

Report on the Potential for Efficiency Gains and Reform of the Public Sector

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1. Introduction

This submission complements another document prepared by the PSA, which focuses more on the detailed roles, functions, and performance of individual agencies. Accordingly, this particular study highlights the 'big picture' in terms of South Australia's prospects for growth and community development. To this end, it examines the role of the public sector in driving economic advancement within the State as a whole. In effect, it concentrates on the persistence of unemployment and underemployment in South Australia, the distribution of unemployment across regions, and the contemporaneous presence of skills shortages. Although it is argued that these problems reflect a lack of appropriate governance at a Federal level, they can obviously be compounded by badly chosen policies on the part of the State government.

In a recent interview, the Honourable Malcolm Fraser responded in a thoughtful (and somewhat hypocritical) manner to a policy-related question on the part of the interviewee:

Well the objective of life or of government I think really has got to be the kind of life people can live out themselves with their friends, their relatives, their families. And the objective of government ought to be as the base, to make sure that Australian families, whatever way you want them to find that, can lead the kind of lives they want to, reasonably, and with a minimum degree of government intrusion. And government ought to be conducting policies that make that possible for a maximum number of Australians. And the modern day acceptance that we have 10% unemployment, another 12% at least working one or at the most two days a week, when they'd like to work full time, I think is a most heathen and pagan acceptance. It's hideous, and the fact that this has seeped into the bureaucracy, it's seeped into the mores of the Labor Party and of the Liberal Party and of the ACTU, I really find very hard to accept. People ought to be outraged by it. But they're not. They accept it, and are we suddenly meant to believe that where we'd gone for 30 years with unemployment basically under 2% and often under 1%, that the bottom 10% of those who were employed, are suddenly, with better education, with better training and all the rest, not capable of being employed. That's a nonsense, it doesn't hold up. Something very serious has gone wrong with the heart of government in Australia. (Australian Biography, 1993)

While persistent unemployment has well known social consequences in terms of physical and mental ill-health, the break down of family structures, and growth in crime, its primary economic consequences include the atrophy of unutilised skills, disruption to processes of skills formation, and a growing unwillingness on the part of the private sector to absorb less skilled employees into the workplace (Mitchell and Quirk, 2005:2).

Research conducted by the Parliamentary Library for the Parliament of Australia (Kryger, 2006) has examined the consequences of the dramatic nature of the decline in total public sector employment. In 1984, 1.7 million workers were employed in the public sector compared to 4.8 million in the private sector. By 2005, the number of persons employed was 1.6 million and 8.4 million respectively.

While the Commonwealth was the only level of government to have experienced an absolute fall in employment numbers, the rise in employment within other levels was barely significant. In 1984, 25 per cent of public sector employees worked for the Commonwealth government, 66 per cent for state/territory governments and 9 per cent for local government. By 2005, the corresponding figures were 16, 74 and 10 per cent respectively (Kryger, 2006:1). The following table depicts changes in the Commonwealth public sector employment share by industry from May 1984 to May 2005. Large losses are apparent in the utilities sector, transport and storage, construction, communication services and finance and insurance, while modest declines were recorded in education and government administration and defence.

Table 1: Public Sector Employment Share by Industry

	May 1984 %	May 2005 %
Agriculture, Forestry and Fishing	3.1	0.9
Manufacturing	4.9	0.5
Electricity, Gas and Water Supply	95.9	54.7
Construction	12.2	0.5
Transport and Storage	44.4	8.9
Communication Services	88.9	39.1
Finance and Insurance	26.1	2.8
Property and Business Services	13.3	2.5
Government Administration and Defence	93.0	90.9
Education	73.7	72.4
Health and community Services	51.1	35.0
Cultural and Recreational Services	23.8	10.1
Personal and Other Services	31.9	27.6
All Industries	25.6	16.2

Source: ABS, Wage and Salary Earners, Public Sector, Australia (Cat. No. 6248.055.001); ABS, Labour Force, Australia, Detailed – Electronic Delivery (Cat. No. 6291.0.55.001)

The research paper blames a combination of factors for this decline including increased privatisation, competition policy, increased rationalisation and outsourcing of services, use of private sector labour hire firms, and productivity improvements due to technology and more efficient work practices. However, the cited consequences are somewhat disconcerting insofar as they include a loss of occupational diversity, net loss of jobs, reduction in the capacity of the public to absorb low skilled workers, and the adverse impact on the apprenticeship training system.

However, declines in public sector employment and associated training activity have much wider repercussions for the entire workforce. One of the figures appearing in the research paper reveals a simple but dramatic story: starting from a common base in 1984, index numbers for trade apprenticeships are graphed against index numbers for private and public sector employment. While private sector employment has increased almost continuously through to 2006, the trend decline in apprenticeships over this period closely follows the reduction in public sector employment (Figure 3, Kryger, 2006).

2. Unemployment and Aggregate Demand Deficiency

Over the 1990s Australian GDP grew by 3.5 per cent per annum, faster than the US and a third greater than the OECD as a whole. Despite this growth, unemployment, as measured by the Australian Census of Population and Housing, averaged 9.4 per cent over the 1990s (Mitchell and Bill, 2006:3). Even after a decade and a half of growth, in May 2005, the unemployed outnumbered vacancies by a factor of four to one (ABS, 2005). Moreover, unemployment has remained both unevenly distributed across regions and persistent in nature (Gregory and Hunter, 1995; Hunter, 1996).

Mitchell and Muysken (2002) have assembled a wide range of evidence in support of the well-known Keynesian viewpoint that national increases in unemployment are largely determined by an insufficiency of effective demand¹. Mitchell and Muysken (2002, pp. 4-5) have replicated Modigliani's (2000) international evidence for Australia and the Netherlands, demonstrating that changes in the combined total of employment plus vacancies are both strongly and inversely correlated with variations in unemployment. In other words, variations in unemployment reflect inadequate growth in employment opportunities rather than some kind of supply-based mismatching between available jobs and skilled workers. GDP gap analysis provides additional support for their proposition that insufficiency of aggregate demand is the principle culprit, with shortfalls in investment being the most plausible explanation for rising unemployment in Australia (Mitchell and Muysken, 2002, section 5). Over the post-war period, Mitchell and Muysken acknowledge that path-dependency or hysteresis effects have also played a significant role, as evidenced by notable structural shifts in either the standard Phillips curve depicting the relationship between unemployment and changes in nominal wages, or in the unemployment-vacancy or Beveridge curve². Similarly, the incorporation of depth-of-recession variables into autoregressions (Mitchell and Muysken, 2002, section 3.3) reveals a strong and cumulative ratcheting upward of unemployment (referred to in the literature by the technical term – hysteresis). The latter finding highlights the fact that unemployment that might otherwise appear to be of a structural rather than a cyclical nature, has instead resulted from the cumulative impact of shortfalls in aggregate demand. Finally, a visually based analysis of the trajectory of unemployment using phase-diagrams (where movements in unemployment are presumed to be the outcome of a non-linear system of difference equations) reveals how “attractors” have shifted out adversely over time in direct accord with Australia's experience with major recessions (Mitchell and Muysken, 2002, section 3.2).

Indirect confirmation of the importance of aggregate demand can be garnered from quite a different source—international studies of employee remuneration. The analysis of sectoral and regional shifts in the composition of wages in manufacturing and other industries, has revealed that changes in aggregate demand, exchange-rate variations and, less significantly, the bargaining power of the workforce are the most likely candidates in explaining national shifts in income inequality, including for Australia (Ferguson and Galbraith, 2001; Galbraith, 2001; Steckel and Moehling, 2000).

¹ The theoretical insights explaining these empirical findings question the effectiveness of the so-called Keynes and Pigou effects in alleviating involuntary unemployment. Unemployment will lead to falling wages and prices. The Patinkin effect obtains when falling prices raise the real value of money balances, thus lowering interest rates and promoting expenditure. Under the Pigou effect, falling prices raise the real value of wealth leading directly to increase in expenditure. Keynes argued that debt-deflation would overwhelm the Pigou effect (Palley, 1995). In addition, the capital debates of the 1970s question the existence of an inverse, monotonic relationship between the interest rate and investment (Panico, 1991). For a lucid and detailed articulation of these and other liquidity preference-related influences over macroeconomic adjustment see Vercelli, 1991.

² For a discussion of the latter see Mitchell and Muysken, (2002, section 3.1), where Australian evidence on the rising proportion of long term unemployed persons is also presented.

2.1 Regional Disparities in Unemployment

Keynesian macroeconomists have usually argued that the persistence of regional disparities in unemployment reflects a differential sensitivity of regions to variations in effective demand over the national business cycle. Most of these differences in the cyclical sensitivity of regions are then attributed to variations in the mix of industries within each region. Accordingly, it is argued that conventional fiscal and monetary policies of demand management must be supplemented by industry policy that compensates for the resulting industry -mix or -composition effect (Mitchell and Carlson, 2003a,b).

Mitchell and Carlson (2003a) argue that the current Australian Government has instead pursued a different complex of policies that combine fiscal restraint with tight money policies aimed at controlling inflation. At the same time, it has embraced policies of labour market deregulation to promote the spatial mobility of both firms and workers. However, despite these interventions to promote mobility and relative wage movements, and during a period of sustained period of growth in the national economy, regional disparities in unemployment have persisted (ALGA, 2002; Dixon and Shepherd, 2001; Debelle and Vickery, 1999). Similar outcomes have been observed in the European context (Martin, 1997).

2.2 The New Regionalism and Social Entrepreneurship

In response to the seemingly intractable nature of the unemployment problem, OECD policy makers and regional development agencies in Europe and the UK have embraced a paradigm that has been termed 'New Regionalism' (Mitchell and Carlson, 2003b: 3). Proponents of the 'New Regionalism' argue that the nation state has been (or should be) displaced by regions both as a source and as a locus for policies aimed at promoting institutional collaboration, organizational learning: policies facilitated by political devolution of authority for management and coordination to local governments. Accordingly, macroeconomic policies are deemed to be irrelevant for regions that can increasingly rely on inward flowing foreign direct investment, on one hand, and the international export of goods and services, on the other.

Nevertheless, this 'Neo-mercantilist' panacea for regional problems has attracted animated and hard-headed criticism from economic geographers who complain that arguments for the new regionalism have been made without adequate research or empirical confirmation (Markusen, 1996). Lovering (1999: 384) warns that the 'New Regionalism' is "a set of stories about how *parts* of the regional economy *might* work, placed next to a set of policy ideas which *might* just be useful in *some* cases." Fantasies about the prospect of escaping the constraints of the national business cycle through a combination of inward flowing foreign direct investment and outward looking export activity ignore the very real dilemmas faced by regions with a high proportion of 'rust-belt' industries and limited opportunities for research-intensive and high-technology development (Martin, 1997). In this context, Markusen (1996) criticises the applicability of the model to Silicon Valley, while Staber has argued that the Baden Württemberg region does not fit the 'New Regionalism' model; and, in his detailed historical analysis of regional developments in the UK, Lovering (1999: 382) cautions,

If one factor has to be singled out as the key influence on Wales' recent economic development ... it is not foreign investment, the new-found flexibility of the labour force, the development of clusters and networks of interdependencies or any of the other features so often seized upon as an indication that the Welsh economy has successfully

'globalized'. Something else has been at work which is more important than any of these, and it is a something which is almost entirely ignored in New Regionalist thought ... It is the national (British) state.

While measures for regional assistance in Australia were initially curtailed after the Liberal-National Party Government won federal office, gradual increases in funding have been made available through the Department of Transport and Regional Services. While most of this assistance has been allocated to regions on a project-by-project basis, some block funding has also been provided to selected regional groups of Councils through the Department's *Sustainable Regions* Programme. Science and Innovation policies have faced similar cuts in funding. While policy-makers within DoTRS and some of the Science and Technology agencies seem to be advocating a 'New Regionalist' agenda, in contrast, research funded by the Information Economy branch of DoCITA, which has been informed by an Evolutionary Economics framework, has questioned the Federal Treasury and Productivity Commission's pre-occupation with 'microeconomic reform'. Detailed studies of multi-factor productivity have highlighted the importance for national economic growth of sustained increases in the level of private and public investment in new information and communication technologies.

Policies of social entrepreneurship are closely related to those of the New Regionalism. Cook, Dodds, and Mitchell (2001) have articulated a cogent and wide-ranging critique of the Social Entrepreneurship Movement (SEM). On their reckoning SEM combines a "Third Way" enthusiasm for networking, social capital and regional devolution with a *real-politic* acknowledgement of the international constraints over the traditional policy machinery of the welfare state. Globalization is supposedly to blame for rising unemployment, economic insecurity, and the subsequent rise in the demand for welfare services that is concurrent with a reduced capacity to tax internationally mobile resources. Not only is the welfare state considered to be in fiscal crisis and thus forced to "get more from less", but at the same time the machinery of government is attacked for being unwieldy, undemocratic, bureaucratic, inefficient, and alienating.

The proposed solution to these externally motivated problems is supposedly a total reconstruction of policy development and delivery through the vehicle of social partnerships between the public, community, and business sectors. These partnerships would then feed off the vitality and dynamism of the private market place, while devolution would offer an "innovative approach for dealing with complex social needs". Increasingly, corporate activity is privileged for the social benefits that it can purportedly deliver alongside the gains would accrue from cost cutting and revenue diversification on the part of non-profit organizations. In this light, non-profit organizations themselves are encouraged to undertake (subsidising) profit-making activities.

From an organizational perspective, social entrepreneurs are championed as those possessing the vision, drive, and tried-and-tested best-practice approaches to solving social problems. The welfare state is supposedly transformed into the "enabling state" replacing the conventional patron-client approach with one based upon mutual obligation and the devolution of responsibilities onto social partners: parents have the responsibility for properly educating their children, recipients of subsidized health care have the responsibility for improving their health, and those living in public housing have the responsibility for the maintenance and care of these assets. To this end a whole raft of novel policy instruments has been proposed and introduced, including ISAs, welfare 'loans', the pooling of government funds for health, housing, training, employment, whole of government coordination, and multi-tier education programs.

Needless to say, this SEM agenda possesses all the hallmarks of Chicago-style neo-liberalism: social problems are treated as those of individuals, the economic form and its mode of rationality is imposed onto all social spheres including the non-economic—in fact, the social sphere is merely conceived as another form *of* the economic—and the rational economic actor or firm is viewed as a model for government itself. Individual subjects are rendered responsible for social risks, which are thus transformed into problems of ‘self-care’. Notable examples are afforded by Chicago-School conceptions of ‘human capital’ (here, lack of access to jobs, career paths and training opportunities are instead attributed to poorly made decisions on the part of individuals about appropriate levels of investment in human capital) and by the Californian self-esteem movement (where problems of unemployment, alienation and delinquency are similarly viewed as due entirely to an individual lack of self-esteem) (Lemke, 2001, 2002). At a regional level, local governments are similarly viewed as responsible for their competitive success.

In this context, the State government’s 2004 Strategic Plan’s objective of “Fostering Creativity” to drive productivity growth and prosperity represents a complex mix of sometimes contradictory perspectives on economic growth. On one hand a more strategic approach has been taken in shaping the strategic direction of university research, raising business expenditure on research and development and patenting activity, establishing a Venture-Capital Board, increasing film, television, audio-visual and digital production, boosting science and mathematics education, and improving the telecommunications infrastructure. On the other hand, the plan promotes the use of Richard Florida’s ‘Creativity Index’ and highlights the need to generate ‘new ideas’. In this regard, current debates about how inventive or creative Australia’s scientific community has been in historical terms, or can be in the future, have highlighted the importance for productivity growth and competitive advantage of the successful commercial deployment of already available scientific knowhow.

In their critical review of the international evidence for spatial agglomeration and clustering, Malmberg and Maskell (2002) note that aggregate studies have confirmed the *existence* of clusters. However, they emphasize that empirical studies have not revealed a greater level and intensity of local (buyer/seller/supplier) *interactions within* clusters. Instead, a number of studies have revealed that more innovative firms typically have developed spatially *extensive* interactions (i.e. those occurring outside the local region). In fact, their own research in Sweden has shown that the local presence of exporters does not seem to be correlated with export growth. Rather, growth appears to result more from conventional urbanization effects and economies of scale. Similarly, they note that a recent study of Baden-Württemberg industrial district did not discover evidence for strong local ties, further suggesting that the 1990s industrial crisis owed a lot to an institutional rigidity that was unique to the region.

Accordingly, Malmberg and Maskell’s preferred model of clustering activity is based on a *knowledge-based* theory of spatial clustering. Initially, cognitive linkages of a horizontal nature are established between rivalrous firms possessing similar capabilities, which depend on close observation of relative differences in activity and performance. At a later stage in cluster formation vertical linkages are established between firms with complementary capabilities drawing on the advantages of specialisation, coordination and collaboration.

They argue that spatial scale is highly elastic and contingent on the phenomenon under examination: industrial development, culture or language. They also complain that industry taxonomies are often unhelpful for analysis, observing that information flows are especially hard to measure, while the institutional milieu is very difficult to capture, particularly when the horizontal dimension of interactions is more important, and also temporally precedent, as they argue.

2.3 “Spatial Keynesianism”: An Alternative Policy Regime

In the context of observed persistent and dramatic regional disparities in unemployment, Mitchell and Carlson's (2003) papers sought to address the question of the extent to which regional disparities in unemployment can be explained by the relative weight of the national business cycle, local industry mix, or some complex of region-specific factors conditioning employment growth or decline. To this end, techniques of shift-share decomposition have been employed drawing on Australian Labourforce Survey time-series data. The long duration of this regional and industry employment data has also enabled a detailed study of Granger causality and a statistical analysis of the co-movement in employment across regions (Mitchell and Carlson, June, 2003b: 21, 23).

Mitchell and Carlson (2003a) divide regions into high growth, moderate growth and low growth categories on the basis of their employment outcomes. The distinct growth groupings identified are: (a) high growth (NT, QLD, WA, and the ACT); (b) moderate growth (NSW and VIC); and (c) low growth (SA and TAS). With the exception of regional QLD, the capital cities have fared better than their regional areas over the period examined. The NT and ACT have the most erratic patterns of employment growth.

The authors establish that regional unemployment is to a large extent determined by national fluctuations in employment aggregates. It appears that low-growth regions are characterized by a heightened sensitivity to downturns in national employment, which persist for relatively longer periods of time. The mix of industries also plays a significant role. However, region-specific factors also contribute notably to both adverse and relatively benign performance of particular regions. In general, the high growth group suffered relatively smaller contractions in size and duration during the 1982 and 1991 recessions. TAS and SA seem to have particularly suffered during these cyclical episodes. NSW and VIC also suffered during the 1982 recession. The results from this shift-share analysis are presented on the following page.

Table 2: Shift-share components for Australian regions, various periods, 000's

	NSW		VIC		QLD		SA		WA		TAS		NTE	ACT
	City	Rest	City	Rest	City	Rest	City	Rest	City	Rest	City	Rest		
1985-03														
NS	639.7	327.1	541.2	195.1	237.9	268.6	170.1	61.1	208.4	78.1	29.2	40.6	29.9	54.2
IM	35.1	-37.8	17.5	-35.9	22.9	-17.6	12.1	-18.6	26.5	-18.7	3.0	-7.2	4.9	13.6
RS	-70.2	-20.4	-52.1	-19.2	106.1	154.2	-81.3	-16.6	42.2	24.9	-22.5	-24.5	-5.4	-15.1
Total	604.6	268.9	506.5	140.0	367.0	405.2	100.9	26.0	277.2	84.3	9.6	8.9	29.4	52.7
Growth %	38.0	33.0	37.0	28.0	70.0	69.0	22.0	16.0	59.0	45.0	12.0	8.0	41.0	42.0
1985-90														
NS	252.9	131.8	218.0	82.1	85.5	97.4	71.0	25.8	77.5	30.1	12.3	17.4	11.6	21.1
IM	14.8	-11.7	3.2	-10.6	6.0	-4.2	3.4	-4.9	7.8	-6.3	0.7	-1.9	1.1	2.6
RS	-61.5	-0.1	-12.6	17.0	16.7	58.9	-20.9	-4.3	7.3	4.2	-6.0	-2.6	-0.6	4.5
Total	206.2	119.9	208.6	88.5	108.1	152.1	53.5	16.7	92.6	28.0	7.0	12.9	12.0	28.2
1990-95														
NS	87.1	44.6	70.4	25.7	34.8	37.6	23.5	8.5	28.9	10.9	4.1	5.5	3.9	8.0
IM	7.8	-9.4	3.3	-9.8	6.0	-1.0	3.6	-4.6	6.3	-5.9	0.8	-1.9	0.7	4.1
RS	-6.7	15.4	-58.8	-44.2	63.3	35.5	-34.2	4.9	33.2	6.6	-4.8	-9.3	1.5	-2.3
Total	88.1	50.5	14.9	-28.3	104.0	72.2	-7.1	8.8	68.3	11.6	0.1	-5.7	6.1	9.8
1995-03														
NS	299.8	150.7	252.7	87.3	117.7	133.6	75.6	26.8	102.0	37.0	12.8	17.7	14.5	25.1
IM	12.5	-16.6	11.0	-15.4	11.0	-12.4	5.1	-9.1	12.4	-6.5	1.5	-3.4	3.1	6.9
RS	-2.0	-35.6	19.3	8.0	26.1	59.8	-26.3	-17.2	1.8	14.1	-11.7	-12.6	-6.3	-17.3
Total	310.2	98.4	283.0	79.8	154.8	181.0	54.4	0.5	116.2	44.7	2.5	1.7	11.3	14.7

Source: Table 4, Mitchell and Carlson (2003b)

For the metropolitan areas of SA, growth has been slower than the national average due to disadvantageous local factors but this has been partially offset by a favourable industry mix. In rural areas, growth has been slower than the national average with both local factors and the industry mix providing disadvantage. Mitchell and Carlson (2003b) extend their earlier analysis to incorporate a distinction between part-time and full-time employment. They find that non-metropolitan regions, including those in South Australia, have failed to take advantage of shifting industry mix because they have been unable to offset substantial reductions in full-time employment with part-time employment growth. In the light of these findings Mitchell and Carlson (2003b: 12) recommend what they term a 'spatial Keynesian' policy regime combining demand expansion to remove the spending gap occasioned by the desire of the private sector to net save, spatial distribution of public sector employment creation, and regionally directed public sector infrastructure and industry policy. This Spatial Keynesian policy regime has been described in more detail in Juniper and Mitchell (2005).

Rather than focusing on regions experiencing employment decline; Mitchell and Bill's 2006 paper "Who Benefits from Growth? Disadvantaged Workers in Growing Regions" explores how disadvantaged workers have fared in *expanding* labour markets. At the aggregate level, high growth regions appear to have experienced more equitable rates of growth across occupations relative to low or medium growth regions. Logit analysis, using 2001 Australian Census Household Sample File (HSF), reveals that local demand matters, independently from a worker's own individual characteristics. However growth in the late 1990s has not significantly altered the structure of labour market disadvantage and the gap in the relative probabilities of unemployment between disadvantaged and non-disadvantaged participants remains higher within high growth regions for many groups.

The authors conclude that manual and low-skilled workers' job opportunities have been eroded in low growth regions over the 1990s with the exception of elementary clerical employment (although this growth principally represents a recovery from falls in the first part of the 1990s). However low-skilled workers in high growth regions have probably had to face increased job competition (via 'bumping down' processes) due to strong labour market adjustments in the form of in-migration and in-commuting (labour force participation is also marginally higher than other labour markets). The net result is that employment growth has not translated into lower unemployment rates overall relative to medium and low growth regions.

After controlling for many individual and regional characteristics, living in a high growth labour market reduces the probability of unemployment. Given this individual level outcome, residential composition remains a strong explanatory factor in overall area unemployment rates, and explains the higher unemployment rates experienced in aggregate within high growth labour markets. Inside a high growth labour market, however, the probability of unemployment is still proportionately higher for those with poor English proficiency, state housing tenants, movers and renters, to name some of the features of disadvantage. Moreover the gap in unemployment rates for these groups compared to other labour force participants is higher in high growth than in low growth labour markets. Far from being the *cause* of unemployment these demographic characteristics are largely responsible for the 'queue shuffling' as scarce employment opportunities are allocated amongst active members of the labour force. However, an acknowledgement of the necessity for new forms of government intervention to overcome persistent regional disparities in unemployment must account for the constraints applying to state governments in comparison with their federal counterparts. This issue will be examined in the next section of the report.

3. The Differing Economic Powers of Federal and State Governments

Under the Australian Federal System, the Commonwealth government has the power to issue fiat currency. For this reason, its financial powers depart from the traditional notion that issues of financial management are entirely analogous to those concerning the running of the 'household's budget'. From the Chartalist perspective advocated by Keynes, Schumpeter, and Abba Lerner, the demand for currency is induced by the necessity of paying taxes that the government imposes on the private sector. The issue of currency through public spending enables the Government to gain control over resources, products and services that have been produced by the non-Government sector (including both the Rest of the World and the Private Sector).

Accordingly, given the non-Government sector's desire to net save, unemployment may arise when monies withdrawn through taxation are greater than those injected into economy. Deficit spending is usually necessary to create net financial assets to meet this desire for net saving because net financial assets cannot be created within the non-Government sector. This is because every asset created on the balance sheet of the non-Government sector is matched by a corresponding liability. The net wealth of non-Government sector thus reflects cumulative deficit spending on part of Federal Government.

To spend the government merely credits the exchange settlement accounts of the Reserve Bank. When taxes are paid, these same accounts are debited. The Federal Government then sets the interest rate by absorbing any net liquidity remaining in banking system through the sale of bonds. Thus bonds sales are not required to 'finance' government spending. Their task is to absorb excess liquidity so that interest rates can be determined. As shown in Japan, a chosen interest rate can be selected and maintained by the government, irrespective of how large the budget deficit becomes. In this light, the long-term maintenance of government surpluses destroys jobs and leads to a continual reduction in net wealth of the national economy (For more details on these mechanisms see Juniper and Mitchell, 2005).

Unfortunately, State governments cannot issue fiat currency. As such, they must closely monitor and control their debt position to ensure sustainability. In loose terms the latter can be measured by the share of total expenditure required to pay interest on accumulated public debt. Furthermore, unlike their Federal counterpart, State governments have no power to set interest rates in regard to their own bond issues, other than indirectly through the preservation of a good credit rating. This means that policies designed to overcome aggregate unemployment are effectively the province of the Commonwealth government. Nevertheless, adverse movements in unemployment can obviously be compounded by actions taken at a State level to run on-going budget surpluses in the interests of reducing outstanding public debt.

4. The National Macroeconomic context

John Howard's Liberal Government has adhered to a conservative fiscal policy of maintaining surplus or near surplus budgets, despite notable growth in defence spending. Luckily, this has been accommodated by a low desire to net save on the part of non-Government sector. However, as revealed in a succession of RBA Statements on Monetary Policy, this has led to an unsustainable blow-out in growth of credit within the household sector. Howard's policies have also benefited from a long-lasting mineral boom, which has been driven by growth within the Asian-Pacific region, especially in China. However, this growth is beginning to subside, largely on the back of inflation in the prices of resource stocks. Currently high inflows of portfolio and foreign direct investment into Australia's mining sector will have also begun to fall. At the same time, consumer sentiment has begun to turn downwards

The mining boom has induced high levels of investment in the mining sector that has been matched by similar growth in investment in residential construction. While unsustainable growth in household borrowings has now begun to bottom out, the RBA has urged caution and emphasised the need for on-going surveillance. Over the duration of the mining boom, a strong Australian dollar and a notable lack of government attention to other sectors, in policy terms, has damaged manufacturing, related services, and other traded services (including export of educational services on the part of the higher education sector). For example, opportunities for renewal and development within the knowledge-based manufacturing economy have largely been ignored. These factors have largely benefited the mineral-rich state to the North and the West to

the detriment of other states. Although Ken Henry has recently spoken out against the danger of a backlash precipitating a return to old-fashioned policies of corporate welfare, this should not detract from an acceptance, on the part of the Australian Government, of the need to overcome regional unemployment.

Despite gradual reductions in formal measures of unemployment, when adjustments are made for hidden unemployment the combined result remains high for the nation as a whole. The latest Centre of Full Employment and Equity's labour market indicators (CLMI) for February 2006 show that the official unemployment rate continued to deteriorate into the new year (rising to 5.23 per cent in the February quarter). Underemployment has also remained relatively and the overall CLMI underutilisation measure (CU8) has risen marginally to 9.9 per cent (up from 9.7 per cent in the previous quarter). The overall state of the labour market remains stagnant.

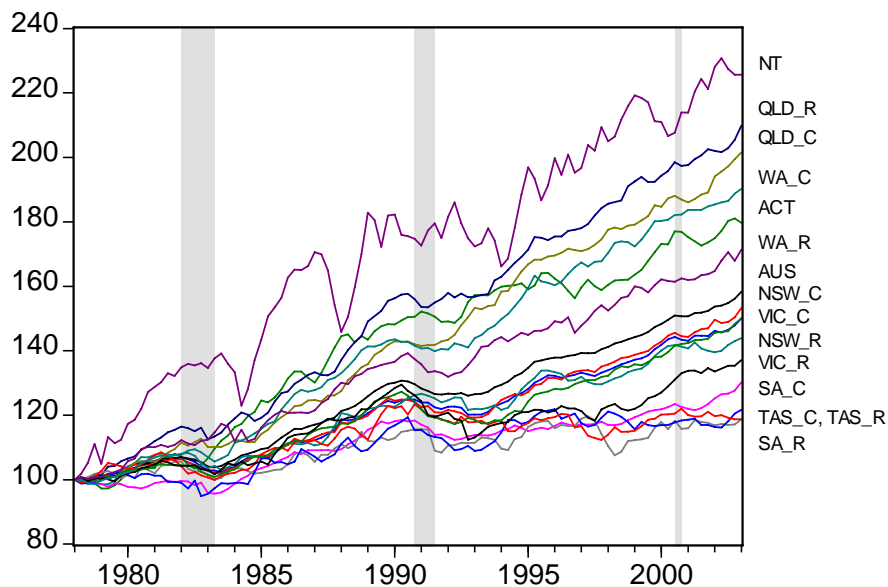
With inflation rising due to oil price rises and the RBA having raised interest rates by 0.25 percentage points, and in conditions where the Federal budget will remain in surplus, the labour market situation will no doubt worsen. WorkChoices will compound the ability of workers to resist falling living standards as unemployment rises. As it stands, the 9.9 per cent total labour underutilisation rate means that there are huge daily GDP and income losses being experienced by the economy overall and is particularly focussed on the most disadvantaged individuals and families in our community. Moreover, it has been argued above that in many regions unemployment is both unevenly distributed and highly persistent. This is especially the case within rural regions. Despite this fact, at the Federal level, regional policies have not helped much to address the problem, being more often associated with 'pork-barrelling' in marginal electorates. In addition, a large proportion of the burden has fallen amongst young people and those older workers who have been displaced from full-time, blue-collar jobs.

5. The South Australian Economic Situation

5.1 The State's Unemployment Problem

Despite the notable economic recovery after the election of the Rann Labor Government, South Australia suffers especially from an unfavourable spatial distribution of unemployment. This is clearly revealed in the following chart, which compares employment indices for metropolitan (C) and rural (R) zones within each Australian State:

Figure 1: Employment indexes, Cities and Regions, 1978:1 = 100



Source: Figure 1, Mitchell and Carlson (2003)

In particular, while the gap between SA and Australian rates of youth unemployment has closed it still remains at an unacceptably high rate nation-wide (Government of South Australia, 2004: Vol. 2: 2, graph of youth unemployment rate). It has been a familiar truism that “when Australia sneezes, South Australia catches a cold”. The review of Mitchell and Carlson’s shift-share studies in section 2.3 confirms this in a more formal manner.

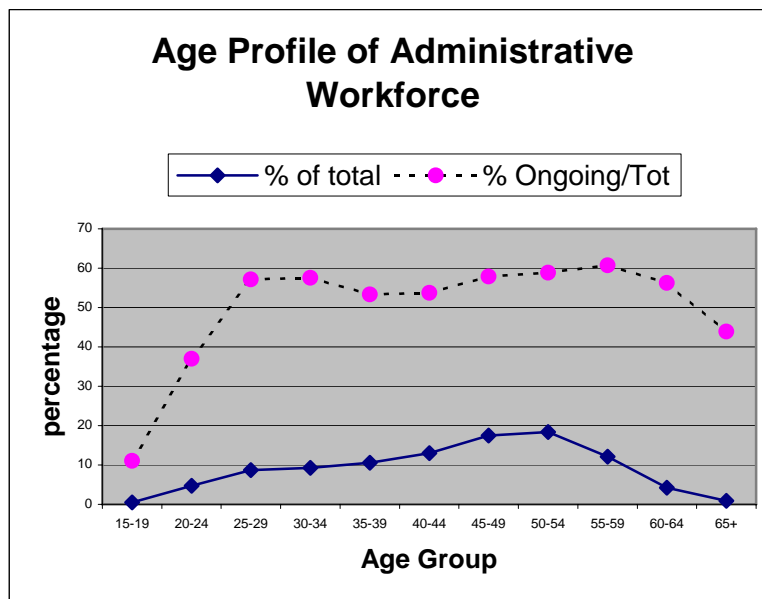
The obvious question to ask is whether the State economy has developed a newfound resilience that will enable it to cope with the prospect of a national downturn. Evidence to suggest that this is the case includes a closing of the gap in private new capital expenditure as a percentage of GSP/GDP between SA and the nation as a whole (Government of South Australia, 2004: Vol. 2: 5, graph); a substantial growth in trade-related activity, alongside a growing diversity of exporting industries (Government of South Australia, 2004: Vol. 2: 11, graphs of exports as a percentage of GSP/GDP for SA compared to Australia and service and ETM export income as 5 of total), and an increase in the knowledge-intensity of industrial production within the State economy (Government of South Australia, 2004: Vol. 2: 36, graph of patents filed by SA/Aust residents).

When viewed in terms of conventional Keynesian remedies based on increases in public spending on investment, it should be noted that SA still spends slightly less on infrastructure than Australia as a percentage GSP/GDP (Government of South Australia, 2004: Vol. 2: 14, graph of capital

expenditure on new infrastructure assets). Moreover, the advocacy of ‘Spatial Keynesian’ policies in section 2.3 was predicated on the notion that public sector spending would run into inflation bottlenecks well before aggregate demand had reached a level high enough to eliminate unemployment. Even when public sector jobs are specifically created within high unemployment regions there is no guarantee that these positions will be filled by those who were previously unemployed as workers will often commute or migrate from outlying regions (Bill, Mitchell and Watts, 2005). Thus, any approach to overcoming problem of regional unemployment must be holistic rather than piecemeal.

5.2 the Issue of Skill Shortages

Research conducted by John Spoehr on behalf of the PSA has already drawn attention to the age profile of the State Public Service. Years of low recruitment activity have resulted in a profile weighted towards older members of the workforce, who are thus closer to retirement age. An insufficient number of young workers is available both to replace retirees, and to preserve the corporate memory of the existing workforce. This situation has worsened over the last half a decade as revealed by information on the age profile for 1996, 2000, and 2005 (Office of Public Employment, 2005: Figure accompanying Table 14). This data shows that, despite a slight flattening of the profile, the median age has shifted outwards from about 45 then to 49, to finally reach around 53 in 2005. Moreover, as the following graph indicates, a much smaller proportion of workers in the younger age groups (15-19, 20-24) are employed on an *ongoing* basis rather than on contract or other forms of appointment:



Source: Office of Public Employment, 2005, Table 14.

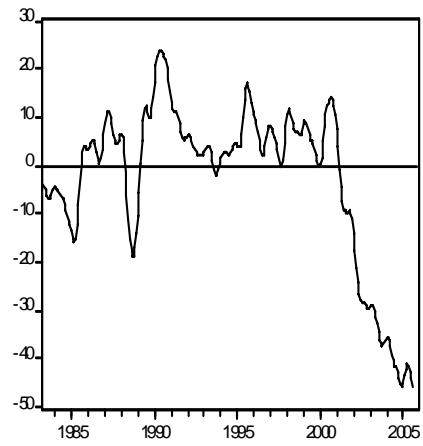
Those familiar with South Australia’s economic history would be all too aware of the vital training role played by Commonwealth agencies such as DSTO, which had one of the finest apprenticeship training centres in the country, or the Islington Railway yards; and a similar story could be told about State Government Departments including Housing and Construction. If the expanding share of private sector employment had resulted in a similar growth in privately funded apprenticeship training, skills shortages would not be an issue of major concern. However,

DEWR data on skills shortages reveals that the problem is particularly acute for South Australia. The following graph depicts data on skill vacancies for Australia as a whole, while the following set of graphs portray fluctuations in skilled vacancies around the national average for each of the States. All data has been drawn from the DEWR Skilled Vacancy Index (for details see Mitchell and Quirk, 2005):

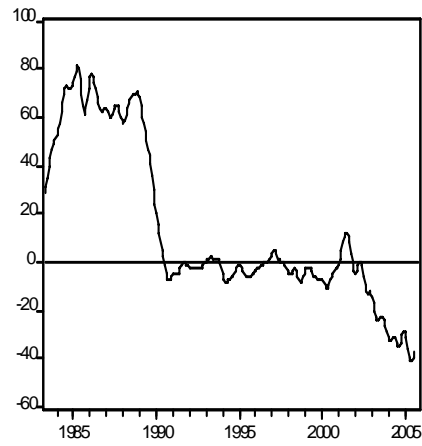
Figure 2: DEWR Skill Vacancy Indexes for Australia



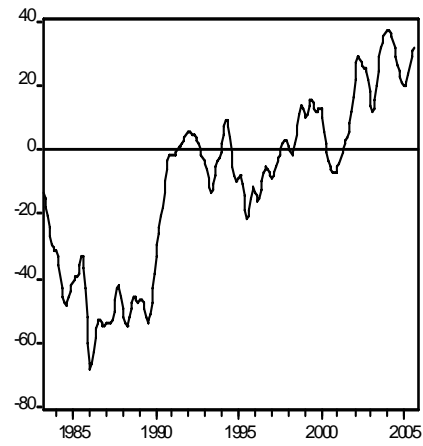
NSWSM relative to Average



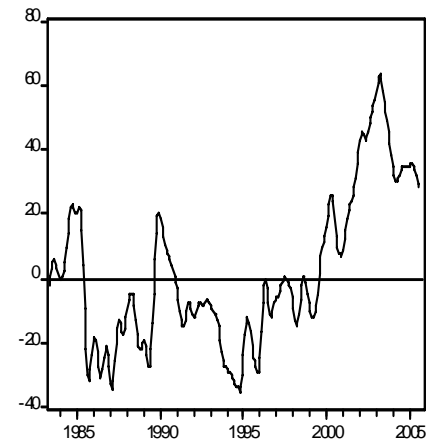
VC SM relative to Average



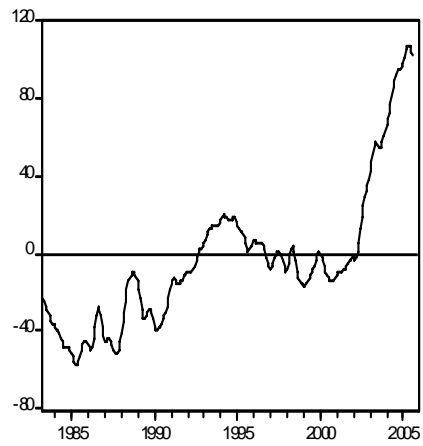
QLD SM relative to Average



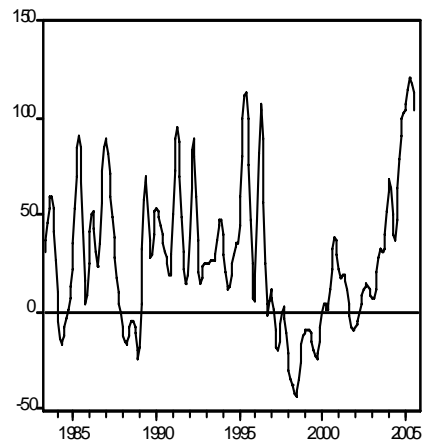
SA SM relative to Average



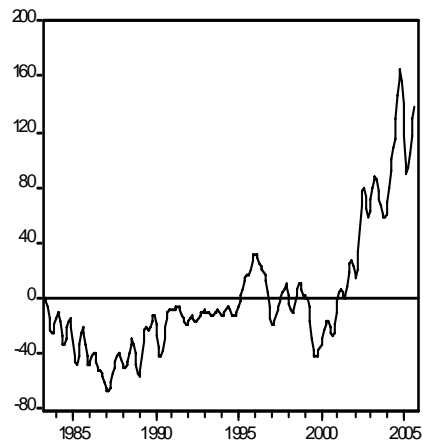
WA SM relative to Average



TAS SM relative to Average



NT SM relative to Average



5.2 Public Sector Debt

The previous term of the Rann Government was characterised by severe reductions in public sector debt, motivated by the desire to achieve a Triple-A credit rating from international ratings agencies. However, any objective assessment would have to concur that levels of public sector debt have now fallen well below those supported by the conventional Golden Rule. Under the latter, levels of long-term public sector debt should accumulate to reflect an equitable inter-generational allocation of the burden of debt-repayment. Here, equity implies a distribution across generations in direct proportion to the benefits received from long-lived public sector infrastructure.

To determine the optimal proportion of debt to Gross State Product, estimates of effective asset life and user costs would have to be calculated for each of the major assets within the public sector. These would have to be matched against the duration of long-term debt instruments. The fact that neither State Treasury nor for that matter Standard and Poors or Moody could determine whether this is or is not the case, in regard to the accumulated stock of public infrastructure in South Australia merely highlights the obvious ideological nature of decision making by these ratings agencies.

As soon as public corporations are privatised the ratings agencies are more than happy to see dividends flowing into Treasury coffers as these corporations borrow to attain gearing ratios determined to be appropriate to that particular sector of private industry. In the interests of efficiency, similar calculations should be performed as a matter of course for entities remaining within the public sector.

NSW and Victoria are embarking on a major round of infrastructure spending to address a range of problems detracting from the delivery of quality services in the areas of health and transport. In part, this expenditure will be drawing on funds gained through the sale of State equity in the Snowy Mountains Scheme. However, unless private ownership is expected to result in dramatic new sources of revenue, the capitalized value realised through the sale of these publicly owned assets would merely match the projected present value of foregone dividends. If increased infrastructure spending is thus deemed necessary, then it should be funded through a mix of taxation and bond sales, in conformity with the golden rule described above.

5.3 Trends in Public Sector Employment

This section of the Report addresses trends in public sector employment over the last two decades. The first graph below depicts changes in the share of public sector employment over total employment both for South Australian and Australia as a whole:

Figure 3 - Public Sector Share of Total Employment for South Australia and Australia, 1984:4 to 2005:4

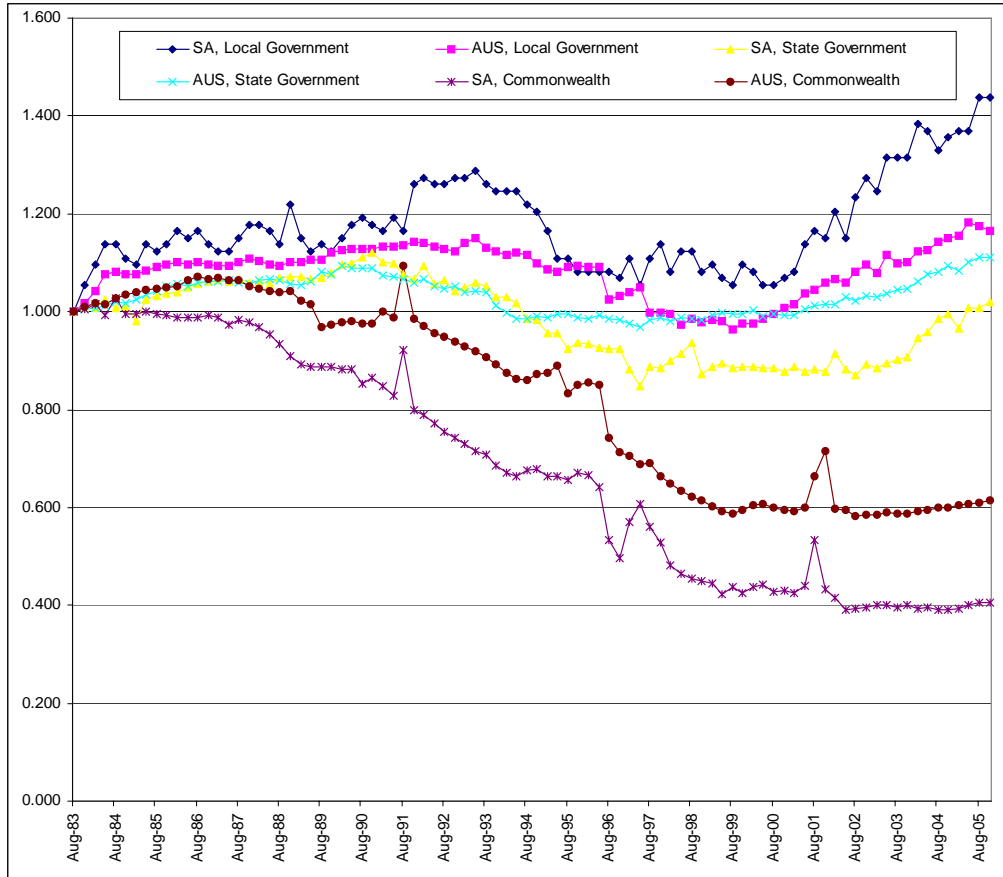


Source: Employed Persons by Sex, Industry, State, Status in Employment (ABS Cat. No. 6291.0.55.003 E06)

It can be seen that total public sector employment in South Australia has closely followed the national trend.

The next graph compares index numbers for public sector employment for the State and the Nation as a whole across different jurisdictions of government:

Indexed Changes in Public Sector Employment by Level of Government, SA and AUST, 1983-2005

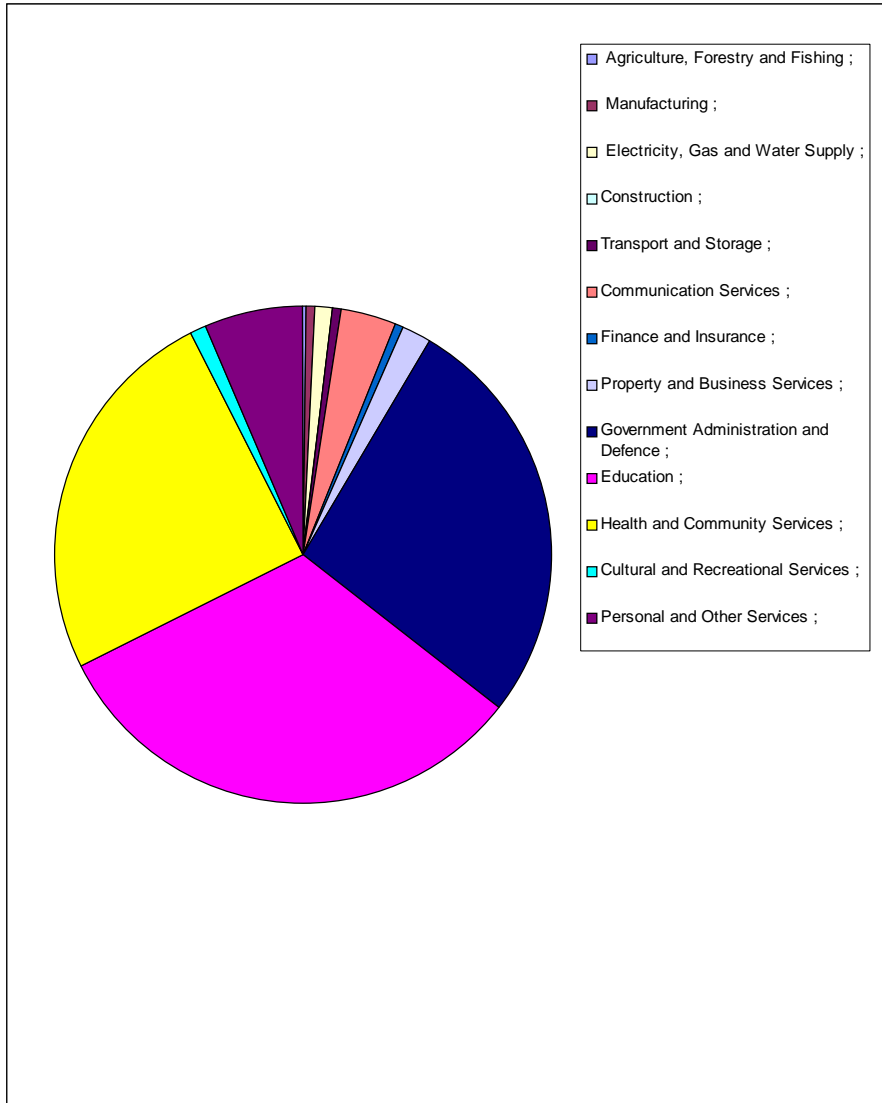


Source: Employed Persons by Sex, Industry, State, Status in Employment (ABS Cat. No. 6291.0.55.003 E06)

While SA local government employment has increased relative to its national counterpart, SA's share of Commonwealth employees has fallen along with SA's share of State Public Sector employment in the nation as a whole.

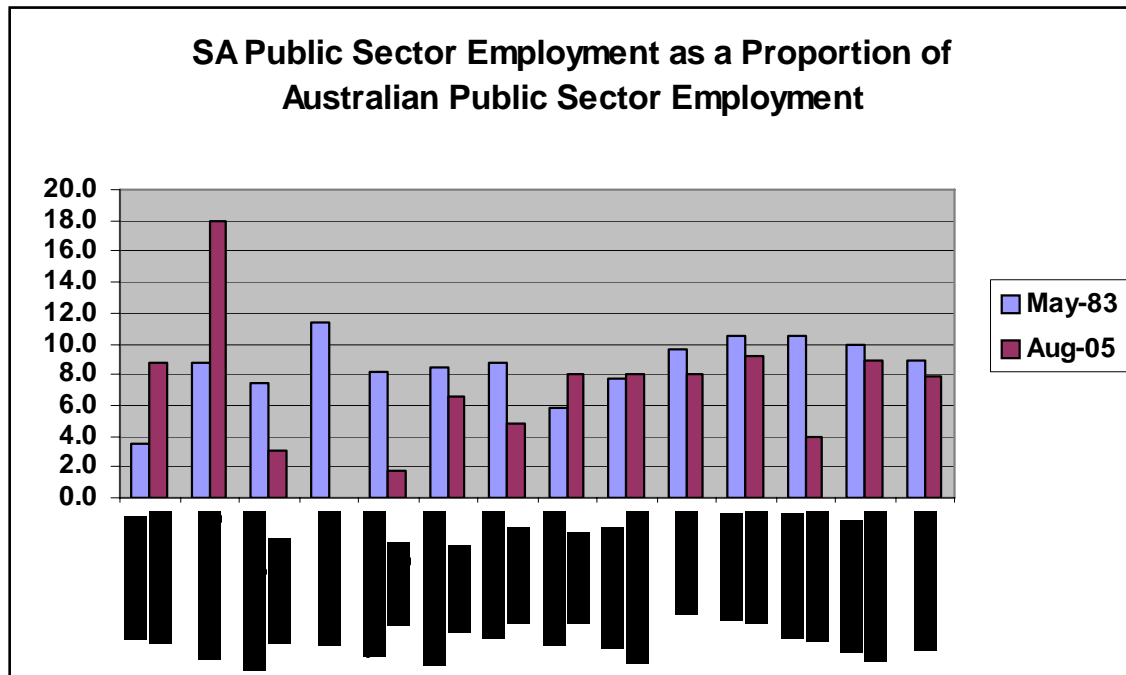
The following Pie Chart reveals the decomposition of that public sector employment by industry for December 2005. It can be seen that most employees work within Government Administration, Education, Health, and Personal Services.

Figure 4: Public Sector Employment, SA, Industry, December 2005



**Source: Wage and Salary Earners, Public Sector, Australia
(ABS Cat. No 6291.0.55.003 E06)**

The chart below shows an industry-by-industry breakdown of changes in the proportion of SA public sector employees measured relative to their Federal counterparts between May 1983 and March 2005. It shows that overall numbers have contracted in all sectors and in total, with the exception of the agricultural, manufacturing, property and business services, and administrative sectors,



Source: ABS 6248.0.55.001 Wage and Salary Earners, Public Sector, Australia; Table 7a. Wage and Salary Earners, States and Territories, Industry ('000)

Moreover, the final table below provides data on numbers of State Public Servants (by primary work location) and Unemployment Rates for ABS Labour Force Regions. It can be readily be seen that 84 percent of the State's public sector workforce are located in regions of above-average unemployment.

LABOUR FORCE STATUS BY ABS LABOUR FORCE REGIONS

SEPTEMBER QUARTER 2005

Not Seasonally Adjusted

	'000	%chng	Un rate	%chng	PubServ's	Proportion
South Australia	<i>741.5</i>	<i>20.8</i>	<i>4.7</i>	-1.3	76532	
<i>Adelaide</i>	<i>546.4</i>	<i>16.9</i>	<i>5.2</i>	-1	57749	75
Northern Adelaide	<i>167.5</i>	<i>6.9</i>	<i>6.8</i>	-1.3	6619	9
Western Adelaide	<i>94.9</i>	<i>-0.3</i>	<i>4.7</i>	-1.2	7640	10
Eastern Adelaide	<i>117.8</i>	<i>4.2</i>	<i>3.5</i>	-0.1	33025	43
Southern Adelaide	<i>166.2</i>	<i>6.1</i>	<i>5.2</i>	-1.3	10465	14
<i>Balance of South Australia</i>	<i>195.1</i>	<i>3.9</i>	<i>3.1</i>	-1.9	18783	25
Northern and Western SA	<i>72.5</i>	<i>0.8</i>	<i>3.2</i>	-2.5	N/A	N/A
Southern and Eastern SA	<i>122.6</i>	<i>3.1</i>	<i>3</i>	-1.6	N/A	N/A

Source: DEWR, Australian Regional Labour Markets, Sept. Qtr., 2005; Office of Public Sector Employment, 2005

6. Issues of Public Sector Management and Regulation

6.1 Responsive Regulation and Restorative Justice

Amongst OECD member nations governments have acknowledged the need for a move away from ‘command and control’ systems of regulation towards ‘smart’ or ‘responsive’ forms of regulation (Ayers & Braithwaite, 1992:29). Associated with this trend is another related move to privilege ‘restorative’ over more ‘retributive’ forms of justice (Braithwaite (2002). It is important to highlight the fact that notions of responsive regulation do not imply the advocacy of simplistic neo-liberal conceptions of market-driven voluntarism or self-regulation; nor do they imply that governments should “steer” and not “row” by embracing Osborne and Gaebler’s proposals—as set out in their 1992 text, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*. Taken to the extreme, this agenda implies that public service activities should be confined to core functions such as contract brokerage, performance management, and policy development regulate self-regulation. Instead, responsive regulation requires that government become more responsive to the conduct of those they seek to regulate: for example, decisions to escalate interventions should be based on contextual assessments about the relative effectiveness of persuasion or punishment, and the relative advantages and disadvantages of first-party, third-party or self-regulation.

In regard to issues of “law and order” this raises the puzzle of when to punish (by imposing retributive forms of justice) and when to persuade (by imposing restorative forms of justice). Braithwaite complains that legal formalism defines problems and responses in advance on the basis that agents are generally both rational and consistent. However, responsive regulation does not advocate consistency as an end-in-itself; rather, it acts on the basis that agents can be persuaded towards compliance in a variety of ways. In this way, concerns about the effective design of responsive regulations can be related to the notion of restorative justice (Braithwaite, 2002: 11; citing Tony Marshall):

Restorative justice is a process whereby all the parties with a stake in a particular offence come together to resolve collectively how to deal with the aftermath of the offence and its implications for the future.

John Braithwaite sees responsive regulation as locating restorative justice in institutional spaces complementing crime prevention, incapacitation and deterrence; socio-economic development; and care and love for the land. He contends that precedents for modern notions of restorative justice include the spread of victim-offender reconciliation from beginnings in Kitchener, Ontario 1974 (Braithwaite, 2002: 8). South Australia is well regarded as a place where victim-offender reconciliation has been adopted for young offenders. Other precedents include the family group conferences of the 1990s and Canada’s First Nation ‘healing circles’.

In many spheres restorative approaches to criminal activity could offer a more sustainable outcome to heavy-handed though populist “law-and-order” that are promoted by the Australian media. While it is sometimes more resource- and labour-intensive due to extra requirements in setting up and managing the process, it offers enormous opportunities for long-term reductions in costs of compliance, safe-guarding, victim support, and enforcement in large part due to a reduction in recidivism and re-offending rates.

In the guise of ‘smart regulation’ this framework also has major implications for business and commercial regulation. Like Braithwaite and his Australian colleagues, Aalders and Wilthagen (1997) see responsive regulation as an approach that seeks to avoid either self- or external-regulation and identify four defining characteristics. First, systems monitoring is applied to compensate for an increasingly limited and costly inspectorate capacity (examples include the requirement for firms to achieve third-party accreditation in International Quality Standards, including those for environmental management systems under EEU regulations). Second, to be effective requirements such as this must be backed by legislative enforcement, public disclosure, and countervailing powers of enforcement. Third, intermediary Structures such as trade unions, OH&S committees, and industry networks (as with ‘environmental contracting’). Fourth, corporate social responsibility can be encouraged to promote the internalisation of external goals and values, and the adoption of a culture of self-control through enlightened self-interest (Aalders & Wilthagen, 1997: 431-3).

Braithwaite also warns that experience has shown the necessity for co-regulation. In its absence, he observes, corporate support for these initiatives will typically diminish without (an example of co-regulation would be the Federal Government’s voluntary “National Packaging Covenant” for the Food and Beverages sector, which in practical terms is being driven by a range of powerful EEU regulations on the environment (see Aalders & Wilthagen: 434). This body of regulation includes mandatory, though market-oriented, regulatory tools (e.g. ISO-9000). In the OH&S arena it is widely recognised that economic arguments about ‘compensating wage differentials’ that would be independent of firms size, and the degree of internal versus external know-how, impose heroic requirements for market transparency, and full information.

While some of these ‘responsive’ instruments are more likely to be feasibly applied within the Federal jurisdiction (once again, notable examples are afforded by the National Packaging Covenant, Extended-Vehicle Life legislation, or Green House emission controls) a variety of exceptions to this at a State level could include occupational health and safety, workers compensation, the family courts, and State-level environmental and planning regulations. For example, the State of California’s Extended-Vehicle Life legislation (also implemented within the EEU) has been successful because it simply assigns final ownership of the vehicle to its original manufacturers. The high cost of land-fill, both in Europe and the US, encourages firms to implement a diverse range of internally-driven concurrent engineering procedures, extending far beyond quality assurance or lifecycle analysis to lower pollution impact, including those associated with design-for-disassembly, design for recyclability, and engineering for reduced pollution impact. However, in the US states have higher levels of autonomy than Australian States in regard to environmental legislation and California, in particular, benefits from its control over a huge, wealthy, and sophisticated consumer market.

6.2 Evidence-Based Practice

Associated with the move towards smart regulation are a set of modernization initiatives most notably advocated by the Blair Labour government in the UK. Key aspects of this agenda include (a) ensuring that policy making is more forward looking, joined up and strategic; (b) making public servants more responsive to the needs of users; and (c) delivering services that are more collaborative and less ideologically driven than in the past (Sanderson 2000; citing Cabinet Office, 1999). In this context, the Blair government has emphasized the importance of evidence-based policy evaluation and decision-making. The pragmatic mantra, “What matters is what

works”, is embodied in the activities of the Centre for Management and Policy Studies in the UK Cabinet Office.

Nevertheless, numerous academic studies (Kogan, 1999; Weiss, 1995; Pawson and Tilley (1997); Sanderson, 2000) have questioned the positivist foundations of this approach, which have privileged ‘objective’, ‘value-free’, quantitative analysis. This research has also highlighted the lack of any substantive understanding of how specific policies and programs actually work, a lack of appreciation of the limitations of rational choice models, including notions of bounded rationality and satisficing rather than optimising behaviour, and a refusal to accommodate the insights arising from the ‘institutional turn’ in the social sciences.

In conventional approaches an instrumental, top-down conception of evaluation is espoused focusing on the correct procedures and compliance mechanisms to attain pre-specified ends. Policy formulation is conceived as a ‘black box’, and the causal role of institutions in determining individual behaviour is largely ignored. In focusing on ‘whether’ rather than ‘how’ policies operate, a presumption of controllability excludes consideration of organizational controls, including the internal nurturing of agency ‘ethos’ and ‘culture’. Needless to say, cultural differences of this kind, which exert a strong influence over prevailing attitudes towards the public sector, arise at a national level. In Europe the EEU advocates the provision of public services on the basis of principles of universal access, equality, efficiency and accountability. However, as a recent *Unison* Report acknowledges,

European countries do not place as much emphasis as the US on economic growth per se as the determinant of the quality of life or happiness. They are less willing to judge everything by market criteria because they care more about social justice, the environment, customs and traditions, the vitality of community life and many other non-economic determinants. The provision of public services is one of the main mechanisms to support the pursuit of such non-market goals (Needham & Murray, 200 : 3)

The report distances itself from the tendency to view demographic changes that are associated with the ageing of the population negatively in terms of a ‘Malthusian’ time-bomb. While demand for all forms of housing, and for health and long-term care will increase, so will the requirement for education services to cater for a more highly educated though proportionately smaller workforce. The Report sets out two scenarios for 2020: a residual model based on neoliberal principles and an expansive model based on a strengthening of EEU social rights, with standards agreed through stakeholder dialogue, services developed on the basis of co-production and strategic investment in public service capacity, and government operating as a model employer setting standards for the private sector (Needham & Murray, : 15).

A more enlightened approach to ‘evidence-based practice’ would be one drawing on a rich theoretical framework that goes beyond narrowly instrumental and technical forms of analysis to grapple with the more complex socio-economic underpinnings of inequality and disadvantage. Some inkling of what this could mean for the efficiency and effectiveness of service delivery is afforded by work conducted for the SA Housing Trust, by researchers at Flinders University. This research entailed the development of a *workable* model of housing need through the deployment of GIS techniques. A regionally based index of housing imbalance was arrived at by calculating the difference between a score for *housing supply* (using a composite index reflecting the availability of low cost rental, median house prices, those for flats and units, and provision of public housing) and a score *for housing demand* (using a composite index constructed from data

on households in stress, and the proportion of the population classed as elderly, indigenous, or disabled) (Baker and Beer, 2006).

The resulting index was designed for use as an asset-planning tool to guide the allocation of public housing to areas of real need. In an environment of reduced funding, where the typical response is to sell valuable properties in high-income suburbs to maintain or expand stock in low-income zones, the development of measures such as this alleviates the danger of spawning low-income ghettos for a growing underclass of welfare dependent clients, unable to access local opportunities for education, training and employment.

6.3 Public Private Partnerships and the UK Experience

State Governments across the nation, have enthusiastically embraced public-private partnerships (PPPs) and other methods for raising finance from private agencies. However, one of the apparent paradoxes in debates over the increasing resort to private sources of finance, as an alternative to low interest government bonds, is why private firms, typically known for their short-termism in regard to the funding of investment activity, have themselves become willing participants in PPPs (for a formal economic treatment of this issue see Quiggin, 1995; Miles, 1995; Satchell and Damant, 1995). At the same time, this practice has proved to be unpopular with the voting public. In a report prepared for Unison, survey evidence was cited revealing growing public opposition to the use of private companies in providing public services both in Germany and the UK (Needham & Murray 14).

While it is difficult to gather hard evidence on the outcomes of PPP activity in Australia (largely because most projects are either still in the early stages of completion or because information is proscribed due to confidentiality provisions), studies into PPPs and the Private Financing Initiative (PFI) afford some insight into the paradox. A Report prepared for Unison in 2005 summarizes the results of five years of research conducted on behalf of that organisation (in particular, *Unison*, 2004, 2003, 2002, 2001). When PFIs are combined with PPPs the sum total of UK contracts exceeds £100 b. In addition to the capital value of these contracts, large revenue commitments representing a similar amount of money are built in to the contracts. These revenue commitments usually serve to reduce project risk for the contractors. However, the report cautions that “widespread concern about the use of PFIs and PPPs has not translated into a general understanding of how they operate” due to the high levels of “complexity, secrecy and lack of accountability” associated with PFI/PPP contracting.

In the UK, the PFI and PPP mechanisms were first introduced by the Conservative Government to take debt off balance sheet so that the nation could meet EEU constraints over debt-to-GDP ratios and rules on fiscal deficits. Under these EEU regulations, the Monetarist dogmas of the West German Bundesbank, have been imposed over the EMU and its member nations. One of the consequences has been an unparalleled growth in similar arrangements in other European nations.

One of the principle economic justifications for schemes such as this is the argument that risk can be gainfully transferred from the public to the private sectors. However, the Report argues that the UK Government’s use of these schemes as a vehicle for introducing the private sector into the provision of public services has effectively led to the public sector paying twice over: on one hand it is paying for an inequitable profit distribution and, on the other hand, it is bailing-out the failed contractors.

Case studies including those for Railtrack, British Energy, the Royal Armouries, the Passport Agency, and the benefit payment card contracts, and the Tower Hamlets project are examined in detail to highlight the consequences of contractual failure (Unison, 2004). The use of Special Purpose Vehicles (SPVs) by companies has achieved ‘bankruptcy remoteness’ in the event of commercial failures on the part of the SPV. In the Tower Hamlets case, a loophole permitting the simultaneous withdrawal of both the prime contractor and lead investor, Abbey National Treasury Services, left the Government holding responsibility for acting as guarantor of last resort for essential public services. Unison’s 2004 Report found that of 563 PFI deals signed by April 2003, only 8 financial inquiries into central government operational PFIs had been undertaken by the National Audit Office. Moreover, in these 8 studies the primary justification for PFIs—risk transfer—remained unaudited as there was no detailed examination of risk and associated risk premia.

Inequitable redistribution of profits, however, primarily occurs through the refinancing of PFI Projects in the secondary market (which is dominated by pension funds and Insurance Corporations seeking low risk, guaranteed income streams), after the initial, and higher risk construction phase has been completed. Profit-taking rewards have been high—£10.7m for the Fazakerley Prison PFI contract, £4.1m for Octagon Healthcare—sometimes reaching 80 percent of total profits (Unison, 2001). Increasingly, contractors are withdrawing from their investments once refinancing has occurred, so that they can rapidly move on to greener pastures.

While blanket support for PPPs in Australia has waned in the light of scandals such as the Cross-City Tunnel in Sydney, NSW credit ratings agencies still view them benignly, despite the understandable concerns of State Auditors-General, they continue to provide a seductive financing instrument for cash-strapped State governments. However, an alternative way to ease the threat of relative credit-rating downgrades would be for State Premiers to agree to a simultaneous easing of fiscal restraints over the issue of government bonds to finance desirable capital expenditures.

8. Policy Recommendations

Section 2: Recommendation 1: That the State Government acknowledge the persistent nature of unemployment in regional South Australia and lobby the Shadow Labor government, urging them to embrace a spatial Keynesian agenda through the provision of Federally funded public sector employment. A Job Guarantee of this nature paying workers at minimum award wages, can incorporate opportunities for training, provide community support for those with mental and physical disabilities, and replace the inadequate CEDP programme within indigenous communities.

Section 2: Recommendation 2: That the State Government distance itself from policies based on the dubious 'Social Entrepreneurship' and 'New Regionalism' frameworks, although devolution of decision-making to the lowest feasible level of government should no doubt continue to be encouraged on political grounds. At the same time, it should acknowledge the importance of effective demand conditions at a regional level, while continuing to support regionally targeted infrastructure investment in areas of social need.

Section 3: Recommendation 1: That the State Government acknowledge the adverse consequences for unemployment of the current era of fiscal constraint at a Federal level, while recognizing that these adverse outcomes can obviously be compounded by actions taken at a State level to preserve on-going budget surpluses in the interests of reducing outstanding public debt. As such, the State Government should follow NSW in moving away from policies of fiscal rectitude as the national economy begins to slow down.

Section 4: Recommendation 1: That the State Government in acknowledging the prospect of a significant deterioration in the national rate of economic growth, concede the need to maintain robust levels of public sector activity, especially where infrastructure spending and training can be directed to regions of high unemployment.

Section 5: Recommendation 1: That action be taken to address the deteriorating age profile in the South Australian Public Service. At the same time, the State Government should attempt to ameliorate the problem of skills shortages within the state economy, by identifying instances in which public sector activity, including in areas where this is occurring in cooperation with the private sector, can be utilized as a vehicle for promoting group apprenticeship programmes and other training initiatives.

Section 5: Recommendation 2: That the State Government should negotiate with its counterparts in other States so that other States can act in unison with the intention of expanding capital works expenditure over the anticipated economic downturn. Moreover, legitimacy for this action should be sought through promoting a return to a conventional application of the golden rule of financing capital programmes. In particular, the Government should examine opportunities for investment in projects that have prospects to fully recover their investment cost over the full life of the project. Examples of potential projects include medium-density public housing in assessed areas of housing imbalance, where innovations in architecture and design can act as exemplary models of sustainable residential development, by including features such as low energy consumption and white water reticulation. In a State Planning context, community title could also be investigated as a means for ensuring desirable built-form controls, and for the planning of reserves and wild-life corridors.

Section 6: Recommendation 1: The State government should investigate opportunities for extending existing forms of restorative justice with the aim of reducing the incidence of recidivism and re-offending rates.

Section 6: Recommendation 2: In conjunction with the PSA, the State Government should examine ways in which principles of responsive regulation can be extended within existing spheres such as environmental management, family law, occupational health and safety, workers compensation, and commercial and business regulation.

Section 6: Recommendation 3: Drawing on examples of best-practice such as the Index of Housing Imbalance, the State government should investigate opportunities for the development of more useful and effective metrics to guide asset management, planning and policy evaluation across the public service.

Section 6: Recommendation 4: The State Government should, as a matter of urgency, gather detailed evidence on the performance of PPPs in South Australia in regard to risk management. It should thus ensure that risk premia have not been excessive and that undue risk has not remained with the public sector.

9. Addendum on the Uranium Industry

The regional economic benefits to be derived from the expansion of a specific industry such as uranium mining are often calculated by using some kind of impact analysis. Employment multipliers derived from suitably disaggregated input-output tables are used to determine the consequences for the regional economy of increases in value-added or employment within the chosen sector. Effectively, this kind of analysis amounts to a multisectoral version of the textbook “Keynesian multiplier” that linking increases in autonomous expenditure to changes in the equilibrium level of aggregate income. Although multipliers for the mining sector would be slightly lower than for other more integrated sectors such as, say, automotive manufacturing, which are probably linked more strongly than the former through supply chain relationships to other industries, an employment multiplier in the vicinity of 1.5 would be expected.

Most knowledgeable economists trained in applied welfare theory would be somewhat sceptical about the value of such analysis, arguing instead for the conduct of a detailed cost-benefit analysis. The latter typically assumes full employment and would apply shadow-prices to account for various forms of market failure. In this addendum, though, the focus is solely on estimates of the cost of energy generation using a variety of technologies, although some brief discussion will be directed at some relevant political considerations.

Those against using nuclear energy argue that (these points have been taken from Engineers Australia Sustainable Energy Taskforce, 2001; and have been suitably modified and extended):

- It is uneconomic and more expensive than other forms of electricity generation.
- Reactor safety, even for new gas-cooled reactors, is insufficient to prevent unacceptable health risks to the population, workers, and the environment.
- There are no safe ways to dispose of long-lived radioactive waste and long term, secure storage is very expensive
- The use of nuclear energy leads to the uncontrollable proliferation of nuclear weapons.

In contrast, those in favour of using nuclear energy argue that:

- Health risks to populations from reactors are small and can be further reduced by the technology embodied in new gas-cooled reactors, which are supposedly immune to human error or natural or man-made cataclysms.
- The safety record of nuclear power plants is good when compared to other fossil-fuel plants (if incidents like Chernobyl are ignored).
- Nuclear power is a sustainable energy source.
- Nuclear power plants produce no air pollutants, such as sulphur and particulates, or greenhouse gases.

Uranium is a relatively abundant element that occurs naturally in the earth's crust. In 2002, some 16 producer countries accounted over 99 percent of the world's uranium. Canada's and Australia's uranium mines, in combination, account for over 50 percent of world production. According to the Nuclear Energy Institute, uranium is relatively low in cost compared to natural gas and is less sensitive to fuel price increases. One uranium fuel pellet is the equivalent of 475 cubic metres of natural gas, 0.81 tonne of coal, or 677 litres of oil (Engineers Australia Sustainable Energy Taskforce, 2001).

Fuel costs for nuclear power are the total annual cost associated with the "burnup" of nuclear fuel resulting from the operation of the unit. This cost is based upon the amortised costs associated with the purchasing of uranium, conversion, enrichment, and fabrication services along with storage and shipment costs, and inventory (including interest) charges less any expected salvage value. For a typical 1100 MWe BWR or PWR, the approximate cost of fuel for one reload (replacing 1/3 of the core) is about \$US40 million, based on an 18-month refuelling cycle. The average fuel cost at a nuclear power plant in 2004 was 0.42 cents / kWh. Because nuclear plants refuel every 18-24 months, they are not subject to fuel price volatility (Engineers Australia Sustainable Energy Taskforce, 2001).

The Nuclear Panel has stated that "previous calculations, based on notional construction costs of around \$US2500/kW, indicative of the size of reactor that would complement the Australian major transmission system (600-1000 MWe) would produce electricity at about 8 c/kWh (AUD) based on current discount rates and reasonable building and licensing timetables. Similar appropriately costed coal fired plant would produce energy at 3-5 c/kWh (AUD) on current coal costs of \$75/tonne."

Opponents to nuclear energy use do not accept the economic arguments in relation to nuclear energy. A 2003 report on the future of nuclear power from an MIT team estimated that a hypothetical new nuclear power station in the USA could produce electricity at US 6.7 c/kWh (AUD 9 c/kWh). By comparison, wind power in the USA is currently priced in the range 4-5 c/kWh (AUD 6c/kwhs), depending upon the siting and size of wind farm (Engineers Australia Sustainable Energy Taskforce, 2001).

In the UK, when the electricity industry was deregulated, nuclear energy was subsidised from a levy on electricity amounting to 1.2 billion pounds sterling per year. That is equivalent to a subsidy on each unit of nuclear electricity of UK 3 p/kWh (about AUD 6 c/kWh), making the total cost of a unit of nuclear electricity almost double the price of wind power at selective comparison sites in the UK (Engineers Australia Sustainable Energy Taskforce, 2001).

The key difference between nuclear energy and other forms of electricity production is that nuclear energy must bear the costs of radioactive waste management and disposal. Fossil fuel energy may bear some cost with regard to emissions, but without a full carbon tax, the full

external costs of fossil fuel external impacts are not factored into the price of electricity from these sources. The environmental impact of very large fly ash disposal from coal fired power stations remaining unknown and not recognised.

With regard to nuclear waste, the Guardian newspaper estimated that the cost of Britain’s civil nuclear waste legacy has risen to around £48 billion, a £6 billion increase on previous estimates. In the United States, \$US26.9 billion has been committed for the Nuclear Waste Fund. Of the \$US26.9 billion, \$US8.5 billion has been spent (Engineers Australia Sustainable Energy Taskforce, 2001).

The estimated cost of decommissioning nuclear power plants for the United States is \$US300-500 million per plant. This includes estimated radiological, used fuel and site restoration costs. A total of \$US31.9 billion is estimated to decommission all eligible nuclear plants in the United States.

Fuel Mix	\$US/MWh		\$US/kW(e)
	5% discount rate	10% discount rate	Construction Costs
Coal	25-50	35-60	1,000-1,500
Gas	37-60	40-63	400-800
Nuclear	21-31	30-50	1,000-2,000
Wind	35-95	45-140	1,000-2,000
Hydro	40-80	65-100	Not Available
Solar	150	200	Not Available
Combined Heat and Power	25-65	30-70	Not Available

Source: International Energy Agency, "Projected Costs of Generating Electricity", 2005

Comparable cost comparisons for the UK, where the costs of coal-fired plants are likely to be slightly higher than for Australia are presented in the following table,

Costs of Generating Electricity for Base-load Plants and Renewables

BASE LOAD PLANT	UK pence per kWh	
Gas-fired CCGT	2.2	
Nuclear fission plant	2.3	
Coal-fired pulverized fuel steam plant	2.5	
Coal-fired circulating fluidized bed steam plant	2.6	
Coal-fired integrated gasification combined cycle	3.2	
RENEWABLE TECHNOLOGIES	Without standby generation	With standby generation
Poultry litter-fired bubbling fluidized bed	6.8	6.8
Onshore wind farm	3.7	5.4
Offshore wind farm	5.5	7.2
Wave and marine technology	6.6	6.6

Source: PB Power (2004) Tables 1.1 and 1.2

Renewables are generally more expensive than conventional generating technologies due in part to the immaturity of the technology, the more limited opportunities to take advantage of economies of scale, and the effect of fluctuations in the energy source itself, which raise costs due to lower capacity factors (estimated at 25-45 percent for wind compared to over 90 percent for coal-fired and nuclear plants) and the likely need for standby generating capacity (detailed separately above). Prospective Greenhouse costs will largely depend on the carbon content of different fuels. The following table presents data on this for three fuel types:

Carbon Content of Different Fuels

Fuel Type	Carbon Content
Coal	22.5 (kg/GJ)
Fuel Oil	19.6 (kg/GJ)
Natural Gas	14.2 (kg/GJ)

Source: P B Power (2004) Table 4.3

The Australian Conservation Foundation states that “the economics of nuclear power do not stack up. The real cost of nuclear electricity is certainly more than for wind power, energy from bio-wastes and some forms of solar energy. Geothermal energy from hot dry rocks also promises to be less costly than nuclear. That is without including the huge costs of decommissioning power reactors and storing the radioactive waste” (ACF, 2006)

This raises the question of whether nuclear fusion may represent an alternative and cleaner generating option. In the early 80’s, Princeton built the first successful fusion reactor known as the TFTR. And in the late 80’s, Europe built a bigger reactor—the JET. However, none of these reactors actually produce more power than they consume. Calculations suggested that a self-sustaining reaction would only be possible if the reactor was scaled up in size. After 20 years negotiation, 7 nations agreed to contribute the \$ 6 billion necessary to construct the International Thermonuclear Experimental Reactor (ITER)—the world’s first power station sized fusion reactor—in Caderache, France early in 2006. However, scientists interviewed by the ABC

reporter Dr. Jonica Newby, at the Princeton Plasma Physics Lab, conceded that “ITER won’t actually produce electricity—that step is at least decades away” (ABC, 2006).

Finally, it should be noted that an expansion of uranium exports may lead to increased political pressure for Australia to take responsibility for the disposal of radioactive waste. This raises the question of where a prospective site would be most likely to be situated. Needless to say, despite the purported environmental benefits of nuclear energy, conservation groups are likely to remain strongly opposed to its use. In response to newspaper articles (The Australian, 4/05/06) suggesting that the WWF had adopted a conciliatory and open-minded position, following the Prime minister’s call for a realistic debate on the issue, the Wilderness Society through its National Campaign Director, Alec Marr, released a letter arguing that,

Any move by WWF Australia to support the Federal Government’s plans to expand uranium mining would place it at odds with all major Australian environment groups and its own international policy [...] Abandoning a policy and a principled position on nuclear mining simply because the government intends to proceed is the equivalent of The Wilderness Society giving up on its opposition to a dam on Tasmania’s Franklin River because the government wanted to destroy the river [...] If you are the head of a major environment group your job is to play a leadership role and build community awareness towards good environmental policy, instead of following in the radioactive footsteps of the Liberal Party and bad environmental policy. The Australian environment movement is opposed to further uranium mining and if WWF Australia does change its stance then it will have betrayed the people who support it.

In short, the nuclear industry is still a ‘hot potato’ and a potential liability for any pragmatically minded State government.

Bibliography

- Aalders, M. & Wilthagen, T. (1997) “Moving Beyond Command-and-control: Reflexivity in the Regulation of Occupational Safety and Health and the Environment”, *Law & Policy*, 19(4): 415-43.
- Australian Biography (1993) *Transcript of an Interview with Former Prime Minister Malcolm Fraser*, Australian Biography: Series 3, (accessed 24/5/06) <
<http://www.australianbiography.gov.au/fraser/index.html>.
- Australian Broadcasting Commission (2006) *Catalyst*, transcript of interview 27 April, Reporter, Dr Jonica Newby, (accessed, 20/5/06), <http://www.abc.net.au/catalyst/stories/s1625306.htm>>.
- Australian Conservation Foundation Website (accessed 5/5/06) <http://www.acfonline.org.au>.
- Australian Local Government Association (ALGA) (2002) *The State of the Regions*, October 2002.
- Australian Bureau of Statistics (ABS), 2005, Labour Force, Australia, Detailed - Electronic Delivery, Monthly’. 6291.0.55.001 Labour Force, Australia, Detailed - Electronic Delivery, Monthly.
- Ayres, I. & Braithwaite, J. (1992) *Responsive Regulation: Transcending the Deregulation Debate*, Oxford, Oxford University Press.

- Baker, E. and Beer, A. (2006) "Developing a workable Model of Housing Need—Applying Geographical concepts and Techniques to a Problem of Public Policy", paper presented at the ARCRSISS National Conference, May 21st - 23rd, Ian Potter Art Museum, University of Melbourne.
- Biles, J. J. (2003) "Using spatial econometric techniques to estimate spatial multipliers: an assessment of regional economic policy in Yuácatan, Mexico", *The Review of Regional Studies*, 33(2):121-141.
- Bill, A., Mitchell, W.F. and Watts, M.J. (2005), 'Examining the Relationship Between Commuting Patterns, Employment Growth and Unemployment in the Sydney Major Statistical Region', in *Creating a Culture of Full Employment, Proceedings of the 7th Path to Full Employment Conference and the 12th National Conference on Unemployment*, pp. 254-268
- Braithwaite, J. (2002) *Restorative Justice and Responsive Regulation*, Oxford: Oxford University Press.
- Cabinet Office (1999) *Modernizing Government*, Cm. 4310, London: The Stationary Office.
- Centre of Full Employment and Equity's labour market indicators (2006) (accessed 26/5/06) <http://e1.newcastle.edu.au/coffee/indicators/indicators.cfm>.
- (2000) *Adding it Up: Improving Analysis and Modelling in Central Government*, London: Central Office of Information.
- Cook, B., Dodds, C. and Mitchell, W. (2001) "The false premises of Social Entrepreneurship", Paper presented at a Workshop on *Social Entrepreneurship: whose responsibility is it anyway*, The University of Newcastle, 21st November, 2001.
- Conceição, Pedro, Galbraith, James, K. and Bradford, Peter (2000) "The Thiel index in sequences of nested and hierarchic grouping structures: implications for the measurement of inequality through time with data aggregated at different levels of industrial classification," University of Texas at Austin Inequality Projects, UTIP Working Paper No. 15 (May 9th).
- Debelle, G. and Vickery, J. (1999) 'Labour market adjustment: Evidence on interstate labour mobility', *Australian Economic Review*, 32(3), 249-63.
- Dixon, R. and Shepherd, D. (2001) 'Trends and Cycles in Australian State and Territory Unemployment Rates', *The Economic Record*, 77(238), September, 252-269.
- Engineers Australia Sustainable Energy Taskforce (2001) *Towards a Sustainable Energy Future*, August, Canberra: Engineers Australia <http://www.engineersaustralia.org.au/policy/publications.html>.
- Ferguson, Thomas and James K. Galbraith (2001) "The American wage structure: 1920-1947," Chapter 3 in *Inequality and Industrial Change*, Cambridge University Press.
- Galbraith James K. (2001) "Cluster and Discriminant Analysis of Time Series as a Research Tool" Chapter 16 in *Inequality and Industrial Change*, Cambridge University Press.
- Government of South Australia (2004) *South Australia's Strategic Plan: Creating Opportunity*, www.stateplan.sa.gov.au, accessed 20/5/06.
- Grabosky, P. & Braithwaite, J. (1993) *Business Regulation and Australia's Future*, Australian Studies in Law, Crime and Justice, Canberra: Australian Institute of Criminology.
- Gregory R. and Hunter, B. (1995) "The Macro Economy and the Growth of Ghettoes in Urban Poverty Australia", Economics Program Research School of Social Sciences, Australian National University, Discussion Paper No. 325.
- Gunningham, N. & Grabosky, P. (1998) *Smart Regulation: Designing Environmental Policy*, Oxford, Clarendon Press).
- Holmes, J., Hartig, K. and Bell, M. (2002) "Locational disadvantages and household locational decisions: changing contexts and responses in the Cessnock district of New South Wales, Australia, 1964-1999", *Australian Geographical Studies*, November, 40(3):300-322.

- Hunter, B. (1996) "Explaining Changes in the Social Structure of Employment: the Importance of Geography", SPRC Discussion Paper No. 67, July, *Social Policy Research Centre*, University of New South Wales.
- Juniper, J. (2005) "Defending liquidity preference and Keynesian notions of fundamental uncertainty", paper presented at the Debt, Money and Budget Deficits Workshop held by the Centre of Full Employment and Equity (CoffEE) at the University of Newcastle, Wednesday, February 23.
- Juniper, J. and Mitchell, W.F. (2005) "Towards a Spatial Keynesian macroeconomics" paper presented at a conference on *The Keynesian Legacy in Macroeconomic Modeling*, held at the University of Cassino, Italy, 16-17, and published as *Working Paper No. 05-09*, Centre of Full Employment and Equity, the University of Newcastle, <http://e1.newcastle.edu.au/coffee>.
- Kogan, M. (1989) "The impact of research on policy", in F. Coffield (ed.) *Speaking Truth to Power: Research and Policy on Lifelong Learning*, Bristol: Policy Press.
- Kryger, T. (2006) "The Incredible Shrinking Public Sector", Research Note No. 29, 24 March, Parliament of Australia, Department of Parliamentary Services.
- Lemke, T., 2002, 'Foucault, Governmentality, and Critique', *Rethinking Marxism*, 14 (3), Fall, 49-64.
- Lemke, T., 2001, "'The Birth of Bio-Politics': Michel Foucault's Lecture at the Collège de France on Neo-Liberal Governmentality", *Economy and Society*, 30 (2), May. pp. 190-207.
- Lovering, J. (1999) 'Theory led by policy: the inadequacies of the new regionalism', *International Journal of Urban and Regional Research*, 23, 379-395.
- Malmberg, Anders and Peter, Maskell (2002) "The elusive concept of localization economies: towards a knowledge-based theory of clustering", *Environment and Planning A*, Vol. 34, pp. 429-449.
- Markusen, A. (1996) 'Sticky places in slippery space - a typology of industrial districts', *Economic Geography*, 72, 293-313.
- Martin, R. (1997) 'Regional unemployment disparities and their dynamics', *Regional Studies*, 31(3), 237-52.
- Miles, D. (1993) "Testing for short termism in the UK Stock market", *Economic Journal*, 103 (421), pp. 1379-96.
- (1995) "Testing for short-termism in the UK Stock market: A reply", *Economic Journal*, 105. (Sept.), pp. 1224-1227.
- Mitchell, W.F. and Bill, A. (2005) 'A Spatial Econometric Analysis of the Irreversibility of Long Term Unemployment in Australia', Working Paper No. 05-05, Centre of Full Employment and Equity, University of Newcastle, <http://e1.newcastle.edu.au/coffee>.
- Mitchell, W.F. and Bill, A., (2005b) 'Who Benefits from Employment Growth?', Working Paper No. 05-12, Centre of Full Employment and Equity, University of Newcastle, <http://e1.newcastle.edu.au/coffee>.
- Mitchell, W. and Carlson, E. (2003a) "Regional employment growth and the persistence of regional unemployment disparities", *Working Paper No. 03-07*, Centre of Full Employment and Equity, the University of Newcastle, <http://e1.newcastle.edu.au/coffee>.
- Mitchell, W.F. and Carlson, E. (2003b) "Why do disparities in employment growth across metropolitan and regional space occur?", *Working Paper No. 03-09*, Centre of Full Employment and Equity, the University of Newcastle, <http://e1.newcastle.edu.au/coffee>.
- Mitchell, W.F. and Bill, A. (2004) "Spatial dependence in regional unemployment in Australia", in Carlson, E. (ed) *A Future That Works: economics, employment and the environment*, Proceedings of the 6th Path to Full Employment Conference and the 11th National Conference on Unemployment, 312-326.

- Mitchell, W.F. and Bill, A. (2005) "A spatial econometric analysis of the irreversibility of long term unemployment in Australia", *Working Paper No. 05-05*, Centre of Full Employment and Equity, the University of Newcastle.
- Mitchell, W (1998) "The Buffer Stock Employment Model-Full employment without a NAIRU", *Journal of Economic Issues*, Vol. 32, No. 2, pp. 547-55.
- Mitchell, W. (2000) "The Job Guarantee in a small open economy", in W. F. Mitchell and E. Carson (eds.) *The Path to Full Employment*, University of NSW Press, CAER, Sydney.
- Mitchell, W. and Muysken, J. (2002) "Why aggregate demand matters for understanding unemployment", Center of Full Employment and Equity, Working Paper No. 02-01, March, <http://e1.newcastle.edu.au/coffee>.
- Mitchell, W. and Watts, M. (2000) "Full Employment", Center of Full Employment and Equity, Working Paper No. 02-06, July, <http://e1.newcastle.edu.au/coffee>.
- (2001) "Addressing Demand Deficient Employment: The Job Guarantee", Center of Full Employment and Equity, Working Paper No. 01-06, June, <http://e1.newcastle.edu.au/coffee>.
- Modigliani, F. (2000) "Europe's Economic Problems", *Carpe Oeconomiam Papers in Economics*, 3rd Monetary and Finance Lecture, Freiburg, April 6.
- Nazara, S. & Hewings, G. J. D. (2004) "Spatial Structure and Taxonomy of Decomposition in Shift-Share Analysis", *Growth and Change*, 35(4): 476-490.
- Needham, C. and Murray, A. (#) "The Future of Public Services in Europe", *Unison Discussion Document*.
- Office of Public Employment (2005) *Workforce Strategy: Information Tables*, Appendix 2, Commissioner's Office.
- Palley, T. (1995) *Post-Keynesian Macroeconomics*: Edward Elgar, Aldershot.
- Panico, Carlo (1993) "Two Alternative Approaches to Financial Model Building." *Metroeconomica*, Vol. 44(2): 93-133.
- Pawson, R. and Tilley, N. (1997) *Realistic Evaluation*, Newbury Park: Sage.
- P B Power (2004) *The Costs of Generating Electricity*, London: The Royal Academy of Engineering www.raeng.org.uk.
- Piore, M., and Sabel, C. (1984) *The Second Industrial Divide: Possibilities for Prosperity*, New York, Basic Books.
- Quiggin, John (1995) "Short term bias and Australia's Economic Performance" published in Economic Planning Advisory Commission, *Short-termism in Australian Investment*, Proceedings of an EPAC Workshop held in Canberra on 10 November 1994; AGPS, Canberra.
- Sanderson, I. (2000) "Evaluation in complex policy systems", *Evaluation*, 6(4): 433-54.
- Satchell, S.E., and D.C. Damant (1995) "Testing for short-termism in the UK Stock market: A comment", *Economic Journal*, 105. (Sept.), pp. 1218-1223.
- Staber, U. (1996) 'Accounting for variations in the performance of industrial districts: the case of Baden-Württemberg', *International Journal of Urban and Regional Research*, 20: 299-315.
- Steckel, Richard H. and Carolyn M. Moehling (2000) "Wealth Inequality Trends in Industrializing New England: New Evidence and Tests of Competing Hypotheses", NBER Working Paper Series on Historical Factors in Long Run Growth, Historical Paper 122, February.
- The Australian, 4/05/06, "Green Group accepts uranium mines", <http://www.theaustralian.news.com.au/story/0,20867,19019395-601,00.html>.
- Unison (2005) *PFI: Against the public interest: why a licence to print money can also be a recipe for disaster*, written by P. Gosling, for the Unison, Positively Public Campaign Research Report (accessed 24/5/06) www.unison.org.uk/pfi.

- (2004) *Public Risk for Private Gain?: The Public audit implications of risk transfer*, July, Stock No. 2350 (accessed 24/5/06) www.unison.org.uk/pfi.
 - (2003) *Stitched Up: how the Big Five Accountancy Firms have PFI Under their Thumbs*, January, Stock No. 2147, (accessed 24/5/06) www.unison.org.uk/pfi.
 - (2002) *PFI: Failing our future: A Unison Audit of the Private Finance Initiative*, September, Stock No. 2108, (accessed 24/5/06) www.unison.org.uk/pfi.
- Unison (2001) *Refinancing: Profiteering from Public Services*, Issue 1: November, (accessed 24/5/06) www.unison.org.uk/pfi.
- Vercelli, Alessandro (1991) *Methodological Foundations of Macroeconomics: Keynes and Lucas*. (Cambridge:Cambridge University Press).
- Weiss, C. H. (1995) "The haphazard connection: Social Science and public policy", *International Journal of Educational Research*, 23(2):137-50.