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The Arithmetic of the Job Guarantee

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May 2001

1. Introduction

Since the first of the oil shocks in the early 1970s the Australian unemployment rate has exhibited a long term increase with the three subsequent recessions each ratcheting up the unemployment rate. In the last two decades, the lowest rate of unemployment was 5.4 per cent (November 1989). By contrast in 1974, the rate of unemployment was less than 3 per cent.

Over the last decade both the current Howard Coalition Government and the previous Labor Government have eschewed the adoption of policies of direct job creation to reduce the rate of unemployment.[1] Monetary and fiscal policy has been geared to keeping inflation low and to achieving budget surpluses, respectively. Strong *economic fundamentals* allied with deregulated markets are viewed as both necessary and sufficient for the return to full employment.[2] At the time of writing a recession is in prospect.

At the same time unemployment is now viewed as an individual problem rather than a collective problem. This is epitomised by the introduction by the Work for the Dole scheme at the end of 1997 and its consolidation through the development of mutual obligation in mid-1998 (Burgess et al, 2000). A further extension of the scheme to include single parents and the disabled is now proposed. The Government's solution to persistent unemployment is always further reform, rather than a fundamental change in policy. Despite the OECD Jobs Study (1994), there is increasing skepticism about the capacity of neo-liberal reforms to reduce the high unemployment rates that have prevailed in most OECD economies since the mid-1970s (Bell, 2000 and chapters therein).

Most researchers acknowledge that the economic and social costs of the sustained high unemployment in Australia and other developed economies are substantial (Sen, 1997a,b Junankur and Kapuscinski, 1992, Mitchell and Watts, 1997, Watts, 2000a, Watts and Mitchell, 2001).

In this paper, using September 1999 as the basis of the analysis, we first estimate the economic costs of unemployment in Australia. At that time the unemployment rate was 7.4 per cent. Using conservative assumptions, we calculate that the foregone output resulting from the unemployment rate being above its full employment rate, assumed to be 2 per cent, is estimated to be in the order of \$33.5 billion.[3] The improvement in net government receipts is estimated to be \$15.63b. This assumes that full employment was achieved through an exclusively private sector recovery. These costs of unemployment dwarf the benefits of microeconomic reform, which at the very least suggests that direct macroeconomic intervention should be a priority (Quiggin, 1997; Watts and Mitchell, 2001).

Recognising the high economic and social costs of unemployment, we then examine the arithmetic of a Job Guarantee (JG) Program under the principles of the buffer stock mechanism to reduce unemployment in Australia (Mitchell, 1998). The value of increased output under a JG Program is calculated to be about \$27.19 billion, due to the conservative assumption of lower productivity in the public sector. The net increase in government outlays of \$5.52 billion takes into account the wage and on-costs of direct job creation, the impact of the multiplier on private sector job creation, income tax and profits tax and the reduction of unemployment benefits and disability support benefits. We note that, given the current Government's preoccupation with the achievement of a budgetary surplus, the fiscal 'cost' of the JG could be offset by a reduction in annual corporate welfare. A number of researchers now argue that the focus on the achievement of budget surpluses is misguided.

In Section 2 we outline the methodology used to compute the economic costs of unemployment. In Section 3 the methods used in Section 2 are developed to outline the estimation of the costs of implementing a Job Guarantee. Concluding remarks follow in the final Section.

2.   The Costs of Unemployment

2.1   Introduction

Watts and Mitchell (2001) argue that the costs associated with sustained unemployment might be justified if there was an agreed collective economic goal, such as low inflation, that was deemed to require a particular rate of unemployment. Prior to imposing the required rate of unemployment, however, other methods of maintaining price stability should be subjected to a cost- benefit analysis, such as a comprehensive incomes policy. If a sustained high rate of unemployment were deemed to be appropriate, then a consensus would be needed over the sharing of the associated costs.

Watts and Mitchell (2001) provide evidence on the overall incidence, geographic location and duration of unemployment, along with the distribution of jobs across families that suggests that these costs have not been shared equitably. Despite the difficulty in measuring vacancies, the persistently high ratio of unemployment to vacancies would suggest that a significant proportion of unemployed workers are involuntarily unemployed.[4] Further, the tightening of the activity test by the Howard Coalition Government has not led to a dramatic reduction in the official rate of unemployment.

Sustained unemployment imposes significant economic, personal and social costs (Sen, 1997a,b and Junankur and Kapuscinski, 1992, Watts, 2000a and Watts and Mitchell, 2001). Our main focus in this paper are the measurable static[5] economic costs of unemployment, namely foregone output, and the impact on the fiscal budget of either a private sector recovery or the implementation of the Job Guarantee.

2.2   Output Loss

In September 1999, out of a labour force of 9621 thousand, 713.3 thousand workers were officially unemployed with 72.8 per cent of them seeking full-time employment. In September 1999, part-time employees worked an average of 15.8 hours per week and full-time employees 42.5 hours per week.

A number of conceptual and empirical issues arise in the computation of foregone output resulting from unemployment, hidden unemployment and underemployment. First, the choice of the target rate of unemployment is important (Junankur and Kapuscinski, 1992: 23). The chosen rate of unemployment must reflect estimates of frictional and any obdurate structural unemployment. Hamilton and Saddler (1997) estimate that the frictional unemployment rate is 1.7 per cent, reflecting the rate of unemployment in the 1950s and 1960s. We use the figure of 2 per cent for the following reasons:

(a) We identify full employment with all the unemployed and the underemployed securing jobs (Beveridge, 1944), rather than a rate of unemployment considered to be politically feasible, which generally means that it is alleged to be associated with stable inflation.

(b) The current rate of employment may include a significant structural, as well as frictional, component. We accept the argument that persistent unemployment has led to skill atrophy at a time when skill demands appear to be increasing (Watts 2000b), but in this paper we are conducting a thought experiment in calculating the costs of unemployment. The solution to high unemployment is job creation and associated on-the-job training, rather than an endless series of training programs that are disconnected from current job vacancies. Many researchers conflate the measurement of structural unemployment with demand deficient unemployment at times of high unemployment. The creation of such a large number of jobs and the acquisition of the requisite level of skill by the newly employed will take time, but our calculations ignore this transition process to full employment.

Second, Mitchell and Carlson (2000) show that the aggregate labour force participation rate is pro-cyclical. Accordingly, the computation of the additional jobs to achieve the target unemployment rate must include an estimate of hidden unemployment (HU). Mitchell and Carlson (2000) estimate that the increase in participation associated with the target unemployment rate of 2 per cent is consistent with a level of hidden unemployment (HU) of approximately 266.1 thousand, computed at the rate of unemployment prevailing in August 1999 (see Table 1). Thus to achieve an unemployment rate of 2 per cent requires NJ new jobs where NJ = 0.98(LF + HU) - N = 781.7 thousand and LF, N denote

the prevailing labour force and employment, respectively. The bracketed term represents the potential labour force. A majority of the hidden unemployed were women (66.7 per cent) who had a lower propensity to seek full-time employment (60.7 per cent as compared to 82.1 per cent for men).[6]

Table 1: The Underlying Parameters

The Labour Market September 1999			
Official Unemployment (000s)	713.3	Unemployment Rate (%)	7.4
Labour Force (000's)	9,621.0	% Unemployed Seeking FT work	72.8
Average FT Hours Per Week	42.5	Average PT Hours per Week	15.8
PT seeking FT work (000s)	291.5	PT seeking more hours (000s)	179.8
Labour Market with 2 per cent Unemployment ('000s)			
Hidden Unemployment	266.1	New Jobs for (Hidden) UN	781.7
'Jobs' for Underemployed	199.0	Total New Jobs	980.6

Third, account must be taken of the underemployed. The ABS (1999) reports that in September 1999 291.5 part-time workers were seeking full-time employment and 179.8 were seeking extra hours of work. The average additional hours sought by these workers were 15.7. Of the total of 471.3 thousand underemployed part-time workers, 41.6 thousand were neither available nor were looking for extra hours of work. We do not include them but assume that the rest sought 15.7 additional hours of work on average. In addition, 36.2 thousand workers usually worked full time and were working part-time. These are ignored. The extra 6,746.3 thousand desired hours of work per week translates into the equivalent of 168.7 thousand full-time jobs, given the assumption of a 40 hour week. This translates into 199 thousand new (part-time and full-time) jobs, when account is taken of the preferences of men and women for part-time and full-time employment. The equivalent number of jobs, both part-time and full-time, is treated as an additional component of the hidden unemployed, reflecting the fact that no social welfare payments are being foregone with the extra hours of work being undertaken by these workers. This

simplification avoids taking into account the distribution of the underemployed between the public and private sectors, the marginal tax rates on extra hours worked by these incumbent workers and the complexities involved in computing the impact of the increased hours of employment on the multiplier process. Then the total number of additional jobs required to reduce the rate of unemployment to 2 per cent and remove underemployment is 980.6 thousand.

Nominal Gross Domestic Product for the year ending September 1999 was $604.0 billion. Average monthly full-time equivalent employment was 7310.5 thousand over this period. Thus annual productivity per full-time equivalent employee was about $82,620.

The level of foregone output associated with the prevailing level of unemployment and underemployment is proxied by a direct measure of output per worker, that is in turn, multiplied by the number of additional employees.[7] We assume that the productivity of the newly employed full-time equivalent workers in the private sector is $40,000, reflecting the lower skills of the unemployed and possible capital shortages resulting from the higher level of economic activity. Then if 2 per cent unemployment were to be achieved by an exclusively private sector recovery, along with the removal of all underemployment, the increase in output would be approximately $33.5 billion. This represents about 5.5 per cent of nominal annual GDP. Langmore and Quiggin (1994: 28) estimated that, after taking into account the hidden unemployed, the static costs of income loss lay in the range of $30-$40 billion per year.

These results should be seen in the context of recent estimates of the costs of microeconomic inefficiency. The Industry Commission (1995) estimated that the overall benefits of microeconomic reform were 5.5 per cent of GDP, of which 2.3 per cent resulted from productivity improvements and the remainder from flow on. Quiggin (1997: 257) is critical of these estimates, noting that the productivity calculation is based on the assumption of zero productivity growth in the absence of reform and that the likely effect of flow on is negative reflecting the permanent displacement of workers from employment. He estimates the benefits to be less than 1 per cent, taking account of the

impact of microeconomic reform on unemployment. Thus, there is persuasive evidence that the macroeconomic costs of unemployment, as measured solely by foregone output, dominate any realistic measure of the costs of microeconomic inefficiency. Thus direct, macroeconomic intervention is justified.

2.3 Government Outlays and Revenue

In June 1999, 577,682 customers were receiving Disability Support Pensions. Regressions were undertaken to estimate the (cyclical) sensitivity of the number of DSP recipients to variations in the employment to population ratio (Department of Family and Community Services, 1999).[8] The elasticity was found to be –2.41 for all (male plus female recipients).[9] Using the employment to population ratio corresponding to 2 per cent unemployment, it was estimated that the number of DSP recipients would fall by 104.5 thousand, about 18.1 per cent. It is assumed that these DSP recipients who secure employment are part of the stock of hidden unemployed, even though their propensity to join the labour force in response to an improvement in economic activity is markedly different than the hidden unemployed.

Using September 1999 figures, the saving in unemployment benefits and disability support pensions resulting from the achievement of 2 per cent unemployment through a private sector recovery is estimated to be $5.63 billion.[10] The increase in income tax revenue is estimated to be $3.82 billion from the private sector recovery. It reflects the full-time versus part-time employment status of the newly employed workers, as well as their previous status. Indirect taxes net of subsidies were 11.9 per cent of GDP for the year ending September 1999. We estimate the increase in indirect taxes resulting from the rise in economic activity to be $3.99b.

Expenditure on labour market programs, in the form of assistance to job seekers and industry, was projected to be $1.68 billon over the year 1999-2000. If unemployment fell to a frictional level of 2 per cent, then most of these programs could be terminated. We allow $680 million for retraining and the provision of improved communications to assist

the dissemination of information about job vacancies and the characteristics of the unemployed, so that outlays are reduced by a modest $1 billion.

Finally the costs of unemployment are revealed in most areas of government, including police, community welfare and health services. The outlays on public order and safety and health were projected to be $0.88 billion and $22.45 billion, respectively in 1999-2000. The rate of unemployment of 7.4 per cent is assumed to contribute 20 per cent to public law and order expenditure and 10 per cent to safety and health expenditure. There is insufficient provision by government of health and safety and law and order services at present, however, so that, rather than considering cuts in outlays of this magnitude, we assume that the *effective* level of service provision is increased at full employment by maintaining the level of expenditures.[11]

Table 2 Change in Government Receipts and Outlays: 2 per cent unemployment

ΔGovernment Outlays ($b)		ΔGovernment Revenue ($b)	
ΔUnemployment Benefits	-4.83	ΔTaxes on Wages	3.82
ΔOutlays on Disability	-0.80	ΔTaxes on Profits	2.71
ΔOutlays on LM Programs	-1.00	ΔIndirect Taxes	3.99
Total	**-6.63**	**Total**	**10.52**
ΔNet Government Revenue 17.15			

Hence, based on these figures, achieving full employment, defined as 2 per cent unemployment through a private sector recovery, would net the government an extra $17.15 billion, through significant direct and indirect savings in employment assistance, unemployment benefits, Disability Support Pensions, and through increased income tax and indirect tax revenue (see Table 2). This figure is a similar order of magnitude to the estimates of Langmore and Quiggin (1994: 29) of savings on direct outlays of about $12 billion in 1992-93.

3.   The Job Guarantee

Mitchell (1998) argues that, if the private sector does not provide sufficient job opportunities to achieve full employment, then the government should guarantee a full-time or part-time job at the living wage level to everyone who desires one. The Job Guarantee is designed to generate both full employment and price stability.[12] There are many unfulfilled needs that could be met by Job Guarantee workers including environmental restoration, community services to the aged, the youth, and the disabled, and other similarly useful activities. Local councils have the knowledge and expertise to identify pressing social needs and employment agencies could readily establish the extent of idle labour. Such a program would generate a high rate of social return on public expenditure (Mitchell 2000).

3.1   Employment Generation

The creation of public sector jobs is assumed sufficient to reduce the unemployment rate to 2 per cent, so that a total of 980.6 thousand extra jobs must be created. The parameters of the multiplier process will determine the mixture of private and public sector jobs that result from the initial expansion of public sector employment. Again we assume that the DSP recipients who secure employment are part of the stock of hidden unemployed.

If we consider 100 new public sector jobs, then it is possible to estimate the number of PT and FT jobs that will be taken by the official unemployed, the hidden (non-DSP) unemployed and those on disability support pensions. This distribution of jobs reflects the gender composition of these groups and their preferences for FT and PT employment. Each public and private sector job is subject to on-costs of 20%.

Each full-time (part-time) employee under the JG Program is paid $400 ($200) per week. The increases in disposable income associated with securing a public sector job for those persons registered as unemployed or on disability support pensions and for those who were hidden unemployed can be calculated. This extra disposable income will reflect the extra gross income, the prevailing tax rate and the clawback of benefits.13 We now need

to compute the multiplier effect resulting from the creation of public sector jobs (see Appendix 1). A domestic propensity to consume of 0.75 and a propensity to consume out of profit of 0.6 are assumed, which reflect the low savings ratio of about 0.03 and an imports to GDP ratio of approximately 0.20.

The resulting increase in domestic consumption gives rise to increased private sector employment, the magnitude depending on the level of private sector productivity per worker. The increase in private sector employment is also spread pro-rata by part-time and full-time status across the hidden (non-DSP) unemployed, the official unemployed and those disability benefit recipients who seek employment.

The average full-time adult private sector wage was $762.60 per week in August 1999. We assume that the full-time wage of the newly employed private sector worker is $500 per week. It is then possible to calculate the increase in disposable income of these private sector wage earners who are employed as a result of the first round increase in consumption.

The production of consumption goods is also a source of profit. The ratio of GDP at factor cost to GDP in 1999-2000 was 0.881. Then the level of profit per full-time private sector worker is $4,040 that is subject to a tax rate of 35 per cent. Then it is possible to compute the successive rounds of consumption expenditure, resulting from the initial increase in public sector employment. The first round impacts of an increase in 100 public and private sector jobs, respectively are shown in the Appendix.[14] It is estimated that an initial creation of 100 public sector jobs leads to the creation of a total of 34.6 private sector jobs. Then, scaling up these figures, the number of public sector jobs that are required to achieve a 2 per cent unemployment rate and no underemployment is 742.6 thousand. The value of additional output is $27.19 billion of which $8.14 billion is private sector output. The increase in post-tax labour income is $10.43 billion, which reflects the (partial) loss of unemployment benefits and disability support pensions, as well as the payment of income tax on the higher income. Post-tax profit income increases by $0.82 billion.

3.2   Government Outlays and Revenue

We have shown that, based on the September 1999 figures, a fall in unemployment to 2 per cent requires an extra 980.6 thousand jobs of which 569.3 thousand are filled by workers currently registered as unemployed who were receiving unemployment benefit of $170 per week (the single person rate). The savings in unemployment benefits and disability support pensions are about $4.62 billion and $0.68 billion, respectively. The increase in income tax revenue is $2.77 billion and reflects the initial status of workers, their full-time versus part-time employment status and their distribution between the public sector and private sector.

Table 3 The Jobs Guarantee: 2 per cent unemployment

ΔIncome, Spending ($b) and Employment (000s)		ΔGovernment Outlays/Revenue ($b)	
ΔGDP	27.19	ΔGross Government Outlays	15.85
ΔConsumption	8.14	ΔUnemployment Benefits	-4.62
ΔProfit	0.82	ΔOutlays on Disability	-0.68
ΔEmployment	980.6	ΔOutlays on LM Programs	-1.00
ΔPublic Sector Employment	742.6	ΔTaxes on Wages	2.77
ΔPrivate Sector Employment	238.0	ΔTaxes on Profits	0.29
ΔFTE Employment	802.1	ΔIndirect Taxes	0.96
ΔNet Government Outlays $5.52 billion			

Hence, based on these figures, the achievement of full employment, defined as 2 per cent unemployment, would net the government about $10.32 billion, through significant direct and indirect savings in employment assistance, unemployment benefits, disability support pensions, and through increased tax revenue (see Table 2). Thus net government outlays required to reduce the rate of unemployment to 2 per cent are estimated to be in the order

of $5.52 billion.[15] The net budgetary cost would vary with the fluctuations in private sector employment.

The returns of having everyone in meaningful employment would be substantial. However, given the budget surplus fetishism of the current Coalition Government, a Job Guarantee program might be considered excessive, despite a significant budget surplus (over $12 billion in October 2000). A more reasoned policy approach would be to compare the costs of the Job Guarantee relative to its overall benefits, which include restoration of community values, to the costs and benefits of other major government programs.

The comparison with the cost of the Olympics ($8 billion) and the tax cuts given to the high income groups to accompany the GST ($6.5 billion), makes the Job Guarantee a realistic policy option. A candidate for significant, offsetting fiscal cuts would be corporate welfare. Large corporate players have been able to secure significant inducements from both Federal and State governments to locate their operations in the appropriate area (Mitchell, 1995). 'Competitive smokestack chasing' reaches the height of absurdity when State Governments compete for business from multi-nationals through generous incentive programs. In 1996 State and Territory Governments spent almost $6b on subsidies and foregone revenue (Baragwanath and Howe, 2000). Despite the increased accountability that is required of welfare recipients, the corporate sector appears to be largely immune to the requirement for *any* form of evaluation (Baragwanath and Howe, 2000).

Mitchell (1998) and Wray (1999) argue against the Job Guarantee being measured as a cost to the budget. They say that the budget deficit should not be a target of policy makers and should instead be allowed to vary endogenously. Central to their analysis is the rejection of the analogy that is made between the budgetary constraints that households face in making their spending decisions and the budgetary constraints on government. They argue that Federal government spending is not constrained. The existence of unemployment signifies that the budget deficit is too low. In this context,

arguments about whether $5.52 ($6.41) billion is too high or a feasible amount to add to the budget deficit are irrelevant.

4.   Conclusion

The paper has demonstrated that, even under conservative assumptions about parameter values, the static economic costs of sustained high unemployment are extremely high. The inability of unemployed individuals and their families to function in the market economy also gives rise to many forms of social dysfunction. If full employment were to occur through a private sector recovery, then a substantial improvement in the effective level of government services could be achieved along with a significant improvement in the state of the budget.

The apparent failure of neo-liberal supply side policies to reduce unemployment and the modest benefits of microeconomic efficiency points to the need for demand management policies. If the Government had the political will, it could readily overcome the problem of persistently high unemployment.

The arithmetic of the Job Guarantee program demonstrates that, under conservative assumptions about spending propensities, the net increase in government outlays to achieve a fully employed economy under a JG program is relatively small. Given the budget surplus fetishism of the current Coalition Government, a significant cut in Commonwealth Government outlays would be required. One candidate would be corporate welfare. However many economists now challenge the long-term viability of persistent budget surpluses (see for example Mitchell, 1998 and references therein).

Appendix

The first row of Table 4 shows the initial impact of an increase of public sector employment of 100. The breakdown of employment reflects the preferences for full-time work by gender on the part of official and hidden unemployed and those on disability support pensions. The following cells indicate the impact on production, taxes, disposable income, government expenditure, outlays on unemployment benefits and disability support pensions and consumption. The final figure denotes the first round impact on private sector employment of the rise in consumption expenditure in the preceding cell. The second row entails a similar set of calculations, except the expansion of activity is initiated by an increase of private sector employment. The magnitudes in the second row are greater because of the higher wages and productivity in the private sector. As well as leading to larger increases in production, disposable income, taxes, consumption and the first round increase in employment, the savings on benefits are higher because the claw-back is greater.

Table 4 The first round impact of increases in the number of jobs

	ΔFT	ΔPR	ΔT	ΔYT	ΔG	ΔUB	ΔDSP	ΔC	ΔN
100 Public Sector Jobs	71.03	2.57m	0.25m	1.00m	2.13m	-0.46m	-0.07m	0.75m	21.9
100 Private Sector Jobs	71.03	3.42m	0.67m	1.77m	0	-0.49m	-0.08m	1.25m	36.6

Notes: The increases in consumption and post-tax income in the second row include the impact of the increase in profit.

ΔFT: full-time employment
ΔPR: production
ΔT: taxation
ΔYT: post-tax income
ΔG: government spending
ΔUB: unemployment benefit
ΔDSP: disability pension
ΔC: consumption
ΔN: employment

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[1] Mitchell (2000) presents data for 1970-2000, which shows that the failure of public sector employment to grow proportionately with the labour force explains a substantial portion of the persistent unemployment. The private sector achieved employment growth in proportion to the labour force growth. Between 1985-1990, private employment growth was significantly above labour force growth, whereas public sector growth actually fell and the opportunity to reduce the huge stock of unemployment was lost. In the following recession, public sector employment behaved pro-cyclically (contrary to its historical counter-cyclical tendency) and the employment gains of the late 1980s were dwarfed by the large increase in unemployment.

[2] For a concise statement of the belief that in the long-run full employment will be the outcome of low inflation see Reserve Bank (1996).

[3] Further details of all the calculations undertaken in this paper are available from the authors.

[4] Even if 50 per cent of unemployment were voluntary, the ratio of unemployment to vacancies would still be in the order of 5 to 1.

[5] Langmore and Quiggin (1994: 24) examine the dynamic costs of unemployment, by estimating the loss of future output arising from the reduced human and physical capital stock due to skill atrophy and the lower investment in the physical capital stock (see also Denniss and Burgess, 1999). They note (p.28) that if the more rapid growth of GDP per head over the period 1960-73 had been sustained, national income would have been nearly 50 per cent higher in the early 1990s. Sen (1997b) suggests that high unemployment can also impede technical change, because the incentive to adopt labour-saving technologies is reduced in the presence of plentiful, cheap labour.

[6] We assume that the hidden unemployed, differentiated by gender have the same preferences for full-time versus part-time employment as the official unemployed.

[7] In the income method it is assumed that the wage reflects the additional output produced by a newly employed worker.

[8] The log regressions were estimated using an AR2 correction for autocorrelation and the trend was decomposed from the cyclical response by including a time trend. The regressions satisfied the usual diagnostic tests (see Watts and Mitchell, 2000).

[9] This is a long-run elasticity and the full effect of 104 thousand is estimated to impact over two years. The impact elasticity (over one-year) was estimated to be –0.827. Given the context, our calculations use the total impact rather than the partial impact. The scenario is that the target 2 per cent unemployment rate is reached and then sustained. By assumption, all 104 thousand who cease being DSP recipients have joined the labour force.

[10] It was intended to differentiate between the official unemployment rate as defined by the Labour Force Survey and the number of claimants for unemployment benefit. Since the latter exceeds the former, it was decided to assume that all officially unemployed workers who secure employment were recipients of unemployment benefit, set at $170 per week. Those unemployed workers who secure part-time employment will not lose all their unemployment benefit.

[11] Also it would be necessary to incorporate the impact of cuts in employment of health service professionals and police, if the same effective level of service was to be maintained.

[12] See Mitchell (1998) for an account of the in-built inflation control associated with the Job Guarantee policy.

[13] Recipients of disability support pensions are subject to less punitive tax rates than the recipients of unemployment benefits. DSP recipients pay a marginal rate of 40% for income exceeding $106

per fortnight, whereas recipients of unemployment benefits pay a marginal rate of 50% for income in excess of $62 per fortnight. This rises to 70% for income in excess of $142 per fortnight.

[14] By mathematical manipulation of the two rows of Table 3, it is possible to confirm the results in Table

[15] If those recipients of DSPs are not considered part of the hidden unemployed, then additional workers must be hired to secure full employment. The fiscal budget worsens by $6.41.