PUBLIC WORKS NEED PUBLIC SECTOR SKILLS: THE LOST LESSONS OF THE BER PROGRAM

Tim Roxburgh

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http://cpd.org.au | PO Box K3, Haymarket, 1240

Phone 02 9043 6815 | Email contact@cpd.org.au

ABOUT THE AUTHOR

Tim Roxburgh is a Centre for Policy Development fellow. He is a part-time researcher and a producer for the national community radio current affairs show *The Wire*. He completed his Masters of Political Economy at the University of Sydney in 2010.

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MAIN POINTS

Despite significant public attention over the last two years, the lessons of the Building the Education Revolution (BER) program remain poorly understood. Despite the major differences between BER outcomes in different states, most media coverage failed to focus on the reasons why some states performed so much better than others.

An investigation of the evidence from the BER program leads to findings that directly contradict some of the broad generalisations repeated in media coverage of the program. Some media outlets – particularly *The Australian* – carried a number of editorials and opinion pieces suggesting that the BER had shown the inability of governments to play a central role in the successful delivery of public works projects.

This is directly contradicted by evidence from the BER program, which leads to two major conclusions:

- **Successful governments didn't try to be too small:** The state governments that were able to manage the risks of the program internally – instead of paying the private sector to take primary responsibility for program management – performed better; and
- **Participation matters:** Close consultation with the final users of the infrastructure, the school principals and school community was another key to good performance.

'Public works' are building works overseen by the government for the community, and include the building of infrastructure like roads and water facilities, as well as the construction of public buildings such as hospitals, public housing and schools. The evidence from the BER program has broad implications for the way in which public works are carried out in Australia.

For each of these BER projects across Australia – as with any construction project – there was a risk of cost overruns, time overruns, or misunderstandings in defining the requirements for the building. The ability to successfully take on and deal with these project risks internally was affected by the level of public works capacity available to the respective state and territory governments that were responsible for implementing the BER program. This capacity has been shaped by their different histories of public works outsourcing over the last 30 years.

Census figures show a steep decline in key infrastructure-related occupations within state governments over the last three decades, with the decline bottoming out over the past decade. However, some states are left with a far more significant remnant of expertise than others. Those without significant internal expertise may continue to experience issues similar to those that arose during the BER. The question of how robust the capability remains in those jurisdictions to measure and oversee the delivery of value for money forms the heart of the discussion in this report.

The evidence from the BER is in line with other indications of the adverse side effects of insufficient public works capacity:

- The government of Western Australia has recognised that the outsourcing of public works management can become extremely costly as private companies retain the lessons and experience from public projects, charging high fees to sell this expertise back to the public sector over time.

- In the eastern states, evidence suggests that instead of private providers competing for public contracts, in some cases the public sector has been forced to compete to secure skills from private sector partners, effectively reversing the benefits of outsourcing and leading to a de-emphasis on price criteria in tender processes.
- A current federal government inquiry has also received evidence linking the public sector outsourcing trend of previous decades with a general shortage of engineering related skills in Australia, as the public sector training of engineers and coherent public sector career paths were replaced by more ad-hoc training in the private sector.

In some parts of the public sector, practical problems of the sort described here have already led to a quiet, pragmatic rebuilding of strategic skills bases. A similar pragmatic rebound from a rock bottom of public sector capacity can be observed in parts of the United States. In Australia however, the rebuilding of public sector expertise in key areas is constrained by a series of high-profile initiatives to cap or decrease the overall size of the public sector at both the state and federal levels.

In conjunction with these local and international trends, the evidence from the BER program provides an ideal catalyst to take a fresh look at the trajectory of state and federal government skills bases in the public works area. Along with the other recent findings on the unexpected costs of outsourcing and insufficient works capacity, the BER evidence points to the need for a change in the way public works policy is formulated. Policy on public works outsourcing and skills needs to:

- consider the long term impacts of outsourcing decisions on strategic public and private sector skills pools;
- look beyond individual projects to recognise a broad and long term view of the best combination of public and private sector participation in public works, to ensure that modest short term savings aren't causing hidden or long term costs;
- attach a high value to ensuring strong stakeholder involvement in public works projects.

SCOPE

This paper draws strongly on research that the Centre for Policy Development conducted in conjunction with John Vines OAM for the BER Taskforce on public works capacity, as well as other evidence. All conclusions are the author's own. Public works capacity is the focus of this paper. The need for greater involvement of stakeholders in public works lies largely outside the scope of the discussion. However, because this theme is related to public works capacity and is a central finding of the BER Taskforce, it is touched on several times in this paper. The analysis is restricted to the five most populous states. The smaller size of the implementation task in the other jurisdictions, and the limited usefulness of small census figures means that a comparison between the five most populous states is more likely to yield meaningful insights (for more notes on methodology see **Appendix 1,** and for a discussion on lessons from the implementation of the BER in private and independent schools see **Appendix 2**).

INTRODUCTION

The Building the Education Revolution (BER) program was the biggest single program of school building upgrades in Australia's history, and provides important insights into the relative capability of different Australian governments to deliver a large program of public works in a limited time frame. Despite significant media coverage over the last two years, the lessons of the BER program remain poorly understood. The program's failures were extensively covered in the media, where examples of inflated costs were prominently reported. However, there have been few systematic attempts to explain the BER's successes and failures.

Most commentary on 'waste' in the BER program did not attempt to weigh up the downsides of implementing the program rapidly against the risks of not acting quickly and decisively to stimulate the economy (see Appendix 2 for more on the success of the program in this regard). Furthermore, even if we set aside the stimulus benefits of the program, the media focus on less impressive projects in some states has obscured the fact that other states acquired excellent school infrastructure for a good price. Commentary on the BER has, for the most part, also shown a regrettable lack of interest in making comparisons *between* states. These comparisons can indicate what really went wrong in the places where problems did occur.

One prominent explanation offered for the BER's problems was that government had over-extended itself by attempting to become involved in the details of public works projects. In this view, a program like the BER was a grave error because "governments are not well suited to project delivery".[1] This line of argument draws attention to some important questions: beyond providing the money to fund the construction of infrastructure, exactly what role should the public sector play in the provision of public works? What capabilities does the public sector require to fulfil this role? However, to date there has been little attempt to systematically analyse what the BER program can tell us about these questions.

'Commentary on the BER has, for the most part, shown a regrettable lack of interest in making comparisons between states'

This paper explores the evidence on public sector participation in the rollout of the BER program. It also investigates the level of public sector capacity in public works at both state and federal levels, and looks into how this affected the rollout of the BER. The lessons of the BER program extend beyond the context of a one-off stimulus spending package. The BER evidence forms part of a larger story on public works reform over recent decades. Looking at this history in conjunction with the BER evidence, it is clear that new thinking is required on public works. The evidence also suggests that the debate on public works needs to move beyond generalisations about the role of the public sector, to look carefully at what both the public and private sectors can contribute to the delivery of good quality public works.

MEDIA COVERAGE OF THE BER PROGRAM

Accurate reporting of the BER program's failures would have been helpful in encouraging the development of better stimulus spending policies and in identifying weaknesses in the public

sector's delivery capabilities. However, much of the reporting on the program was characterised by inaccuracies and generalisations. Some of the reporting extended these inaccuracies into analysis and policy recommendations that were entirely unsupported by the data that emerged out of the program.

Despite largely favourable assessments of the program by both the BER Taskforce and the Australian National Audit Office, media coverage of reports from both of these bodies usually emphasised any negative aspects of their findings, giving the impression that the program had failed to meet its objectives (see 'Reporting on the BER program' for examples of media responses to a key report on the BER).

Instead of carrying out investigations on the different implementations of the program at a state level, reporting on the program often used state-specific failures to reflect poorly on the program as a whole. Rarely was it made clear that the program that was implemented in very different ways across the country by different state governments, with highly divergent results. In addition, some media outlets built upon their critical coverage to develop broad conclusions about the role of government in public works. Analysis, opinion and editorial pieces in *The Australian* in particular often argued that the BER 'debacle' had reinforced the desirability of small government (see the box on the following page for examples).

The extensive evidence on the BER program tells a very different story. Contrary to the main thrust of the media's reporting, the program was highly successful in meeting its objectives (see **Appendix 2** for a discussion of its overall achievements). The image often conveyed in the media of wasteful, reckless and pointless spending is difficult to reconcile with a program that built hundreds of greatly appreciated pieces of school infrastructure with labour that, in many cases, was destined for the dole queue. However, the primary purpose of this paper is not to mount a defence of the BER. Rather, it is to make use of the highly revealing state-by-state comparisons that media commentary largely overlooked.

The BER Taskforce did find problems in the delivery of BER projects in specific jurisdictions. The evidence they collected provides important insights into the current state of public works in Australia's states and territories. This state-by-state comparison also shows that the broad themes developed by analysis and editorial content in *The Australian* are unsupported by the evidence, and in many respects run directly counter to the lessons we should be drawing from the BER program – especially on the value of public sector involvement in the construction of public works.

Reporting on the BER program

The Australian National Audit Office report on the BER

Coverage of the ANAO report serves as a good example of the discrepancy between the tone of media reporting and official reports. The ANAO report's concluding paragraph stated that there were:

> "positive early indicators that the program is making progress toward achieving its intended outcomes, despite the slower than expected implementation of the program… Education industry stakeholders, including peak bodies, Education Authorities and a substantial majority of school principals have also been positive about the improvement in primary school facilities that will result from the program."

Online media outlet Crikey[2] published an article that collected the subsequent media coverage of this report on 5 May 2010, and noted that the public would get a very different story from some of the headlines and articles written about the ANAO report. Headlines included the following:

> "Audit slams Rudd's primary school building program" – Sydney Morning Herald[3]
>
> "BER audit finds problem but 'value for money' of individual projects outside scope" – The Australian[4]
>
> "Govt failed to monitor schools stimulus program" and "States stymied by school stimulus rules" – ABC Online[5]

Some of the articles mentioned the more favourable conclusions of the report somewhere in their copy. However, readers would no doubt have drawn an overwhelmingly negative assessment of the program from these articles – the opposite conclusion to that drawn by the official report.

Broad themes developed by *The Australian*

Many media outlets focused on individual instances of high costs, but the nation's daily broadsheet, *The Australian*, extrapolated from these examples to develop broader themes about the BER. One of the main conclusions emphasised in editorials and by staff reporters was that the program's failures demonstrated the desirability of small government.

> "The BER debacle reinforces the lesson that governments are not suited to project delivery"[6] – Editorial, 29/3/2011
>
> "The outcome of the program affirms the value of the economic reforms of the past 30 years that have emphasised efficiency and smaller government. There is nothing revolutionary in that."[7] – Editorial, 24/9/2011
>
> "The expensive lesson from the Rudd government's forays into nation-building, such as it is, could be to show in every suburb the folly of big government [and] the inflexibility of bureaucracy"[8] – National Chief Reporter, Tom Dusevic, 29/5/2010
>
> On the formation of the BER Taskforce, headed by Brad Orgill:
>
> "Orgill may not be able to stop the money flow once contracts are signed or get the money back. In any case, he may still be able to draw attention to the value for money proposition … He could even kill the idea that government is the answer."[9]
> – National Chief Reporter, Tom Dusevic, 29/5/2010

PUBLIC SECTOR PARTICIPATION IN PROJECT DELIVERY: EVIDENCE FROM THE BER PROGRAM

The detailed evidence on the BER allows us to move beyond generalisations about the role of the public sector during the program. The rollout of school infrastructure effectively operated as a revealing stress test of public works and procurement capabilities across the states and territories. It also served as a test of the very different delivery methods used in different jurisdictions. The key measures of performance from the program are outlined below, followed by the key differences in the delivery methodology across states that appear to correlate with those measures of performance. This evidence allows a discussion of the central lessons on public sector capacity that arise out of the program.

To evaluate the performance of public education authorities across the five most populous states, the best place to start is the data collected by the BER Taskforce on costs and complaints.[10] The costs vary considerably across those states, with New South Wales paying on average over 70% more per square metre in project costs than Western Australia (**Figure 1**).[11] These figures were adjusted to remove variations caused by the relative remoteness of the schools in some states, making the figures commensurable across jurisdictions.[12]

One problem with this measure is that project costs may be influenced by project size, because larger projects are likely to cost less per square metre.[13] Some commentators have suggested that this makes the figures difficult to compare across states, because the average size of the schools built in some states was significantly smaller than in others.[14] However, the average size of projects in each state (see **Table 2**) suggests that poor performance is not merely an artefact of the cost per square metre measure. Victoria had high costs despite a large average project size, and Western Australia had low costs despite a relatively small average project size.

New South Wales did build smaller projects, but the Taskforce places most of the blame for their high costs per square metre not on the size of their projects but on the "relatively high fees paid to managing contractors".[15] The significant costs recorded by Victoria under 'site-specific factors' are also an insufficient explanation for that state's high cost per square metre (the Taskforce suggested that this "reflect[ed] imprecision around cost allocation as much as site specific factors"[16]). Therefore, while cost per square metre is not a perfect measure of value, it remains an important indicator.

The BER Taskforce also collected statistics on the number of complaints in each jurisdiction. From its inception onwards, the Taskforce was designated as the contact point for any complaints from the general public about BER projects. Complaints ranged from concerns about value for money, through to dissatisfaction with the decision-making processes and the policy governing the program. The number of complaints – expressed as a percentage of the number of BER schools in each jurisdiction – serves to measure the level of public support enjoyed by the program in each state. Like cost data, the number of complaints also varies widely across the different states (**Figure 1**). NSW received more complaints than any other state. The number of complaints correlates strongly with the magnitude of the costs in each jurisdiction, and to some extent this correlation is to be expected, since many of the complaints relate to value-for-money issues.

We can now compare the data on costs and complaints with the different attributes of each state's delivery mechanism for the BER.

Figure 1 – Average cost per m² (regionally adjusted); complaints as a percentage of BER schools[17]

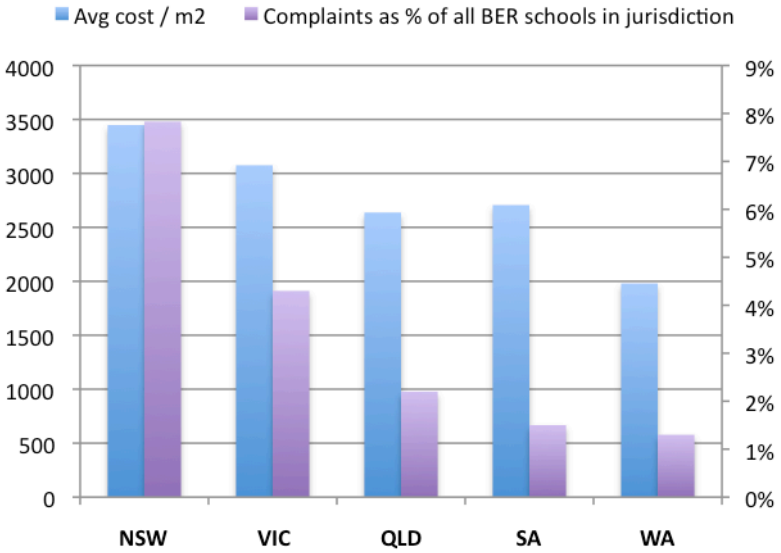


Table 1 – Characteristics of BER delivery[18]

	NSW	VIC	QLD	SA	WA
Degree of external delivery	High	High	Medium	Low	Low
Risk transfer to external parties	High	Medium	Medium	Medium	Low
School level empowerment and consultation	Low	Low	Medium	Medium	Medium

Table 2 – Average project size[19]

	NSW	VIC	QLD	SA	WA
Average project size (m^2, Gross Floor Area: halls, libraries and classrooms)	393	868	499	558	445

Degree of external delivery, risk transfer to external parties

While all states used a considerable level of private sector involvement in the day-to-day project management and construction of the projects, some states retained a much more central role for internal government staff at the higher levels of monitoring and program management.

Of all the states, NSW and Victoria relied to the greatest degree on the private sector (Table 1). NSW outsourced the high-level management and delivery of the BER projects to seven large managing contractors.[20] Victoria, having already outsourced the high-level program management of school capital works prior to BER, continued this approach.[21] Queensland made much more use of their internal capacity than NSW and Victoria, while still using some large managing contractors for a portion of their projects. WA and SA didn't use large external managing organisations; instead they often positioned smaller architecture firms in a managing role and relied more on school principals, with government-employed regional co-ordinators overseeing the works.[22]

"the two states with the most complaints and highest costs were those that were the most reliant on external contractors"

These different usages of the private sector were summarised by the Taskforce as 'High', 'Medium' or 'Low' reliance on external delivery – their assessments are shown in **Table 1**. Among the five most populous states, the two states with the most complaints and highest costs were those most reliant on external contractors for the management of the program.

School-level empowerment and consultation

The other factor that correlated with performance in the BER program was the degree to which schools were empowered to manage various aspects of their building projects. This also varied considerably across states. **Table 1** shows a summary of the level of school-level empowerment and consultation in each state, as evaluated by the BER Taskforce.[23] In Western Australia, schools were relatively empowered. Each government school in WA had "an ongoing engagement with an architect prior to tendering and school principals and other local school representatives remained involved throughout the project".[24] In South Australia school principals also participated in "fortnightly site meetings with the designer and builder for the project".[25] In Queensland, government-employed project coordinators assisted principals in their interactions with the building projects, relieving them from most of the day-to-day involvement, while also facilitating their input. The governments of NSW and Victoria allowed much more limited input from schools and school communities. Schools were consulted, but principals weren't empowered to same extent as in other states.[26]

The BER Taskforce notes that in NSW "some of the complaints arose from a perception that managing contractors were making unilateral decisions without adequate school consultation" and in Victoria many complaints referred to the "low levels of contact between the project manager and the school community".[27] This suggests that inadequate empowerment of schools and the communities surrounding them was a key cause of dissatisfaction in these states. In relation to

costs, a number of schools also indicated to BERIT their feeling that, had they had greater control over the projects, they could have achieved better value-for-money.[28] The Taskforce also observed "diseconomies of scale of a centralised process, for example, multiple communication and decision making channels and duplication of effort and responsibilities".[29] These sentiments emerging from schools align with the numerical evidence on costs and complaints, suggesting that school and community input into the projects was an important factor in determining the level of satisfaction and value-for-money achieved by the new facilities. This conclusion is also consistent with the expectations of what economists call principal-agent theory, explained below.

To summarise the evidence so far, a lack of school empowerment, a high degree of external delivery and a high degree of risk transfer to external parties are all factors that correlated with less impressive performance in the BER program. The mechanisms though which these factors are likely to have influenced the outcomes of the program are very familiar to economists who scrutinise the dynamics of government outsourcing.

THE BER AND THE ECONOMICS OF OUTSOURCING

Economists working in this field usually emphasise that there are no simple rules to use in deciding whether to outsource or carry out tasks internally. It has long been understood that the ability to achieve benefits from outsourcing is highly contingent on a wide range of factors, including the nature of the market for the goods or services, the respective skills and information available to governments and private providers, and the difficulties and costs of drawing up and monitoring contracts.

Looking at the evidence from the BER program, some problems that are very familiar to experts on the economics of outsourcing are apparent. One of these is usually referred to as the 'principal-agent problem'. This problem occurs when an individual or organisation (an agent) is carrying out work on behalf of someone else (the principal). On the one hand the BER program involved state government bureaucrats acting as agents on behalf of the school and the school community. In many states further delegation occurred as bureaucrats (acting as a principal) engaged large private sector managing contractors (as agents) to manage and construct projects. Yet more delegation then occurred between managing contractors and subcontractors.

Of course, in a scenario where the interests of the agent and the principal are not exactly aligned, problems can easily arise. In NSW and Victoria, the disempowerment of those best positioned to know how the facilities should be built became a hindrance to the success of the building projects. It is no great surprise that actors with a big stake in the outcome of a project are often most suited to delivering, making decisions on and overseeing that project. One way of understanding this is as a simple democratic principle; that is, people who are strongly affected by a certain project should have a commensurate say in how that project is designed and constructed. It was argued by some states that the imperative for a quick start to the projects made extensive consultation with schools and school communities impossible. However, as the BER proceeded, states that spent longer in the

"States that spent longer in the planning and consultation phases gained ground on other states during the building phase of the project lifecycle"

planning and consultation phases gained ground on other states during the building phase of the project lifecycle.[30] The lesson here for public works is that ongoing participation of stakeholders must remain a priority regardless of what other imperatives are attached to a project. The benefits of this approach were clearly visible in the Catholic and independent school systems, as well as the WA government BER program.

Turning to the degree of external delivery, economic theory on outsourcing provides us with a number of possible explanations as to why a higher level of public sector involvement may lead to better outcomes in some circumstances. Transaction cost economics draws attention to the difficulty of defining the required services in a contract, due to uncertainty and incomplete information.[31] A broad list of considerations and imperatives are often embedded in a public works project. These considerations include environmental issues, maintenance costs, community consultation and involvement, equity, industrial relations, economic strategy, safety and probity. These requirements can be difficult to encapsulate in contractual form, especially if their relative importance to the community shifts over time. In addition to the difficulty of drawing up a contract, the resources required to monitor its implementation and enforce the terms of the contract also need to be considered. Where the services required are difficult to define, or the costs of drawing up, paying for and enforcing a contract are likely to be greater than the costs of delivering those same services using internal resources, a high degree of internal delivery should be preferred.

Evidence from the BER program resonates with the insights of transaction cost economics. Managing contractors were often able to deflect project risks on to subcontractors and schools, despite being paid to assume the lion's share of the risk themselves. One example of this ability to pass risk on to other parties during the BER was the practice of de-scoping building features. To contain costs, contractors were allowed under the terms of their contract to drop certain building features part way through the design phase.[32] The BER Taskforce notes that the contracts used in NSW failed to encourage the managing contractor to maximise the building scope. This effectively allowed contractors to offload some of the project risks back onto schools. This is an example of how, in the absence of detailed oversight, it is difficult to design a contract to ensure that a contractor delivers the maximum possible benefit to the project's stakeholders.

In Queensland, where public sector staff had a greater role in scrutinising the rollout, the opposite outcome was sometimes observed. Decisions about the scope of the project were made jointly by the school, the Department of Education and Training, and the private sector organisation contracted to manage the project. Technical support was provided to assist the school in this process. With this higher degree of involvement by public sector personnel, discussions about scope sometimes led to the discovery that costs were *less* than expected, and in these cases building features were *added* to make full use of the funding provided to each school.

"managing contractors were often able to deflect project risks on to subcontractors and schools, despite being paid to assume the lion's share of the risk themselves"

The BER Taskforce also called into question the ability of NSW and Victoria to enforce the terms of their contracts with external managing organisations.[33] Whereas QLD and WA often had works-qualified government employees on site to directly oversee problems, NSW and Victoria had a more limited ability to ensure that the managing contractors were delivering according to their promises. As transaction cost economics emphasises, significant resources and expertise are often

required to draw up contracts and monitor performance. Without sufficient resources devoted to monitoring the performance of contractors and their adherence to contracts, contractors may be less inclined to perform to a high standard.

Further problems were observed in NSW and Victoria relating to the outsourcing of quality management processes. The BER Taskforce observed numerous instances of works being approved in those states that did not meet the standards laid out in the contract or in state legislation.[34] The BER Taskforce noted that in NSW, managing contractors were given financial incentives tied to 'completion' of projects, but the definition of 'completion' was also subject to differences in interpretation. A potential conflict of interest was observed between the managing contractor's role in ensuring that buildings were complete and their economic interest in achieving timely completion. [35]

BER problems - nothing new

These problems faced during the BER are not new to scholarship on government outsourcing in Australia. Literature on government use of competitive tendering and contracting yields numerous Australian examples in which similar problems have been experienced. Problems related to the two central factors affecting the success of BER projects can also be found in these two ill-fated outsourcing efforts:

- *A lack of consultation with stakeholders* was a feature of a number of aborted tendering processes for federal government IT outsourcing in the late 1990s; responsibility for these decisions was eventually devolved back to individual government agencies after government realised that a one-size-fits-all, centralised outsourcing push was failing.[36]
- *Questions about the public sector's ability to act as an informed contract negotiator and effectively offload risk* surrounded the privatisation of Commonwealth Serum Laboratories. The privatisation was plagued by a poorly designed contract and an overoptimistic assessment of how much risk had been offloaded to the private sector. The contract saw excessive payments made to the privatised entity, despite the fact that the public was left holding many of the risks inherent in the business. Questions lingered about the capacity of under-resourced government departments to deal effectively with the private sector.[37]

States that contracted out the management of the program at a high level appeared to underestimate the difficulties and costs of drawing up and enforcing of contracts, especially under uncertain circumstances. These are precisely the costs highlighted in the study of transaction cost economics. During the BER program, an increased reliance on internal capacity allowed some states to avoid having to nail down every aspect of the rollout in a contract. By being involved in the details of the rollout, government personnel were able to respond with greater agility to problems as the program proceeded. A high degree of consultation and involvement on behalf of school principals and school communities took some time in the initial stages of the project, but it more than paid off in avoiding principal-agent problems that threatened to deliver buildings poorly matched to schools' requirements.

The fact that the BER evidence aligns with scholarship on the economics of outsourcing makes it a particularly rich source of lessons for those looking to reform state and federal government policy

on public works. Unfortunately, those lessons have so far been sidelined by the more simplistic and ideological reactions outlined above.

Better off without public sector involvement?

One forceful response to the BER program was that the public sector should simply get out of the way:

> "centralised bureaucracies delivered indifferent outcomes to many schools at higher costs ...The outcome of the program affirms the value of the economic reforms of the past 30 years that have emphasised efficiency and smaller government."[38]

However, this conclusion is directly contradicted by the finding that decreased participation by the public sector correlated with *more* complaints and *higher* costs in this program. It is certainly true that an overly centralised delivery process in some states coincided with a lack of consultation with schools and their communities. However, a clear need to increase consultation and input by schools and school communities into their own infrastructure does not imply that state education authorities should withdraw from the process of providing school infrastructure.

On balance, the evidence seems to suggest that *more* capacity at a state level and more public sector participation in the process led to better outcomes, as long as schools had strong and informed input into the projects. In states like Queensland and WA, public sector capacity was utilised in such a way as to *facilitate* the active participation of schools and school communities in the BER process. Senior bureaucrats in Queensland didn't want their school principals to be distracted from high-priority teaching and curriculum-related tasks, but instead of cutting them out of the process, they used government-employed project coordinators to take the heat off the principals in dealing with contractors, while simultaneously facilitating and informing their input.[39]

Contrary to the assertion that strong involvement of a 'centralised' bureaucracy was detrimental to the program, Western Australia achieved good results by relying overwhelmingly on state government staff for high-level management of the BER. They demonstrated the characteristics of an informed buyer, and made use of a carefully built up body of knowledge. Crucially, they also closely involved school principals, using regional coordinators to support principals in dealing with the (often small scale) private sector contractors.[40] Many of the mechanisms of WA's delivery were just as centrally managed as all of the eastern states[41] – government staff performed the high-level management tasks – but crucially, schools were also consulted closely in the process. The evidence from the BER program clearly shows that strong government involvement can be important in facilitating local input and empowering stakeholders who aren't experts in engineering or construction.

The public sector in the BER evidence

While some of the commentary on the BER was quick to equate 'inefficient' delivery with 'public sector' delivery, the above analysis shows that there is little evidence to support these sentiments. Furthermore, contemporary economic theory on outsourcing shows that such generalisations are often wide of the mark. Transaction cost economics makes clear that a decision about whether to

conduct work internally or externally (for a firm or for a government) is not a straightforward one.[42] The decision depends heavily on the circumstances surrounding the good or service in question, and the relative access to information of the potential buyers and sellers. The highly contingent nature of benefits from outsourcing has also been repeatedly shown by empirical studies of outsourcing.[43]

Such studies show that, at a minimum, governments require the capacity to be an informed buyer, and to intelligently monitor adherence to contracts.[44] Evidence from the BER program reaffirms this view of the contracting relationship, and suggests that under certain circumstances, it may be important for state governments to have a significant level of public works capacity available to draw on. These considerations should draw our attention to the level of public works capacity available in each of Australia's states and territories. If significant public sector participation was a feature of the delivery mechanisms in a number of the more successful jurisdictions, it is worth investigating what level of capacity was available at the beginning of this program for each state to draw on.

PUBLIC WORKS SKILLS AND CAPACITY IN AUSTRALIA'S STATE GOVERNMENTS

States that weren't confident about their internal capacity to cope with the BER were inclined to arrange contracts with external managing organisations, in an attempt to offload the risks inherent in the program. They did this by outsourcing the high-level management of the program, and drawing up contracts with performance criteria that attempted to encapsulate a definition of successful and timely rollout of the infrastructure. Unfortunately the evidence suggests that the more risk governments attempted to offload, the less successfully their projects were rolled out. Risks that were ostensibly handed over to the private sector had the unfortunate tendency to find their way back into the hands of governments or schools.

However, some governments may have felt they had little choice but to attempt to offload these risks. For state and territory governments, the decision about whether or not to use external managing organisations is likely to have been strongly influenced by their existing level of internal expertise. Even if extra staff could be brought on to assist with a spike in workload, a project of this size would require a sizeable internal pool of existing public works staff that any extra personnel could be quickly incorporated into.

The Director General of the NSW Department of Education and Training noted that the decision to outsource the high level management of the program was based partly on the relative capabilities of the department and the private contractors:

> "These firms come with systems, experience and quality. They are able to expand their operations rapidly. They have the systems and experience to do that. They can get high-quality work done very quickly, beyond the reach certainly of this Department using its ordinary arrangements."[45]

In this way the delivery method chosen for BER projects doesn't simply reflect the policy made by the various jurisdictions to govern the rollout of this particular program, it also reflects a long history of decisions in each state about what level of ongoing internal works capacity to maintain. It is therefore important to situate the BER program within the history of state and territory government public works delivery.

The first and most obvious point to note is that the number of building-qualified staff has been cut dramatically over the last few decades by all jurisdictions. Whereas in the early 70s public works departments at both the state/territory and federal levels had a full range of expertise internally, allowing them to construct a wide range of infrastructure with minimal external assistance, now all governments rely heavily on the private sector in building and maintaining infrastructure.

Figure 2 shows the number of state government architects per million head of population in each state between 1976 and 2006. All states show a marked drop, generally flattening out over the last decade. This suggests that the process of shedding internal expertise may have 'bottomed out' to some extent. The size of the abiding remnant of architectural employees varies considerably across the states, indicating a range of different approaches to the end of the strong outsourcing push in the 1990s. Queensland retains the highest number of architects, and Victoria the least. The number of engineers follows a similar general trend – bottoming out over the last decade – but in this case the levels of expertise have for the most part converged (see **Figure 3**). Data provided to the Centre for Policy Development by state governments shows that this remnant of engineers is highly concentrated in roads agencies, with far fewer engineers now attached to public works departments.[46] This, along with the architect numbers, suggests that states retain a comparable level of expertise in the roads area, but have diverged considerably in their approach to other public works.

Figure 2 – Architects employed by state government per million head of state population

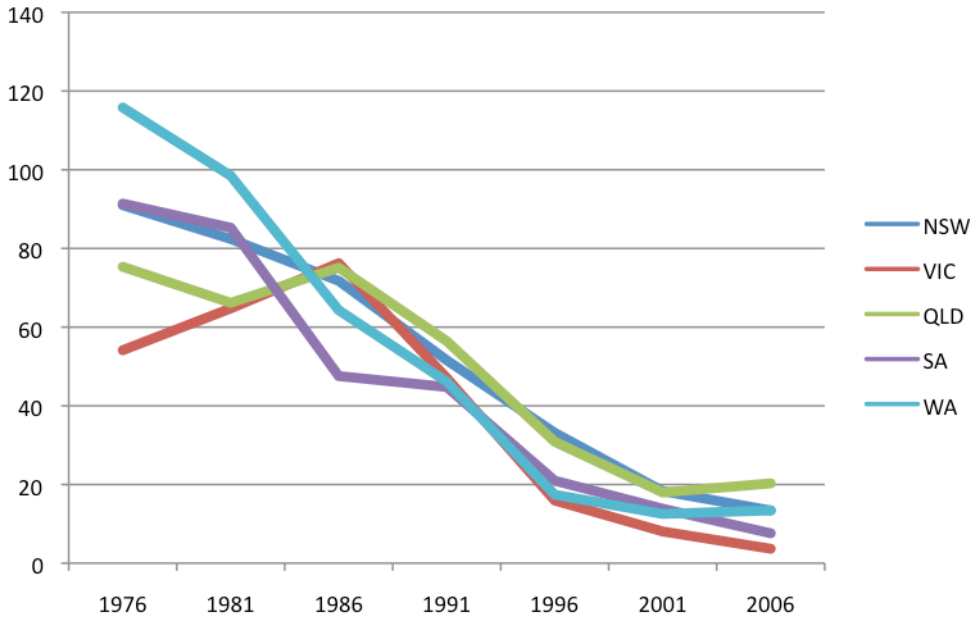
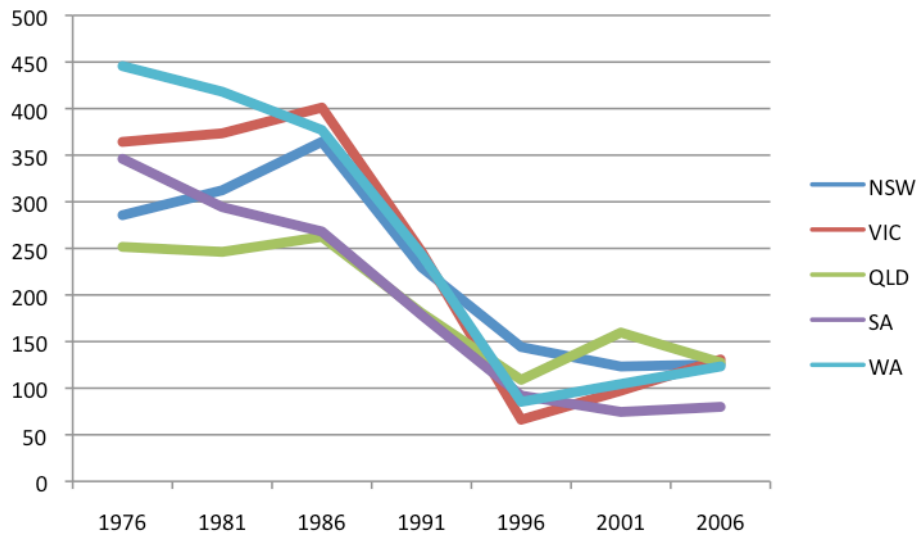


Figure 3 – Engineers employed by state government per million head of state population



STATE GOVERNMENT CAPACITY: HOW DID WE GET HERE?

The history of how state governments responded to National Competition Policy (NCP) is central to understanding the different levels of remaining public sector works capacity. National Competition Policy was intended to spread the principles of competition embedded in the Trade Practices Act to the public sector, which had previously not been subject to rules of this kind. NCP required that governments expose 'distinct business activities' to private competition. This effectively meant that public works departments had to be either corporatised – that is, turned into discrete business units – or privatised. Most governments chose to corporatise their works functions and expose them to private competition, rather than privatise them.

Ostensibly, the response to NCP was similar across all jurisdictions; public works functions in most states and territories were turned into discrete business units and subjected to private competition. However, in practice, works departments in different states had very different levels of commitment to the challenge of competing against the private sector, depending on their policy environments and the signals they received from government.

National Competition Policy

In 1992, the Keating government set up an inquiry into national competition policy, headed by Professor Fred Hilmer. Through the Council of Australian Governments (COAG), state and territory governments came to several agreements with the Commonwealth that acted on these recommendations. In the words of the National Competition Council, these agreements involved (amongst other reforms):

- "extending trade practices laws prohibiting anti-competitive activities (such as the abuse of market power and market-fixing) to all businesses – previously most government owned and some private businesses were exempt"
- "introducing competitive neutrality so that government owned businesses have no advantage over their privately-owned competitors because of their public ownership" and
- "the review and where appropriate reform of all laws that restrict competition unless the benefits of the restriction to the community as a whole outweigh the costs and the objective of the law can be achieved only by restricting competition, and a requirement that all new legislation that restricts competition meet this test"[47]

NCP has caused controversy because of its strong stance in favour of applying market principles to areas of public life that had previously not been run along commercial lines.[48] Controversy has been particularly fierce where the benefits of competition are unclear, or difficult to realise in practice. While NCP ostensibly builds in a degree of flexibility in terms of implementation, for the most part it presumes that increased competition will deliver benefits to the community. Governments seeking exceptions to market principles face increased scrutiny and must justify their decisions to the National Competition Council. Debates over the impact of NCP continue, and as this paper demonstrates, the longer-term implications of NCP in the area of public works may be yet to be fully felt.

For some works agencies, exposure to private competition led quickly to a raising of the white flag, and a rapid reduction in internal technical capacity. In other states, the ability of the public agency to compete effectively with the private sector was taken seriously, and in at least one case this was achieved with a degree of success. In the mid-1990s, while other public works departments were rapidly shedding capacity, the corporatized arm of Queensand's public works department, QBuild, was vowing to "retain a level of work in-house sufficient to ensure that the skills and practices of staff are up-to-date with current practices in all fields of government capital works".[49] QBuild even went so far as setting goals for the percentage of government work they aimed to retain. While the number of architects in QLD still fell during the 1990s, this reduction occurred at a slower rate than in other states.

This approach was clearly influenced by the Queensland government's relatively circumspect attitude toward National Competition Policy. Queensland's official response to NCP made a point of emphasising that "implementation of the reforms is subject to a public benefit assessment", and noted that as long as competition was pursued where appropriate, "the Policy is also neutral with regard to the nature and form of ownership." [50]

Contrast those sentiments on NCP to the sentiments of the Victorian government on the broader topic of outsourcing around the same time: the Industry Commission reported the view of the Kennett government that it "should only directly provide those services for which markets do not exist or cannot be created".[51] In this policy context Victoria's works expertise quickly shrivelled

when exposed to private competition. In 2000, after the election of the Labor government, Victoria's response to Competition Policy was revised to include a new 'public interest test', but this had little impact on the level of internal works expertise.[52]

In the states where works agencies weren't in a position to compete – or weren't encouraged to compete – with the private sector, capitulation to private competition could quickly become a slippery slope. Losing one large public sector client had the capacity to quickly deflate the size of a works agency, wiping out capabilities that may have been utilized by other public sector clients if the agency had the work volumes required to keep them operating. The choice of a public sector alternative disappeared rapidly in many places. The WA Government, in a recent report on public works management capabilities, noted that sharp declines in capacity had "left agencies with little choice other than to seek this support directly from the private sector."[53]

Figures from the most recent available census in 2006 can provide a rough picture of the capabilities of each state's public service at the end of these differing trajectories. **Figures 4 and 5** show the number of state government employees in various works-related occupations. **Figure 4** expresses the staffing level as a percentage of the state's population, while **Figure 5** expresses the staffing level as a percentage of the private sector employment in that occupation in that state.

Unsurprisingly, **Figures 4 and 5** show that Queensland retains the highest level of internal building-related expertise. WA maintains a high level of internal building-qualified project managers, but minimal levels of other expertise. NSW has a basic level of expertise, and, having embraced private provision of works services in the 1990s, Victoria now has the lowest level of internal works expertise of all states.

The higher numbers of some works-related staff in both Queensland and Western Australia may be partly related to their large land areas, within which there are areas of market failure – that is, areas where the market is unable to supply infrastructure or building related services at a reasonable price. As a result of these areas of market failure, the governments of Queensland and Western Australia may be under greater obligation to retain staff that can provide services in these areas. As the next section details, this obligation may now be providing other benefits for these governments outside those areas of acute market failure.

Figure 4 – State employees per million head of state population, 2006

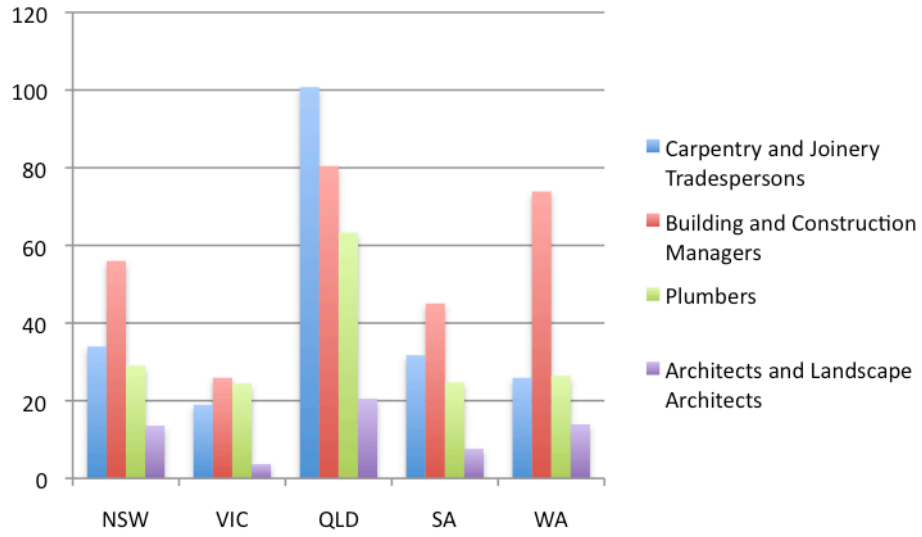
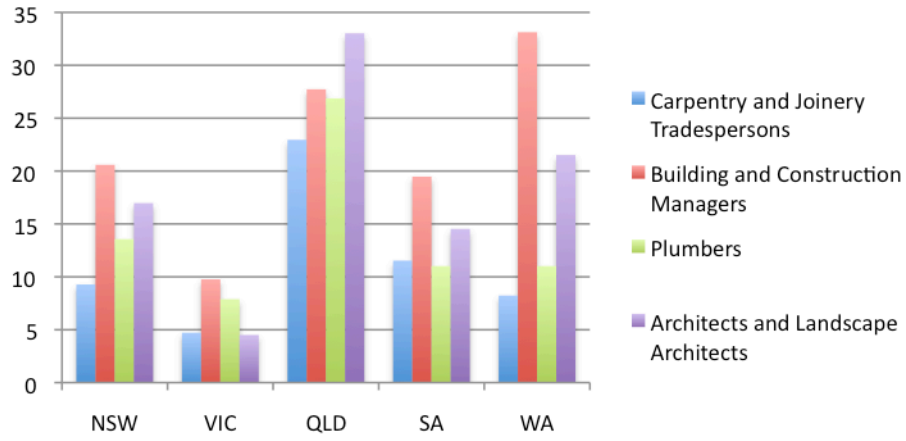


Figure 5 – State employees for every 1000 employed in that occupation in that state



While local government lies outside the scope of this report, it is worth noting that capacity at the local government level has also been subject to a long-term decline in Australia. In addition, the decline in state government capacity in this area has also affected local government. When state government capacity was stronger, local governments were sometimes able to call on this capacity for assistance with their own projects. Now projects at the local level rely overwhelmingly on private sector advice and management, and there is little opportunity for the public sector at the state or local level to accumulate knowledge on how to order and deliver these types of projects for local government. This often leaves individual councils to interact with the private sector in the absence of any consistent body of knowledge on how best to achieve value for money out of those arrangements.

STATE GOVERNMENT CAPACITY AND THE BER PROGRAM

"it pays to have enough internal expertise to interact with markets in an intelligent way, and ensure that contractors are delivering value for money"

The different levels of internal works capacity available to state governments constrained their options in responding to the BER program. Victoria had little choice but to continue using large managing contractors to deliver the projects. NSW could have utilized its basic internal capacity to a greater degree, but nonetheless – perceiving its capacity to be insufficient for the task and unable to be quickly augmented – the government opted for a high reliance on external managing organisations. Queensland had the greatest amount of internal capacity available to draw on, and they utilised important parts of this capacity. There is evidence to suggest that the different levels of works capacity in these jurisdictions had a bearing on the level of success they met with in implementing the BER program.

Economic theory has long incorporated a strong understanding of how an information asymmetry between parties to a contract can lead to undesirable outcomes for one or both of the parties.[54] In simple terms, for governments, this means that it pays to have enough internal expertise to interact with markets in an intelligent way, and ensure that contractors are delivering value for money.[55] There is some evidence to suggest that Queensland's considerable internal capacity afforded that state a superior 'informed buyer' ability during the BER program. As reflected in the statistics, Queensland's public works capacity is uniquely well preserved when compared with all other states and territories. It is able to carry out a full range of public works functions, from procurement to engineering to construction, and is the only fully-fledged public works department remaining in the country.

Although Queensland chose not to use the full range of their works capabilities for the BER program, they nonetheless benefitted from the presence of a substantial internal skills base. In formulating policy to govern outsourcing of the BER program, the Queensland government had the ability to draw on internal staff with hands-on construction experience. At the beginning of the program, some public works staff members were transferred from the professional services arm of the organisation to the policymaking arm, allowing for practical expertise and industry knowledge to be brought to bear on the design of the tendering process. The BER Taskforce concluded that the Queensland Government had been "especially strategic in the engagement of the construction industry",[56] and interviewees from within the Queensland public service were quick to point out that Queensland's policy design had benefitted from the expertise of public works staff who had spent time engaging with various layers of the state's construction industry.[57] Staff from the Department of Housing and Public Works also acted as project superintendents, working with the large managing contractors that were engaged for a portion of the projects,[58] and this ensured that qualified public-sector staff were involved in detailed monitoring of the rollout.

The Queensland Department of Education and Training (DET) also had a significant pool of internal skills available to work on the project. Even prior to the BER, the DET had almost 100 staff working on capital works.[59] Many of these staff members were utilised during the BER program as project co-ordinators. Around half of these government-employed coordinators also had formal construction-related qualifications.[60] These coordinators took the heat off the principals in dealing

with the private-sector project managers on their behalf. They also looked out for the interests of the DET as the final owner of the assets, dealing with any problems in the quality of the work and attempting to ensure that the buildings would be easy to maintain. In this way the role of project co-ordinator was effectively used in Queensland to deal with the principal-agent problems discussed earlier; both the DET and the school were represented on a day-to-day level in the monitoring and execution of the project, and the school principals were able to draw on the construction experience of the project co-ordinators, reducing the risk of an information asymmetry arising out of a school principal's lack of construction knowledge.

New South Wales and Victoria had less success in their interactions with the private sector. NSW set out first and foremost to ensure that the Commonwealth's expectation of a timely rollout was met. With speed and risk mitigation their focus,[61] they did perform well on timeliness but poorly on most other measures, including risk mitigation. As the controversy in both Victoria and NSW demonstrated, their attempts to offload a large amount of risk onto the private sector met with limited success. The Taskforce called into question the capacity of NSW and Victoria to enforce the terms of their contracts with the large managing organisations they engaged.[62] Whereas QLD and WA often had works-qualified government employees on the ground able to oversee any problems at specific worksites, NSW and Victoria had a more limited ability to ensure that the managing contractors were delivering according to the expectations of the community.

South Australia and Western Australia were able to achieve reasonable results with a lower level of existing internal expertise. However, Western Australia's considerable project management capabilities may have assisted in convincing the government that it was able to roll out the program with a high degree of public sector involvement. The WA public sector displayed confidence in its ability to identify a large number of reliable, small-scale providers and interact with them in an informed way to secure good outcomes. The government used its accumulated knowledge on school construction to save money. Existing school design templates were re-used, leading to much lower costs for design than in other states, where education authorities paid much more to create design templates or bespoke designs. School principals were also relied upon to represent the interests of the school and interact with the private-sector architects who managed the day-to-day running of the projects.

The evidence from the BER program provides little support for the generalisation that "governments are not suited to project delivery". It would be more correct to say that governments with little project delivery capacity are bad at project delivery, especially where they fail to consult closely with stakeholders. Given the difficulty of using contracts to offload the risks of the program, states with the ability to effectively assume risks internally had a material advantage. Queensland, the state with the most internal expertise, was the best performer of the three most populous east-coast states, and utilised an intelligent combination of internal expertise and private sector capability. Risks that were difficult to offload to the private sector could be dealt with internally, and where responsibility was given to private sector organisations, the procurement methodology was crafted with industry expertise, and industry expertise was brought to bear in monitoring performance.

Any policymaker considering further cuts to what has already become an anaemic level of works capacity in most jurisdictions should first consider the problems experienced during the BER program by those states unable or unwilling to leverage internal expertise.

FEDERAL GOVERNMENT CAPACITY

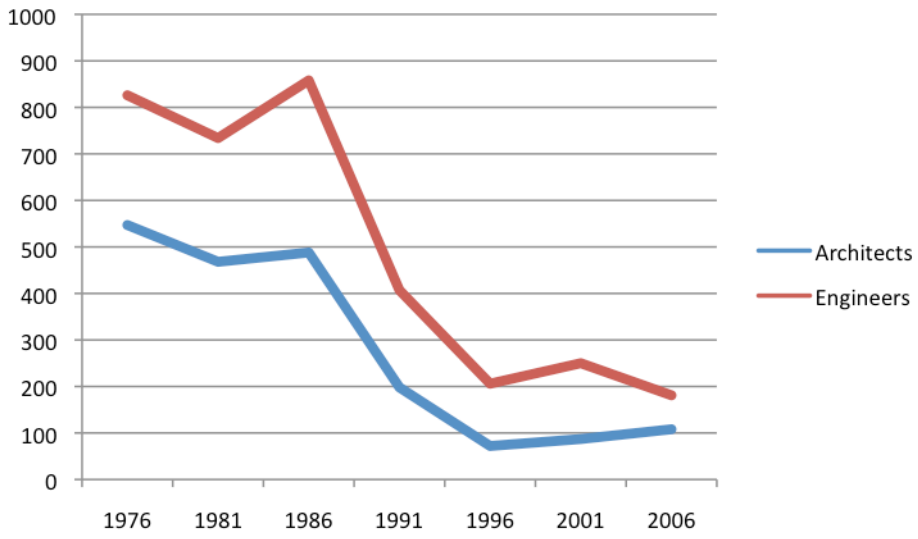
The rollout of the stimulus package also demonstrates why the federal government – not just state governments – may benefit from rebuilding some capacity in the areas of public works and infrastructure delivery. One senior state-government infrastructure official complained that, going in to the project, the federal Department of Education, Employment and Workplace Relations "didn't know what they didn't know", and then in the midst of the BER rollout, decided that they needed more detailed oversight of the program but lacked the expertise or experience to achieve this.[63] Interviewees also suggested that the federal government's funding decisions would be improved by greater internal 'informed buyer' capacity for scoping and advising on project procurement,[64] or at least by taking greater advantage of the expertise still remaining in some state governments.[65]

Another part of the federal government's stimulus package, the homeowners insulation program (HIP), also revealed capacity problems at the federal level. Its failures – like those under the BER program – were somewhat exaggerated in media coverage,[66] but there were nonetheless clear problems in its implementation. The Hawke review of the program found that "the HIP took the Commonwealth into construction industry operations where it had little expertise,"[67] and that the managing agency, the Department of the Environment, Water, Heritage and the Arts, "did not have staff with detailed knowledge of the insulation installation industry".[68] Despite measures taken to second staff internally and to engage contractors, "capacity issues remained significant throughout implementation of the program".[69]

The evidence from the state-based comparison already detailed in this paper suggests that these failures were not inevitable. Nor is there any evidence that "project delivery" is an intrinsic weakness of the public sector. Rather, internal skill shortages are the result of decisions made over time about the shape and capability profile of our public sector, and this certainly applies at the federal level.

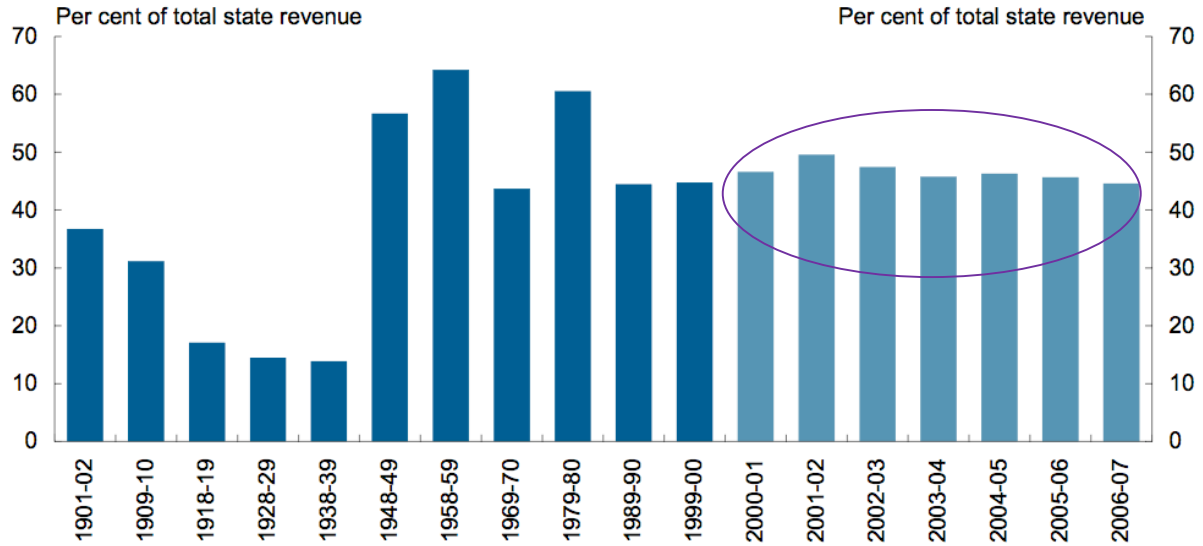
ABS statistics show that in terms of technical capability, the numbers of architects and engineers are less than a quarter of what they had been in the 80s (see **Figure 6**). Since then, the federal government has devolved some responsibilities to the territories, and there has been a corresponding drop in internal capacity. However, the federal government retains a pivotal role in the prioritisation and funding of infrastructure projects.

Figure 6: Number of architects and engineers employed by Commonwealth government



This role in infrastructure provision is not only pivotal in the context of a fiscal stimulus package. This financial year the federal government allocated around $3.7 billion in grants to states specifically for infrastructure. In the previous year it was $7.7 billion, and $5.4 billion is budgeted for in 2013-14.[70] Australia's relatively large vertical fiscal imbalance between the federal and state levels of government means that federal funding will continue to be a large contributor to state spending on infrastructure and public works (see **Figure 7**). This means that the federal government can never entirely wash its hands of the need to assess, oversee and evaluate infrastructure projects, even if it is state and territory governments that are primarily responsible for their implementation. The consultations of the Moran review of the Australian Public Service, and submissions to the review, "expressed concern that over time, the APS has moved away from recognising the value of specialist and technical capabilities which has created skill gaps".[71]

Figure 7: Vertical fiscal imbalance since federation (grants as a percentage of total state revenue)



Source: http://taxreview.treasury.gov.au/content/Paper.aspx?doc=html/publications/papers/report/section_10-06.htm

The current federal government has on a number of occasions blamed the Howard government for current deficiencies in federal technical and planning capacity. In defending the government's performance in the wake of the financial crisis, Kevin Rudd criticised the previous government, saying:

> "Of course if we'd had more infrastructure projects sitting on the shelf and ready to go, then we'd have gone ahead with those. But when we came into office, that work simply hadn't been done - the previous Government had neglected its responsibility for national infrastructure for 12 years".[72]

Implied in Kevin Rudd's statement is that the Howard government's lack of attention to infrastructure went beyond underspending on projects; it also manifested as an underinvestment in federal government planning capacity. Anthony Albanese contended that, when the Labor government took office in 2007, "...there was not a single urban planner in the entire Commonwealth public service ... Not one".[73] However, **Figure 6** shows that the long term historical trend of cutting back on technical expertise at the federal level has taken place under successive Coalition and Labor governments.

It is encouraging that since the Labor government came to office, steps have been taken to expand federal government capacity within Infrastructure Australia, and to bring on expertise in the area of urban planning.[74] However, this expertise remains high-level, and it is not clear to what extent Infrastructure Australia has the technical knowledge necessary to cover the full range of infrastructure types. It is clear that capacity in other agencies like Department of the Environment, Water, Heritage and the Arts has been insufficient to meet the expectations placed on them over the last two years.

In one step towards the creation of a nationwide knowledge base on construction costs, the government has provided funding for the database of cost breakdowns created by the BER Taskforce to be housed at the University of New South Wales, where it can be further analysed and

added to. However, there is little sign of intense interest to continue adding data to this repository on costs of federally-funded projects around the country, and there has been no sign of a commitment that this information will be collected on future projects, or used to inform future government procurement. There has also been a lack of any visible effort by the federal government or state governments to ensure that best-practice delivery methods have been transmitted between jurisdictions in the wake of the BER program.

Turning to the federal opposition, positive sentiments have also been expressed by the Coalition about maintaining or expanding support for Infrastructure Australia.[75] However, both major parties are committed to measures that tightly constrain the resources available to the public sector. The Coalition has stated that they intend to make deep cuts to the size of the public service, and the Labor government has made public sector budget cuts and more than one temporary increase in the 'efficiency dividend' that is extracted from the APS every year.[76] These policies raise serious doubts about the commitment of either side of politics to maintaining the capacity of the APS at a level that can meet growing demands on its resources and ever-higher community expectations.[77] Submissions to the current senate inquiry into engineering skills shortages point out that the efficiency dividend makes it extremely difficult to compete with the private sector for engineering skills, because of a large wage gap between the public and private sector engineering roles.[78]

"both major parties are committed to measures that tightly constrain the resources available to the public sector"

There is a growing acceptance that Australia faces an infrastructure deficit in a number of key areas.[79] Estimates of the funding required to address Australia's infrastructure deficit range from $445 billion to $700 billion.[80] These estimates exclude any consideration of the need to reduce carbon emissions, so this business-as-usual infrastructure deficit will only be compounded by the need to overhaul infrastructure in our cities that is geared towards high fossil fuel consumption.[81] Furthermore, the threat of serious trouble in global financial markets has not subsided, and the government may again face the need to quickly roll out projects that can stimulate the economy while addressing infrastructure shortages. The BER program should therefore not be seen as an isolated or exceptional case; it should instead be seen as an important stress-test of the infrastructure and works capacity of Australia's governments in advance of a series of difficult challenges. We should ensure that our response to these future challenges is not undermined by insufficient public sector capacity.

A LOW-PROFILE BACKLASH AGAINST INSUFFICIENT PUBLIC SECTOR CAPACITY

The BER program tested the limits of public capacity in all jurisdictions, at both the state and federal levels. Lest it be thought that the limits of public sector works capacity are felt only in the context of a massive works-related stimulus package, it is worth touching on a few other examples, from both Australia and the US, that reveal how governments have come up against problems of insufficient public capacity since the outsourcing push began in the 1980s. There are numerous recent examples, both in Australia and internationally, of governments belatedly realising that outsourcing has been costly in unexpected ways.

Many government agencies have quietly bounced off the rock bottom of public capacity by selectively rebuilding strategic skills bases. These moves to rebuild capacity are also based on an a broader acknowledgement of the longer-term costs of relinquishing government capacity, like skills shortages, a lack of levers to use for industry development, difficulty drawing up and monitoring contracts and an inability to learn from past mistakes. These moves to rebuild capacity show that the concerns raised by the BER rollout are not limited to the context of rapid stimulus spending. They reflect a response to the ongoing difficulty of engaging with the private sector without the capacity to do so successfully.

"In recent years governments have been struggling to patch up a private sector skills shortage that was partly created by their own withdrawal from the large-scale employment of apprentices."

Engineering skills

One current sign of these longer-term costs is the current Senate inquiry investigating the impact of outsourcing on Australia's engineering skills pool. Many submissions to the inquiry suggest that outsourcing of engineering work has had a negative impact on the available training and career pathways for engineers, and the size and quality of the nation's engineering workforce. Whereas training and skills were once a strong focus of public works departments, private sector organisations to which this work has been outsourced often have less dedication to longer-term training arrangements. In recent years governments have been struggling to patch up a private sector skills shortage that was partly created by their own withdrawal from the large-scale employment of apprentices.[82]

The small pockets of engineering expertise dispersed across various private sector organisations are not conducive to large-scale training processes or career pathways. Submissions to the inquiry contend that private sector organisations devote more resources to 'poaching' skilled employees rather than investing in long-term training; an unsurprising strategy, perhaps, for companies that are uncertain about when the next bundle of work will arrive. Submissions to the inquiry also express concern that governments are exacerbating this skills shortage by tying up private sector engineering skills in the process of pitching for jobs.[83]

This evidence of long-term costs associated with the downsizing of the public sector engineering skills base are more concerning when paired with the evidence on the highly contingent benefits of outsourcing engineering services. Graeme Hodge's comprehensive, global review of outsourcing evidence undertaken in 1996 concluded that, on average, contracting out engineering services led to an improvement in economic performance "not significantly different to zero, indicating no significant cost savings".[84]

The identification of cosier relationships between the public sector and private providers

In another recent sign of longer-term hidden costs of outsourcing infrastructure work, a recent report commissioned by the governments of Queensland, New South Wales and Victoria shows that skills shortages have led to a bizarre reversal in what are commonly assumed to be the benefits of outsourcing. Instead of suppliers competing to provide lower prices for infrastructure services, governments are in some cases competing to access a limited pool of competent private sector

service providers.[85] In other words, outsourcing has led to a sellers' market rather than a buyers' market.

This has led to a de-emphasis of price criteria in some tender processes, as governments attempt to maintain good relationships with high quality providers. The same report raises concerns about information asymmetry between public sector agencies and private sector service providers, concluding that in some cases public sector agencies lack the skills to interact as equals with their private sector partners. This indicates that the long-term impacts of downsizing government capacity may be undermining the central original justification for outsourcing – the promise of price competition between private-sector suppliers. Somewhat simplistically, the report recommends that governments increase their emphasis on price criteria in tenders, without addressing either the structural problems that have led up to this point, or the implications of returning to a more adversarial relationship with providers of key skills and services to the public sector.

"Instead of suppliers competing to provide lower prices for infrastructure services, governments are in some cases competing to access a limited pool of competent private sector service providers."

Western Australia's works reform

Some governments have gone beyond investigating these downsides of low internal capacity, and have begun to rebuild their internal skills bases. The government of Western Australia is one example of a government that, faced with ballooning costs for infrastructure, reversed the decline in its internal public works capacity. The government conceded in 2009 that its Department of Housing and Works had shed too much planning and project management capability over the preceding decade. Its works reform plan stated that:

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> "project management of nearly all major projects undertaken by DHW [the Department of Housing and Works] has been contracted out to private sector consultancy firms ... This is not only extremely costly ... but has a significant organisational impact in that these consultant project managers gain from the knowledge and lessons learnt from managing such projects, rather than knowledge being retained within the public sector."[86]

The measures taken to address this situation were a prescient advance-strike against some of the problems that would later affect the BER program. In an accurate prediction of the two key shortcomings of other states during the later BER program, the WA government report:

- launched a large overhaul of its works and asset management functions, and flagged a push to rebuild its internal skills base; and
- pledged to reform what had become an overly-centralised manner of works delivery, recommending that "project management capability be strengthened in regional centres to enable more regional capital works projects to be managed locally, rather than from Perth, including temporary relocation for specific projects".[87]

That the same two concerns explored above in the BER evidence – overly-centralised delivery and a lack of internal capacity – were raised well before the BER program shows that these concerns are

of importance not only in managing large, one-off projects like the BER, but are also important for the regular business of public works delivery by state governments.

A further challenge confronted by the Government of WA is the maintenance of a skills base in a small public works agency. As the government skills pool has shrunk over the last three decades, career paths for skilled employees have become truncated or disjointed. This has made it difficult for governments to retain skilled staff. The WA Government recognized this problem in its review, pointing out that:

> "If the most complex and highest profile projects continue to be managed by private sector project management firms, the most enthusiastic and experienced public sector project managers will continue to leave when they reach the current ceiling of their remuneration package. Government will also continue to pay high recruitment and training costs due to high staff turnover."[88]

As these recent signs of a reaction to the 90s outsourcing push show, some of the effects of that push are only becoming obvious now, decades after the reduction in government works capacity began. Of the remaining state and territory managerial staff that *do* have practical, hands-on public works experience, it may still be the case that many are veterans of the era of fully-fledged public works departments. Therefore, as one scholar of public works in Australia puts it, we may be facing the possibility that "the remaining experienced core of [public works] project managers are remnants of a bygone era".[89] This, he says, makes it is "difficult to know where the next generation of project managers will come from or whether they have already been recruited".[90]

Roads agencies

One former senior roads engineer – interviewed as part of research for the Taskforce – said that the roads department in his state had recognised that they were at risk of becoming an ill-informed buyer of private sector services because of the retirement of senior experienced engineering staff. The department was finding only limited success in addressing this skills shortage through a belated push to hire engineering graduates.[91] The process of reinstating a career path for experienced works-qualified staff is not an easy one, and it could take years of work and expense in tempting qualified staff back from the private sector.

Like the government of Western Australia, roads agencies in some states have also acknowledged that they have shed too much expertise, and have gone about the process of rebuilding some part of their internal skills base.[92] However, in some respects the skills pool still remains too small to provide a full career path and varied training environments. Roads agencies have in part responded to these problems by increasing opportunities for public sector staff to access hands-on experience by being embedded with contractors.[93]

This has occurred as part of a broader shift toward less adversarial relationships with contractors, often formalised through certain types of contracts – like 'alliance' contracts – that seek to align the incentives of the agency and the contractor. As well as addressing the dispute-prone nature of contracting in the past, the use of these less adversarial contracting arrangements also speaks to a need for continuity in skills development and a requirement to bring technical competence closer in to the core of government planning and execution of public works. However, given that the case for outsourcing is predicated on the presence of competitive pressures, there is an inherent tension in

these sorts of strategies, especially if, as mentioned above, price criteria in tender processes are de-emphasised to maintain relationships with high-quality private sector providers.

Costs of tendering

The above examples show that in many instances decisions to contract out service delivery have been made with an unrealistically narrow view of the potential costs of external delivery. Long-term impacts on skills and institutional memory and learning have been neglected. But even more immediate concerns like transaction costs are often downplayed in the process of making decisions about outsourcing, despite these issues having had a strong presence in economics literature over many decades. In its advocacy of public private partnerships (PPPs), Infrastructure Partnerships Australia (IPA) has attempted to arrive at a dollar figure for savings to the community resulting from the use of PPPs – but IPA itself acknowledges that this figure is "net of bid costs". In other words, the costs of the tender process are left out of the picture. It may be unfair to single out the IPA for such an omission, because the practice is quite commonplace.

There is a dearth of solid research on the size of these transaction costs, despite the fact that such processes now occurr across all areas of government.[94] We are especially in the dark on the transaction costs borne by government in the process of setting up tenders, prequalifying suppliers, and evaluating tenders.[95] There is a basic understanding by public sector agencies that imposing unnecessary tendering costs on suppliers is undesirable, but little detailed information on the size of these costs. Information that does exist suggests that the costs of putting together tender documents can be considerable, especially where there are a large number of competing bidders and where suppliers themselves engage in a process of subcontracting work to other parties that must also bid for the work. Needless to say all of these costs are eventually borne by the government in the form of higher prices, or finally by the community in the form of wasted productive resources.

Even if we leave aside the issue of transaction costs, the prices paid by government need to be evaluated against benchmarks more often. Too often it is assumed that if an open and fair tender process has been followed, value for money has been attained. There is a surprising dearth of cost benchmarking data that would allow governments to compare similar projects and draw informed conclusions about the prices they are paying. The WA government demonstrated the value of having independent benchmarks to assess bids during the BER program. Not impressed with the initial prices tendered for many of the projects, they released their own independent quantity surveying estimates and only invited tenderers who were willing to match these prices to negotiate further.

Data collected by the BER Taskforce shows just how variable prices and quality can be across Australia – this implies that there is a significant cost when accurate benchmarks are *not* available for governments to inform their negotiations with the private sector. The BER data is a rare insight into what happens when similar projects are compared across the country. It would be reasonable to assume that cost and quality variability of the sort noted during the BER program is not out of the ordinary for many projects routinely built for governments across the country. However, in the absence of better data against which to benchmark the prices, we remain largely in the dark, and are left to simply assume that value for money has been attained.

It is to be hoped that the recently announced COAG review panel on construction costs can shed further light on the competitiveness of Australia's construction industry – its terms of reference state that the panel will use "suitably comparable international or jurisdictional benchmarks to

assess performance" – but the key question is the extent to which governments are prepared to realise value for themselves and add to pressure for productivity improvements through ongoing use of their own price benchmarks. While the BER Taskforce was able to arrive at estimates suggesting that needlessly high prices were paid in some jurisdictions during the BER, these kinds of costs usually remain firmly out of the public eye.

Constraints on rebuilding capacity

In some parts of the public sector these issues are being more carefully considered, and in some places the conclusion has been reached that agencies and departments need to rebound from the rock-bottom level of capacity they reached after the outsourcing push of the 1990s. It is likely that further evidence on the costs of outsourcing will lead to further pressure for rebuilding public sector skills bases over time. However, the process of rebuilding capacity is currently highly constrained by strong and bipartisan political pressure on public sector wage costs. Whereas the strategic rebuilding of public capacity has been done largely under the radar by departments and agencies, the politics of reducing the size of 'the bureaucracy', public sector pay-rise caps and efficiency dividends has been high-profile.

Federal policies to cut or constrain the Australian Public Service were outlined above. At the state level, the Liberal National Party in Queensland is cutting thousands of public service positions. Premier Campbell Newman has said only that it will "probably be lower than" 15,000 jobs.[96] NSW announced a cut of 5000 public service jobs in September.[97] On top of this the O'Farrell government has placed a spending cap on wages equivalent to the loss of an extra 10,000 jobs.[98] At the same time the Public Service Association of NSW has pointed out that the amount the state spends on temporary staff employed through labour-hire firms has surged.[99] The Victorian government has pledged to cut around 4200 jobs.[100] An unreleased review of Victoria's finances by Mike Vertigan was asked to explore "private sector involvement in service delivery" and has reportedly recommended "deep public sector cuts, outsourcing, privatisation and spending cuts".[101] Meanwhile in WA, despite the aforementioned moves to rebuild infrastructure-related capacity since 2010, the government has now announced an overall 5 per cent cut to the budgets of public sector departments and agencies over the next 4 years.[102] In this way the hard-learnt lessons on the dangers of insufficient capacity may now fall victim to sweeping cuts aimed at reducing the overall size of the of the public sector wage bill.

Signs of pragmatic rebuilding in the US

It is worth noting that moves to reconsider outsourcing decisions and rebuild internal capacity aren't limited to the Australian context. Before the global financial crisis, some parts of the public sector in the US were also seeing signs of a rebound from a peak in outsourcing. There is some evidence to suggest that among local governments, the rate of re-internalisation of outsourced service delivery has begun to outstrip the rate of new contracting out.[103] This shift is attributed not only to failures in realizing efficiency gains, but also to community concerns about control over – and access to – government services. Studies in the area suggest that this reflects a pragmatic balancing act played by local governments, who are concerned not only to enhance 'efficiency' in the narrow sense, but also to contain the costs of managing private contractors, and to provide opportunities for public voice, consultation and deliberation.[104] These concerns about private delivery closely echo the issues raised by the BER evidence on costs and school-level empowerment during the program.

It is also worth noting that there have long been indications internationally that the arguments for outsourcing are meeting with much greater scepticism not only in the public sector but also in the private sector. In 2005 Deloitte Consulting observed a "change in the outsourcing market" in the private sector in the United States. Deloitte interviewed representatives from 25 large companies with a combined market capitalisation of one trillion dollars. Many reported that the gains they had anticipated from outsourcing had failed to materialise. On the basis of their research Deloitte concluded that in the near future, outsourcing would "likely lose luster for large organisations."[105] Echoing the failure of some IT outsourcing efforts in Australia, there is also evidence of a substantial amount of "backsourcing" of Information Technology functions in the US, with various studies reporting that between a third and a half of all contracts for IT work are being brought back in house at the end of a period of outsourcing.[106]

These examples reinforce the conclusion that problems caused by a lack of public capacity and citizen involvement are not limited to a one-off stimulus spending context in Australia. Moves to rebuild capacity demonstrate the dangers of a one-dimensional view of decisions about outsourcing. They also indicate that some of the dangers of outsourcing have taken time to reveal themselves, and that some of the consequences are long-term, especially in the area of skills and training. State and federal government policies that downsize the public sector workforce also need to be questioned and closely scrutinised, given that they are likely to undermine attempts to rebuild skills in some departments and agencies.

CONCLUSION

The evidence presented here signals the need for public works reform to move beyond the one-dimensional push for more private participation in the provision of public works and infrastructure, as may public sector agencies have already done. Australian citizens deserve a more honest and detailed appraisal of the benefits and drawbacks of different configurations of public and private provision. As Warner and Hefetz suggest in their US studies on this topic, recent evidence on public service delivery begs that we "move beyond a simple dichotomy between market delivery and public planning to an approach that balances concerns with efficiency, market management, and citizen satisfaction."[107]

The task of meeting our future infrastructure challenges is not well served by a simplistic discussion about "government waste" devoid of real inquiry into the present and historical causes of the variations in cost across the country. Blanket assertions about the suitability of the public sector for involvement in public works show a disregard not only for the detailed evidence from the BER program, but also for decades of scholarship on the economics of outsourcing, which recognise that in many circumstances public sector capacity can play an important role in securing optimal outcomes for public projects.

In confronting the infrastructure and public works challenges of the coming decades, the evidence presented in this paper suggests that governments adopt the following approaches.

Strong stakeholder and citizen involvement in public works

The BER program has confirmed the dangers of an overly-centralised and unresponsive approach to public works delivery. It is important to note that this goal doesn't imply that we must 'get government out of the way'; on the contrary, strong public sector capacity can be used to facilitate stakeholder involvement and empower stakeholders.

In the wake of the BER, states like NSW have expressed their intention to give schools more financial autonomy.[108] The federal opposition has also expressed a desire to give schools more control over budgets,[109] and the federal government has its own 'empowering local schools' initiative.[110] It should be noted, however, that local consultation and local input into education spending can be pursued without seeking to devolve a large amount of fiscal responsibility to the school level. During the BER program Western Australia demonstrated how a strong central authority could look out for the interests of the community as a whole – by moving funding around to ensure that all schools received useful and relevant projects, and by carefully targeting stimulus spending, for example – while also allowing for appropriate consultation and input at the school level. This allowed the government to fulfil macro objectives such as inter-school equity and stimulus objectives at the same time as providing appropriate projects for individual schools.

Smarter government, not smaller government

Much of the recent evidence on public sector capacity points to the conclusion that smart government can't afford to be too small. In some places there is a good case for rebuilding public works capacity in key areas, to ensure that governments can interact with the private sector in an informed way. Unlike the push for increased local input into school spending, the need for strategic rebuilding of public sector capacity has received little attention.

To this end, governments at all levels should reconsider the impact of moves to reduce the size of the public sector, given the evidence of long-term costs imposed on communities and governments by the reduction in public works skills bases. The inquiry into the engineering skills shortages has provided valuable evidence on some of these costs. Both federal and state governments should give close consideration to the recommendations – especially of bodies such as the Australian National Engineering Taskforce and the Association of Professional Engineers, Scientists and Managers Australia – on the role of public sector capacity in engendering not only good infrastructure outcomes but also nation-wide skills pools.[111] The issues outlined in this paper add further weight to the recommendations of those bodies, and many of the recommendations below are broadly in line with their submissions to the inquiry.

POLICY IMPLICATIONS

The considerations explored in this paper suggest that the federal government should:

- establish concentrations of procurement expertise and infrastructure expertise within relevant agencies that allow it to more effectively design policy and monitor the rollout of federally-funded projects at a state level;
- co-operate with state governments where possible to share expertise between the two levels of government – this could include seconding staff to the state level (especially on projects

funded by Infrastructure Australia) and providing extended career paths and training opportunities for staff at the federal level;
- investigate how price and value-for-money benchmarking and best-practice building knowledge can be better collected and shared between jurisdictions.

State and territory governments should:
- increase co-operation on infrastructure among themselves and the federal government so that the existing skills shortages aren't exacerbated by simultaneous projects in multiple jurisdictions;
- take into account the effect of individual outsourcing decisions on the public sector's internal skills base, with an understanding that a lack of direct experience within public sector agencies can impose significant long-term costs on government;
- in conjunction with this, develop strategies for extending and protecting career paths for public sector technical staff;
- evaluate on broad criteria how they interact with the private sector on infrastructure projects to ensure that there are no hidden impositions of long term costs – taking account of the fact that these costs can accrue over time rather than show up in the evaluation of any particular outsourcing decision;
- in light of the above points, evaluate whether outsourcing strategies are delivering better long-term value-for-money than the option of increasing internal skills bases;
- where appropriate, rebuild public capacity accordingly; recognising the value of increased upfront spending that reduces total government costs over time; and
- retain a selection of direct service delivery tasks internally as a long-term strategic measure to underpin the public sector skills base;
- make greater use of — and continually contribute to — research on price and performance benchmarking;
- increase efforts to achieve better value for money through the use of these price benchmarks and an accumulated bank of knowledge (including design templates and documented best practices); and
- investigate further utilisation of the economies of scale and bulk purchasing options available to governments.

APPENDIX 1 - NOTES ON METHOD

The Building Education Revolution Implementation Taskforce collected a large amount of quantitative and qualitative evidence as the program was rolled out, collating cost information, conducting interviews and visiting building sites.[112] The Centre for Policy Development was involved in conducting some of this research on behalf of the BER Taskforce for the chapter on public works capacity and informed buyer capability. This report has drawn on some of the evidence collected in the course of that research, including interviews with a number of senior public servants involved in the program, and statistics requested from the Australian Bureau of Statistics concerning the history of public sector skills in the public works area. That evidence has informed much of this report. The conclusions of this paper are my own, however, and should not be taken to represent the views of the BER Taskforce.

This paper restricts its analysis to Australia's five most populous states. This is done for two reasons. Firstly, much of our analysis in this paper is based on census figures. Census numbers become unreliable when the figures are small (for example, it is difficult to have confidence in the census data for the number of public sector architects in Tasmania[113]). In addition to this problem, the nature of implementation in less populous jurisdictions can be considered to be qualitatively different due to the smaller number of sites involved. This dynamic is referred to by the BER Taskforce, who note that "[t]he ability to implement a business as usual approach was significantly greater if the education authority's implementation task was relatively small..."[114] This is partly because larger states were less likely to be able to make use of their usual processes for delivering school infrastructure on such a large scale. For these reasons, a comparison between the five most populous states is more likely to yield meaningful insights. Census data from 2006 is used. This was the most recent census data available at the time when our custom data request was processed by the Australian Bureau of Statistics.

This analysis is also restricted to public education authorities. This is because the research the CPD completed for the BER Taskforce concerned the history of public sector capacity only, and also because census data on the skills available to state governments is readily available, while this data is difficult to obtain in the case of the other education authorities and independent schools. Nonetheless some of the insights that can be gleaned from the performance of Catholic and independent schools are explored below in Appendix 2.

APPENDIX 2 - CATHOLIC AND INDEPENDENT SCHOOLS: WHAT CAN THEY TEACH THE PUBLIC SECTOR?

The Catholic and independent schools sectors generally performed well in their rollout of the BER program, with lower costs than the public education authorities in the east coast states.[115] There are a number of factors that are likely to have contributed to the success of the Catholic and independent school sectors during the program:

- They consulted schools closely and empowered schools to build projects that were suited to their needs.[116]
- The Catholic education authorities allowed for flexibility in moving money between schools to ensure the success of projects even if costs on some were underestimated.[117]

- Many Catholic schools had master plans in place for their schools already, giving them a head start in planning new projects.[118]
- Catholic and independent school systems were more often able to deal with managing architects and builders that in many instances they had used previously, and this:
    - allowed them to use a familiar process for procuring infrastructure;[119] and
    - may have motivated suppliers to do quality work at a good price, since they were often small enough to feel that their reputation would be significantly affected by the outcome of a single building project.

There are important lessons here for the public sector. The experience of Catholic and independent schools reinforces the importance of local consultation and empowerment, forward planning of capital works, and the potential benefits of local relationships with trusted, small-scale suppliers.

Some commentators have used the success of independent schools to imply that the central bureaucracy of public schools may simply "constrain" schools, instead of supporting them.[120] The BER program has also been used to argue in favour of moves to give schools a high degree of financial autonomy.[121] However, there are likely to be significant hidden costs in forcing principals to take on the full responsibility for the acquisition and monitoring of building works, given that this would divert school resources away from teaching and curriculum-related tasks. In relation to the BER program, the Victorian Independent Education Union emphasised that "[t]he significant effect on the workload of principals must not be understated in the evaluation of the program".[122] If some states do further devolve such responsibilities to the school level, they must ensure that any transfer of resources away from other school activities is not disingenuously overlooked to create the appearance of increased efficiency in the delivery of building projects.

Further to this point, the Government of Western Australia's relatively centralised implementation of the BER program had lower costs than both Catholic and independent schools in that state. This demonstrates that a central authority can effectively consult with schools while also overseeing other high-level objectives, like designing the rollout for maximum stimulus effect, and shifting money between schools to ensure equity. A central authority can also supply important technical support to ensure that schools are not at a disadvantage when entering into arrangements with firms that have a high level of building expertise.

APPENDIX 3 - KEYNESIAN STIMULUS AND THE BER: WHAT IS WASTEFUL?

This paper looks at what we can learn from the strengths and weaknesses of the state and federal governments in implementing the BER. The paper finds plenty of room for improvement – often with conclusions quite different to those reached in public debates on the scheme. It is important to note, however, that despite its flaws, the BER was on the whole a very successful program. The BER Taskforce found that:

- The program provided effective, geographically distributed stimulus for the economy, supporting around 120,000 jobs over the life of the program and filling a gap left in demand by the private sector[123]
- Complaints received about the program concerned only 3.5 per cent of schools involved in the program[124]
- The price premium on pre-BER business as usual costs was five to six per cent[125]

As treasury officials noted, there were a number of reasons why the BER program was well designed as a stimulus measure:[126]

- It was timed to kick in as the stimulus effect of the cash handouts began to fade
- The infrastructure was not large-scale and was situated on school land that allowed a fast-tracking of approvals processes, a quick start and rapid stimulus impact
- It was geographically distributed and could provide stimulus to every population area in Australia
- The projects contained a low level of imported content, preventing international leakage of the stimulus

At the same time as a storm of criticism was brewing domestically around the BER, our stimulus efforts were being praised internationally. The OECD singled out Australia's stimulus as one of the only national spending packages big enough to show a strong effect in cushioning against a decline in employment, and noted the high multiplier effects attributed to infrastructure spending.[127] Nobel Laureate in economics Joseph Stiglitz praised the stimulus package, calling it "one of the best-designed Keynesian stimulus packages of any country in the world".[128] Despite this international praise, domestic coverage of the BER program was dominated by a focus on instances of inflated costs in the program. As the recovery took hold and confidence returned, critics of the program began to suggest that the spending had never been necessary. In the view of these critics, net foreign demand, rather than the stimulus, was the main contributor to the recovery.[129]

However, Treasury's analysis of Australia's resilience in the wake of the GFC debunked the idea that exports alone were responsible for our good fortune, and found that Australia's policy response was "an important contributor to the outperformance of the Australian economy" in this period.[130] Treasury's estimates suggest that without the stimulus package "growth would have been negative for three consecutive quarters".[131] Claims of wasteful government spending need to be evaluated in light of the serious waste of resources, time and energy involved when skilled workers are forced to join the dole queues.[132] A government that stood by doing nothing while unemployment rose precipitously would rightly be criticised for being wasteful in the extreme.

A more modest stimulus package may have jeopardised the delicate task of rebuilding confidence, leading to a slower recovery, a lower tax take, and larger government deficits. OECD research showed a dramatic collapse in business confidence in Australia in the wake of the crisis, even deeper than that seen in the US.[133] If this had been allowed to persist and flow on to a higher rate of unemployment, many workers may have suffered a damaging period of unemployment from which they would have struggled to recover quickly. However, in the wake of the stimulus announcements, business confidence rebounded quickly, and the unemployment rate remained below six per cent.

Evaluating stimulus-funded infrastructure projects in the same way as projects completed in more 'normal' macroeconomic circumstances therefore fails to take account of the important double-dividend of these projects – that is, the utilisation of resources that would otherwise have been wasted. Such a manner of evaluating stimulus spending sets an extremely high bar for projects that, to serve this important double purpose, need to be completed quickly. Nonetheless the government-appointed BER Taskforce, set up to evaluate the BER projects, used just such a high bar. The Taskforce noted that while the speed of delivery might reasonably influence the cost of project delivery, there was no reason why, at the individual school level, value for money should not have been "pursued and realised".[134] However, even using this demanding benchmark for evaluation – which doesn't account for the stimulus objective behind these projects – the Taskforce found that "the vast majority of the BER projects across the country in the government and non-government systems... (were) being successfully and competently delivered".[135]

ENDNOTES

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