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**Full Employment through Job
Guarantee: A Response to Critics**

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Full employment through a Job Guarantee: a response to the critics¹

William Mitchell and L. Randall Wray

1. Introduction

In the past few years there have been a number critical assessments of the job creation proposal that has been variously termed the Job Guarantee (JG), Public Service Employment (PSE), Buffer Stock Employment (BSE) or Employer of Last Resort (ELR). The terms are interchangeable and reflect the evolution of the literature. Mitchell (1998) uses JG to describe his approach to full employment whereas the ELR terminology has been used by Wray (1998). The term ELR was used in the US as long ago as the New Deal, and was revived by Hyman Minsky in the mid-1960s. Wray now prefers PSE. While ELR is accurate in one sense, it also provides a negative connotation that neither PSE nor JG implies. Some of the more important explications of JG/PSE/ELR include Gordon (1997), Mosler (1997-98), Mitchell (1998), Wray (1998), Forstater (2000) and Harvey (2000). The most recent critiques include Sawyer (2003) and Ramsey (2002-3), while earlier critics include Aspromourgos (2000), Kadmos and O'Hara (2000), King (2000), Kriesler and Halevi (2001), and Mehrling (2000). In this paper, we use the term JG, reviewing the progress of the development of the JG approach and responding to what we believe to be the main thrust of our critics, which we summarise as:

1. JG increases employment by stimulating aggregate demand, hence, operates no differently from any 'Keynesian' fiscal policy or monetary policy;
2. JG could increase employment but it cannot enhance (improve) price stability - it is still subject to a 'NAIRU' constraint of some sort;
3. JG is at best a 'make work' program, or more negatively, another name for unemployment and, at best, replaces unemployment with underemployment;
4. ELR proposals have ignored the substantial logistical problems generated by cyclical fluctuation of participation in the program;
5. Supporters of the JG have ignored impacts on long-term government finance imposed by the government budget constraint (GBC); and
6. Supporters of the JG ignore the 'fact' that it will violate the external balance goal.

Other critics argue that all the benefits of JG could be achieved with a basic income guarantee (BIG), without the negative impacts imposed by the 'involuntary servitude' of a JG. We do not consider this issue in this paper but direct readers to two recent and comprehensive repudiations of BIG by Mitchell and Watts (2004) and Tcherneva (2003). In the following sections, we consider criticisms 1 to 6 in some detail.

¹ The following paper also appears as Working Paper No. 04-13 at the Centre of Full Employment and Equity Working Paper series. <http://e1.newcastle.edu.au/coffee>

2. Is the JG a Keynesian demand expansion?

In this section, we consider whether the JG operates differently from any ‘Keynesian’ fiscal policy or monetary policy expansion. Sawyer (2003: 837) wrongly claims that JG increases employment by raising aggregate demand - hence, whatever beneficial results might be achieved by JG could just as well be achieved by raising general government spending, lowering taxes, or ‘dropping money from helicopters’. By the same logic, a BIG program could also raise aggregate demand which may stimulate private sector employment for those wishing to work. It is easy to dispense with the claim that the JG is simply a form of pump-priming. A JG program offers a basic wage (including a benefits package) to anyone ready and willing to work. It guarantees ‘full employment’ in the sense that anyone who is ready and willing to work at the JG remuneration will be able to obtain a job. It ‘hires off the bottom’, operating as a buffer stock program. When the private sector downsizes in recession, workers who lose their jobs can find JG employment; in an expansion, workers are hired out of the buffer stock ‘pool’ by the growing private sector. The size of the buffer stock pool is thus related to the performance of the private sector, plus the employment by the non-JG government sector. When aggregate demand is high, the size of the JG pool is relatively small; when aggregate demand is low, the size of the pool is larger. However, with the JG in place, ‘full employment’ (defined as above) is maintained no matter what the level of aggregate demand.

In this sense, JG creates a ‘loose’ full employment, a term which has relevance when we address its price stabilising properties. Indeed, government ‘demand management’ can manipulate the size of the JG pool through countercyclical pump-priming. (Wray 1998: 139-140) Contrary to Sawyer’s claim (2003: 884) that the “ELR scheme seeks to remove demand-deficient unemployment through the provision of required aggregate demand”, the JG does not maintain ‘full employment’ simply by pumping demand - one could envision a government policy that deflated aggregate demand (by raising taxes and cutting overall spending) even as it phased-in a JG to achieve full employment. While we do not recommend such a policy, it is clear that Sawyer has fundamentally misunderstood the operation of the JG program.

Critics of the JG might be confused about the nature of the JG program because they have misunderstood our claim that unemployment in a modern capitalist economy is *de facto* evidence that government spending is too low. We do accept the ‘Keynesian’ argument that unemployment in capitalist economies results from insufficient aggregate demand. However, we do not accept the Bastard Keynesian belief that simple pump-priming is an effective remedy. First, it is possible (and even likely on some institutional arrangements) that pump-priming will hit an inflation barrier long before full employment is approached. Second and related to this, general pump-priming is not likely to result in sufficient ‘trickling down’ of jobs to where they are most needed. Indeed, most government pump-priming (whether in the form of increased spending or tax cuts) as practiced is designed to encourage private investment spending or to build-up the defence industries.

Obviously, government can try to target its pump-priming in a way that will encourage more job creation where it is needed (for those with low educational attainment, for disadvantaged (racial or gendered) minority groups, those with physical and mental disabilities, those in rural or urban core areas, for the long-term unemployed, and so on). However, to the extent that such programs are successful, the success will depend on government's ability to target the demand stimulus rather than on the total amount of demand stimulus provided. It cannot be controversial to claim that a dollar of demand stimulus targeted to the defence industries will not have the same job-creating impact on the chronically unemployed resident of Detroit's crumbling urban core or the long-term unemployed person in a regional (rural?) area in Australia, as a dollar of support for a program that directly employs inner-city residents or is regionally-focused. For a recent and relevant U.S. example, most observers believe that President Bush's stimulus package, comprised of tax cuts aimed at the rich and spending targeted at defence and domestic security, has created very few jobs. It is conceivable that if his stimulus package were multiplied by a factor of ten or twenty, jobs would eventually begin to trickle-down to the urban core, however, there is no doubt that this would be politically infeasible, and substantial reason to believe that it would be inflationary. A carefully targeted program would be more successful with a far smaller impact on aggregate demand. Indeed, as we have argued above, involuntary unemployment could be eliminated with no added aggregate demand if it took the form of a JG. The preferred course for any economy that has involuntary unemployment would be to immediately implement the JG *and* to then stimulate aggregate demand if substantial slack exists throughout other sectors of the economy, for example in public education and public health provision.

3. Is the JG subject to a NAIRU constraint of some sort?

The critics claim that the JG could increase employment but it cannot enhance (improve) price stability - it is still subject to a 'NAIRU' constraint of some sort. As noted in Section 2, the JG differs from Keynesian pump-priming because it 'works' regardless of the level of demand. Moreover, the JG provides an inherent inflation anchor missing in the generalised Keynesian approach. The critics' misunderstanding of the operation of the JG has probably led to confusion on the issue of inflation. Implementation of a JG program can be undertaken while pursuing deflationary fiscal contraction, or while pursuing inflationary pump-priming. Hence, unlike conventional 'Keynesian' policy, full employment can be achieved without the inflationary pressures that might arise from demand stimulus. We do not debate whether demand stimulus necessarily generates inflationary pressures, because it is irrelevant to the JG proposal. The JG achieves full employment without regard to the level of aggregate demand and whatever pressures on price levels that result from effective demand.

The next question is whether JG, itself, has unambiguous impacts on price levels or rates of change apart from the issue of aggregate demand. The main principle is simple: a buffer stock sets a floor price and cannot directly pressure prices that are above the floor. Setting of the compensation floor can cause one-off changes, if, for example, it is set above the lowest prevailing wage (perhaps the legislated minimum wage). However, it could also cause one-off wage and price decreases if it replaces a higher minimum wage and 'welfare' package (see below).

Still, a JG can have indirect effects if it changes behaviour. Some critics worry that the JG wage package would be more appealing than the benefits now received by the jobless (unemployment compensation and other welfare entitlements like health benefits and such). Hence, Ramsay (2002-3) argues that once a JG is implemented, private sector workers will become more belligerent, demanding higher wages in non-JG jobs and/or striking in solidarity with JG workers to force government to stimulate demand to shrink the size of the JG pool. Private sector workers would become emboldened because if they were fired they would then receive the preferred JG compensation and not the 'jobless compensation' (unemployment benefits) they would have received previously. These arguments seem to rely on the assumption that workers could be indifferent between working for compensation and being idle and collecting hand-outs of similar value. Frankly, we do not know if this is the case - the converse could well be true that people would prefer work over 'leisure' even at the same rate of compensation (see Mitchell and Watts, 2003 who conduct simulations using plausible assumptions to demonstrate the conditions under which the JG is preferred over work and unemployment benefits).

However, it should be possible, at least theoretically, to set the compensation for JG work at just the right level to make workers indifferent between working for JG wages and being idle (collecting handouts). In any case, even if the JG compensation is set substantially higher than this, it causes a one-off adjustment of non-JG labour compensation to restore indifference. That is not inflation as normally defined. Note that Sawyer (2003) and Ramsay (2002-3) raise the standard NAIRU argument that should unemployment fall below some 'natural' level, inflation will accelerate. Sawyer (2003) claims that the NAIRU under a JG (following Mitchell, 1998, he calls this the NAIBER - for non-accelerating inflation buffer employment ratio) could be higher than the current NAIRU. Sawyer wrongly attributes this to the higher level of aggregate demand that he believes would be maintained with JG in place, while Ramsay attributes it to a supposedly enhanced labour consciousness that will follow-on from the JG.

JG critics seem to presume that whatever inflationary pressures are generated as the economy *moves toward full employment* will continue to exist *as full employment is sustained*. It should now be clear that JG does not operate like any other 'Keynesian' fiscal policy nor like a Monetarist 'money drop'. It achieves full employment not by raising aggregate demand, but rather by offering jobs at a basic compensation rate to all who are ready and willing to work. Aggregate demand may rise as an incidental consequence - or it may fall if the JG is implemented with budget tightening. Unlike a 'money drop', it requires that participants work for their compensation. Unlike 'pump-priming', it achieves full employment with what can be described as 'loose' labour markets because it 'hires off the bottom'. It does not seek to employ any specific number of workers nor does it seek specific skills; most importantly, it does not chase wages upward - it never competes with higher and rising private sector wage offers. This is the primary reason that full employment can be achieved without setting off inflation, and at any level of aggregate demand. Full employment is then *sustained* through time with a buffer stock of employable labour. We now turn to the dynamics of sustaining full employment in this manner.

We juxtapose two buffer stock approaches to inflation control: (a) a NAIRU-buffer stock of unemployment to inhibit real growth and the standards of living; and (b) a JG involving an open ended (elastic quantity), fixed wage buffer stock of employed workers (see Mitchell and Mosler, 2002). In this context, commentators who conflate the JG with a NAIRU fail to understand the underlying microeconomic forces that distinguish the two approaches.

Sawyer (2003: 898) claims that JG faces something similar to a NAIRU and says “the stock of unemployed under present policies [NAIRU policies] ... and the stock of ELR employees are viewed as analogous.” The superficial similarity is that under a JG there is a steady-state defining a given BER (buffer employment ratio) and level of private employment with stable wage inflation. However, once we dig into the microfoundations of the NAIBER we see a totally different world than that described for a natural rate model following Friedman. Further, there is a strong assumption that the steady-state defined by the NAIBER is fragile, multiple and cyclically sensitive.

Is the NAIBER higher than the NAIRU? The question has its roots in the belief that a particular level of demand slack curbs the inflationary process in a NAIRU-world. As we discussed above, a JG can be implemented without raising aggregate demand. However, for the sake of argument, we will presume here that the JG is added to the current system, holding taxes and non-JG public spending constant. In that case, JG does increase aggregate demand - probably with a multiplier effect above the level of spending on the JG program. However, we will argue that for microeconomic reasons, a system with a JG in place can tolerate higher aggregate demand without inflation (a detailed discussion appears in Mitchell, 1998).

Sawyer (2003: 888-889) disputes the relatively modest costs estimates that have been provided by several authors regarding the introduction of a JG scheme in various countries and thus misses the point that the JG is not about demand stimulation. However, it is clear that if we introduce a JG scheme, other things equal, the initial level of JG employment will deliver a higher demand level than inherited under the NAIRU economy. A neo-liberal (and Sawyer) immediately wants to know why replacing unemployment with (higher paying) employment *ceteris paribus* is not inflationary given it ostensibly disturbs the balance set by the NAIRU – in Sawyer’s words (2003: 898), “the level of unemployment achieved could be below a supply-side-determined inflation barrier ... the NAIRU.” The negation of this proposition relies on an understanding of how the JG buffer stock works. First, the buffer stock is now specified in jobs rather than unemployment – so the concept of a NAIRU-buffer stock is abandoned. Second, the JG creates ‘loose’ full employment. The JG workers comprise a credible threat to the current private sector employees because they represent a fixed-price stock of skilled labour from which employers can recruit. In an inflationary episode, business is more likely to resist wage demands from its existing workforce to achieve cost control if it has the option of hiring out of the JG pool. In this way, longer term planning with cost control is achievable. So in this sense, the inflation restraint exerted via the NAIBER will be more effective than using a NAIRU strategy.

Sawyer believes that the jobless are as effective as a threat as the JG, employed, workers are in holding down wage inflation. Yet he offers no argument as to why the unemployed and those out-of-the-labour-force are equivalent in the eyes of employers to employed workers, who are already demonstrating their availability to work and offering a work history to potential employers.

Ramsay (2002-3: 275) also erroneously claims the inflation control instrument in the JG is “akin to the liberal notion of the ... NAIRU” but offers a different slant on the claim that the JG will be inflationary. Frankly, we do not follow Ramsay’s (2002-3: 283) assertion that it is “likely that those employees who are politically organized in the PLM ... [primary labour market] ... would withdraw their labor to support their colleagues who are forced back into the fixed price JG sector in the event of a government-induced demand reduction”. How will they actually coordinate this? The answers are hard to find but Ramsay (2002-3: 284) claims that organised labour “would seek the extensive implementation of price controls as a way to ensure that capital share additional responsibility relating to the management of inflation.” In the Australian context that Ramsay is writing, we have seen recent behaviour which is completely contrary to this. Under the Accord (1983-1996), with a Federal Labor government, the unions were complicit in the fundamental realignment of factor shares towards capital knowing that the business sector had refused to participate in the policy. What was hoped to be an incomes accord quickly became a wages policy which systematically reduced real wages. Once the Government-induced 1991 recession unwound all the employment gains that had been made during the second-half of the 1980s, the workers not only suffered ongoing real wages cuts under the Accord but also significant unemployment. There was no evidence then that they organised to bring down the Government. We do support a reinvigorated trade union movement, and if the introduction of a JG does increase labour solidarity we would view this as a further benefit. If the JG does result in increased political support for operation of the economy at a higher level on aggregate demand *even if it means higher inflation*, then we insist that the JG program will still reduce inflationary pressures relative to what they would have been at a similar level of aggregate demand in the absence of the JG, with the additional benefit of full employment. We would also note that current union membership provides no resistance to government using unemployment as a buffer to control inflation.

As an aside, Ramsay (2002-3) seems to consider that trade union bargaining power is currently ‘passive’ due to misperceptions (ignorance) of the causes of unemployment. Ramsay (2002-3: 274) says “a JG would strengthen organized labor due to an explicit recognition that unemployment is neither *natural* nor owing to individual indolence (emphasis in original).” Apparently workers are seduced by both the NAIRU logic and arguments that construct the problem as individual failing. Ramsay (2002-3: 274) claims that “when employment and inflation considerations return to the political arena, as they would under a JG full employment economy” these misperceptions will be overcome and all workers will share the knowledge they have been tricked. So the structure of the labour movement, its membership coverage, and its willingness to engage in militant

action are a product of misperceptions. This is an interesting theory of union decline but lacks any empirical foundation.

With a JG in place, inflationary pressures may arise, for example, if private investment becomes very strong. When inflationary pressures do appear if government does choose to deflate demand to fight it (this is not our policy recommendation, but it is a possible response), it will increase the size of the JG buffer stock, inflation-fighting, pool. Since JG workers are (we believe) a better inflation-fighting force than are the jobless, the necessary adjustment to demand will almost certainly be smaller with JG in place. If government decides not to deflate demand, the JG pool still allows the economy to operate with higher aggregate demand and lower inflation pressures, although inflation can still result. Hence the NAIBER is actually below the NAIRU in the sense that employment can be higher before the inflation barrier is reached. One might imagine a very poorly designed JG program that could result in a NAIBER above the NAIRU. For example, if the JG wage were indexed to inflation, while unemployment compensation was not, then NAIBER could exceed NAIRU. But why should we automatically assume a poorly designed program to evaluate a proposal?

4. Is the JG a 'make work' program or an underemployment solution?

4.1. Is the JG underemployment in disguise?

JG critics claim that it is at best a 'make work' program, or more negatively, another name for unemployment and, at best, replaces unemployment with underemployment. Sawyer (2003: 894-897) considers "how far ELR employment would involve significant elements of underemployment and also the extent to which such employment in effect constitutes unemployment by another name." The International Labour Organisation (ILO) defines two types of underemployment: (a) 'time-related' underemployment which relates to insufficient hours of work (and is the measure of underemployment adopted at the Sixteenth ICLS (ILO, 1998)); and (b) underemployment reflecting an 'inadequacy of employment situations', which refers to '...situations in the workplace which reduce the capacities and well-being of workers compared to an alternative employment situation' (ILO, 1998). While imprecise, the ILO suggests that these situations might include "inadequate use of occupational skills; excessive hours of work; inadequate tools, equipment or training for the assigned tasks; travel to work difficulties; inconvenient work schedules; and recurring work stoppages because of delivery failures of raw material or energy." Before the 1998 ICLS convention, the ILO used the ICLS 1966 definition of underemployment which separated "visible underemployment" (time-related) from "invisible underemployment" which referred to situations where workers were not fully using their skills in their current employment (because the job itself is low skill and/or the worker is idle part of the time) (ILO, 1990).

There is no time-related underemployment in the JG because workers would be able to choose any fraction of working hours from full-time down to 1 hour per week according to their preferences. Sawyer (2003) is thus tying his 'underemployment' attack to the less precise notion of 'invisible underemployment' noted above. Sawyer (2003: 894) asks

“how does ... [the ELR wage] ... compare with the productivity of the workers involved?” He then proceeds with a surprisingly neoclassical-inspired human capital analysis of three situations each of which compares the implied productivity of the JG job (q) to the ‘true’ productivity of the worker in an alternative job (Q). Where $q < Q$, the general case according to Sawyer (2003: 894) because “ELR jobs are low-skill, low-productivity jobs”, “underemployment replaces unemployment”.

The design of jobs under a JG has to ensure the positions are accessible to the most disadvantaged workers in the labour market, for it is they who typically bear the brunt of unemployment. In that sense if productivity resides in the individual (as in human capital theory) as opposed (more realistically) to being the outcome of a complex mix of individual characteristics, team-based collaboration, on-the-job training, and job design and management, then it is highly likely that q will approximate Q , for most individuals who will rely on JG employment for anything other than short transitional unemployment.

Of-course, not all JG recipients at all times will fall into this category and to the extent that professional workers are required to work in JG to gain income support when they cannot find a job befitting their skills, there will be some underemployment in the Sawyer sense. However, in professional occupational markets, it is more likely that some frictional unemployment will remain. As discussed, skilled workers who are laid off are likely to receive cash payouts that forestall their need to get immediate work, and they have a disincentive to immediately take an JG job, which is a low-wage option. This frictional unemployment acts to discipline wage demands in the primary sector. In this case, any underemployment arising from ‘inadequacy of employment situations’ will be reduced.

However, a further point should be made. At present, the private sector in some capitalist economies (notably, the English-speaking ones) has reduced unemployment but this has come at the expense of creating increasing time-related underemployment (with implied inadequacy of employment situations). It is highly likely that the introduction of the JG will place pressure on private employers, particularly in the low-skill service sectors to restructure their workplaces to overcome the discontent that their underemployed workers feel. In Australia, around 25 per cent of all part-time workers indicate that they desire more hours of work but cannot find them. The average weekly extra hours of work sought is 15.1 weekly (September 2003). A full-time JG position at wages not significantly different from the low pay in the private sector service industries would appear attractive relative to a private job that rations the worker hours. In this context, it is an empirical question as to whether the introduction of the JG results in a net increase in underemployment.

While he does provide in an endnote one quote from Wray (1998) indicating that there is no reason why JG cannot offer part-time jobs on demand, Sawyer criticises JG advocates for focusing on full-time employment (Sawyer, 2003: 897; also see his endnote 13). It should be obvious that the JG can provide flexible work schedules, accommodating virtually any requirement of workers. Further, it is very easy to design the program in

such a way that child care services will be provided by JG workers, to accommodate parental needs. Significantly, the JG is a flexible framework which can support workers with disabilities who need to integrate support services and employment (see Bill, Cowling, Mitchell and Quirk, 2004). The JG will eliminate under- and over- employment so far as hours is concerned. It will, like private employment, allow underemployment in the productivity sense - at least temporarily for individual workers. However, if one rejects the neoclassical human capital view of production, it is likely that well-designed JG jobs will lead to significantly less waste than 'anarchy of production' private jobs creates.

4.2 Is the JG simply boondoggling and raking!

Sawyer (2003: 895) questions the 'value of output' that the JG workers would produce. He argues that it is highly likely that JG workers will be "paid more than they produce" and this suggests that the output is not valued by the general public. The substantive point Sawyer makes is that if w (the JG wage) $> q$ then "the ELR workers are making net claims on the rest of the economy (equal to $w - q$) ... [and] ...that the net claims ... are greater than those currently made by the unemployed" (Sawyer, 2003: 895). The point is then used to buttress his inflation argument, which we have dealt with earlier.

However, Sawyer's (2003: 895) argument that if the output "... is not valued by others, it is as though the JG worker is producing nothing" implies that the private market is the only meaningful output validation mechanism. Even neoclassical theory has recognized the difference between private and social values. There are countless activities with flows of services (outputs) that will have near zero value in the private market place, but could have positive social value. Some of these activities are labour-intensive and are ideal for JG job creation. Further, activities with marginally sufficient output as valued by markets can have little or even negative social value - with burger flipping an obvious candidate.

It is difficult to believe that JG will produce less social value than fast food production, let alone the negative social value produced by such private market activities as porn, prostitution, or old growth timber destruction. But moreover, we should not accept that the concept of 'work' and 'productivity' is static. The future of paid work is clearly an important debate. The traditional moral views about the virtues of work - which are exploited by the capitalist class - need to be recast.

What is the best way to make the transition into a system of work and income generation that expunges the yoke of the work ethic and the stigmatisation of 'non-work'? While a broader concept of work is the first phase in decoupling work and income we do not advocate imposing this new culture of non-work on to society as it currently exists. Social attitudes take time to evolve and are best reinforced by changes in the educational system. A JG provides a progressive role for the state in rebuilding a sense of community and the purposeful nature of work that can extend beyond the creation of surplus value for the capitalist employer. It also provides the framework whereby the concept of work itself can be extended and broadened to include activities that we would dismiss as being 'leisure' using the current ideology and persuasions, as well as to encourage private

sector activities currently counted as 'productive' in a narrow sense that societies of the future will view as socially destructive.

A common source of criticism of the JG relates to whether there would be enough jobs of sufficient merit to fully occupy the extant unemployed. Sawyer (2003: 891) argues that to be suitable JG jobs would "not require much skill" or "use skills which are widely available in the population" and would "lead to the production of useful output" which is not "necessary in that the output is only forthcoming when aggregate demand is low and the ELR jobs are required." Strangely (for an alleged Post Keynesian), Sawyer thus calls on marginal productivity theory, arguing that if the JG pays low wages, then productivity of JG workers must be low. As noted above, we see productivity as mostly socially determined, not as some characteristic of the individual worker. Further, the productivity in question should be social productivity, not productivity in a market sense. We do not believe that low pay in the JG necessarily ensures low social productivity of the JG output. For example, an aged-care program employing JG workers could have very high social productivity. Elsewhere Sawyer (2003: 886), argues that at full employment, output cannot be increased. Since the JG achieves full employment, output cannot be increased once it is implemented. From the analysis in the first section, it should be clear that this is incorrect. The JG can achieve full employment at any level of aggregate demand and at any rate of economic growth.

In other words, Sawyer is claiming that only when demand is low does JG increase output - but it must be output that is not desired. However, this ignores the fact that thousands (Australia) or hundreds of thousands (USA) of low-wage, low-skill jobs are created by the private sector in any given month with very little criticism or scrutiny. It appears he is disturbed only when the public sector creates such jobs, because of "logistical problems", problems of switching on jobs which have capital requirements, problems in "undercutting of wages for mainline public sector jobs" by being "substitutes for mainline public sector employment", problems in yielding output "in competition with output which is or could be produced by the private sector", problems relating the spatial and temporal distribution of unemployment and the like (Sawyer 2003: 892-893). It is remarkable that the invisible hand of the market is presumed to operate smoothly with such jobs churning without creating problems, while the visible hand of government is believed to be incapable of dealing with logistical complications.

We do not believe that the private sector has a monopoly on being able to mobilise a diverse range of resources and successfully complete thousands of tasks within a tight and complex schedule. The JG buffer stock of jobs is designed to be a fluctuating workforce that expands when the level of private sector activity falls and contracts when private demand for labour rises. It is clear that this overall aim has implications over the business cycle, and the cyclical nature of JG jobs presents an operational design challenge for the administration of such a scheme and the design of the JG jobs. JG jobs would have to be productive yet amenable to being created and destroyed in line with the movements of the private business cycle. While challenging this is not an impossible requirement for public policy to meet. Note also that the private sector scheduling is in some sense much less flexible because it cannot afford to 'inventory' workers who are

(temporarily) unneeded. JG can employ workers even before precise tasks are assigned, helping to smooth transitions.

5. Is the JG operationally sustainable?

JG critics argue that we have ignored the substantial logistical problems generated by cyclical fluctuation of participation in the program. The cyclical nature of the jobs suggests that in designing the appropriate JG jobs the buffer stock should be split into two components:

1. a core component that represents the 'average' buffer stock over the typical business cycle given government policy settings, trend private spending growth, and a mismatch of labour force characteristics and employer preferences; and
2. a transitory component that fluctuates around the core as private demand ebbs and flows.

There is a lot of labour force churning, with most of the officially unemployed transitioning reasonably quickly out of that category but with a minority suffering long-term joblessness (whether counted as officially unemployed). Critics like Sawyer try to imply that the large fluctuations of short-term unemployed make the operation of a JG program more difficult. Actually, we draw the opposite conclusion: many of those losing jobs will prefer to undertake full-time search rather than accepting temporary JG work. As we have argued, there is no reason for JG to induce all of those with short-term spells of unemployment into JG work. (Wray, 1998: 127) The relatively low pay will act as a disincentive for many job losers; in addition, as we have argued, JG could provide, say, up to 6 weeks of pay for full-time job search. The length of job search can be pragmatically and even individually set through consultation with employment counselors.

Further, the business cycle fluctuations of employment are not nearly as large as critics believe. Over the most recent downturn, the US lost fewer than 3 million private sector jobs and gained something less than 1 million government jobs. Elsewhere it has been calculated by Wray and Pigeon (2000) that near the Clinton business cycle peak there were perhaps 12 million 'employable' American adults between the ages of 25 and 64 who were not employed (only about 4 million of whom were counted as officially unemployed). Sawyer argues as if the JG pool will fluctuate from some number of millions in recession to zero employees in a boom. This vastly overstates the likely fluctuation - which would be something like 2+ million out of a pool of perhaps 8 million JG workers in the USA.

In Australia, the average duration of unemployment is now (August 2004) around 48 weeks and for the long-term unemployed it is 176 weeks. In some regional areas (like the Hunter) the long-term unemployed face 245 weeks durations. However, in recent years the national unemployment rate has fluctuated around 6.5 per cent, reflecting the stance of fiscal and monetary policy and levels of private spending. This implies that if a full

Job Guarantee (JG) were introduced (where all unemployed could access a public sector job under the conditions outlined for the JG) then around 4 per cent of the current labour force or some 600 thousand persons would be employed in core buffer stock jobs, given the mildly expansionary impact of this policy. However, if the government decided to play a more substantial role in the economy by expanding its commitment to areas like public education, public health or environmental sustainability, then the core 'buffer' would fall substantially (see Cowling, Mitchell and Watts, 2003).

Admittedly, we cannot know how many will opt for JG employment. However, modelling can provide a guide to the number of 'steady-state' jobs that would be initially offered under the JG scheme. Indeed, the program could be phased-in to reduce logistical problems. After the phase-in, administrators would prioritise work allocations from a broad array of community enhancing activities. In this way, it is unlikely that any important function or service would be terminated abruptly, due to a lack of buffer stock workers, when the private demand for labour rises. Thus, the design and nature of JG jobs would reflect the underlying notion of a buffer stock. This stock would, in turn, have a 'steady-state' or core component determined by structural issues and government macroeconomic policy settings, and a transitory component determined by the vagaries of private spending. In the short-term, the buffer stock would fluctuate with private sector activity and workers would move between the two sectors as demand changes. Longerterm changes in the size of the average buffer stock would reflect discrete changes in government policy.

We disagree with Sawyer (2003) who argues that if aggregate demand were high enough, there would be no JG jobs. We cannot imagine that a capitalist economy can achieve a level of demand so high that JG employment would fall to zero. As the structuralists argued, a dynamic economy always leaves behind a significant number whose skills are not appropriate (Wray and Pigeon 2000). Further, in a nation like the USA, stereotypes and racial and gender biases have created a very large "unemployable surplus population", as Darity (1999) put it. Cowling, Mitchell, and Watts (2003) argue that in the period spanning the immediate post-war years through to the mid 1970s, Australia, like most advanced western nations, maintained very low levels of unemployment. This era was marked by the willingness of governments to maintain high levels of aggregate demand. While both private and public employment growth was relatively strong, the major reason that the economy was able to sustain full employment was that it maintained an implicit 'buffer' of jobs that were always available, and which provided easy employment access to the least skilled workers in the labour force. Some of these jobs, such as process work in factories, were available in the private sector. However, the public sector also offered many 'buffer jobs' that sustained workers with a range of skills through hard times. In some cases, these jobs provided permanent work for the low skilled and otherwise disadvantaged workers.

It is in this context that we argue for the existence of a stable core, changing slowly and predictably as government policy settings change, and which would allow JG administrators to more easily allocate workers to jobs. Many of these core jobs would be more or less permanent. More ephemeral JG activities could then be designed to 'switch

on' when private demand declined below trend. These activities would not be used to deliver outputs that might be required on an ongoing basis, but would still advance community welfare. For example, JG jobs in a particular region might be used to provide regular shopping or gardening services for the frail aged, to support the desire of many older persons to remain in their own homes. It would not be sensible to make the provision of these services transitory or variable, and they would thus be provided from the core jobs. Clearly, these services could be reassigned to become 'mainline public sector' work if a political shift in thinking occurred. Other 'off-the-shelf' projects would be undertaken or completed only when the JG pool expanded sufficiently (see Forstater, 1999).

We do agree that labour force management is important, but we do not believe that such considerations lead to a simple knee-jerk reaction that private markets are always best, and that public programs are necessarily unmanageable. Nor are JG jobs simply 'makework'; rather, these are 'paid work' jobs, and program administrators need to ensure that social benefits are realised from them. So long as marginal benefits are above zero, it is socially beneficial to put unused resources to work. However, that sets a very low standard that can be exceeded quite easily with a modicum of professional organisation.

6. Doesn't the government have a budget constraint?

JG critics argue that we have ignored the impacts on long-term government finance imposed by the government budget constraint (GBC) (Sawyer 2003; Aspromorgous 2000). The critics argue that the JG is unsustainable either because of its impacts on the government's budget or on the trade balance (we deal with the external implications in the next section). We believe their criticism cannot be applied to a sovereign government's budget so long as the nation operates with a floating exchange rate. It should be kept in mind that the discussion that follows relies on the assumption that the economy under question has a floating exchange rate.

First, Sawyer claims that JG would be entirely deficit-financed. Here he has completely misunderstood the reason that many explications of JG have discussed the functional finance approach to deficits - *not* because JG spending will be deficit-financed, but in order to dispense with the typical argument that government cannot financially 'afford' such a policy. In reality, the size of the government's budget deficit is largely 'endogenously' determined by the spending propensities in the non-government sector. This is why the government's budget moves counter-cyclically. It is true that as the economy slows and the JG pool grows, the government budget will move toward deficits. However, it is perfectly conceivable that in expansion the budget would be in surplus, even with a sizeable JG pool remaining (would Sawyer then claim that the budget surplus 'financed' JG?). Clearly, the budget balance will fluctuate over the cycle but JG in no sense requires budget deficit finance.

Sawyer (2003: 885) uses the work of Kadmos and O'Hara (2000) to "well describe" the roles of finance and money in the JG. Unfortunately, the understanding of those authors

of the nuances of public finance is flawed, and reliance on their description inherits their deficient understanding. Kadmos and O’Hara (2000: 10) state that “government spending can never be restrained. The government is in a position to hire all unemployed workers at any price it chooses, financing this labor force by printing as much money as required that will achieve full employment.” The correct understanding is that the government can never be ‘financially’ constrained unless it voluntarily limits itself by legislation, and thus talking about ‘financing’ and ‘printing money’ is erroneous. The reality is that the wherewithal for governments to spend ‘doesn’t come from anywhere’ and manifests as electronic adjustments to banking system accounts rather than as ‘printing money’. The imagery that there is a printing press operating only serves to place the analysis within the orthodox paradigm.

Sawyer (2003: 885) then, wrongly, characterises the JG argument by saying “it is asserted that government expenditure can be (and is) financed by ‘printing money’ (the creation of HPM). The difference between the HPM issued by the government to pay for its expenditure is less than that which is taken back by government.” Sawyer places himself firmly in the orthodox GBC framework by assuming that in some way bond issuance is required to ‘finance’ a portion of government spending. While he can selfselect the paradigm, however erroneous, he wishes to operate within, he is not entitled to misrepresent the framework that underpins the JG. In this section of his paper, he clearly does that. Bond issuance is a process whereby the government offers interest-bearing asset alternatives to non-interest bearing reserve accounts at the central bank. The function of bond issuance is not to ‘finance’ government spending but rather to provide a means whereby the central bank can maintain some target short-term interest rate and generally support a desired term structure of interest rates. It is thus part of monetary policy that has nothing to do with finance (Wray, 1998; Mitchell, 1998, Mitchell and Mosler, 2002).

Aspromourgos (2000: 149) also erroneously considers that that deficit spending must be financed by the issuing of securities. His case is built on the following derived version of the GBC:

$$(1) \quad G + iB = ?M^D + T + ?B$$

$$[(G - T) + iB] - ?M^D = ?B$$

His interpretation of this is that government has to ultimately respect “private sector preferences for money versus securities” (Aspromourgos, 2000: 150). Importantly, once the debate focuses on possible portfolio adjustments that may accompany government spending then we have moved beyond simplistic arguments about financial constraints on net government spending.

We choose to re-write Equation (1) as:

$$(2) [(G - T) + iB] - ?M^D = ?B + ?M^U$$

where $?M^U$ represents the unwanted cash balances which manifest as excess reserves in the banking system and earn some support rate from the central bank, which could be zero (as in the US and Japan). Due to increases in the transactions demand for cash,

?M^D would most likely be positive in an expansion. The real debate should be about what happens next. The contribution by Aspromourgos (2000: 150) is largely semantic:

This indicates that to sustain G – in the sense of ensuring its consistency with private sector portfolio preferences in a market economy – government (or its agent, the central bank) must issue interest-bearing securities of some kind, to enable the private sector to release itself from any undesired holdings of outside money. In this sense, the increase in government securities held by the private sector is an essential part of the process of sustaining G . It matters little whether one calls this a case of securities ... financing G – although this is surely reasonable language for describing that process: it is the substance that matters. The increase in the private sector's holdings of government securities is an essential part of the process of successfully effecting government expenditure.

But this is equivalent to asking ‘what if there are no bond issues?’ Aspromourgos implies that private agents ultimately impose limits on deficit expansion through their portfolio reactions. He says the bond issues keep testing the willingness of the private sector to hold government paper (after adjusting their cash holdings) and hence the extent of spending. Ultimately, private agents refuse to hold any more cash or bonds. Then, Aspromourgos (2000: 150) says “the unsustainability of the policy would be manifest in the incapacity to keep official interest rates down at desired levels – and probably inflationary pressures – as agents sought simultaneously to move out of money and government securities”.

However, Aspromourgos misunderstands that so long as there are willing sellers to government, the only implication of a refusal to hold additional government securities is that the overnight rate falls as excess reserves remain in the banking system. Indeed, with no debt issues to drain reserves, the interest rates will fall to zero or whatever support limit the central bank has in place. Clearly, at this point the private sector can only dispense with unwanted cash balances in the absence of government paper by increasing their consumption levels. This reduced desire to net save would generate a private expansion and reduce the deficit, restoring the portfolio balance at higher private employment levels and a lower JG pool. Whether this generates inflation depends on the ability of the economy to expand real output to meet the rising nominal demand. That is not compromised by the size of the budget deficit. The JG policy does not require the government to push net government spending beyond the capacity of the real economy and as we argued earlier it does not rely on a demand expansion at all. More far fetched would be the situation where the private sector refused to sell goods and services to the government in return for government money. Then limits on government spending would occur. But it is difficult to see a profit-seeking firm turning down sales just because the source of spending was a government cheque. To repeat, there would be no desire for government to expand the economy beyond its real limit (see Mitchell and Mosler, 2002).

Sawyer also demonstrates his profound misunderstanding of central bank operations when he worries that all the HPM ‘printed’ to ‘finance’ the deficits created by JG might generate inflation as in the Monetarist ‘excess money supply’ story. These central bank operations are always defensive and are undertaken to drain excess reserves. If the government credits to bank balance sheets resulting from payment of JG wages (and

other associated spending) lead to excess banking system reserves, these are immediately drained by automatic central bank intervention - either by winding down loans at the discount window or through open market sales of bonds. Operating procedures are somewhat different in countries with a zero overnight interest rate target, for example, Japan; and in countries which pay interest on bank reserves, such as in Australia (see Wray, 1998). Unless the overnight rate target is zero, there won't be any 'excess money' left sloshing around the system to cause inflation. Sawyer does not understand that JG will be 'financed' in the same manner as any other government spending. When all is said and done, government spends by crediting bank accounts, taxes by debiting them, and sells bonds to drain excess reserves so that interest rate targets can be hit. We do not need to invent any forms of finance or analysis of that finance because JG changes this in no way.

Finally, Sawyer misunderstands interest rate setting procedures. He argues that central banks cannot simply set the interest rate any where they like, and doubts that deficit spending governments can set rates on their bonds as low as half a percent. As we argued above, JG is not necessarily 'deficit-financed'. Hence, a JG by itself does not really raise any special 'finance' issues. Still, let us presume that JG does increase budget deficits and ask whether this will push up interest rates. Actually, overnight interest rates are set by the central bank. This does not mean that rates are set arbitrarily without regard to any economic considerations. The central bank may believe it needs to raise rates in response to deficits, to fight inflation, or to protect the currency, or to achieve any number of other goals. Bonds are then sold by the central bank or the treasury to drain excess reserves to keep the overnight rate on target (the exception, again, is in a nation with a zero target or in which interest is paid on reserves). The rate on short term government bills is then arbitrated closely in line with overnight rates. Longer term government bond rates are determined mostly by expectations of future central bank overnight targets. Since bills/bonds paying a positive interest rate are preferred over non-earning, undesired, excess reserves, the rates on sovereign debt can, indeed, be kept at half a percent, or lower, if desired, irrespective of the size of deficits.

7. International trade and finance aspects

Critics also claim that a JG is not compatible with maintaining an external balance especially in a small open economy such as Australia (see Kreisler and Halevi, 2001; Ramsey, 2002-3; Sawyer, 2003, among others). In this section, we repudiate the idea that the JG is unsustainable for a small open economy such as Australia as a result of external factors. For a comprehensive examination of the large economy case see Wray (2004). Much of the criticism is in fact hackneyed rehearsal of orthodox notions of 'crowding out' and erroneous notions of how the financial markets operate.

Ramsey (2002-3: 285) is a classic example. He presents a very confusing analysis of the external effects of introducing a JG. In fact, his analysis has nothing much to do with the JG at all. He asserts, after correctly noting that Mitchell (2000) said that the logic of JG is embedded in a flexible exchange rate regime, that "full employment could trigger a balance of payments deficit due to buoyant domestic spending. Robust employment

growth in the PLM ... [primary labour market] ... may facilitate structural problems relating to trade symmetry. With little institutional capacity by the central monetary authority to devalue a nation's currency, which would bring a nation's balance of payments back into equilibrium by making imported goods and services more expensive, a JG government would be left with the policy mechanism of alleviating trade irregularities by dampening demand resulting in a reduction of domestic expenditure.”

Our responses are as follows. First, the shift to flexible exchange rates freed domestic policy from having to maintain fixed exchange parities and presented sovereign governments with powerful domestic options for maintaining full employment. Ramsay's (2002-3: 275) claims that a flexible exchange rate regime is a neo-liberal notion completely misunderstands these options, which are hard to construe as neo-liberal. Indeed, the neo-liberal practice of denying these options is the reason there is persistent unemployment. It is not a coincidence that neo-liberals implore third world countries to fix exchange rates, adopt currency boards, or 'dollarise' in order to eliminate any possibility of discretionary policy.

Second, the attainment of full employment may increase spending although we note that the JG achieves 'loose' full employment without any necessity for overall spending to rise. Ramsay's criticisms apply more directly to 'Keynesian' methods of moving to full employment. Further, any government that eschews a trade deficit will ultimately have to cut back on domestic spending or stimulate exports. That is not a criticism of the JG but of any economic growth that increases imports faster than exports.

Third, let us assume that the introduction of a JG in small open economy, other things equal, has a marginal positive impact on import spending (given the small increments in disposable incomes that the JG workers would have compared to their unemployment entitlements). Wray (2004) shows that an increasing trade deficit deliver net national benefits because relatively fewer exports have been demanded by the ROW per unit of import. In this sense, JG advocates reorientate the popular view that trade deficits illustrate that the 'nation is living off foreign savings'. In a flexible exchange rate system, when Australia runs a trade deficit it just means that the rest of the world (ROW) desires to net save in the form of the Australian dollar and they are prepared to export to us (incur a cost of giving up some production that could be consumed locally) to accumulate our financial assets. For Australia, trade deficits deliver net benefits because they increase our consumption possibilities. In this case, giving a positive slant, our trade deficit in fact 'finances' the net \$A saving of the ROW – in other words, both parties are better off given their desires.

If the trade deficit increases due to spending injections via the budget deficits a beneficial symmetry occurs although this recognition has nothing to do with the neo-liberal 'twin deficits' argument that we discuss in more detail below. A government budget deficit occurs when the non-government sector desires to net save in the form of sovereign debt (broadly defined to include interest-paying bills and bonds as well as non-interest earning currency and reserves). A current account deficit occurs when the ROW wants to net save dollar-denominated assets, including dollar-denominated sovereign debt. In other words,

the popular (neo-liberal) view that this net saving of the non-government and ROW sectors, respectively, 'finances' the government and trade deficits, respectively, has confused an identity with causation.

Fourth, critics, however, focus on the 'damage' depreciation can do in terms of inflation impulses. Assume depreciation does occur in response to the 'excess supply of local currency' (underpinning the trade deficit). The depreciation will cause imports to rise in price and will directly increase domestic prices of exported commodities and there could be further price effects rippling through the economy. The 'cost' of the trade deficit, economic growth, and improved terms of trade is higher prices for some commodities in the consumer basket. For Australia we should expect the current account to improve and net exports increase their contribution to local employment as the currency depreciates.

The result depends on the estimates of the export and import price elasticities. Dwyer and Kent (1993) show that Australian import elasticities are small (around -0.5). We interpret this as saying that following depreciation; import spending will actually rise because while we are importing less goods and services we are paying disproportionately more for them. The improvement in the current account thus depends on the estimate of the export elasticity. State of Play 8 (1995: 125) says, "Fortunately, this seems to be the case ... the supply responses to higher prices are thought to be strong in both agriculture and mining, and the numbers for manufactures are ... embarrassingly high. ... There is little objective reason to be worried by elasticity pessimism" (see also Bullock, Grenville and Heenan, 1993).

Fifth, in the 1980s, a strong monetarist argument against fiscal activism was mounted under the so-called Twin Deficits Hypothesis (TDH). Debate raged in the mid-1980s in both the US and Australia, among other countries over the proposition that the government deficit caused a dollar-for-dollar trade deficit. The hypothesis is based on sectoral flow relationships in the national accounts which hold as a matter of fact from an accounting perspective. The TDH, however, imputes a strict causality where the private sector savings and investment gap is zero or stable, and changes in the budget deficit translate directly into current account deficit. Noting that in these circumstances the current account deficit is constructed as a nation 'spending more than it is earning' and budget deficits are then considered to 'cause' a rising external debt. Accordingly, the risk of foreign financial market retribution via downgrading by international ratings agencies and the like is related to rising budget deficits. The cure for a chronic current account deficit then is logically to be found in increased domestic savings emanating from budget surpluses. Argy (1992) attacked the debate in empirical terms and demonstrated that causality could not be guaranteed because the private savings gap is not stable. Further, the current account position at any point in time can be driven by international factors like imperfect competition, barriers to entry, economies of scale and general conditions of world trade. All these factors may constrain exports. A world recession may cause a trading economy with automatic stabilisers to experience a current account deficit, which then drives a rising budget deficit. Further, a rising budget deficit can increase domestic income and reduce the private savings gap. But the real problem is that the TDH is built on false premises.

The transmission mechanism from budget deficit to trade deficit was allegedly initiated by the positive interest effects which accompanied government borrowing. The higher rates then attract capital inflow and the dollar appreciates which renders 'price taking' economies like Australia less competitive and deteriorations in net exports were predicted. JG advocates argue that this analysis is based on an ill-conceived conception of the way the financial system operates: (a) the 'crowding out' hypothesis that is rampant in intermediate macroeconomic text books, whereby budget deficits 'squeeze' private saving which leads to higher interest rates is simply incorrect. As we have seen, if the central bank doesn't 'drain' excess reserves, on-going budget deficits place downward pressure on overnight rates. It doesn't matter what the source of the excess reserves; (b) the effect of budget deficits on the foreign exchange value of the domestic currency is ambiguous. The Japanese yen has risen and fallen substantially while interest rates have remained at zero levels and budget deficits have growing. The US dollar appreciated with a rising budget surplus and then fell as the budget moved sharply to deficit - all in the face of a persistent trade deficit that did not fluctuate nearly so much as the budget balance. The Australian dollar plunged to record low levels as budget surpluses rose to record high levels in recent years, and (c) we have noted above that under flexible exchange rates, external impacts can self-adjust given certain elasticity values; and (d)

Sixth, in addition to the normal arguments that monetarists and others use to justify their case against fiscal activism (crowding out, inefficient resource usage), it is often argued that increased globalisation imposes further restrictions on the ability of governments to pursue independent fiscal and monetary policy. It is alleged that external funds managers who eschew the use of budget deficits can enforce higher interest rates and thus even lower growth and higher unemployment in the domestic economy. Even alleged progressive economists who advocate fiscal activism, such as Glyn (1997: 226-227) believe that taxation should be used to 'finance' the necessary 'expansionary' spending. His contention is based on his acceptance of the notion that international financial markets will react to higher budget deficits and "exact a higher real-interest rate" (Glyn, 1997: 224). Most of the critiques ultimately come down to this paranoiac fear/claim that the amorphous international financial gurus will wreak havoc in countries that run budget deficits, which they hate. Mitchell (2003) used international data to test the key 'monetarist' hypotheses which are the 'substance' of these assertions and which are rarely confronted with empirical scrutiny. In each case (the relationship between budget deficits, short-term and long-term interest rates; the relationship between long-term interest rates and exchange rates; the relationship between domestic long-term and short-term interest rates; the main causal links evidence to support the twin-deficits hypothesis) there no empirical evidence to support any of the causality that the monetarist attacks rely upon. We conclude that there is simply no empirical basis to the claims.

8. Conclusion

In conclusion, we can probably do no better than to quote from a 1965 article by Hyman Minsky (1965: 299-300).

Work should be made available for all able and willing to work at the national minimum wage. This is a wage support law, analogous to the price supports for agricultural products.... To qualify for employment at these terms, all that would be required would be to register at the local U.S.E.S. [US Employment Service]. Part time and seasonal work should be available at these terms... National government agencies, as well as local and state agencies would be eligible to obtain this labor. They would bid for labor by submitting their projects, and a local 'evaluation' board would determine priorities among projects.... The basic approach is straight forward - accept the poor as they are and tailor make jobs to fit their capabilities. After this is done, programs to improve the capabilities of low income workers are in order.

Certainly, many of the details surrounding implementation and operation of an JG program remain to be solidified. And one can conceive of a poorly formulated program. But why would progressive economists want to propose a 'make-work' program that prevents workers from using any skills or education, that fluctuates wildly from zero to millions of employees, and that prohibits part-time work or job search while employed? Why not create a 'paid work' program instead, with flexible work schedules and positive social benefits?

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