henry reminded us in his 2008 Lecture, Ian Little was instrumental in this, in close collaboration with Terry Moran and Victoria’s political leaders.

Victoria bolstered its case for a national reform agenda focussed on ‘human capital’ by modelling the potential economic benefits on offer. Facing some resistance at Commonwealth level, it supported an equivalent COAG-sponsored assessment by the Productivity Commission, to affirm that its (large) projected numbers were neither fanciful nor based merely on fiscal self-interest.

In May 2006, shortly before his death, Ian was the dinner guest speaker at a Commission executive ‘retreat’. I recall clearly that he urged us to be ambitious in grappling with this complex modelling task and its many unknowns — because he felt keenly the importance of such analysis to the degree of ambition that would ultimately be embodied in the reform agenda itself.

Sadly, Ian was not to see the culmination of this and other work in the final COAG reform program that took concrete shape from early 2008. Nevertheless, that program remains partly his legacy, and something for which Victorians and indeed Australians should feel a debt of gratitude.

My topic for this Lecture was therefore a natural choice, focussed as it is on advancing key strands of the new reform agenda that Ian held dear. It also returns me to the theme of a speech I gave here in Melbourne to the Victorian branch of the Economic Society in September 1998, shortly after I was appointed Chairman of the Productivity Commission. Further, it seems a good time to take stock of developments, given that much has taken place in a short time, and in light of the budgetary constraints now facing further reform in the wake of the global financial crisis.

What is ‘human capital’ and why is it important?

When preparing that presentation to the Economic Society in Victoria over a decade ago, I was conscious that while ‘human capital’ may have been part of the economist’s vocabulary (at least since Becker), it was not part of anyone else’s. That has changed. Although ‘every pet shop galah’ may not be calling it out (to borrow Paul Keating’s evocative phrase from an earlier reform era), the term has clearly entered the political lexicon and even the public debate.

At its core, the concept itself is actually a pretty simple one, relating to the bundle of attributes that determine how productive people are in their workplaces and in society. Some of these are innate and some acquired, with the former (aptitudes) influencing the latter.

The accumulation of human capital, like physical capital, requires investment of both resources and time, to add to the existing stock and fend off depreciation. It occurs from an early age and continues over a lifetime. Some of it happens naturally as a consequence of everyday experience and observation. But key drivers are structured or institutionalised environments for formal learning — ‘education and training’ — and maintaining wellbeing — the health system. These have naturally become major concerns of public policy and of the COAG agenda directed at human capital. That said, and notwithstanding that they involve a degree of interdependence, this lecture will concentrate on the education side of human capital development rather than health. (Health reform would require another speech altogether!)

A key distinction can be drawn between the role of education in giving people the ability to do particular things — involving specific skills or technical competencies — and its role in conferring analytical, discovery and communication skills of a more generic (or enabling) kind. These include what are known as the ‘foundation skills’ of literacy and numeracy, which have very wide application.

Both categories of skill — the specific and generic — are clearly important to the productivity of people, but in a rapidly changing world, demanding periodic adjustment and adaptation, the latter arguably have the more fundamental and enduring contribution to make.

The significance of the foundation skills of functional literacy and numeracy, relative to educational attainment *per se*, has been explored in Productivity Commission research which is to be released shortly. Based on recent survey data, this analysis confirms empirically that most literacy and numeracy skills are acquired through primary and secondary education. In terms of the impact on workforce participation and peoples’ wages (the latter being a rough proxy for their workplace productivity) an increase in foundation skills is estimated to have as big an effect as (other) educational attainment. For example, other things equal, the incremental effect on the participation of women from attaining ‘level 3’ literacy and numeracy (relative to level 1) was estimated to be comparable to that from acquiring a tertiary degree (relative to Year 12). And there were also found to be relatively large estimated differential impacts on wages (Shomos, forthcoming).

Such modelling inevitably has limitations, but the broad finding as to the importance of foundation skills for labour market outcomes appears robust, and has significant policy implications.

Higher levels of human capital, whether measured directly by skills or indirectly by educational attainment, have been found to be strongly associated with higher levels of productivity and workforce participation in a variety of empirical studies, including some looking specifically at Australia (for example, Chiswick *et al*, 2003 and Kennedy and Hedly, 2003). These include other recent studies by Productivity Commission researchers (Forbes, *et al*, 2010, Laplagne, *et al*, 2007).

Moreover, human capital in its multiple dimensions drives both the creation and application of knowledge, which are at the centre of the process of economic growth, as Paul Romer's seminal work clarified in the early 1990s. Much cited in support of this is Steve Dowrick's meta-analysis of existing empirical studies internationally, suggesting that an additional year's education can yield an increase in a country's GDP of 0.2 percentage points above trend. Over four decades, this would amount to GDP being 8 per cent greater than otherwise (Dowrick 2004).

Another commonly cited analyst in this field, Eric Hanushek from Stanford, finds an even bigger payoff from *quality* improvements in education, as measured by a student's cognitive skills. For example, Hanushek and Woessman's international comparisons of student performance and economic growth find that 'one standard deviation in test scores ... is associated with a two percentage points higher average annual growth rate in GDP per capita across 40 years' (2009, p. 9).

Before going on to explore some of the policy implications, however, it may be worth a quick reality check. 'Human capital', while important, is not *all* that is needed for a successful economy. Throughout much of the post-war period, Australia's productivity performance and income growth were poor compared to other OECD countries, despite our relatively highly educated workforce. Equally, the surge in our productivity growth from the early 1990s — and the rise in per capita incomes that accompanied it — cannot be explained by any sudden improvement in skill levels. Taking into account skills gained through education and work experience, the growth in skills was faster in the 1980s (when productivity growth was slow) than during the 1990s productivity surge (Barnes and Kennard 2002).

As is now generally recognised, the transformation in Australia's economic performance can be attributed mainly to preceding waves of microeconomic reform that removed institutional and policy-related impediments to our economic performance, including the progressive loosening of regulatory constraints on how labour is allocated and used in workplaces. Tackling those anti-competitive

arrangements and other rigidities was necessary to realise the potential of Australia's workforce — its human capital — to contribute to more rapid productivity growth, and to Australia significantly reducing the income gap with the rest of the industrialised world.

While this process has been very important, and is not yet over, it is obvious that our future economic progress cannot depend on 'catch-up' alone. As Australia gets closer to the frontiers of economic performance, our progress will depend more and more on our capacity as a society to invent, innovate and adapt. But it is important to remember that our success in innovation and adaptation will depend both on the skills and attitudes of our people, and on how well they are utilized in enterprises of all kinds throughout the country. In short, the functioning of labour markets and the flexibility of workplaces are as important to the effective contribution of human capital to Australia's economic performance as are our education and training systems.

Further motivation for giving more attention to human capital development is the looming challenge of population ageing. Consequently lower participation rates and higher dependency ratios would see per capita income growth decelerate at the same time as per capita spending on government services accelerates. This does not mean that policies that could cost-effectively promote productivity and participation, including through human capital development, should not have been pursued *earlier* — simply that the opportunity cost of not doing so has increased.

How is Australia performing?

Well, how have we been doing? The short answer to that is 'not bad, but we need to do much better.'

To begin with, we have seen a significant rise in educational attainment in Australia over the past few decades, including Year 12 completions and participation in tertiary study, which is a good thing. However, most of the gains in Year 12 completions occurred in the decade from 1983 — there has been little or no real progress since then.

Also, there are still over 20 per cent of 20-24 year olds in Australia who are not fully engaged in either education and training or employment — and this proportion has not improved much over the past decade, despite historically low unemployment.

In terms of the *quality* of education, as measured by standardised international tests of foundation skills at different ages, the bottom line is that while Australia does

well on average, it does less well than other countries for students from lower socio-economic backgrounds. Moreover, for all students, we seem to have been falling behind in some key areas. Let me elaborate.

A mixed international report card

In the most recent data (for 2006) Australian students rated significantly above the average scores for OECD countries in the highly regarded PISA tests (Programme for International Student Assessment). Accounting for the dispersion of results around the mean, we find that across all three areas tested (reading, maths and scientific ‘literacy’) higher proportions of Australian 15 year olds were in the *top* levels, and smaller proportions in the *bottom* levels, than the OECD average. While this is encouraging, our performance was exceeded by up to eight other countries in these tests and, in every case, we came in well below the top performer.

It is also worth noting that we don’t do as well in a separate international test that focuses on maths and science (Trends in International Mathematics and Science Study [TIMSS]) — especially in relation to the proportion of students who do not attain the defined ‘low benchmark’ (where we are at the median).

When it comes to how well children from lower SES groups do, we slip further down the rankings. The educational attainment and occupational status of parents explain a significant part of the variance in our results — less than the OECD average, but a lot more than for the top performing countries (and New Zealand). This is most clearly illustrated in a 2003 comparison with Finland (the top performer) which shows the ‘performance gradient’ in relation to social advantage to be significantly steeper in Australia.

As Peter Dawkins from Victoria’s Department of Education and Early Childhood Development has noted, ‘Australia’s high SES students on average achieve outstandingly good outcomes by international standards, whereas the outcomes are comparatively mediocre for low SES students’ (Dawkins 2010).

Going backwards in ‘foundation skills’?

Cause for further concern is evidence suggesting that Australia’s comparative educational performance is not improving; indeed that it is *declining* for the foundation skills of literacy and maths. This can be seen from summary information in the COAG Reform Council’s first report on the National Education Agreement last year. This shows, for example, that the mean score for reading literacy declined from 528 to 513 between 2000 and 2006, with the number of countries that were

‘significantly better’ than us rising from one to five. The mean decline was found to have occurred through a sharp drop (from 18 to 11 per cent) in the proportion of students attaining the highest level of proficiency, without any compensating rise at the lowest levels.

The decline in Australia’s comparative international performance appears not to be just a consequence of some other countries doing better, but also of Australia doing *worse*. Andrew Leigh and Chris Ryan (2009), in an innovative but careful study for the Australian Government using available longitudinal data, find a statistically significant fall in both numeracy and literacy over extended periods. They conclude from their research that ‘the numeracy of the typical young teenage student in 2003 was approximately *a quarter of a grade level* behind his or her counterpart in 1964’ (p. 7). They observe that, as this decline occurred over a period in which real expenditure per student rose substantially — through smaller class sizes and higher teacher:student ratios — school productivity probably fell during that time.

COAG’s Human Capital Reform Agenda

These emergent data on trends and comparative performance have clearly justified a central place for education and training in the human capital reform agenda. This was first agreed to by heads of governments in February 2006, alongside a health stream directed at chronic disease prevention/alleviation and a ‘work incentives’ stream.

Within the education stream (or Productivity Agenda, as it is somewhat misleadingly called), there are four targeted areas across the life cycle, with a particular emphasis on building good educational foundations early on, and addressing disadvantage.

The Commission projected significant (qualified) benefits

In responding to COAG’s request for it to estimate what the benefits might be from (unspecified) reforms in these areas, the Commission confirmed the potential, in principle, for benefits to flow from better outcomes. We applied an analytical framework which involved: identifying ‘best practice’, using inter-jurisdictional comparisons; assessing what was potentially achievable in reality; and, finally, what the impact on productivity and participation might be from attaining those goals, and when.

None of these steps was straightforward, with the last one being the most experimental and requiring most judgement. This was generally exercised by erring on the ambitious or aspirational side. (Ian Little would no doubt have approved!)

Overall, the education stream was projected to have the potential to raise workforce participation by up to 0.7 percentage points and productivity by 1.2 per cent — significant gains — with the largest potential gains coming from achieving better transitions from school and improved adult skill acquisition. (Estimated gains from initiatives in relation to early childhood and literacy and numeracy were casualties of the required time frame of the analysis. Benefits were estimated to 2030, when children today will only just be settling into the labour market.) All this was in turn estimated to increase GDP by up to 2.4 per cent compared to ‘business as usual’ — or by some \$24bn (in 2006 dollars).

An important caveat, ignored of course in press commentary, was that these benefits did not allow for the costs that would have to be incurred in order to achieve them. That is, they are *gross* benefits and not the result of any cost–benefit analysis. The estimates are thus more indicative of potential impacts on productivity and participation than on value added.

What social rate of return?

Since then, a suite of programs has been devised to pursue these gains, totalling outlays of some \$6–8 billion over the next five years. (This of course excludes, and is dwarfed by, the \$16 billion or so being spent on school buildings as part of the recent job stimulation package.) If maintained, this additional spending equates to around a 2 per cent boost in Australia’s educational investment. As such, it would be a pretty good investment indeed if it generated returns equivalent to over 2 per cent of GDP.

In reality, the extent to which this can be achieved will depend on the effectiveness of the specific programs adopted and how well they are implemented. This remains to be assessed. Moreover, the expenditure on school buildings may limit the scope for renewing the National Partnership outlays and cramp other education spending.

These represent important reasons for prioritising and allocating funds where the net payoff can be shown to be highest. Even in these fiscally straitened circumstances, human capital investments that can be shown to have high benefit:cost ratios should be allowed to proceed.

The fundamental drivers: teachers and governance

With this in mind, I would like to comment briefly on two, related, areas that I believe deserve special attention among the various programs on offer in advancing the human capital agenda. These relate to the quality of teachers and teaching, and the governance and regulatory arrangements that influence how effectively the education profession can be utilised ‘at the coalface’. Good teaching and sound governance should not be seen merely as items on a list of reform areas, but as pre-conditions for attaining many of the goals of the reform program itself, including improved foundation skills, higher school retention and more balanced socio-economic outcomes.

Restoring quality teaching

No part of an education system is more vital than its teachers. This intuitive truth is reflected I’m sure in the personal experiences of most of us. It has also been amply affirmed in a variety of research studies over the years. Little of this research has been done in Australia, however, where the performance of teachers appears not to have been a priority of education policy. If anything, attention to it seems to have been weakened over the years (at least until recently).

A good teacher will not only effectively impart requisite knowledge to students, but also enliven their interest in the subject matter and in learning itself, yielding life-long benefits both to them and to society at large. Good teaching is especially important for students who derive little educational motivation or support at home. Those children can be found across the spectrum of society, but are more prevalent in areas of socio-economic disadvantage, especially Indigenous children and the children of those migrants who have limited formal education or facility in the English language.

It follows that teachers can also provide important early role models for children who lack other examples. In later years, they can help elevate the aspirations of their students and help them shape their career goals and choices, based on a good understanding of their abilities.

Given the crucial importance of teachers to human capital development — and the challenges facing our country to do better — there are disturbing signs that all is not well within the ‘education workforce’.

In another important recent study, Leigh and Ryan (2008) found that the literacy and numeracy abilities of new teachers declined significantly, on average, in

Australia between 1983 and 2003 — with this being particularly pronounced for women.

There is also evidence of significant shortages of teachers of the ‘harder’ subjects (maths, science) with one study indicating that of those teaching the reduced number of these courses on offer these days, up to one-half lack necessary training. More broadly, some 40 per cent of teachers in Australia’s government schools are currently teaching courses for which they have had no formal training. (I think this puts the mediocre TIMMS results in perspective, as well as lending support to claims from universities that courses at senior levels of secondary school have been ‘dumbed down’.)

Added to this is a more general shortage of teachers in country and remote areas, which no doubt has contributed to the lower educational performance on average of their schools, relative to peers in urban communities.

Further, as you will no doubt be aware, there has been a flight of males from the profession. This has been particularly marked in primary schools — and arguably has made it harder to motivate many young boys and keep them engaged in school life, especially those most in need of good male role models.

Looking forward, the education workforce at all levels will be relatively hard hit by population ageing. For example, around one-half of secondary school teachers and 60 per cent of VET teachers are aged over 45. (This might be okay if the exit age were closer to 60 than 50. Unfortunately, it appears from HILDA data that the largest exodus of teachers from the profession actually occurs between the ages of 45 and 50). It follows from the research cited earlier that the age cohorts now leaving teaching are also the more highly ‘academic’ ones, who entered the profession in the 1970s and 80s.

In addition to all this, there is the looming challenge of upgrading an early childhood workforce to perform more ‘instructional’ roles under COAG’s human capital agenda.

It is therefore of great importance that ‘improving the quality of teaching and leadership in Australian schools’ has become the object of a ‘National Partnership’ agreement between the Commonwealth and the States. Emphasis in this agreement is placed on attracting the best entrants to teaching, and also on their appropriate placement, ongoing training and remuneration, to ensure that they *stay* in teaching.

Among the reform areas specifically identified for ‘reform reward’ payments from the Australian Government, there is recognition of three likely contributors to the

teaching profession's position: one focuses on remuneration; a second on in-school support; the third on school-based decision-making.

Remuneration issues

When faced with mismatches in demand and supply, economists have a tendency to seek explanations in price or other incentive structures. While teachers are clearly motivated by more than money, in economists' terms the 'opportunity cost' of becoming (and remaining) a teacher has risen significantly over time. As Leigh and Ryan (2008) have shown, between 1983 and 2003, the real earnings of teachers fell by 4 per cent for women and 13 per cent for men. And the declines were amplified when measured relative to other professions. It would be surprising if this had had no effect on the composition of the profession, or on its perceived status within the community.

Moreover, that study indicates that highly compressed teacher remuneration scales, together with progressively widening pay dispersion in other professions, has especially raised the opportunity cost for the most able people (which in turn is likely to have had a significant impact in the maths and science areas).

In the same period, improved career choices for women have had a more pronounced impact on the 'ability distribution' of female entrants to the profession, with their representation in the top two quintiles falling by around one-half.

All this would suggest a need to address pay relativities *within* teaching as much as between teaching and other professions. Currently one finds little recognition in remuneration structures for experience or skill levels, let alone for scarcity, or the contentious matter of differential performance on the job. The COAG National Partnership Agreement specifies that there are rewards for 'improved pay dispersion' and it identifies such possible approaches as more highly paid staffing classifications and special arrangements to encourage quality teachers and leaders into remote schools and those with Indigenous or other disadvantaged communities. These are very promising directions. The main constraint on their success — or the scope to extend them — may be resistance by teacher associations, rather than the budget, if the recent experience in introducing higher pay rates for 'highly accomplished teachers' in disadvantaged schools in NSW is any guide.

The reception given to performance pay has been more hostile and broadly based. While there is evidence from the USA of it having beneficial outcomes on students' results, some of the evidence base is contested and would benefit from impartial scrutiny. It would also be desirable to have some 'home grown' evidence from well-

conducted trials in this country. (I understand that such trials are indeed now underway in Victoria.)

I won't say much in relation to the *second* area — more in-school support for teachers — but it is clearly an issue in a variety of respects, including administrative workloads which cut into teachers' time, and stress or burnout that can precipitate their exit. In more remote areas, including Indigenous communities, housing can be an obstacle to attracting good teachers — though hopefully this may at last have been addressed through the 'Building the Education Revolution' program.

Governance is fundamental

The third area identified for financial reward is described as 'increased school-based decision-making about recruitment, staffing mix and budget'.

To the uninitiated — and indeed to Victorians who have grown accustomed to a more devolved system — this may seem a little odd. But the facts are that in most schools across Australia, unlike other places of work, managers have little or no say about who is appointed to their teaching staff and even about who is promoted or removed. Merit-based appointment is demonstrably lacking, compounding the lack of merit-based rewards.

Professor Max Corden recently wrote a celebrated piece on Australia's tertiary education system provocatively titled *Moscow on the Molonglo* (the Molonglo being the stream that feeds Canberra's Lake Burley Griffin). But the degree of centralised bureaucratic control seems far greater for Australia's school system than for universities, notwithstanding it being a State responsibility.

Centralised decision-making works best for systems that are relatively homogeneous and for which information and transaction costs are low. But school systems are not like that. With the best will in the world, making decisions centrally that can account for the specific needs of each school community is very hard. And centralised bureaucracies often develop their own incentive structures and agendas that can militate against such an endeavour anyway.

By the same token, school managers with little scope to influence the allocation of teaching resources could be expected to have less incentive to innovate or be responsive to community needs. And the best leaders will be less attracted to such a job. Those who are there will understandably feel threatened by accountability tools such as 'My School', particularly since the schools that they lead are not really *theirs* (or the local community's) anyway, at least in any meaningful operational sense.

For such reasons, there has been a global shift towards providing schools (as well as other education centres) with greater autonomy to manage and allocate their budgets and their human resources more effectively. Australia as a whole is defying this trend, being at the most centralised end of the spectrum according to OECD data. (It seems telling that, in contrast, some former communist countries are now among the *least* centralised!)

If not neutered by union opposition, the nationally consistent data that is now for the first time being made public on the ‘My School’ website should end up driving change for the better — by confirming that wide differences exist and thereby forcing governments to confront the issues and find ways of addressing them. As things stand, poor performance is neither readily apparent nor acknowledged, and the ability to respond to poor performance is not really there for many school leaders. Nor is there much scope for better performing schools to accommodate any increased student demand.

While decentralised school systems are less likely to tolerate failure, and have more incentive and scope to meet local community needs, the overseas evidence about their comparative performance is of variable quality. It should therefore be instructive to observe the outcomes from WA’s recent pilot initiative to devolve decisions about budget allocation and human resources, covering some 30 schools (assuming that baseline data and monitoring are adequate).

Meanwhile, we already have an enhanced capacity through NAPLAN to assess the relative educational performance of Australia’s two largest States, with their quite different governance structures. There is little between Victoria and NSW currently in relation to literacy and numeracy outcomes. What does seem clear, is that Victoria’s devolved system achieves comparable outcomes at significantly lower cost per student than NSW’s more highly centralised and bureaucratised one (SCRGSP 2010, CRC, 2009). Or, to put it another way, NSW has achieved similar results to Victoria with additional resourcing.

Learning about what works best

This leads me to conclude on a theme that by now will not come as a surprise — namely, the importance of strengthening the evidence-base for policy decisions and reform initiatives going forward.

The lack of such an approach is likely to have contributed, in my view, to the observed decline in the measured ‘productivity’ of our school systems over the past two decades or so, despite substantial additional funding. Arguably the most costly mistake has been to spend scarce budgetary resources on smaller class sizes instead

of better teachers, notwithstanding steadily accumulating evidence that smaller classes, in the ranges contemplated, were unlikely to achieve improved learning outcomes.

Such socially unproductive policy excursions are perhaps best explained by what Finance Minister Lindsay Tanner has labelled ‘producerism’ — the dominant influence on policy outcomes of producers over consumers and the wider community. In this industry, as in others, such an approach appears not only to have served its consumers (students and their families) poorly, it has ultimately served the producers (teachers) poorly as well. For example, while there are many more teachers in Australia than ever before — and consequently more funding and power for those bodies representing them — the average teacher who joined years ago seems to have effectively paid for this with a lower salary today.

The COAG framework holds promise

COAG’s human capital reform agenda has the potential to be transformative. It wisely utilizes a blend of cooperation and competition (with only some gentle coercion — or, perhaps more accurately, ‘inducements’ — from the Australian Government). It is at its best in the education area, where the relevant working group delivered a coherent framework of desired outcomes, targets and program measures that cover the main ‘bases’ — an impressive achievement thus far.

Importantly, while Australian Government funding is the glue that binds this agreement together, there is little prescription from Canberra about *how* things should be done (little of the ‘Moscow on the Molonglo’). Detailed policy design has properly been seen as the province of the States and Territories. However, the National Partnership payments, and the associated transparent monitoring of performance generally, are calculated to create incentives for jurisdictions to apply themselves to achieving the national goals. This should in turn favour an evidence-based approach, in order for them to determine what will actually work. Moreover, in an important first, some funding has been made contingent on conducting evaluations and making use of existing evidence.

Such systemic provision for policy experimentation and learning across jurisdictions has been lacking from our Federal system for far too long. The unique potential contribution which Federalism can offer policy development has effectively been squandered, despite the many meetings and long agendas of MCEETYA and other Ministerial Councils. The reality is that there has been no lack of policy innovation in this country over the years, but not many ‘experiments’ have been properly evaluated and too few have spread across jurisdictions.

In the fiscally constrained aftermath of the GFC, it will be especially important that any new programs can demonstrate a large payoff, based on solid analysis and evidence. For it remains the case that while there is good evidence to support the broad areas on which COAG has focussed, the question of how best to secure the potential gains (as estimated in projections by the Victorian Treasury and the Productivity Commission) remains unsettled. There is still a risk of misdirecting budgetary resources and of missing opportunities to achieve better outcomes.

Priorities for evaluation and review

It follows from what I have already said that an absolute priority in this respect is understanding how we can best enhance the performance of the education workforce at all levels — early childhood, school, VET and university. I have talked about remuneration issues and their complexities, which deserve closer analysis, but there are various other dimensions to this challenge, including more fundamental questions to do with governance, regulatory frameworks and decision-making on human resource matters, as well as the training of new teachers and upgrading of existing teachers' skills.

As noted, what can be achieved in the areas of educational workforce and system governance will, among other things, bear directly on what can be achieved for the lower SES groupings where Australia compares less favourably internationally. While there are low performing students across the socio-economic spectrum, justifying some attention to raising performance *per se*, there is evidence that low SES kids underperform relative to their potential across the board, justifying the targeting of this group as a whole. (That is, the top performers from the lower SES group could also do a lot better.) Hence COAG's attention to schools in lower SES areas would seem warranted, especially for those performing poorly relative to other schools with similar student populations. (This can now be revealed through NAPLAN data — with 'My School' transparency upping the ante for action — again illustrating the perversity of opposition to reporting by those professing to hold the interests of students paramount.)

A key part of this, given evidence about the bearing that home life has on school life, is providing support for and encouraging greater engagement of families in their children's education. Strategies to make children feel more connected to the schooling part of their lives will also be important.

The biggest challenge of all is to get outcomes for Indigenous children that are comparable to those for other Australians — even to those of equivalent SES status. There is no single or simple policy prescription here. The answer again is likely to lie in tackling the home and school environments, but with more intensive

personalised support for Indigenous kids, including through greater provision of Indigenous staff. Of course, this will be relatively costly. But while such investments may not have a net payoff in a conventional economic (productivity) sense, the *social* dividend for the kids concerned, their communities and, I believe, for Australians as a whole, is likely to be large.

A key problem in the past has again been lack of data on outcomes, to know whether programs are actually working. Under COAG's new approach, that is changing, though there is still some way to go. In Victoria, the data point to significantly improved outcomes over a five-year period — for example, the disparity in Year 7 reading attainment has fallen from 24 to 13 percentage points — which suggests that COAG's target of at least halving the gap by 2018 is attainable.

Noel Pearson has recently emphasised the importance of Indigenous children being 'school ready' from the outset, if they are to make subsequent progress. There is now a substantial body of evidence that attention to early childhood education — *before* formal schooling commences — can indeed have lasting dividends, at least for disadvantaged kids.

COAG's program is currently directed at achieving universal access to pre-school in the year before school-proper commences, with some additional attention to disadvantaged and low SES groups. There is now also a question as to whether policy attention needs to be extended to children in the 0–3 age bracket. Victoria has (again) led the thinking on this and there is some desire to broaden COAG's agenda in this direction.

This whole area would seem to warrant a more substantial research effort in Australia, in relation to the potential *net* payoffs, the types of programs that could be most effective and the extent to which they should involve targeting. The celebrated work of James Heckman in the USA has been most instructive about disadvantaged students, at least in that country, but has been spread a bit thinly in supporting early childhood policy in Australia. Local trials would seem an imperative before further large-scale programs directed at early childhood are implemented.

Better evidence demands both better data and better methodologies. Relative to the USA and UK, Australia has made little use of longitudinal data, which can be of crucial importance in assessing the relative significance of different influences on observed outcomes. Recent breakthroughs have come through the HILDA survey and two longitudinal studies of children, one of which is focussed on Indigenous children. In relation to methodologies, proper experimental trials in social policy have been rare, with little use made of the randomised controls that have been seen

overseas as the ‘gold standard’ (PC, 2010). Further progress in these areas should also now be seen as a priority in advancing the human capital agenda.

A final comment

In conclusion, I am conscious that in a talk about the education and training component of COAG’s ‘human capital’ agenda, I have ended up talking a lot more about schools than VET or Higher Education. I rationalise that on the basis firstly that schools are the bedrock on which higher learning is founded; secondly, because they appear in greater need of performance improvement; and thirdly, because the COAG framework presents a particularly promising basis for moving forward through a cooperative and evidence-based approach.

In light of the recent kerfuffle over My School (not to mention over differential pay schemes for top teachers), I could add a *fourth* reason. Opposition to reform seems particularly strong and wrong-headed in this sector. However, as we have seen with earlier waves of beneficial reform in the face of entrenched producer opposition, evidence about the economic and social costs of existing deficiencies and the benefits of reforming them should ultimately be decisive — not only in determining what needs to be done, but in securing community support for it.

References

- Banks, G. 1998, *Human Capital, the Universities and microeconomic reform*, Presentation to Victorian Economic Society, Melbourne.
- Barnes, P. and Kennard, S. 2002, *Skill and Australia's Productivity Surge*, Productivity Commission Staff Research Paper, Canberra.
- Chiswick, B., Lee, Y. and Miller, P. 2003, 'Schooling, literacy, numeracy and labour market success', *The Economic Record*, vol. 79, no. 245, June, pp.165-81.
- COAG Reform Council, 2009, *National Education Agreement: Baseline performance report for 2008*, COAG Reform Council, Sydney.
- Dawkins, P. 2010, *Improving Educational Outcomes in Victoria*, Dean's lecture, Melbourne University Graduate School of Education.
- Dowrick, S. 2004, 'Ideas and Education: Level or Growth Effects and Their Implications for Australia', in National Bureau of Economic Research, *Growth and Productivity in East Asia*, NBER-East Asia Seminar on Economics, vol. 13, pp. 9-40, National Bureau of Economic Research, Inc.
- Forbes, M., Barker, A. and Turner, S. 2010, *The Effects of Education and Health on Wages and Productivity*, Productivity Commission Staff Working Paper, Melbourne, March.
- Hanushek, E. A. and Woessman, L. 2009, *Do Better Schools Lead to More Growth? Cognitive Skills, Economic Outcomes, and Causation*, National Bureau of Economic Research, Working Paper, no. 14633.
- Laplagne, P., Glover, M. and Shomos, A. 2007, *Effects of Health and Education on Labour Force Participation*, Staff Working Paper, Melbourne, May.
- Leigh, A. and Ryan, C. 2008, 'How and why has teacher quality changed in Australia?', *Australian Economic Review*, June 2008, vol. 41, no. 2, pp. 141–59.
- 2009, *Long-Run Trends in School Productivity: Evidence From Australia*, Centre for Economic Policy Research, Research School of Social Sciences, Australian National University, Canberra.
- OECD, 2008, *Improving school leadership: Case Studies on System Leadership*, Paris.
- PC, 2010, *Strengthening Evidence-based Policy in the Australian Federation, Volume 2: Background Paper*, Productivity Commission, Canberra

SCRGSP (Steering Committee for the Review of Government Service Provision) 2010, *Report on Government Services 2010*, Productivity Commission, Canberra.

Shomos, A. (forthcoming), *Links Between Literacy and Numeracy Skills and Labour Market Outcomes*, Productivity Commission Staff Working Paper, Melbourne.