



## The Impact of Mutual Obligation on Mature Age NewStart Allowance Recipients: a program evaluation

Hazel Honey F. Lim  
Discussion paper 65

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## ABBREVIATIONS

AETT	Average Effect of the Treatment on the Treated
ALMP	Active labour market policy
ABS	Australian Bureau of Statistics
ATE	Average Treatment Effect
AWE	Average weekly earnings
AWT	Australians Working Together
CDEP	Community Development Employment Projects
CPI	Consumer Price Index
DEWR	Department of Employment and Workplace Relations
DEEWR	Department of Employment, Education and Workplace Relations
DID	Difference-in-differences method
DSP	Disability Support Pension
FaHCSIA	Department of Family, Housing, Community Services and Indigenous Affairs
GDP	Gross Domestic Product
IEP	Indigenous Employment Policy
LDS	Longitudinal Data Set
LFPR	Labour force participation rate
MAA	Mature Age Allowance
MATE	Marginal Average Treatment Effect
MO	Mutual Obligation
MTAWE	Male Total Average Weekly Earnings
NSA	NewStart Allowance
OECD	Organisation for Economic Cooperation and Development
PSM	Propensity Score Matching
RGWR	Reference Group on Welfare Reform
WC	Working Credit
WfD	Work for the Dole
WtW	Welfare to Work

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## AUTHOR NOTE

This paper summarises the findings of my Ph.D. dissertation. The views, opinions, findings and conclusions expressed in this paper are strictly those of the author. They do not necessarily reflect the views of NATSEM or the University of Canberra.

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Finally, that *spark* in us that makes us brave the unfamiliar and, at the same time, appreciate the rhyme and reason in everything that unfolds, my spirit finds tenderness and peace in yielding to *it*.

## SUMMARY

Australia joined the other OECD countries in employing active labour market policies (ALMPs) in the early 1990s, when labour force participation rates, especially of mature age men, continued to fall and unemployment benefit continued to rise. While there is consensus in the literature regarding the negative association between social security benefits and labour force participation, the empirical findings to date are limited to linking aggregate trends as appropriate individual-level data were not available then.

Nevertheless, the government continues to use ALMPs despite inconclusive empirical evidence. In July 2002, the coverage of the Mutual Obligation (MO) was increased to include mature age NewStart Allowance (NSA) recipients aged 35 to 49. The Welfare Reform Task Force hailed MO as the key to addressing social and economic disadvantage of job seekers. Participation in community service, training or part-time work are supposed to enable NSA recipients to exit NSA and work.

In this research, the effectiveness of MO in facilitating exits from NSA is assessed by applying program evaluation methods. The longitudinal administrative dataset is used to represent the individual's workforce participation decision-making by taking into account his/her time-use preference, participation barriers and expected labour demand.

It is found that MO is not effective in the way the previous government envisioned it to be. MO is more of a policy-tightening exercise than an active labour market policy aimed at enhancing the skills of the mature age NSA recipients. Only 2.2 percent of mature age NSA entrants manifested the behavioural change the government intended -- take up an MO activity, complete it and leave income support to work. This raises questions on the cost-effectiveness of MO as an ALMP given the expenditure on the program.

### *Key words*

Mutual Obligation, program evaluation, NewStart Allowance, mature age workers and labour force participation of older Australians

## 1 INTRODUCTION

Australia, since the early 1990s, abandoned its stance of “passive” social support policy and joined other OECD countries in attaching conditions to unemployment benefit receipt, such as active job search and participation in education and training programs. *Active labour market policies* (ALMPs) are meant to enhance the employability of job seekers by linking social support to labour market policies. With persistently high unemployment rates in the 1980s and continued increase in social support spending, the Australian government started approaching unemployment as a structural problem -- that is, available skills are mismatched with skills needed -- rather than a cyclical phenomenon. Currently, in the *activity test* that replaced the *work test*, the job seeker has the “obligation” to perform an activity additional to job search in return for continued receipt of their “entitlement”, the NewStart Allowance (NSA).

This obligatory activity to be taken in addition to job search by NSA recipients is known as the *Mutual Obligation* (MO) activity. Participation in such activity was claimed by the Reference Group for Welfare Reform (RGWR)<sup>1</sup>, formed by the previous government, as the key to addressing the social and economic disadvantage of job seekers (McClure Report 2000). The disadvantage is addressed through provision of valuable work experience and training, thereby facilitating exit from NSA into the workforce. Touted to address the employability issues of job seekers, MO is promoted as true to the spirit of an active labour market policy. From 1 July 2002, the coverage of MO increased, adding job seekers aged 35 to 49 to younger job seekers who were first exposed to the initiative when it only had Work for the Dole (WfD) as the obligatory activity to be taken in return for NSA.

However the empirical studies undertaken to date, that aim to link workforce participation behaviour of older Australians to social security incentives, are not particularly conclusive given the type of data available to researchers at the time of analyses. The aggregated time-series data used in these studies gave limited indications on the role of a mature age person’s circumstances (such as his/her attitude towards social security, time use preferences, participation barriers and expected labour demand) in his/her labour force participation. At best, the correlation established between social security incentives and workforce participation related the aggregate trends for social security rules to aggregate trends in workforce participation of the entire population of social security recipients. Individual level data would have instead been most useful in understanding the individual’s labour force decision. Despite the weak evidence base for MO, the previous

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<sup>1</sup> In 1999 the Minister for Family and Community Services commissioned the RGWR to review the income support system, with Patrick McClure as the chairperson. The result of the review was presented in the *Participation Support for a More Equitable Society: a Final Report of the Reference Group on Welfare Reform* (July 2000). This report is referred to in the thesis as the McClure Report.

government moved to change social security rules through the imposition MO in 1998 and increase its coverage to include older workers.

It was understandable for the government to take immediate action given the adverse implications of inaction on the individuals themselves, with flow-on effects onto the society. Early retirement shortens the period over which the individual can financially prepare for full retirement. With welfare support sourced from general tax revenue, intergenerational equity issues are raised as the younger workforce members bear the cost of the early withdrawal from the workforce by the older members. The negative implications for government budgets are manifest in terms of lost output from mature age workers not being in the workforce, lower tax base from having fewer people in the workforce, and increased social security expenditure for mature age people who do not have enough financial means to live by, before and after they reach Age Pension qualification age. Against the backdrop of population ageing<sup>2</sup>, the pressure on government spending is expected to continue in the next 40 years.

This paper aims to assess the effectiveness of MO activity in addressing older job seekers' social and economic disadvantage as intended by the previous government, following the recommendation of the McClure Report. In this study, the focus group is NSA recipients aged 46 to 49 as they are the oldest cohort affected by the MO policy change which became effective from 1 July 2002. In *program evaluation* framework, they are called the *treatment* group as they are "treated" by the policy change to effect changes in their NSA exit behaviour, the outcome variable. Any change in NSA exit behaviour is assessed against the exit behaviour of the benchmark group of NSA recipients aged 50 to 53. Also called the *comparison* group, these NSA recipients are ideal as they are not obligated to participate in an MO activity over the analysis period, and yet their ages are close enough to those of the focus group. The similarity in their ages ensures that the time-use preferences, participation barriers and expected labour demand are similar for the two groups. An 11% sample of the longitudinal data set (LDS) collected by Centrelink for administrative purposes is used for the analysis. Individuals whose unemployment spell started from January to June 2002 are selected and tracked for 18 months, over which their exit patterns are analysed.

## **2 MATURE AGE PARTICIPATION AND UNEMPLOYMENT BENEFIT**

### **2.1. LABOUR FORCE PARTICIPATION TRENDS 1960-2000**

Since significant patterns in participation occurred until the year 2000, the analysis of participation trends first deals with the period up to 2000. In the next section, recent

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<sup>2</sup> Structural ageing of the population means that the proportion of people of retirement age is rising relative to the proportion of people of workforce age.

participation patterns beginning from 2000 are discussed. From 1960 to 2000, the economy saw a long-term decline in the labour force participation rates (LFPR) of men across all age groups and a trend towards labour force withdrawal below the usual retirement age of 65 (Figures 1 and 2). This pattern of workforce participation among mature age men dampened the increase in their total labour hours supplied, which arose from having an increasing share in the population. Mature age women, on the other hand, have been joining the labour force and acquiring part-time jobs in increasing numbers, as casual part-time arrangements began to characterise the labour market in the 1980s (Figures 1 and 3). This pattern of workforce participation has resulted in an overwhelming increase in mature age women's total labour hours supplied that was way above the expected increase that would have just come from population ageing alone.

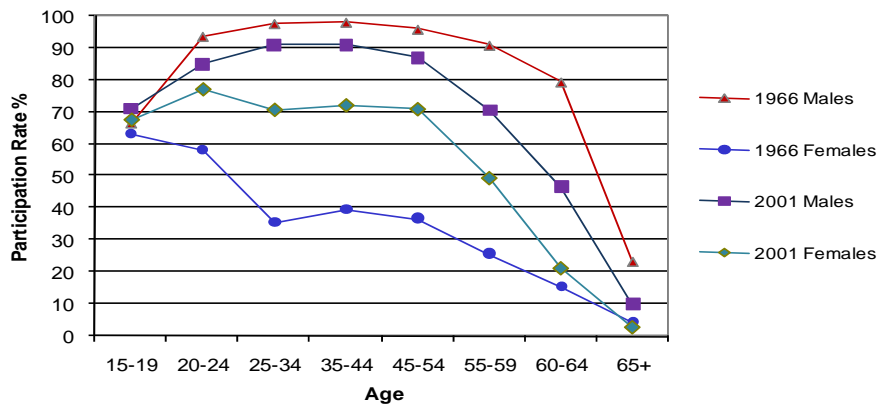
Closer examination of men's LFPR reveals that in the last 40 years, participation of males fell dramatically over the 1973 to 1985 period, with the participation rates of those in the 60-64 age group showing the greatest decline, followed by those in the 55-59 age group (Figure 2). Women, on the other hand, exhibited a participation trend opposite to that for men with mature age women showing steady increases in participation over the last 40 years (Figures 1 and 3). The overall increase in LFPR among women of all ages made the usual "dip" in women's LFPR plots between the ages of 20 to 45 less pronounced (Figure 1). The growth in participation of women in the 1980s (Figure 3) was found to be mainly driven by the increase in participation of married women (Borland 2005, Abhayaratna and Lattimore 2007).

In the literature, the trend in the 1970s was mainly attributed to changes in the social security system (Merrilees, 1982, 1983) such as the indexation to CPI of the pension rate and progressive liberalisation of income testing from the late 1960s<sup>3</sup>. Past the 1972-76 period, the consensus in the 1980s was that life cycle private wealth effects were the key to early retirement, together with World War II veterans qualifying for the war service pension. Hughes (1984) asserted that wage increases during the prosperous post-war years were saved up to purchase leisure at an earlier date. Miller (1983) argued that much of the decline in participation rates over the 1970s was the result of the realisation of plans formed prior to 1973, reflecting the changes in tastes towards leisure induced by the increases in wealth which occurred in the two decades prior to 1973.

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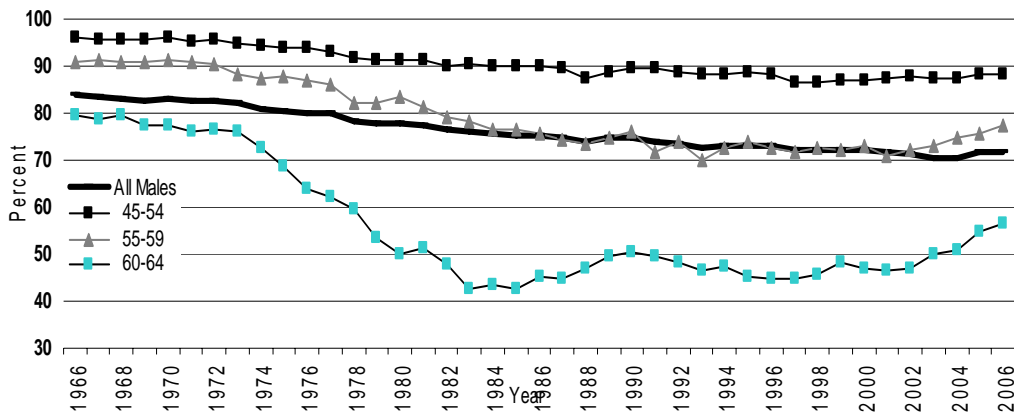
<sup>3</sup> Twice-yearly adjustments of pensions against the CPI commenced in 1976. In 1969 a tapered means test was introduced, in 1972 the threshold amount of additional income was doubled and in 1982 a free area further increased for a married couple. It was the Whitlam government that announced in 1972 a commitment to maintain the rate of pension at 25 percent of average weekly earnings (AWE). Prior to this, pensions were increased largely on an ad hoc basis, as governments perceived a need to adjust payments. However it was only in 1997, when the *Social Security and Veterans' Affairs Legislation Amendment (Male Total Average Weekly Earnings Benchmark) Act 1997* was passed, that the Age Pension was benchmarked to at least 25 percent of the MTAWE.

**Figure 1 Male and female total participation rates (full-time and part-time) in 1966 and 2001**



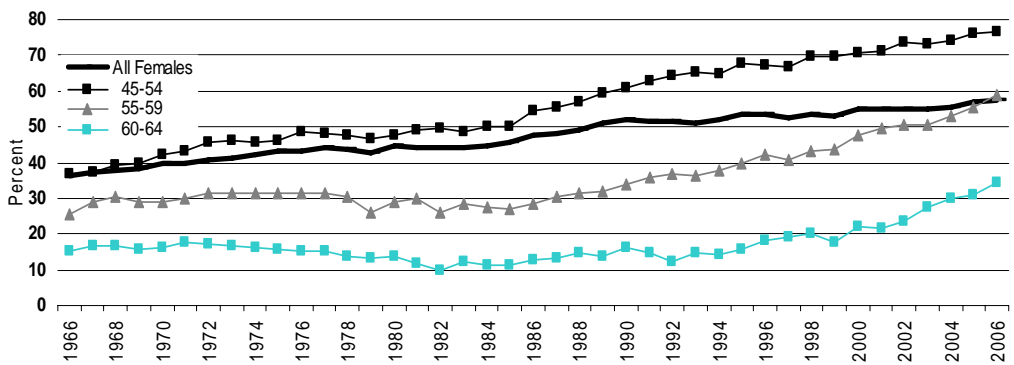
Source: ABS Catalogue 6291.0.55.001 Labour Force, Australia Detailed – Electronic Delivery, Apr 2007

**Figure 2 Male participation rates for 45-64 year age group 1966-2006**



Source: ABS Catalogue 6291.0.55.001 Labour Force, Australia Detailed – Electronic Delivery, Apr 2007

**Figure 3 Female participation rates for 45-64 year age group 1966-2006**



Source: ABS Catalogue 6291.0.55.001 Labour Force, Australia Detailed – Electronic Delivery, Apr 2007

Despite the dominant view that it was labour supply driven with incentives from the social security system triggering withdrawal from the workforce, there were those who argued that it was the weak economic activity and not the financial attractiveness of the pensions which had led older people to apply for pensions (Stricker and Sheehan 1981, O'Brien 2001). The increased uptake of DSP and MAA among mature age Australians in the 1980s and 1990s was argued to be an indicator that the trend is labour demand driven (O'Brien 2001). To qualify for these pension payments, capacity (or lack thereof) to work or ability to find work are some of the criteria. The role of weak demand for labour of mature age workers was also indicated by Norris and Bradbury (2001) who examined changes in the labour force over an eight month period in 1996/97 and found that the propensity of mature age workers to become re-employed, after having been out of the labour force or unemployed, falls with age. However the probability of remaining in employment was the same for workers aged 45 to 64 as that for workers aged 16 to 44 years.

Looking beyond these participation rate trends, the aggregate number of hours worked increased for both mature age men and mature age women over the 1978 to 2000 period. As Table 1 shows, total hours worked increased by 50 per cent for mature age men and by 152 per cent for mature age women over this period. As discussed below, apart from the percentage increase in the population share of mature age Australians (due to the ageing of the population), there are some other pertinent trends underlying these increases in total hours worked.

**Table 1 Hours worked by sex and job type, 1978 and 2000**

	Percentage increase from 1978 to 2000			Mean hours worked - FT		Mean hours worked - PT	
	Population	Labour force	Total hrs worked	1978	2000	1978	2000
<b>Males</b>							
45-54	66.0	57.8	65.4	41.7	45.6	19.0	19.0
55-59	42.5	26.9	30.8	41.2	45.5	20.1	17.9
60-64	42.8	12.0	12.1	38.8	44	17.9	15.8
All 45-64	55.6	43.7	50.0	41.2	45.4	18.9	17.9
<b>Females</b>							
45-54	73.4	159.4	172.8	39.1	41.4	16.7	17.5
55-59	34.8	112.7	99.6	39.4	40	17.5	16.2
60-64	30.3	110.9	101.4	37.7	40.6	14.8	15.3
All 45-64	54.4	145.5	151.8	39.0	41.2	16.7	17.0

Source: ABS Catalogue 6291.0.55.001 Labour Force, Australia Detailed – Electronic Delivery, Apr 2007

### 2.1.1. Mature age men in a full-time arrangement worked long hours

For mature age men, the increase in total working hours came about through the increase in the working hours of those who remained in full-time employment. Mature age male workers with full-time jobs were averaging around 45 hours a week in 2000 compared to 41 hours a week that their counterparts in 1978 spent in the workplace (Table 1). This increase in the average number of full-time hours compensated for the reduction in their workforce attachment either through full or partial withdrawal (reduction to part-time hours) from

the workforce. Those who were participating part-time in 2000 registered even lower average weekly hours worked than their counterparts in 1978.

Across all age cohorts, mature age men in a full-time arrangement increased their average working hours, with the 60-64 age cohort registering the most significant percentage increase. In 1978 they averaged 39 hours a week compared to the 44 hour work week they had on average in 2000. Despite this increase in full-time hours, the total number of hours supplied did not increase over this period by as much as the increase in their population share. This indicates that not many of in this age cohort maintained their attachment to the workforce; but in the unlikely chance that they maintained full-time attachment, they did work very long hours.

### *2.1.2. Mature age women participated more, even in reduced capacity of part-timers*

The story for mature age women is a more positive one, in terms of exhibiting increased labour force participation. While mature age women had increased their average working hours from 39 hours a week to 41 hours a week over the 1978-2000 period, the sheer increase in the number of mature age women opting to join the workforce (even in the reduced capacity as part-timers) had considerably lifted their total work hours supplied. Together with the increase in their population share, mature age women had improved their participation in terms of both the number of women participating and the number of hours supplied by those who were working. As a result, the total hours supplied by mature age women increased by more than 150 percent even though their population share only increased by 54 percent over the 1978-2000 period.

### *2.1.3. Casualisation of jobs and prevalence of low skill jobs in part-time arrangements*

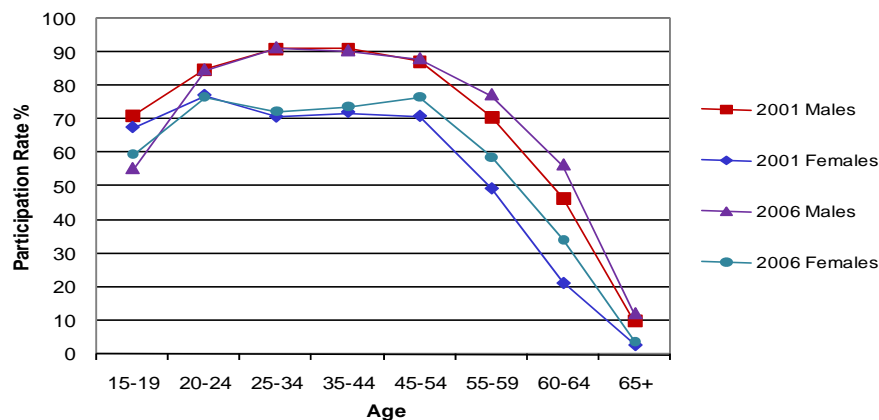
While the full-time participation of mature age men fell over the 1978 to 2000 period, their part-time participation increased in line with the increase in part-time participation of mature age women. Much of part-time work in Australia is undertaken in casual arrangements which have increasingly characterised the labour market from the 1980s (May, Campbell and Burgess 2005; Pocock, Buchanan and Campbell 2004; Borland, Gregory and Sheehan 2001; Wooden 2000). The flexibility to hire and fire employees under casual arrangements (Wooden 2000) and the low cost this arrangement offers employers (Buultjens 2001) despite compensation for some lost leave provisions (in the form of "casual loadings") has made this employment arrangement most advantageous for profit-maximising firms with seasonal production cycles in Australia. Married women are overly represented in the population of part-time workers in casual arrangement partly as a result of the role they play in their households (May, Campbell and Burgess 2005, Pocock, Buchanan and Campbell 2004). To balance their desire to work with their caring responsibilities, married women find part-time work most suitable to their needs.

Recent labour force studies in Australia indicate that the increase in part-time jobs and the contraction in full-time participation of men (across all age groups) were mainly the experience of workers with low-skill. Kennedy and Hedley (2003) found that over the 1981 to 2001 period, the reduction in the participation of low-skilled men manifested as reduction in full-time jobs. It was shown that increases in part-time and casual jobs occurred mainly in low-skilled occupations, keeping the total number of hours worked in these jobs fairly stable over the 1990s (ABS 2001;Wooden 2000). Lattimore (2007) similarly alluded to the economy's reduced tolerance for the employment of prime aged men with lower skills and disabilities, as he analysed the 30 percent of Australian men who were out of the labour force in 2005-06.

## 2.2. LABOUR FORCE PARTICIPATION TRENDS FROM 2000 TO 2006

Mature age men's participation trends regained strength from 2000. At 55.5 percent LFPR in 2005, Australia's 55-64 age group managed to make it just above the OECD average (OECD 2006). Men aged 50 to 64 increased their LFPR from 70 percent in 2001 to 75 percent in 2006 (ABS 2007). This recent increase in LFPR was most dramatic among men aged 60 to 64, rising by almost 10 percentage points to 56.5 percent, followed by men in the 55-59 age group, whose LFPR increased by almost seven percentage points to 77.4 percent. The recovery in participation rates among mature age men in recent years was underpinned by increases in both part-time and full-time participation, with those in the 55-59 and 60-64 age groups showing a more significant reversal in the trend of falling full-time participation. The strengthening participation trends of mature age women, observed from the 1960s to 2000, continued on to 2006.

Figure 4 Male and female total participation rates (full-time and part-time) in 2001 and 2006



Source: ABS Catalogue 6291.0.55.001 Labour Force, Australia Detailed – Electronic Delivery, Apr 2007

For both mature age men and women, the total number of hours worked continued to increase over this period. However unlike the period 1966 to 2000, the increase in number of hours worked came about from the increasing labour force participation of mature age workers and not from the increasing hours of full-timers. In fact, as Table 2 shows, the average time spent at the workplace by full-timers has been easing as the average working day of part-timers lengthened, for both males and females aged 45 to 64. On average, full-time females in this cohort were spending 40 hours a week in 2006, down from 41 hours a week in 2000. The males in the cohort also reduced their full-time work by 1 hour a week to 44. The working hours of both males and females in this age cohort who were working part-time stabilised at around 18.5 hours a week.

**Table 2 Hours worked by sex and job type, 2000 and 2006**

	Percentage increase from 2000 to 2006			Mean hours worked - FT		Mean hours worked - PT	
	Population	Labour force	Total hrs worked	2000	2006	2000	2006
<b>Males</b>							
45-54	8.1	9.5	6.6	45.6	44.3	19.0	19.7
55-59	29.3	37.1	35.8	45.5	44.3	17.9	19.3
60-64	25.3	51.1	49.1	44.0	43.8	15.8	16.7
All 45-64	16.0	20.0	17.0	45.4	44.2	17.9	18.8
<b>Females</b>							
45-54	9.8	18.3	18.5	41.4	40.7	17.5	19.4
55-59	34.3	65.8	74.8	40.0	39.8	16.2	17.7
60-64	24.7	91.0	91.2	40.6	39.2	15.3	15.3
All 45-64	17.9	32.2	32.5	41.2	40.4	17.0	18.5

Source: ABS Catalogue 6291.0.55.001 Labour Force, Australia Detailed – Electronic Delivery, Apr 2007

### 2.3. TRENDS IN UNEMPLOYMENT BENEFITS FOR MATURE AGE JOB SEEKERS AND MUTUAL OBLIGATION

The long-term decline in the LFPR of mature age men occurred at the same time as government welfare support spending grew. The long-term growth in spending from the 1960s was mainly driven by increases in spending on certain income support payments such as the Age Pension, DSP and unemployment benefits, with the latter estimated to increase by more than fourfold. Mature age people are commonly the recipients of these payments. Whiteford and Angenent (2002) estimated that from 1965 to 1997 unemployment spending grew from 0.03 percent of GDP to 1.13 percent, Age Pension spending from 1.65 percent to 3 percent, and disability payment spending from 0.3 percent to under 1 percent of GDP. The growth in spending resulted from an increase in the benefit rate and number of individuals and families covered by the income support system.

The current policy stance of the government confirms the belief in the welfare support system providing an incentive for a transition route to retirement. The Commonwealth Department of Treasury (2004) reports that the receipt of these social security support payments has become the usual route to retirement with very few of the nearly 30 percent of 50 to 64 year olds who receive income support ever going off benefits. As part of its welfare reform agenda the government has been implementing initiatives designed to

improve the workforce participation incentives in the welfare system, with particular focus on some targeted groups, such as mature age job seekers. A mature age unemployed Australian without any serious disability and financial means, can be receiving either Mature Age Allowance (MAA)<sup>4</sup> or NewStart Allowance (NSA).

In 2000 the report of the Reference Group on Welfare Reform, appointed by the Minister for Family and Community Services in 1999, came out with the medium- to long-term recommendations for welfare reform. The government has since introduced two main welfare reform packages - 'Australians Working Together' (AWT)<sup>5</sup> in 2002 and the 'Welfare to Work' (WtW) reforms in 2006. Broadly, these recent welfare reform initiatives were geared towards increasing the coverage of activity testing, tighter activity testing rules (in particular MO requirements), more job-search activities and provision of incentives and financial assistance. In July 2002, the government widened the coverage of MO to include job seekers aged 35 to 49.

### 2.3.1. *Mutual Obligation, Australia's active labour market policy*

The Mutual Obligation initiative is a type of welfare support in which the recipients share with the government the responsibility of improving their welfare outcomes. MO is underpinned by the concept of social obligations in which individual "rights" and "choices" are married with "responsibilities" and "obligations" to ensure societies function effectively (McClure Report 2000, p.32)<sup>6</sup>. In return for the benefits received, job seekers have the obligation to participate in additional activities which not only reinforce community expectations but also encourage taking up of suitable opportunities. In the report, participation in these activities is also hailed as the "key strategy for addressing the prospect of entrenched social and economic disadvantage" (McClure Report 2000, p.33) through improvement of job prospects and contact with community. MO is an *active Labour Market Policy* (ALMP), transforming the unemployment benefit receipt from a "passive" income support for the unemployed into an "active" labour market program designed to improve labour force outcomes.

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<sup>4</sup> Mature Age Allowance was the unemployment payment to job seekers aged between 60 and the Age Pension age. MAA was instituted in 1994 and was closed in September 2003 as part of the *Australians Working Together* (AWT) initiative.

<sup>5</sup> The AWT, which was meant to improve self-reliance through economic and social participation, comprised the government's first response to the recommendations of the McClure Report on welfare reform. The report was submitted by the Reference Group on Welfare Reform (RGWR) in 2000 who advised that Australia's society and economy would benefit from a move towards greater incentives and assistance to encourage and enable workforce participation and mutual obligation.

<sup>6</sup> It is said that the mutual obligation policy has its origins in liberal democratic philosophical traditions - particularly the idea of 'social contract' in which rights have correlative duties or obligations (Kinnear 2002, Moss 2002, Martyn 2006). In a social contract, the individuals surrender certain liberties to the state in return for social order.

While ALMPs are making inroads in social security systems of OECD countries in the last 40 years, positive labour force outcomes being a shared responsibility between government and jobseekers gained currency in Australia from the 1980s when the economy saw stubbornly high unemployment rates. The high structural unemployment rates in the later 1980s through to the 1990s provided impetus to the Labour government to introduce the principle of *reciprocal obligations*. The Working Nation was introduced with the *Job Compact* as its centrepiece. As enshrined in the Social Security Act of 1991, the *activity test* replaced the *work test*, in which job seekers are required to participate in job search and skill enhancing activities in return for the payment they received. The Coalition government in 1997 closed the Job Compact and replaced it with *Work for the Dole (WfD)*, in which job seekers are obliged to participate in community-based activities in return for their unemployment benefit. It was hinged on the concept of “mutual obligation”, which is conceptually the same as the “reciprocal obligation” introduced by the Labour government in the early 1990s.

Work for the Dole pilot projects were run at the end of 1997, involving 18 to 24 year old job seekers who had been unemployed for at least six months. From 1998 the MO has widened its coverage both in terms of types of recipients and approved activities. Beginning 1 July 1998, Mutual Obligation requirements became a part of the activity test faced by 18 to 24 year old recipients of NewStart and Youth Allowance (other). In July 1999, Mutual Obligation was extended to apply to job seekers aged 25 to 34 who had been in receipt of Newstart Allowance for 12 months. As part of the *Australians Working Together* welfare package announced in the 2001-2002 budget, job seekers aged 35 to 49 were made to participate in Mutual Obligation activities in addition to job search activities to meet their activity test beginning 1 July 2002. The *Welfare to Work* initiative made effective from 1 July 2006 subjected parents with young children and people with disabilities to a soft version of Mutual Obligation<sup>7</sup>.

Unless job seekers have an activity test exemption, the Mutual Obligation policy currently requires job seekers who have been receiving unemployment benefits for six months to undertake additional activity test requirements while they continue looking for work. These activities, which usually last for another six months, include participation in an approved course, working part-time, community work, taking part in Work for the Dole or participating in a language, literacy or numeracy program (Table 3). Job seekers aged 49 and under have their MO outlined in their Activity Agreement whereas those aged 50 and over are exempt from Mutual Obligation responsibilities. Failure to comply with their MO responsibilities can result in their payment being cancelled. Exemptions from the activity

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<sup>7</sup> Parents applying for Parenting Payment on or after 1 July 2006 will receive Parenting Payment while their youngest is less than six years old. When their youngest child turns six, this group of parents will receive NewStart and be obliged to seek part-time work of at least 15 hours per week. People seeking to go on DSP on or after 1 July 2006 will receive DSP if they are assessed as being incapable of 15 hours work a week at award wages. If they are assessed as being capable of 15 to 29 hours work per week at award wages, they will receive NewStart and similarly be obliged to seek part-time work of at least 15 hours per week.

test may be granted to job seekers with any one of the following conditions: temporary work incapacity, caring responsibilities, major personal crisis, bereavement, jury duty, living in remote areas and if assessed to be eligible for Personal Support Program.

**Table 3 Mutual Obligation activities**

<b>Mutual Obligation activities</b>	<b>Details</b>
<b><i>Employment and community participation</i></b>	
Part-time paid work	Any paid work for at least 10 hours a week, for 6 months
Work for the Dole	Community work in the area, managed by Community organisations. Depending on age, hours range from 6 hours to 15 hours a week for 6 months.
Community Development Employment Projects (CDEP)	Employment opportunities for Aboriginal and Torres Strait Islander people in locations where job prospects are limited or non-existent. Participation and attendance requirements for the 6 months are set by project organisers.
Community Work	Volunteer work for community-based, not-for-profit organisations. Work includes helping people with disabilities or who are frail, home care, translating, providing companionship and support. Depending on age and whether one has qualified for "reduced participation", hours range from 6 to 10 hours a week for 6 months.
Green Corps	Environment-conservation activities open to those aged 17 to 20 years old. Duration is for 6 months.
Relocation	Move to an area with better employment prospects, followed by 7 fortnights of Intensive Job Search Activity.
<b><i>Training</i></b>	
New Apprenticeships Access Program	Leads to an accredited apprenticeship/traineeship. Course availability depends on local labour market needs.
PT study in an approved course	Course of study that improves chances of gaining long-term employment or employment prospects. Depending on age and whether one has qualified for "reduced participation", hours range from 6 hours to 10 hours a week. The MO duration depends on the duration of the course.
Defence Force Reserve	Service and training in the Australian Defence Force. Depending on age and whether one has qualified for "reduced participation", hours range from 6 to 10 hours a week for 6 months.
Approved Language, Literacy and Numeracy Program	Training open to those who face language, literacy and/or numeracy barriers to getting work. A total of 400 hours of training that runs for 10 to 20 hours a week.
<b><i>Assistance</i></b>	
Youth pathways	Individualised support for school leavers or students in years 9,10,11 or 12, to assist them to transition through school, to employment or further training. Regular contact with Youth Pathways provider for 6 months.
Career planning	Service that offers support, advice and direction on decisions to be taken on course of study, training or on identifying suitable jobs. Two group sessions at two hours each. Extra advice can be arranged.
Job placement, employment and training	Support and referral service open to students and job seekers aged 15 to 21 years old who have problems with housing, drugs and/or alcohol, family difficulties, abuse, self-esteem or money.

### 3 THE CHOICE TO EXIT FROM NEWSTART ALLOWANCE: FRAMEWORK FOR ANALYSIS

From a *theoretical* viewpoint the decision to exit from NSA and work is analysed from both the labour supply and labour demand perspectives, as the final workforce participation model takes the reduced form of the labour supply and labour demand equations. What one ends up supplying in the workforce is not always possible given the decision of employers (demand for labour) to hire job seekers which mainly affects the chances of getting job offers and the offered wage rate. The labour demand factors that motivate increased job offers and wages rates, which in turn positively influence the exit rates from the NSA, are discussed as well as the labour supply factors that independently act on the job seekers' choice to exit from NSA. While the chapter separately discusses the labour supply and labour demand systems, mention is made of factors that influence both supply and demand.

From an *empirical* standpoint, various analytical methods are used in a program evaluation framework. Program evaluation methods are used to assess the impact of a policy change, the *treatment*, on the outcome of interest, after controlling for any confounding influences of other factors. In this study, the treatment is subjecting mature age NSA recipients to Mutual Obligation and the outcome of interest is their labour force participation. In this evaluation, the *Average Effect of the Treatment on the Treated (AETT)* is assessed to ascertain whether this policy is effective among this group of job seekers and should be continued as it is, affecting similar groups of individuals<sup>8</sup>. In the analysis, the treatment group is comprised of NSA recipients aged 46 to 49 and is compared against the 50 to 53 year old NSA recipients who by virtue of age were not obligated to participate in MO.

#### 3.1 REDUCED FORM OF SUPPLY AND DEMAND: A THEORETICAL FRAMEWORK

A job seeker decides to exit from NSA when the expected annual income from work exceeds his annual valuation of non-work time, implicit in his planned allocation of the year between non-work and work periods. That is, if continued NSA receipt becomes a net cost to the job seeker following the policy change (treatment), the job seeker exits NSA and works. The size of the net benefit job seekers derive from NSA receipt prior to treatment, and how they view the MO activity, together determine their utility-maximising choice in response to the treatment. Those who derive virtually nil net benefit from NSA prior to the policy change are more open to the possibility of the net benefit becoming a net cost. If the

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<sup>8</sup> The research question is different from that raised with evaluating the *Average Treatment Effect (ATE)* or that raised with evaluating with the *Marginal Average Treatment Effect (MATE)*. ATE deals with finding out the effect of making the program mandatory and subjecting everyone in the Australian population to MO. MATE is finding out the effect of MO on some population group that is at the margins of participating in MO. With the current drive of the government to encourage the workforce participation of older Australians, the AETT is the most appropriate empirical question to address.

additional MO activity brings disutility to the job seekers, they will see this upcoming activity as a threat and leave NSA if they can. However if they see the MO activity as skill-enhancing and hence bringing in future gains, they anticipate an increase in the net benefit and will not leave NSA as a result. On the other hand, job seekers who derive a large net benefit from NSA will most likely stay on NSA, in response to the treatment.

The impact of policy tightening on the decision to exit from NSA and work needs to be couched in life-cycle terms in order to capture both the different work-leisure preferences of people and the different valuation of their time in the labour market, as they age. The personal valuation of work time over leisure decreases as people age, due to improved information and acceptance of their health conditions and lighter financial commitments. That is, older people are likely to prefer to work less as they obtain better information about their longevity constraints. Moreover, endogenous and exogenous changes in human capital stock occur as workers age (Lazear 1986) and these put a downward pressure on their job offers. Endogenous changes occur through lower returns on investment in human capital stock and exogenous changes occur through biophysical deterioration and mortality. Being in the late stage of their professional life, older people tend to have little remaining time over which they can enjoy the benefits of their human capital investment. Moreover older people may be less (physically) able to work than those aged in their 20s and 30s.

The impact of policy tightening on the decision to exit from NSA and work also needs to be couched in an intertemporal framework of labour supply. In this intertemporal model, individuals form a plan of working for a period to purchase consumption goods (work period) and not working for a period (non-work period), that will maximise their utility over their remaining lifespan (Mitchell and Fields 1984). Utility is a function of the amount of consumption goods purchased and nonwork spent during the remaining lifespan. The decision on how much of the remaining lifespan is to be allocated to some work period and some non-work period depends on one's preference for some leisure period over consumption goods, on the one hand, and the income opportunities one faces. The model adopted in this research extends that of Mitchell and Fields (1984), applying it to job seekers who, despite having a series of short-term jobs, can actually be considered to be in their non-work period of their intertemporal labour supply plan, for as long as they are not accumulating their wealth. *Non-work* is, essentially, redefined to include non-accumulation of wealth as a characteristic feature and *work* as accumulation of wealth or any activity taken to lead to wealth accumulation.

Also, the intertemporal labour supply plan is reassessed regularly and is mainly a function of the preference and labour market conditions at the time of reassessment. For older job seekers, the choice to exit from NSA and work is not arrived at by simply comparing the net benefit of staying on NSA with the net benefit of exiting from NSA, *independent* of a plan of having some work and non-work periods for their remaining lifespan. Instead the choice to work is taken in a context of this plan with the net benefit of exiting from NSA

determined by the extent to which this work choice *actualises* the plan for the remaining lifespan. This work/non-work plan is formed prior to the shock of getting unemployed. The job seekers attempt to reinstate their pre-shock consumption/non-work path with their decision to exit or not to exit from NSA. Work is accepted so long as it takes them closer to or back on the path; conversely work is rejected if being on NSA receipt takes them closer to their consumption/non-work path. One is either in a planned work period (to afford more consumption goods in future periods) or non-work period – regardless of whether one is actually “working” or not in the usual sense of the word.

This model suggests the following reduced-form specification of the NSA exit choice,  $e$ :

$$e = f(X, \delta, \rho, Inv, SS)$$

$$\text{and } \rho = g(L_o, L_y, w, v, Q) \quad (\text{eq. 3.1})$$

where  $X$  is a set of personal characteristics influencing (age-independent) work/non-work preference (including financial obligations),  $\delta$  is a vector of age-dependent variables influencing work/non-work preference,  $\rho$  represents market valuation of one’s labour (including one’s history of labour market attachment),  $Inv$  is the return to wealth level, and  $SS$  represents NSA receipt related variables.  $Inv$  and  $SS$  capture characteristics affecting attitudes toward wealth accumulation. The market valuation of one’s labour represents the aggregate firms’ demand for labour of younger workers  $L_y$  and labour of older workers  $L_o$ , given the current relative value of younger workers’ wage,  $w$ , to older workers’ wage,  $v$ , and the aggregate desired output,  $Q$ .

Following the discussion above, it is straightforward to derive the following expected relationships:

$$\frac{\partial e}{\partial X} > 0 \text{ or } < 0, \frac{\partial e}{\partial \delta} > 0, \frac{\partial e}{\partial \rho} > 0, \frac{\partial e}{\partial Inv} < 0, \frac{\partial e}{\partial SS} < 0 \quad (\text{eq. 3.2}).$$

Personal characteristics  $X$  can either have a positive influence on the decision to exit from NSA and work. For example, having considerable financial commitments such as a mortgage and having a big family to support provide an incentive to find and stay at work. On the other hand if the job seeker comes from a non-English speaking background, verbal and written communication barriers could get in the way to securing employment. In terms of age-dependent variables,  $\delta$ , an example would be having a young offspring. Attitude towards exogenous changes in human capital (acceptance of longevity constraint) is another example. Older job seekers would tend to have adult offspring who are financially independent from them. This may increase the discount factor applied to future income as they place less value on their future income and expenditures. The higher the discount factor, the lower is the regard for the future, the less incentive to focus on working to accumulate wealth. Buoyant economic conditions  $\rho$  increase the possibility of finding employment and hence will have positive effect on NSA exit rate. Endogenous and

exogenous changes in human capital may lower chances of finding work as firms compare the relative advantages of hiring older workers and younger workers. Higher returns to investment,  $Inv$ , and higher NSA payment are a disincentive to supplying labour and therefore have a negative effect on the NSA exit rate. Tightening of the eligibility rules of NSA, such as the imposition of MO, is expected to encourage exit from NSA.

The following sub-sections define further the factors determining exit from NSA, grouped as to whether they are labour supply or labour demand factors.

### 3.1.1. Labour supply side

The objective of a mature age workers is to maximise for this current year

$$U = F(C, R) \quad (\text{eq. 3.3})$$

where  $U$  is the utility derived from combinations of  $C$  and  $R$ ,  $C$  is the amount of consumption goods and  $R$  the non-work period for the remaining lifespan.  $R$  is constrained by the planned work period over the remaining lifespan

$$R = T - W \quad (\text{eq. 3.4})$$

where  $T$  is the total number of years foreseen to be allocated in the remaining lifespan and  $W$  is the planned work years. The jobseeker's preference for  $C$  and  $R$ , as captured by  $U$ , is influenced by age-independent personal characteristics  $X$  and age-dependent personal characteristics  $\delta$ , such as attitude towards exogenous changes to human capital.

The value of consumption goods to be had for the remaining lifespan is equal to the expected income from the allocation of the remaining lifespan into work and non-work periods. Expected income is comprised of expected labour income  $LY$  and expected income from other sources  $OY$  (investment and social security benefits).

$$Y = LY + OY \quad (\text{eq. 3.5})$$

On a yearly basis, they decide the allocation between work and non-work. If they have any chance of finding work, then their discounted value of expected labour income if they were to work another year, at any time,  $t$ , is

$$LY = \rho[(1 + \delta)^{-1}(1 - s)w_{t+1}] + G \quad (\text{eq. 3.6})$$

where  $\rho$  is the probability of finding work that coming year,  $\delta$  is a discount factor representing their time preference and expectations about mortality,  $s$  is the portion saved,  $w$  is the mean annual wage for the coming year and  $G$  is the present discounted value of the expected labour income from  $t+1$  onwards. Discouraged workers have  $\rho=0$ .

The discounted value of other income is

$$OY = (1 + \delta)^{-1}[\rho sw_{t+1} + (1 - \rho)SS_{t+1}] + Inv + SS_t \quad (\text{eq. 3.7})$$

where  $SS_{t+1}$  is the expected social security support to be had for another year.  $Inv$  and  $SS_t$  are the present discounted values of the expected investment income and expected social

security benefit from  $t+1$  onwards and is purchased through savings accumulated while working and bequests in periods prior to  $t$ . Additional investment income can be accumulated through savings from another year's worth of labour income, if one were to work, as represented by the first term of equation (3.7).

### 3.1.1. Labour demand side

The probability of finding work that coming year,  $\rho$ , is a function of the aggregate demand of firms for older workers' labour  $L_o$  and younger workers' labour  $L_y$ , as firms aim to minimise their total cost of production. Given fixed amount of capital and a desired level of output for the entire industry, firms can use different combinations of  $L_o$  and  $L_y$ . Each type of labour has its comparative advantage and hence can not be a full substitute for the other. Younger workers are assumed to produce more physically intensive output units per unit of capital (for example, shearing sheep). On the other hand, older workers are assumed to have gained valuable professional experience over the years (for example, account keeping). As more of  $L_y$  is used to replace  $L_o$ , diminishing marginal returns occur and vice versa. Firms choose that point on the industry isoquant for that level of output at which the rate of technical substitution of  $L_y$  for  $L_o$  is equal to the wage ratio ( $w/v$ ). That is, for the desired industry output  $Q = f(L_o, L_y)$ , firms seek to minimise total costs,  $TC = w L_y + v L_o$ .

## 3.2 PROGRAM EVALUATION: AN EMPIRICAL FRAMEWORK

As discussed in the previous section, given the net benefit job seekers derive from NSA receipt as captured by factors in equation (3.1) they are predisposed to leave NSA at a time period. The MO initiative acts as a trigger for making the job seeker leave NSA. Let the hazard,  $h(t_{ij})$ , represent the fundamental measure of the risk of exiting in a discrete time period,

$$h(t_{ij}) = \Pr(T_i = j | T_i \geq j, Z_{ij} = z_{1ij}, L_{2ij} = l_{2ij}, A_{p_{ij}} = a_{p_{ij}}, MO_{p_{ij}} = mo_{p_{ij}}) \quad \text{eq. (3.8)}$$

Letting  $T$  denote the time period in which the event of exiting occurs, the hazard is the conditional probability that individual  $i$  will exit in time period  $j$ , given that she/he has not exited in any earlier time period and given her/his particular values for the factors or predictors in equation (3.8). The hazard or exit rates will vary depending on these predictors: personal characteristics ( $Z$ ) that influence the subjective valuation of work time relative to non-work time; labour market conditions ( $L$ ) that influence the labour market valuation of the job seeker's work time, asset and income variables ( $A$ ) to take into account the likely retirement scenario of the job seeker and policy change parameters ( $MO$ ).

Program evaluation methods facilitate estimation of the treatment effect,  $\alpha$ , for any individual  $i$  at fortnight  $j$ , on  $h(t_{ij})$ . The treatment effect consists of the difference subjecting jobseekers to an MO activity, makes to their exit rates as given by

$$Y_{ij}^{**} - Y_{ij}^* = \alpha_{ij} \quad \text{eq. (3.9)}$$

with  $Y_{ij}^*$  as the pre-treatment exit rate and  $Y_{ij}^{**}$  the post-treatment exit rate.

This impact, AETT, is estimated for the program participants as

$$\hat{\alpha}_{ij} = [\hat{\Delta}_{ij} | d_{ij} = 1] = [\hat{Y}_{ij}^{**} - \hat{Y}_{ij}^* | d_{ij} = 1] = (\hat{Y}_{ij}^{**} | d_{ij} = 1) - (\hat{Y}_{ij}^* | d_{ij} = 1) \quad \text{eq. (3.10)}$$

where  $d_{ij}$  is a dummy variable indicating whether an individual has received treatment (takes a value of 1) or not (takes a value of 0). The difficulty in estimation lies in the fact that both outcomes for each individual are not observed. The final term in equation (3.10),  $(\hat{Y}_{ij}^* | d_{ij} = 1)$  is not observable. This represents the pre-treatment outcome of the treatment group without all the confounding influences arising from the passage of time. This is the reason for considering the evaluation problem as essentially a “missing data problem”.

Instead, only the post-treatment outcomes of the treatment group and the pre-treatment outcomes of the counterfactual group are observed. They are outcomes of different individuals. That is, we are only able to estimate

$$\tilde{\alpha}_{ij} = (\hat{Y}_{ij}^{**} | d_{ij} = 1) - (\hat{Y}_{ij}^* | d_{ij} = 0) \quad \text{eq. (3.11)}$$

The treatment effect estimate produced by (3.10) is only unbiased or equal to that produced by equation (3.11) if

$$(\hat{Y}_{ij}^* | d_{ij} = 0) = (\hat{Y}_{ij}^* | d_{ij} = 1) \quad \text{eq. (3.12)}$$

That is, those who are in the counterfactual group would on average arrive at the same exit decision as the average decision that would have been obtained by the treatment group, if the latter had not been subjected to the treatment at all. Equation (3.12) is known as the independence assumption and is also referred to in the literature as a situation of “no selection bias”. The exit outcomes are independent of whether the individual is in the treatment or comparison group. Rubin (1978) referred to this assumption as the “ignorable treatment assignment”.

## 4 IMPACT OF MUTUAL OBLIGATION ON MATURE AGE NEWSTART ALLOWANCE RECIPIENTS

This chapter presents the results of the analyses. The first section describes the sample of NSA recipients and their patterns of exit from NSA. The impact of *anticipating* participation in an MO activity on their decision to exit NSA is explored in the second section. In the final section, the impact of *participating* in an MO activity on the decision to exit from NSA is investigated. For the entire analysis, the longitudinal data used by Centrelink to administer the government's income support payments to job seekers is used. The fortnightly payment records for the readily available 10% and 1% samples of Centrelink's income support customers, which have been drawn independently from each other, are combined to obtain an 11% sample.

Information on NSA recipients aged 46 to 53 who started an NSA spell in the period from January to June 2002 are the focus of the analysis. Since the increased coverage of MO took effect on 1 July 2002, the 46 to 49 year old job seekers in the sample would have been subjected to the policy change in its first year of operation. Similarly, the 50 to 53 year old job seekers could also have participated in any of these activities had they wanted to. In section 4.1, the younger age cohort is also alternatively referred to as the focus group and the older age cohort as the comparison group. The comparison group serves as the benchmark for how older workers commonly behave in the absence of a policy change. In sections 4.2 and 4.3, as more methodological controls are put in place to facilitate evaluation of the impact of MO, the focus group is then referred to as the *treatment group*. The older cohort remains as the comparison group. These groups are compared at key periods over the 39-fortnight analysis period.

There are two key periods considered, given their importance in the decision-making process of the job seekers: the 15<sup>th</sup> fortnight and the 39<sup>th</sup> fortnight. Following 6 months of continuous receipt, NSA recipients are required to choose and participate in an MO activity in addition to their job search activity. They are informed of the MO activity as early as the 10<sup>th</sup> fortnight and can start the activity as early as the 12<sup>th</sup> fortnight. By the end of the 15<sup>th</sup> fortnight they need to have chosen the activity. During this decision window (10<sup>th</sup> to 15<sup>th</sup> fortnight) the anticipation of the MO activity may impact on their decision whether to continue receiving NSA. The 39<sup>th</sup> fortnight (19.5 months after) is also significant because, by this time, the effect of having participated (not necessarily completed) in either an MO activity or an alternative activity if one obtains an exemption, will have manifested in their decision to exit from NSA. By the 39<sup>th</sup> fortnight (36<sup>th</sup> fortnight), 12 months would have elapsed since job seekers started their MO activity, if they started in the 15<sup>th</sup> fortnight (12<sup>th</sup> fortnight). Given that the focus of the research is on the effect of their *first* exposure to MO on job seekers, allowing for a longer time frame covering multiple participation points in MO activities is beyond the scope of the research. Allowing a longer time frame will also see job seekers leaving and coming back to the income support system with the influence of exposure to the workforce confounding the impact of the first exposure to MO activities.

## 4.1 CHARACTERISTICS AND WORKFORCE OUTCOMES OF MATURE AGE NSA RECIPIENTS

### 4.1.1. Work outcomes by the 15<sup>th</sup> fortnight

Figure 5 shows that around a quarter of job seekers have already exited out of NSA by the 5<sup>th</sup> fortnight. From this fortnight onwards, job seekers begin to show some differences in exit rates. Table 4 shows that at least 54.8 percent of NSA spells, for both age cohorts, have ended by the 15<sup>th</sup> fortnight – with either of them at least 4 times more likely to exit the income support system than transfer to another payment<sup>9</sup>. Women compared to men are more likely to transfer to another payment by the 15<sup>th</sup> fortnight, regardless of age. The focus group registers a slightly lower rate of payment transfer than the comparison group; this is mainly driven by the higher payment transfer rate of female job seekers in the comparison group. Around 45 percent of the entrants are still on NSA by the 15<sup>th</sup> fortnight, with the focus group more likely to participate in MO activities. Around 22.6 percent of the members of the focus group who are still on NSA take up an MO activity compared to 6.8 percent of their counterparts in the comparison group. There are no statistically significant differences in the rates of exits from the income support system between the focus and comparison groups, regardless of the mode of exit from the income support system. While it is uncertain how at least 41.1 percent of the job seekers exit from the income support system – no information on the LDS – it is certain, at least, that they are financially independent from the income support system by the 15<sup>th</sup> fortnight.

Older female job seekers are most likely to transfer to the Disability Support Pension (DSP) followed by Partner Allowance, with a few transferring to Carer Payment, Sickness Allowance and Widow Allowance. All these payments, except for the Partner Allowance, are equally open to the younger cohort of job seekers provided they meet the criteria. DSP and Partner Allowance are fundamentally workforce support payments for people who cannot find a job but who also have other characteristics or conditions which make them eligible to transfer to these payments. Since they are not activity-tested, unlike the NSA, they provide an alternative payment that relieves them of having to do required activities that show participation in the workforce, such as job search. It is also important to control for the higher likelihood of older job seekers to be suffering from incapacitating illness than their younger counterparts; although this does not seem to be the case among men in the sample, given the similar transfer rates between men of varying age cohorts.

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<sup>9</sup> The unit of analysis is a spell. A spell is defined to be a period of continuous NSA receipt. As defined in the Social Security Act 1991 (section 38B), a short-term job seeker receiving income support payments for less than 12 months who has had a period of non-payment of up to 6 weeks is considered to have notionally received income support during that non-payment period; similarly, a long-term job seeker receiving income support payments for 12 months or more who has had a period of non-payment of up to 13 weeks is considered to have notionally received income support during that non-payment period. Since in this study an exit is made when a spell ends, then, accordingly, a short-term job seeker is considered to have exited if he/she has received nil NSA payment for more than six consecutive weeks (at least four consecutive fortnights); and a long-term job seeker is considered to have exited if he/she has received nil NSA payment for more than 13 weeks (at least seven consecutive fortnights).

Figure 5 Cumulative exits of NSA entrants in 2002, by sex

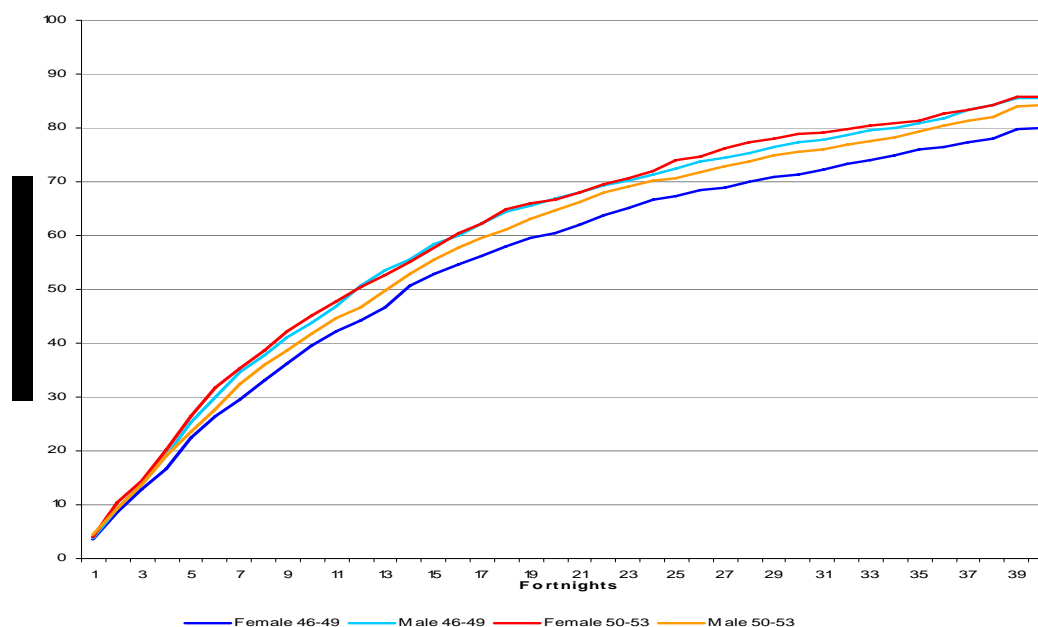


Table 4 Outcomes by 15<sup>th</sup> fortnight of 46 to 53 year old NSA entrants in 2002, by sex

Outcomes by 15 <sup>th</sup> fortnight		Aged 46 to 49 (MO eligible)	RSE <sup>b</sup>	Aged 50 to 53 (MO ineligible)	RSE <sup>b</sup>
<i>All jobseekers, beginning of period</i>		no. 2,175		1,860	
Transferred to another payment	%	8.8	6.91	10.6	6.7 **
Left income support system	%	46.0	2.32	44.6	2.6
- to work	%		0.9 22.31		1.4 19.3
- for other positive reasons	%		0.3 36.74		0.2 56.2
- due to failure to meet administrative requirements	%		1.8 15.84		1.9 16.5
- other (no information)	%		43.0 2.47		41.1 2.8
Stayed and participated in MO activity <sup>a</sup>	%	10.2	6.36	3.1	13.0 **
Stayed, sought exemption & mainly engaged in jobsearch	%	34.97	2.92	41.8	2.7 **
<i>Female jobseekers, beginning of period</i>		no. 860		695	
Transferred to another payment	%	10.6	9.93	15.5	8.9 **
Left income support system	%	41.3	4.07	41.4	4.5
- to work	%		1.0 34.49		1.5 30.8
- for other positive reasons	%		0.5 48.39		0.3 69.2
- due to failure to meet administrative requirements	%		2.1 23.54		1.5 30.8
- other (no information)	%		37.7 4.38		38.1 4.8
Stayed and participated in MO activity <sup>a</sup>	%	10.0	10.26	4.7	17.2 **
Stayed, sought exemption & mainly engaged in jobsearch	%	38.2	4.34	38.4	4.8
<i>Male jobseekers, beginning of period</i>		no. 1,315		1,165	
Transferred to another payment	%	7.6	9.60	7.6	10.2
Left income support system	%	49.2	2.80	46.5	3.1
- to work	%		0.9 29.16		1.4 25.0
- for other positive reasons	%		0.2 56.66		0.1 98.2
- due to failure to meet administrative requirements	%		1.6 21.52		2.2 19.6
- other (no information)	%		46.4 2.96		42.8 3.4
Stayed and participated in MO activity <sup>a</sup>	%	10.4	8.10	2.1	20.1 **
Stayed, sought exemption & mainly engaged in jobsearch	%	32.8	3.95	43.8	3.3 **

<sup>a</sup> Jobseekers aged 50 to 53, while age ineligible for MO, are free to participate in MO activities at any time during their unemployment spell. Statistically significant differences between the two cohorts are highlighted.

<sup>b</sup> The relative standard error expresses the standard error relative to the estimated mean.

\*\* Statistically significantly different at 5% level

\* Statistically significantly different at 10% level

It is most interesting to find that the take-up rate of MO among those who stay on NSA past the 15<sup>th</sup> is far from full compliance. The small participation rate in MO activities, among those who are eligible to take them up, is supported in the study undertaken by Richardson (2002) who found that only around 50 per cent of the 23 to 24 year old job seekers in her sample took up MO activities. The take-up rate of MO activities among the 46 to 49 year old job seekers who stay past the 15<sup>th</sup> fortnight is even lower, at only 22.6 percent. Of the comparison group who stay on NSA past the 15<sup>th</sup> fortnight, only 6.8 percent participate in MO activities. Despite the MO activities being available to older job seekers, they are not likely to participate in them on their own volition. This is not surprising given the implications of their older age on their preferences and demand for their labour.

Those who do not take up MO may qualify for an exemption owing to their circumstances, such as poor health and non-vocational barriers to labour force participation. In the comparison group, around 95 percent of men and 89 percent of women engage in non-MO activities such as job search and Intensive Assistance<sup>10</sup> or rehabilitation that addresses their disability. In the absence of compulsion it seems that:

- acquisition of more basic skills such as preparing a resume and improving one's profile on the Job Search network, or
- employment assistance that addresses disability

are the more suitable activities among mature age job seekers. Inadequacy in basic skills indicates that these job seekers who remain on NSA for at least 6 months are "highly disadvantaged". Intensive Assistance is aimed at helping job seekers who have low level of education or limited language and numeracy skills. This inadequacy in job search skill is unlikely to be a function of belonging to an older cohort.

Examining further the older group's behaviour reveals a gender pattern in the take-up of MO activity among those who stay past the 15<sup>th</sup> fortnight. In the older cohort, only 4.6 percent of male NSA recipients take up MO compared to 10.8 percent of their female counterparts. The men tend to apply for MO exemption and instead engage in job search activities and Intensive Assistance aimed at enhancing their prospects of finding a job. Even when men engage in MO activities on their own volition, they tend to choose part-time work over training and short courses compared to their female counterparts who tend to participate in short courses (including numeracy and literacy programs) and community work. Women with physical injury or disability are more likely to have transferred to DSP during the decision window, leaving a sample of female job seekers who are more able to participate in MO activities. Men with disability tend to stay on NSA if they can and obtain MO exemption for their disability. It seems that men tend to see their disability as only a short-term condition, meriting a temporary break from MO activity participation through

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<sup>10</sup> Intensive Assistance (currently known as Intensive Support) is a one-to-one program in which assistance such as training in finding a job (such as writing a resume), formulating a job search plan and improving the job seeker's profile on the JobSearch network are provided.

obtaining an MO exemption. Other temporary barriers which qualify older workers for an exemption from participation in MO activities are caring responsibilities, living in a remote community, personal crisis, disruption to the job seeker's home, domestic violence and psychological illness<sup>11</sup>.

Table 5 shows that those who have exited from the income support system by the 15<sup>th</sup> fortnight are more likely to be male and have relatively better health than those who remain on income support. They are also more likely to be living with someone who is earning income compared to those who remain on income support. Having a mortgage and living in a State with better job prospects are also found to have influenced the income support leavers. Those who have transferred to another payment by the 15<sup>th</sup> fortnight are most likely to be female and to have been born in Australia. Transferees are also most likely to be living with their offspring (aged 16 and below) and have some health or disability problems. Like the transferees, those who stay on NSA are also likely to face health barriers and have no mortgage responsibilities. While those who stay on NSA share some similarities with the transferees, the former are distinctly different in their relationship status and living arrangements. Those who stay on NSA are most likely to be single, of non-English speaking background and receiving government rent assistance, have a history of income or unemployment support, and to own the fewest assets among all groups.

Table 6 presents the results of the multinomial logistic regression for female and male NSA recipients who entered in 2002. In this multinomial logistic regression, the group which has exited from the income support system by the 15<sup>th</sup> fortnight forms the basis of comparison for the results. For both sexes, the chi-square distributed likelihood ratios are found to be statistically significant, even at the 0.5% significance level. This means that the factors very strongly jointly account for the differences in outcomes of female and male job seekers in the sample. The factors asserted to theoretically influence the decision to exit are shown to have an empirical basis. It can be seen that the key factors found to influence the decision to exit from the income support system or stay on NSA or transfer to another payment vary among job seekers, depending on their sex. Only two factors are found to positively influence the likelihood of staying on NSA or transferring to another payment consistently between male and female job seekers -- disability and history of income support (other than NSA). The presence of these characteristics is associated with greater likelihood of transfers to other payments or staying on NSA compared with leaving the income support system altogether.

In particular, an average male disabled job seeker in his late 40s or early 50s, on account of his disability alone, is at least 5 times more likely to transfer to another payment than leave the income support system altogether, by the 15<sup>th</sup> fortnight. A female job seeker in a similar situation is 4.3 times more likely to transfer to another payment on account of her disability alone. On the sole account of having a history of receiving income support other

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<sup>11</sup> These job seekers are referred to the Personal Support Program.

**Table 5 Means of selected characteristics of 46 to 49 year old NSA entrants in January to June 2002 period, by outcomes at 15<sup>th</sup> fortnight**

Key characteristics		Stayed on NSA (group a)		Transferred to another payment (group b)		Exited income support (group c)		Similarity among groups
		RSE <sup>a</sup>		RSE <sup>a</sup>		RSE <sup>a</sup>		
Proportion of spells by activity destinations at 15th fortnight	%	45.2		8.8		46.0		
<b>Individual characteristics</b>								
Born in Australia	%	60.6	0.3	67.5	0.2	63.2	0.2	** a&c alike
English speaking background	%	71.6	0.2	78.3	0.2	77.8	0.2	** b&c alike
Female	%	39.8	0.4	51.5	0.3	35.6	0.4	*** all different
Partnered	%	32.9	0.5	37.9	0.4	39.0	0.4	** b&c alike
With unemployed partner	%	8.8	1.0	8.4	1.1	8.5	1.0	all alike
With partner on other income support	%	22.8	0.6	23.6	0.6	23.7	0.6	all alike
With children (less than 16)	%	1.8	2.4	5.2	1.4	1.9	2.3	** a&c alike
With offspring	%	3.2	1.7	7.9	1.1	4.1	1.5	** a&c alike
Owns home	%	24.4	0.6	31.4	0.5	25.1	0.6	** a&c alike
With mortgage	%	11.9	0.9	13.0	0.8	19.3	0.7	** a&b alike
Receives government rent assistance	%	49.6	0.3	44.2	0.4	43.5	0.4	** b&c alike
Pays no rent	%	13.4	0.8	10.0	1.0	10.5	0.9	all alike
Earns income	%	13.2	0.8	10.3	0.9	14.8	0.8	** a&c alike
At least one in household earns income	%	17.3	0.7	17.1	0.7	21.7	0.6	** a&b alike
<b>With workforce participation barrier</b>								
With language barrier	%	0.2	6.7	0.0	na	0.2 na		
With ill health barrier	%	20.9	0.6	33.1	0.5	9.3	1.0	*** all different
With temporary barrier	%	1.3	2.8	1.6	2.5	1.2	2.9	all alike
<b>Asset and income variables</b>								
Total assets	no.	16,265	0.5	18,401	0.4	19,140	0.5	** b&c alike
Equivalised income per fortnight	no.	464	3.1	354	0.2	373	0.3	** a&b, a&c alike
<b>Location characteristics</b>								
ACT	%	0.8	3.5	1.1	3.1	0.4	5.1	** a&b, a&c alike
NSW	%	34.3	0.4	33.1	0.5	28.3	0.5	** a&b alike
Vic	%	22.0	0.6	20.3	0.6	23.0	0.6	** a&b, a&c alike
Tas	%	2.7	1.9	2.7	1.9	2.1	2.2	all alike
SA	%	6.9	1.2	8.4	1.1	6.4	1.2	all alike
WA	%	10.1	1.0	11.4	0.9	14.5	0.8	** a&b alike
NT	%	2.2	2.1	1.6	2.5	1.7	2.5	all alike
Qld	%	20.7	0.6	20.3	0.6	23.1	0.6	** a&b, a&c alike
Unemployment rate <sup>d</sup>	%	5.2	0.2	4.9	0.2	5.0	0.2	** b&c alike
Structure of the labour force <sup>e</sup>	%	67.0	0.2	67.0	0.2	67.0	0.2	
<b>Previous income support history</b>								
Received unemployment support, last 12 mos	%	53.0	0.3	36.0	0.4	42.0	0.4	*** all different
Received income support, last 12 mos	%	61.0	0.3	51.8	0.3	47.0	0.3	*** all different

<sup>a</sup> The relative standard error expresses the standard error as a proportion of the estimated mean.

<sup>b</sup> This refers to the unemployment rate at the start of the NSA spell and is obtained at the statistical region.

<sup>c</sup> This refers to the proportion of the labour force aged 15 to 45 and is obtained at the statistical region.

\*\*\* All groups are statistically significantly different from each other.

\*\* Two groups are statistically significantly different from the third group.

**Table 6 Multinomial logistic regression on outcomes by 15<sup>th</sup> fortnight, job seekers aged 46 to 53, by gender, 2002**

	Female				Male			
	Stayed on NSA		Transferred to other payment		Stayed on NSA		Transferred to other payment	
	Estimate	SE <sup>a</sup>	Estimate	SE <sup>a</sup>	Estimate	SE <sup>a</sup>	Estimate	SE <sup>a</sup>
Total population size				1,537				2,433
Likelihood ratio				3.00E+03				4.00E+03
<b>Individual characteristics</b>								
Born in Australia	0.45	0.18	**	0.51	0.28	*	0.18	0.13
English speaking background	-0.68	0.21	**	-0.14	0.34		-0.55	0.16
Partnered	-0.05	0.25		0.21	0.35	**	-0.42	0.15
With unemployed partner	0.15	0.34		-0.46	0.44		0.01	0.19
With partner on other income support	0.02	0.37		0.36	0.47		0.38	0.15
With children (less than 16)	0.09	0.53		0.97	0.63	*	1.55	0.86
With offspring	-0.30	0.31		0.02	0.44		-1.35	0.80
Owns home	0.70	0.50		-0.07	0.6		0.43	0.31
With mortgage	-0.03	0.51		-0.67	0.62		0.18	0.32
Pays government rent	0.68	0.49		-0.45	0.59		0.52	0.30
Pays no rent	0.75	0.52		-0.24	0.64		0.74	0.32
Earns income	0.21	0.43		-0.41	0.59		0.03	0.23
At least one in household earns income	-0.03	0.42		0.25	0.56		-0.27	0.20
<b>With workforce participation barrier</b>								
With ill health barrier	0.97	0.16	**	1.47	0.21	**	0.91	0.14
With temporary barrier	0.52	0.49		1.00	0.6	*	-0.14	0.41
<b>Asset and income variables</b>								
Total assets	0.00	0.00		0.00	0.00		0.00	0.00
Equivalised income per fortnight	0.00	0.00		0.00	0.00		0.00	0.00
<b>Location characteristics</b>								
NSW	0.02	0.54		-1.00	0.62		-0.09	0.51
Vic	-0.29	0.54		-1.29	0.63	**	-0.21	0.51
Tas	-0.17	0.66		-1.26	0.82		0.40	0.58
SA	0.16	0.57		-0.69	0.67		-0.28	0.53
WA	-0.33	0.56		-1.72	0.67	**	-0.49	0.52
NT	0.33	0.67		-0.59	0.83		-0.17	0.60
Qld	-0.36	0.55		-1.51	0.64	**	-0.32	0.51
Unemployment rate <sup>d</sup>	0.01	0.02		0.01	0.03		0.02	0.01
Structure of the labour force <sup>e</sup>	0.05	1.27		-1.48	1.86		-1.48	1.02
<b>Previous income support history</b>								
Received unemployment support, last 12 mos	-0.30	0.20		-0.61	0.28	**	-0.44	0.25
Received other income support, last 12 mos	0.65	0.20	**	0.75	0.26	**	0.78	0.25
In younger cohort	0.05	0.12		-0.53	0.17	**	-0.14	0.09

The reference category for the equation is comprised of jobseekers who exited the income support system by the 15th fortnight.

<sup>a</sup> This is the standard error of the estimate.

<sup>b</sup> This refers to the unemployment rate at the start of the NSA spell and is obtained at the statistical region.

<sup>c</sup> This refers to the proportion of the labour force aged 15 to 45 and is obtained at the statistical region.

\*\* Statistically significant at 5% level

\* Statistically significant at 10% level

than unemployment benefit in the last 12 months, average job seekers in the sample are two to four times more likely to transfer to another payment depending on sex. Next to having a disability, having children less than 16 years old is most highly correlated with staying on income support, regardless of sex. However the response varies between males and females. Controlling for other factors, a male job seeker in the sample who is living with his young offspring is 4.7 times more likely to stay on NSA after the 15<sup>th</sup> fortnight. In contrast, his female counterpart in a similar living arrangement is likely to transfer to another payment by the 15<sup>th</sup> fortnight. To transfer to another payment is also the tendency of those women in the sample who are partnered.

It seems that the men in the sample exhibit the traditional role of being a “provider” as they stay on NSA and continue on searching for a job (if they have not left the income support yet by the 15<sup>th</sup> fortnight). Women, on the other hand, take on the traditional role of caring for their family members by transferring to another payment which they are eligible for. These behavioural patterns indicate that women and men in the sample have different preferences for how to use their time best, next to job search (the usual requirement for all NSA recipients). Women, who can do without having to do MO, transfer to another payment which is not activity tested, allowing them to spend time with their young children or spouse. Men who have not left the income support system yet by the 15<sup>th</sup> fortnight would rather stay on NSA (than transfer to another payment) and continue with the job search, if they have young children.

#### *4.1.2. Work outcomes by the 39<sup>th</sup> fortnight*

Job seekers who stay on NSA past the 15<sup>th</sup> fortnight are tracked through the period until 39 fortnights after entry to NSA. Table 7 lists the different paths which the job seekers aged 46 to 49 have taken by the 39<sup>th</sup> fortnight. It is important to note that the paths taken by these job seekers depict the typical paths only within analysis period of 39 fortnights. Their paths may be different if a longer timeframe is allowed for in the analysis. Table 6 shows that 80.3 percent of those who have exited income support by the 15<sup>th</sup> fortnight remain out of income support after 39 fortnights of starting the NSA spell, with the exit rate being slightly higher for men than it is for women (82 percent and 77 percent respectively). Among those who stay on NSA, participation in MO activity seems to have only made a slight increase in departures from the income support system. Of those who have done an MO activity, 58.6 percent exit income support and 46 percent of those who have sought an exemption from MO activities exit income support by the 39<sup>th</sup> fortnight. These high exit rates of at least 50 percent of everyone who stays on NSA, seem to indicate that such positive outcomes arise regardless of the activity they participate in from the 15<sup>th</sup> fortnight. If the job seeker is still on NSA by the 15<sup>th</sup> fortnight, there is a 2 in 5 chance that they will still be on NSA by the 39<sup>th</sup> fortnight of their stay -- the chances of remaining on NSA are higher if the job seeker does not participate in MO or is female.

**Table 7 Outcomes of 46 to 49 year old NSA job seekers, 18 months after their entry, by status on their 15<sup>th</sup> fortnight, by sex, 2002**

Outcomes 18 months after entry	Status at 15th fortnight							
	Stayed on NSA, participated in MO		Stayed on NSA, did not participate in MO		Transferred to another payment		Exited income support	
<i>All</i>								
Outcomes	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>
Transferred to another payment and returned to NSA <sup>a</sup>	0.0	na	1.0	37.0	9.9	21.8	0.0	na
Transferred to another payment and stayed on this payment <sup>a</sup>	4.8	31.2	8.7	11.8	84.5	3.1	0.0	na
Transferred to another payment and exited income support <sup>a</sup>	0.0	na	0.0	na	5.0	31.7	0.0	na
Exited income support and returned to NSA <sup>a</sup>	2.9	40.6	3.7	18.6	0.0	na	18.7	6.5
Exited income support and stayed out of income support <sup>a</sup>	58.6	5.9	46.0	4.0	0.0	na	80.3	1.5
Exited income support and returned to non-NSA payment <sup>a</sup>	0.0	na	0.8	40.1	0.0	na	1.0	na
Stayed on NSA <sup>a</sup>	<b>33.8</b>	<b>9.8</b>	<b>39.8</b>	<b>4.5</b>	0.0	na	0.0	na
<i>Females</i>								
Outcomes	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>
Transferred to another payment and returned to NSA <sup>a</sup>	0.0	na	1.3	36.4	10.3	21.1	0.0	na
Transferred to another payment and stayed on this payment <sup>a</sup>	<b>7.3</b>	<b>34.8</b>	<b>9.5</b>	<b>12.8</b>	83.9	3.1	0.0	na
Transferred to another payment and exited income support <sup>a</sup>	0.0	na	0.0	na	5.8	29.0	0.0	na
Exited income support and returned to NSA <sup>a</sup>	3.7	50.1	3.8	20.8	0.0	na	20.9	7.7
Exited income support and stayed out of income support <sup>a</sup>	50.0	9.8	40.2	5.0	0.0	na	77.4	2.1
Exited income support and returned to non-NSA payment <sup>a</sup>	0.0	na	<b>1.0</b>	<b>42.2</b>	0.0	na	<b>1.8</b>	<b>29.4</b>
Stayed on NSA <sup>a</sup>	<b>39.0</b>	<b>12.2</b>	<b>44.3</b>	<b>4.6</b>	0.0	na	0.0	na
<i>Males</i>								
Outcomes	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>	%	RSE <sup>c</sup>
Transferred to another payment and returned to NSA <sup>a</sup>	0	na	0.74	na	9.57	22.5	0	na
Transferred to another payment and stayed on this payment <sup>a</sup>	3.13	46.3	8.13	11.2	85.11	3.1	0	na
Transferred to another payment and exited income support <sup>a</sup>	0	na	0	na	4.26	34.7	0	na
Exited income support and returned to NSA <sup>a</sup>	2.34	53.9	3.69	17.1	0	na	17.49	6.3
Exited income support and returned to non-NSA payment <sup>a</sup>	64.06	6.2	50.49	3.3	0	na	82.01	1.4
Exited income support and returned to non-NSA payment <sup>a</sup>	0	na	<b>0.74</b>	<b>38.6</b>	0	na	<b>0.5</b>	<b>40.6</b>
Stayed on NSA <sup>a</sup>	30.47	12.6	36.21	4.4	0	na	0	na

<sup>a</sup> All groups are statistically significantly different from each other in terms of outcomes 18 months after entry, at 5% level

<sup>b</sup> At least two groups are not statistically significantly different from each other (estimates in bold font), but statistically significantly different from the other groups, 5% level.

<sup>c</sup> The relative standard error expresses the standard error as a proportion of the estimated mean.

## 4.2 IMPACT OF ANTICIPATING ADDITIONAL MO ACTIVITY ON EXITING FROM NSA

This chapter builds on the findings presented in section 4.1 and investigates whether and to what extent workforce participation changes as a result of anticipating the MO activity, given the varying predisposition of the job seekers in the sample. This anticipation is defined as the *treatment* or the policy change and any change in workforce participation is the *impact*. Section 4.1 shows who among the job seekers are likely to leave income support, transfer to another payment or stay on NSA, based on observable characteristics and labour market conditions. As presented in Chapter 3, these observable factors predispose the job seekers to take a workforce participation path, in response to a policy change. Given the findings on the key characteristics which predispose job seekers to leave NSA or stay on NSA, the next step is to find out whether there are job seekers who actually leave NSA or maintain receipt of NSA in anticipation of having to perform an MO activity. Program evaluation methods are used to tease out the impact of the treatment while controlling for the confounding effects of cohort-related and policy environment issues<sup>12</sup>.

<sup>12</sup> The older women in the comparison group being more likely to be suffering from some illness and transferring to DSP are a cohort-related issue. However it has been established in Chapter 4 that belonging to a younger cohort and having a health condition individually impact on workforce outcomes. The main policy environment issue arises from the financial incentive given to Job Network members for every job given to job seekers on Intensive Assistance. Another policy-related issue relates to the age requirement for Partner Allowance, which at that time would have allowed more of the older cohort members to qualify for this payment.

#### 4.2.1. The empirical framework

As discussed in Chapter 3, the *treatment effect*,  $\alpha_{ij}$  for any individual  $i$  at fortnight  $j$ , consists of the difference the anticipation of MO makes to their exit rates as given by  $Y_{ij}^{**} - Y_{ij}^* = \alpha_{ij}$  where  $Y_{ij}^*$  is the pre-treatment exit rate and  $Y_{ij}^{**}$  the post-treatment exit rate. The issue is that  $Y_{ij}^{**}$  is available for an NSA recipient but not their  $Y_{ij}^*$ . Information on what a jobseeker's exit rate would have been in the absence of treatment,  $Y_{ij}^*$ , is not available. This would be tantamount to obtaining the exit rate of the same individual who entered as he/she did in the same January to June 2002 period, in the absence of MO – as this would remove any knowledge or anticipation of the MO activity. The closest to obtaining this information is obtaining the exit rate of a different but similar individual who entered in the same January to June 2002 period, but who is not obligated to participate in an MO activity. This is the rationale behind comparing NSA recipients in the 46 to 49 age cohort with the 50 to 53 age cohort, both of whom entered in the January to June 2002 period, but the latter is not covered by the MO policy change by virtue of their age. Given the usage of a different group of individuals as comparison group, the independence assumption, equation (3.12), needs to be credibly met. This assumption means that the pre-treatment outcomes of the treatment group and comparison group are independent of the group they are in.

In a *controlled experiment* where individuals are randomly assigned to treatment and comparison groups, meeting the independence assumption is credible (Cobb-Clark and Crossley 2003). In some policy situations however, while the random assignment of treatment has not been explicit, the process of assigning treatment is undertaken as though program participants and non-participants have been randomly assigned (Borland, Tseng and Wilkins 2005). This situation is called a *natural experiment*. The potential to use this natural experiment framework arises when there is a transparent exogenous source of variation in an explanatory variable which determines the treatment assignment and this variable is not correlated with the outcome of interest (Meyer 1994). In this case, there is an exogenous source of variation in the age variable – the age-driven compulsory participation in MO effectively assigns participants to treatment based on a variable determined exogenously and is independent of the outcome<sup>13</sup>.

Using age to determine eligibility for MO facilitates a random assignment of job seekers to treatment and comparison groups. Age which determines assignment to treatment is not correlated with the outcome of interest, the exit rate. It is unlikely that two job seekers with

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<sup>13</sup> The usage of some threshold age or earnings level that determines eligibility for a program, in a natural experiment framework, is popular in the evaluation literature. This technique is also referred to as “regression discontinuity design” since the probability of treatment is a discontinuous function of some other variable. The terminology was used by Thislethwaite and Campbell (1960). Recent studies that made use of this technique include Card and Shore-Sheppard (2002), Richardson (2002) and Lee (2001). Richardson (2002) assessed the impact of the pilot of Mutual Obligation on younger NSA recipients, within a natural experiment framework.

very similar ages – for example, one is 49 and the other is 50 -- will exhibit different rates of exits from the unemployment system purely on the basis of their age. While age has been mentioned in Chapter 2 as having a role in labour force participation that could be driving the exit behaviour, the close resemblance in the ages of the treatment and comparison groups mitigates this age effect on exit behaviour. The compulsory aspect of participation in MO activities, given one's age, provides another source of randomness in the process of assigning individuals to treatment and comparison groups which would have not been achieved if job seekers were allowed to participate in MO activities voluntarily. Voluntary participation leads to having disparate treatment and comparison groups, with the former likely to be comprised of individuals predisposed to participate in the program, resulting in an upward bias in their exit rates prior to the policy imposition.

The wide age range is chosen to arrive at a significant sample size for the analysis. The wide age gap carries with it the risk of comparing treatment and comparison groups that are not alike in terms of unobservable characteristics that may be influential in their exit rate outcomes. To net out any confounding effects of the comparison group belonging to a different cohort from the treatment group, the outcomes of job seekers who started their NSA spells in 2001, one year before the treatment and comparison groups of job seekers did, are also used. The estimation of the impact is undertaken using a two-stage differencing of the Kaplan-Meier empirical hazard estimates.

Table 8 shows the effects obtained throughout the two states of differencing. The first-stage of differencing is meant to net out any cohort differences that may influence their exit decision. If the treatment cohort, being younger, has a higher tendency to exit than the older comparison group – for example, 10 percent compared to 5 percent – differencing out the exit rates of their respective counterparts prior to policy imposition – 8 percent and 4 percent – neutralises any pre-existing differences in the exit rates of the two cohorts brought about by unobservable factors influencing their exit rates. This first stage of differencing also removes any cohort-specific unemployment duration effect on the exit decision. For example, the older cohort may tend to stay longer within the NSA system, as their unemployment duration increases. The confounding influences of the incentive given to Job Network members to provide jobs at key periods in their unemployment spell, and the greater likelihood for older female cohorts to transfer to Partner Allowance are also removed with the first stage differencing. Consequently the first stage of differencing for the treatment group leaves only the policy effect and the change in the macroeconomic conditions arising from comparing treatment groups from two different periods. The first stage of differencing for the comparison group however only leaves the change in the macroeconomic conditions (since the older cohort was not eligible for MO, in any time period). In the final stage of differencing, the policy effect is teased out.

Since the first-stage differencing is aimed at removing cohort-based disparities, it is important to ensure that the pre-policy and post-policy groups are the same in terms of the observable factors found to be influential in determining workforce participation outcomes. In establishing the validity of the natural experiment approach, it is more important to establish the similarities of the pre-policy and post-policy group than it is to establish the

similarities of the post-policy treatment and comparison groups. The latter groups can be expected to be a bit different due to cohort differences. If the composition of the pre-policy and post-policy groups is similar, the impacts of unemployment duration, unobservable characteristics and policy environments on all the groups would be similar. Put alternatively, all those cells in Table 8, with 'nil' effects in the first stage of differencing, would be truly or close to nil.

**Table 8 Effects removed at different stages of differencing**

Treatment (post policy) A	Treatment (pre-policy) B	1st stage of differencing (A-B)	Comparison (post-policy) C	Comparison (pre-policy) D	1st stage of differencing (C-D)	2nd stage of differencing (A-B)-(C-D)
Policy effect		Policy effect			Nil	Policy effect
Duration dependence (young cohort)	Duration dependence (young cohort)	Nil	Duration dependence (old cohort)	Duration dependence (old cohort)	Nil	Nil
Unobservable characteristics (young cohort)	Unobservable characteristics (young cohort)	Nil	Unobservable characteristics (old cohort)	Unobservable characteristics (old cohort)	Nil	Nil
Other policy influence (eg Job Network incentive)	Other policy influence (eg Job Network incentive)	Nil	Other policy influence (eg Job Network incentive)	Other policy influence (eg Job Network incentive)	Nil	Nil
Macroeconomic condition (post-policy)		Difference in macroeconomic conditions	Macroeconomic condition (post-policy)		Difference in macroeconomic conditions	Nil
	Macroeconomic condition (pre-policy)			Macroeconomic condition (pre-policy)		

#### 4.2.2 Results

Examination of the treatment and comparison groups, in terms of their observable characteristics and exit rates, shows that the independence assumption is credible to take, validating the assertion that evaluating the impact of anticipation of MO can be taken in a *natural experiment* framework. Table 9 shows that the different subgroups of treatment and comparison groups are fairly alike. They are shown to be typically male (62.1%), Australian-born (62.6%), and of English speaking background (75.2%). They are likely to have no home of their own (73.1%) and be single (63.5%). They on average own \$16,723 in assessable assets<sup>14</sup>, have an equivalised income of \$378 per fortnight<sup>15</sup> and have no wage earnings (86.8%). The job seekers also tend to live in the states of NSW (31.1%), Queensland (23.0%) and Victoria (21.6%).

<sup>14</sup> This excludes the value of the residential home which is exempt from the social security assets testing rules.

<sup>15</sup> This includes the NSA payment. The equivalised income is a measure of total economic resources available to a person in a household. It is the total household income divided by an equivalence factor which is the sum of the allocated points to each of the household member. The first adult (aged above 15) gets an allocation of 1.0, other adults get an allocation of 0.5 each and children (aged below 15) get an allocation of 0.3 each. This is based on the ABS Catalogue no. 6503.0 *Household Expenditure Survey and Survey of Income and Housing: User Guide 2003-04*.

**Table 9 Sample means of selected characteristics of treatment and comparison groups, 2001 and 2002**

		Total	Treatment			Comparison		
			Before (2001)	After (2002)	Test	Before (2001)	After (2002)	Test
<b>Spell Characteristics</b>								
No. of spells	no.	7726	1970	2175		1721	1860	
Completed spells	no.	6322	1552	1814		1377	1579	
Censored spells	no.	1404	418	361		344	281	
<b>Individual characteristics</b>								
Born in Australia	%	62.6	64.4	64	0.54	60.5	61.4	0.53
English speaking background	%	75.2	75.6	75	0.40	74.8	75.5	0.47
Female	%	37.9	37.8	40	1.24	36.2	37.6	0.87
Partnered	%	36.5	36.5	35	1.32	37.5	37.8	0.19
With unemployed partner	%	8.2	8.0	8	0.49	7.6	8.7	1.24
With partner on other income support	%	23.6	23.9	23	1.02	24.2	24.2	0.05
With children (less than 16)	%	2.4	3.1	2	1.30	0.6	1.7	2.53 *
With offspring	%	3.7	4.0	5	1.06	0.6	3.1	4.39 **
Owens home	%	26.9	26.4	23	2.80 **	31.1	28.3	1.79
With mortgage	%	14.9	14.7	16	0.71	13.9	15.3	1.14
Pays government rent	%	45.4	46.3	48	1.16	42.6	44.1	0.91
Pays no rent	%	11.8	11.9	13	0.95	11.7	10.7	0.96
Earns income	%	13.2	11.5	14	2.83 **	13.9	12.7	1.02
At least one in household earns income	%	18.7	16.6	19	2.17 *	19.8	19.2	0.45
<b>With workforce participation barrier</b>								
With language barrier	%	0.2	0.1	0	0.62	0.3	0.1	1.18
With ill health barrier	%	16.4	16.1	16	0.25	16.2	17.6	1.17
With temporary barrier	%	0.9	0.5	1	3.15 **	0.6	1.1	1.66
<b>Asset and income variables</b>								
Total assets	no.	16,723	14,786	16,103	1.64	16,886	19,411	2.72 **
Equivalentised income per fortnight	no.	378	337	367	3.66 **	350	462	1.09
<b>Location characteristics</b>								
ACT	%	0.8	0.8	1	0.15	1.0	0.4	1.90
NSW	%	31.1	30.6	31	0.36	30.9	31.8	0.60
Vic	%	21.6	20.2	23	2.39 *	21.9	21.1	0.59
Tas	%	2.6	3.1	2	2.41 *	2.6	2.9	0.58
SA	%	7.0	7.4	7	0.47	6.6	6.9	0.37
WA	%	11.6	11.2	12	0.64	10.9	12.5	1.43
NT	%	2.0	2.2	2	0.97	1.9	2.1	0.28
Qld	%	23.0	24.4	22	1.79	24.0	21.7	1.65
Unemployment rate (upon entry to system)	%	5.1	5.1	5	0.81	5.1	5.0	0.95
Structure of the labour force (15-44 proportion of LF)	%	67.3	67.9	67	8.48 **	67.8	66.9	5.60 **
<b>Previous income support history</b>								
Received unemployment support, last 12 mos	%	48.0	48.2	49	0.75	47.4	46.8	0.41
Received other income support, last 12 mos	%	53.7	53.1	57	2.51 *	50.9	53.4	1.53

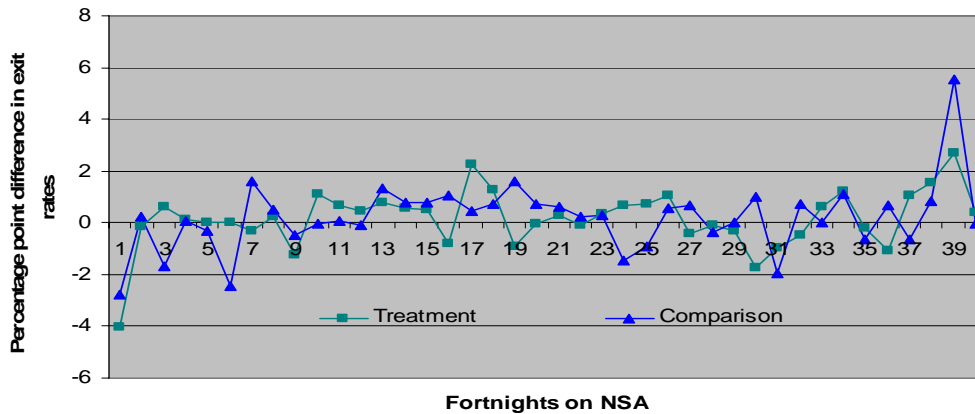
\*\*Statistically significantly different from each other (if higher than 1.64, significant at 10% level; if higher than 1.96, significant at 5% level; if higher than 2.58, significant at 1% level)

They also tend to live in statistical local areas with 5.1 percent unemployment rate, which is slightly higher than the mean unemployment rate of 4.5 percent for the entire economy in the January to February 2002 period. They also live in statistical areas where 67.3 percent of the labour force is aged 15 to 44 which is slightly higher than the 66.6 percent average for the entire economy in August 2002. On both measures of unemployment, the job seekers in the sample seem to be living in statistical areas with slightly adverse economic conditions compared to the entire economy in general. Around 48 percent are found to have received unemployment payment 12 months prior to their spell commencement.

It is also found that the exit rates of the treatment and comparison groups are the same in the absence of the policy intervention. It is found that the difference-in-differences in the hazard rates of the treatment and comparison groups over the entire 40-fortnight period, prior to policy intervention are not different from zero. The hazard rates depict marginal exit rates which show the number of job seekers who leave at the end of the fortnight, as a

proportion of job seekers present in the beginning of that fortnight. The hazard rates for the four experimental groups are estimated using the Kaplan-Meier estimation method and are plotted in Figure 6.

**Figure 6 Differences in NSA exits between the treatment and comparison groups, before the imposition of MO, 2001 exits net of 2000 exits**



After establishing the validity of the natural experiment framework, the assessed impact of anticipating participation in an MO activity is discussed for all job seekers in the sample and by sex. As mentioned in section 3.1, the additional MO activity acts as a trigger for possibly changing the job seekers' workforce participation outcomes, given their pre-policy change predisposition for particular workforce participation outcomes. The following results provide empirical evidence that that the knowledge of having to participate in additional MO activities functions as a threat to job seekers aged 46 to 49, particularly the male job seekers. This threat is manifest in the decision period.

Table 10 shows the individual hazards of the experimental groups and the difference-in-differences in their hazards for each of the fortnights following the beginning of their NSA spell. The positive difference-in-differences in exit rates show the unusually higher NSA exit rates during these fortnights and are marked over the 15 fortnights. Statistically significant results are registered in fortnights 5, 8, 9 and 12 to 15, during which the treatment group register increases in exit rates. It is important to highlight that the increases in exit rates occurring for most of the decision window are sustained and trending upwards. In contrast, the increases in exit rates on fortnights 5, 8 and 9 are followed by reductions in exit rates as though the comparison group is catching up with the treatment group. It seems that the increases in exit rates during these three fortnights are more a function of the usual fluctuations in exit rates from fortnight to fortnight, than a result of the policy change. The increase in total exits out of NSA over the entire decision window is estimated to be 3.1 percentage points and is statistically significant even at 0.05

percent level<sup>16</sup>. Given the number of job seekers in the treatment group in 2002 at the beginning of the decision window, this percentage point increase in exits over the decision window is translated to around 40 exits.

**Table 10 Difference-in-differences in hazards of NSA entrants in 2002, impact of MO threat exits from NSA**

Fortnights	Post-policy treatment (2002) hazards	Pre-policy treatment (2001) hazards	Post-policy comparison (2002) hazards	Pre-policy comparison (2001) hazards	Difference-in-differences in hazards (impact of MO)	Chi-square test	No of jobseekers in post-policy treatment, beginning of fortnight	Approximate change in no. of exits as a result of treatment
1	3.7	4.8	4.2	5.0	-0.3	1.6	2175	-6
2	5.5	5.8	5.7	5.7	-0.2	0.5	2094	-4
3	4.9	5.6	4.7	4.8	-0.6	6.2	1978	-13
4	5.4	6.4	6.4	6.5	-0.8	6.7	1882	-14
5	7.4	6.1	6.3	6.1	1.0	9.9 ***	1780	18
6	5.8	5.9	6.2	4.1	-2.2	53.0	1648	-36
7	5.7	5.3	6.0	5.7	0.0	0.0	1553	1
8	4.8	4.9	5.2	6.1	0.8	6.8 **	1465	12
9	5.0	3.9	4.8	4.8	1.1	14.6 ***	1395	16
10	4.9	4.4	5.1	5.0	0.4	2.0	1325	6
11	5.0	5.2	4.8	3.6	-1.3	17.7	1260	-17
12	5.5	4.1	4.3	4.0	1.2	13.8 ***	1197	14
13	5.3	3.0	5.4	4.5	1.4	18.9 ***	1131	16
14	5.8	3.5	5.6	4.1	0.9	6.3 **	1071	9
15	5.6	3.0	5.8	4.3	1.1	9.6 ***	1009	11
16	3.7	3.0	5.4	3.7	-1.0	8.7	953	-9
17	4.8	4.0	4.3	4.7	1.1	10.2	918	10
18	5.0	3.5	5.2	4.1	0.4	1.4	874	4
19	3.6	3.3	4.2	3.5	-0.3	0.8	830	-2
20	3.1	3.7	3.4	3.4	-0.6	3.1	800	-5
21	3.6	3.3	4.2	4.1	0.2	0.5	775	2
22	4.3	3.7	5.3	2.7	-2.0	29.3	747	-15
23	3.4	2.7	3.2	3.7	1.1	11.1	715	8
24	4.1	2.6	4.2	1.9	-1.0	7.8	691	-7
25	3.0	3.6	3.5	2.9	-1.1	10.1	663	-8
26	4.4	3.6	3.4	3.0	0.4	1.0	643	2
27	1.8	2.9	4.3	3.5	-2.0	31.4	615	-12
28	3.6	3.5	3.7	2.5	-1.1	8.4	604	-7
29	3.6	3.0	4.3	3.3	-0.3	0.7	582	-2
30	2.7	2.9	2.7	2.6	-0.3	0.6	561	-2
31	2.6	1.9	1.8	2.1	0.9	7.4	546	5
32	3.9	3.4	3.5	3.6	0.6	2.3	532	3
33	3.5	3.3	2.9	2.2	-0.5	1.8	511	-3
34	2.8	3.0	3.5	3.6	-0.1	0.1	493	-1
35	4.4	2.2	3.6	2.1	0.7	2.8	479	3
36	3.5	2.0	6.2	3.3	-1.4	9.8	458	-6
37	6.6	2.9	4.3	1.7	1.1	5.5	442	5
38	3.9	4.2	4.5	3.7	-1.1	5.1	413	-5
39	8.6	7.3	11.0	10.6	0.9	1.5	397	4
40	0.6	0.7	0.7	0.3	-0.6	8.4	363	-2

\*\*\*Statistically significant increase in exits at 0.5% level

\*\*Statistically significant increase in exits at 1% level

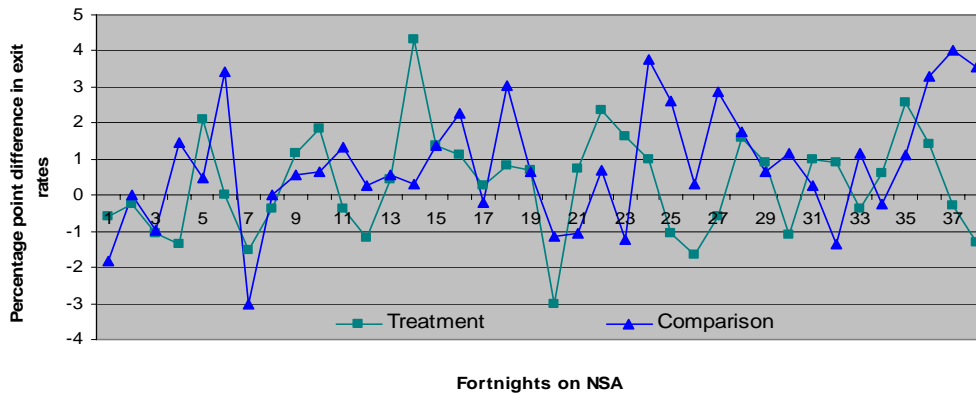
\* Statistically significant increase in exits at 5% level

The increase in exits of male job seekers is driving the increase in total exits as shown in Figure 8, together with Figure 7. Consistent with the results for all job seekers, unusually higher exit rates by the treatment group are registered during the decision window for both male and female job seekers. However the increase in the NSA exits of male job seekers is sustained over a few fortnights. Female job seekers' exits from NSA tend to centre around one fortnight. On the 14th fortnight, the difference in the exit rates of the female treatment and comparison groups is found to be statistically significant; but for the entire decision

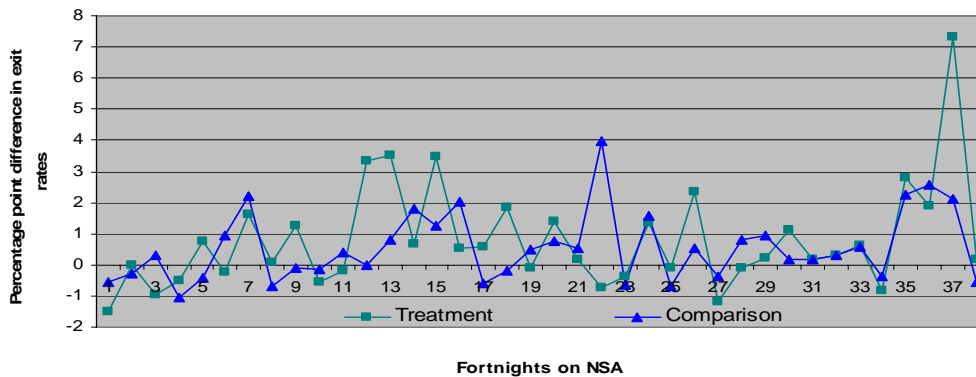
<sup>16</sup> The null hypothesis that the increase in NSA exits by the treatment group for the entire decision period covering fortnights 10 to 15 is zero is rejected even at the 0.05 percent level of significance  $\chi^2(10-15)=17.91$  (which is greater than the critical  $\chi^2$  value for 1 df, 7.88).

window, the increase in exits is only slightly statistically significant<sup>17</sup>. In contrast, for male job seekers, the increases in the exit rates by the treatment group for fortnights 12, 13 and 15 and the entire decision window are both found to be statistically significant even at the 0.05 percent level<sup>18</sup>. For the decision window, the estimated increase in exits for male job seekers is similarly around 40.

**Figure 7 Difference in the hazard rates of the treatment and comparison groups, 2002 exits net of 2001 exits: the impact of MO threat on NSA exits, female job seekers**



**Figure 8 Difference in the hazard rates of the treatment and comparison groups, 2002 exits net of 2001 exits: the impact of MO threat on NSA exits, male job seekers**



The NSA exits are further analysed to differentiate exits out of the income support system and transfers to other payments. It shows that the patterns of exits out of NSA observed

<sup>17</sup> The increase in NSA exits by female job seekers for fortnight 14 is estimated to be 2.2 percentage points. The null hypothesis that this is zero is rejected at the 0.05 percent level of significance  $\chi^2(14)= 8.32$ . The increase in their NSA exits over the decision window is estimated to be 1.9 percentage points. The null hypothesis that this is zero is rejected at the 10 percent level of significance  $\chi^2(10-15)= 2.52$ .

<sup>18</sup> The increases in NSA exits by male job seekers for fortnights 12, 13 and 15 are 3.4, 2.7 and 2.3 percentage points, respectively. The null hypothesis that each of these impacts is zero is rejected at the 0.05 percent level of significance -  $\chi^2(12)= 64.70$ ,  $\chi^2(13)= 38.93$  and  $\chi^2(15)= 24.17$ . The increase in their NSA exits over the decision window is estimated to be 4.9 percentage points. The null hypothesis that this impact is zero is rejected at the 0.05 percent level of significance  $\chi^2(10-15)= 25.33$ .

previously are mainly driven by exits out of the income support system. The increases in the departures from the income support system are sustained and on an increasing trend over fortnights 12 to 15. For the entire decision window, the estimated impact of treatment on departure by all job seekers from the income support system is 1.6 percentage points and is statistically significant at 5 percent level<sup>19</sup>. Similar to the previous results, male job seekers are shown to be driving the increase in departures from the income support system. For fortnights 12, 13 and 15 and the entire decision period, the estimated impacts of treatment on male job seekers' departures are statistically significant at the 0.05 percent level<sup>20</sup>. While the impact on women's departure on fortnight 14 is statistically significant, this is more a function of the usual fluctuations observed than a function of the treatment – over the entire decision window no statistically significant change in departure is observed<sup>21</sup>.

To an extent, the treatment has altered the rates of transfers to other payments over the decision window. While male job seekers register a slight increase in transfers to other payments, there is a similarly slight increase in the payment transfers registered for female job seekers. Female job seekers are more likely to respond to treatment by transferring to another payment than by exiting out of the income support system. This is consistent with the findings in Section 4.1 -- the exits out of NSA by older female cohorts are more likely to be in the form of transfers than exits out of the income support system. With the cohort effects controlled for in a difference-in-differences analysis, women in general (regardless of the cohort they belong to) are likely to transfer to another payment with any tightening in NSA rules. There is an unusual increase in total transfers to other payments by the female treatment group over the entire decision window. While not sustained over this period, the increase in total payment transfers is statistically significantly different from zero at 1 percent level<sup>22</sup>. The impact on male job seekers' transfers is similarly significant at the 1 percent level while the impact on female job seekers' transfers is significant at only the 10 percent level<sup>23</sup>.

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<sup>19</sup> The null hypothesis that the impact on departure is zero is rejected at the 5 percent level of significance  $\chi^2(10-15)= 5.29$

<sup>20</sup> The increases in departures by male job seekers for fortnights 12, 13 and 15 are 2.3, 2.3 and 3.1 percentage points, respectively. The null hypothesis that each of these impacts is zero is rejected at the 0.05 percent level of significance -  $\chi^2(12)= 33.39$   $\chi^2(13)= 35.32$  and  $\chi^2(15)= 53.69$ . The increase in their departures over the decision window is estimated to be 4.1 percentage points. The null hypothesis that this impact is zero is rejected at the 0.05 percent level of significance  $\chi^2(10-15)= 19.67$ .

<sup>21</sup> The increase in NSA exits by female job seekers for fortnight 14 is estimated to be 2.0 percentage points. The null hypothesis that this is zero is rejected at the 0.05 percent level of significance  $\chi^2(14)= 8.80$ . The increase in their NSA exits over the decision window is estimated to be 0.3 percentage points. The null hypothesis that this is zero is accepted even at 10 percent significance level  $\chi^2(10-15)= 0.07$ .

<sup>22</sup> The impact on transfers over the decision window is estimated to be 0.8 percentage points. The null hypothesis that this impact is zero is rejected at the 1 percent level of significance  $\chi^2(10-15)=7.0$

<sup>23</sup> The impact on transfers by male job seekers over the decision window is estimated to be 0.9 percentage points. The null hypothesis that this impact is zero is rejected at the 0.05 percent level of significance  $\chi^2(10-15)= 6.27$ . The impact on transfers by female job seekers over the decision window is estimated to be 1.1 percentage points. The null hypothesis that this is zero is accepted even at 10 percent significance level  $\chi^2(10-15)= 3.38$ .

### 4.3 THE IMPACT OF MUTUAL OBLIGATION ACTIVITIES ON THOSE WHO STAY ON NSA: THE EFFECT OF BEING SUBJECTED TO MO ACTIVITIES

The small take-up rate of MO activity by job seekers who stay on NSA past the 15<sup>th</sup> fortnight makes it fitting to investigate the impact of being *subjected* to MO from the 15<sup>th</sup> fortnight onwards – being assigned an MO activity or obtaining an exemption and taking on an alternative activity, and participating in either activity. There are two parts to this analysis. In the first part, treatment is defined as activity assignment and, in the second part, as including both activity assignment and participating in either the MO activity or alternate activity. The former relates to their behavioural reply to treatment that effectively sorts them into activities most appropriate for them. The second part answers the question as to whether participation in their chosen activity results in higher exits, possibly through better allocation of job seekers into appropriate activities. Both analyses employ regression on a limited dependent variable within a program evaluation framework, using matching estimators to take into account the possible bias in the selection of job seekers for the treatment group. Conditional on having stayed past the 15<sup>th</sup> fortnight, the impact of treatment on their behaviour is examined.

It can be said that there is an incentive for job seekers to apply for an MO exemption. These exemptions can be applied for by job seekers who, given their unusual circumstances, are finding it difficult to participate in MO activities. Exemptions from performing MO activities are usually granted for a maximum period of 13 weeks and count towards satisfying the job seeker's MO requirement. This aspect of the exemption, together with the considerable duration of the exemption (13 weeks) --- and what seems like a less intensive participation requirement during the exemption period --- may give an incentive to job seekers to apply for an exemption. Grounds for exemptions include personal crisis, major disruption at home, incapacity to work for 0 to 7 hours, bereavement, caring responsibilities, jury duty or pregnancy. Exemptions may also be gained by those who are living in remote areas or areas where there is no suitable activity within 90 minutes commuting time. Job seekers facing barriers to participation which may be indefinite in duration may also apply for an exemption from participating in MO activities. For example, participants or those who are assessed to be eligible for the Personal Support Program as a result of having multiple non-vocational barriers (such as homelessness, drug or alcohol addiction or mental illness) may apply for an exemption. Job seekers who are highly disadvantaged and would benefit from intensive support or customised assistance are also eligible for an MO exemption.

#### 4.3.1 *The empirical framework*

The outcome of interest may suffer from the two possible biases identified by Winship and Morgan (1999) as important to control for -- the baseline difference in non-treated outcomes and the difference in the effect of treatment on the two experimental groups. By the 15<sup>th</sup> fortnight the 46 to 49 year old job seekers who remain on NSA suffer from selection bias, which affects both non-treated outcomes and the treatment effects on the groups. Those

who could either leave the income support system or transfer to another payment would have already done so. Moreover, it has been shown that those who stay on NSA past the 15<sup>th</sup> fortnight are likely to either have a disability or face barriers to participation. Those who are left in the sample, which form the treatment group, have not been randomly selected. The comparison group is possibly affected by such a selection bias but not to the same extent. It has been found that the older cohort is not likely to take up MO activities by the 15<sup>th</sup> fortnight, indicating that they too, like the treatment group, are likely to face barriers to participation or have some disability that would make non-MO activities more suitable to engage in. However there was no policy-induced reason for them to leave NSA by the 15<sup>th</sup> fortnight, making it plausible to think that they are closer in composition to a randomly selected group of job seekers.

Regression-based approaches should provide a consistent estimate of the treatment effect,  $\alpha$ , if the variation in the outcomes of both treatment and control groups, prior to the introduction of the policy change, can be captured by observable characteristics (Heckman, Ichimura and Todd 1997):

$$(\hat{Y}_{ij}^* | d_i = 1, x_i) = (\hat{Y}_{ij}^* | d_i = 0, x_i) \quad \text{eq. (4.1)}$$

where  $x_i$  is a set of observable individual characteristics that affect *both* assignment to treatment and the outcomes of interest and  $\hat{Y}_{ij}^*$  is the estimated untreated outcome of individual  $i$  in time period  $j$ . In other words, the assumption of conditional independence, taken in non-experimental program evaluation methods, is met

$$Y^* \perp d_i | x_i \quad \text{eq. (4.2)}$$

This implies that, especially with minimal time elapsed between recording the outcomes before and after the policy introduction,

$$\begin{aligned} Y_{ij0}^* &= \delta_0 + \beta_0 x_{i0} + \mu_{i0} \\ Y_{ij1}^{**} &= \delta_1 + \alpha d_i + \beta_1 x_{i1} + \mu_{i1} \end{aligned} \quad \text{eq. (4.3)}$$

with  $\mu_i$  representing the random variation in the untreated outcomes,  $\alpha$  as the treatment effect,  $Y_{ij0}^*$  is the untreated outcome for the control group which can be used due to eq. (4.1) and  $Y_{ij1}^{**}$  is the treated outcome for the treatment group.

However estimation of eq. (4.3) can still produce biased estimates of  $\alpha$ . The assumption that both the treated and comparison groups have exactly the same  $x_i$ , may not hold true. This assumption is called the common support condition. Bias in the impact estimates may still arise from failing to satisfy this condition (Heckman, Ichimura and Todd 1997 and Dehejia and Wahba, 2002). To eliminate this bias, a common support has to be established by finding counterparts for the job seekers in the treatment group who share their observable characteristics

$$0 < P(d_i = 1 | x_i) < 1 \quad \text{eq. (4.4)}$$

This common support is the subspace of  $x_i$  observed between the treatment and comparison groups. If selection occurred solely on the observable characteristics,  $x_i$  meeting eq. (4.2) and eq. (4.4) makes the variation in  $\mu_i$  such that  $E[\mu_i]=0$ . This implies that,

$$Y_{ij1}^{**} - Y_{ij0}^* = \alpha \quad \text{eq. (4.5)}$$

which is similar to eq. (3.9) with the control group providing the pre-treatment outcome.

However, as mentioned earlier, having come from different cohorts introduces variation to  $\mu_i$  such that  $E[\mu_i] \neq 0$ . Table 7 shows that if only the difference in outcomes of the treatment and the comparison group belonging to the same period (2002 in this case) is estimated, the confounding cohort effect on dependence on unemployment benefit not captured by observable characteristics would not be removed. To net out these systematic cohort influences on the outcomes, the DID method will be employed, using the outcomes of job seekers who entered one year before the job seekers in the treatment and comparison groups did,  $Y_{ij1}'$  and  $Y_{ij0}'$ , respectively.

$$(\hat{Y}_{ij1}^{**} - \hat{Y}_{ij1}') - (\hat{Y}_{ij0}^{**} - \hat{Y}_{ij0}') = \alpha \quad \text{eq. (4.6)}$$

DID attempts to make  $E[\mu_i]=0$  in order to tease out  $\alpha$ , the pure treatment effect.

The *matching method* will be used, together with DID, in an attempt to recreate a natural experiment condition. Conditioning on observable variables  $x_i$  and ensuring that the common support condition is met, addresses the selection bias from observable characteristics. The two conditions – conditional independence assumption, equation (4.2), and the common support condition, equation (4.4) – form the basis of the matching method. The idea consists of matching every treated individual with a non-treated individual, based on a set of observable characteristics,  $x_i$ . Finding a non-treated individual who has the same  $x_i$  as the treated individual may not only prove to be intractable (given that individuals may differ in many dimensions) but even impossible, especially in the case of continuous elements of  $x_i$ . This is the so-called “curse of dimensionality” (Rosenbaum and Rubin, 1983). To deal with this dimensionality problem, Rosenbaum and Rubin (1983) developed *propensity score* matching, in which treatment and non-treatment groups are matched using a vector of observed characteristics. Propensity score matching assumes matching on  $x$  is the same as matching on  $P(x)$ , where  $P(x) = Pr(d=1 | x)$ , summarising all the dimensions in  $x$  into a predicted probability of being treated. With  $P(x)$  being the propensity score, the conditional independence condition can be re-written as  $Y^* \perp d_i | P(x)$ .

Since matching methods assume that the systematic heterogeneity in untreated outcomes is based on observable characteristics,  $x$ , it is similar to regression analysis as shown in equation (4.3). In this instance, the one-dimensional summary of  $x$  is estimated using

logistic regression -- the job seeker's propensity of being included in the treatment group, as a function of  $x_i$ . The *matching with replacement method* is used, where each treatment unit is matched to the nearest counterfactual unit, based on their propensity scores, even if this counterfactual unit has already been matched once. The advantage of the matching with replacement method is that it allows for the use of extra (fewer) units when good matches are (not) available (Dehejia and Wahba 2002). Non-treatment members are chosen based on whether they are within a pre-defined propensity score radius, *caliper*, and are closest to the propensity score of the treated group member for which the match is sought. For a pre-defined caliper of  $\kappa$ ,  $j$  is chosen such that

$$\kappa > |p(x_i) - p(x_j)| = \min_{K \in I_0} \{|p(x_i) - p(x_j)|\} \quad \text{eq. (4.6)}$$

Factors that influence participation in a treatment group and the outcomes of interest need to be included in the set of independent variables (Rosenbaum and Rubin 1983). The outcomes of interest are the behavioural reply to treatment assignment --- taking up MO activity or applying for an exemption --- and the exit behaviour from NSA. The underlying motivation for such behaviours arises from the net benefit the job seeker obtains from labour force participation (or, equivalently, being on NSA). The factors discussed in Chapter 3 as influential in labour force participation are used in estimating the job-seekers' propensity scores. These factors also include factors that are relevant in being in the treatment group - that is, staying on NSA for at least 6 months. Examples are disability condition and income support history.

If the net benefit of staying out of the labour force is positive, the job seeker will most likely still be on NSA after 15 fortnights of continuous benefit receipt. The job seeker will be assigned to the treatment group. This net benefit,  $z_i^*$ , is a function of factors that influence the preference for non-work over work and the market valuation of one's labour,  $x_{ij}$ , and the error term  $u_i$ .

$$z_i^* = \beta_0 + \sum_{j=1}^k \beta_j x_{ij} + u_i \quad \text{eq. (4.7)}$$

This net benefit, the tendency to be in the treatment group, exists prior to treatment. Commonly called a *latent* variable,  $z_i^*$  is not observable. What is instead observed is the dichotomous realisation of  $z_i^*$  when it assumes a particular value.

$$Y_i = \begin{cases} 1 & \text{if } z_i^* > 0 \\ 0 & \text{otherwise} \end{cases} \quad \text{eq. (4.8)}$$

A positive net benefit from being out of the labour force ( $z_i^* > 0$ ) translates to the observed behaviour of the job seeker being in the treatment group ( $Y_i = 1$ ). It is standard to assume  $\text{var}(u_i) = 1$  in order to fix the scale of  $z_i^*$  and accordingly estimate the probability of  $Y_i = 1$ <sup>24</sup>. The probability of being in the treatment group is a function of  $F$ , the cumulative distribution of  $u_i$ .

<sup>24</sup> See Maddala (1989).

$$P_i = \Pr ob(y_i = 1) = F(\beta_0 + \sum_{j=1}^k \beta_j x_{ij}) \quad \text{eq. (4.9)}$$

Given that  $Y_i$  is generated by a random dichotomous process with probabilities expressed in (4.7), its likelihood function can be expressed as

$$L = \prod_{y_i=1} P_i \prod_{y_i=0} (1 - P_i) \quad \text{eq. (4.10)}$$

The estimation of the influence of  $x_{ij}$  on the realisations of  $z_i^*$  is arrived at by finding the  $\beta_j$  that will maximise equation (4.10). For the estimation, it is assumed that the cumulative distribution of  $u_i$  is logistic.

$$\log \frac{P_i}{1 - P_i} = \beta_0 + \sum_{j=1}^k \beta_j x_{ij} \quad \text{eq. (4.11)}$$

The left of equation (4.11) is called the log-odds ratio and is a linear function of the explanatory variables. For the entire analysis, the impacts are estimated by stratifying the sample based on their propensity scores (see Rosenbaum and Rubin 1983). The average treatment effects are estimated using the following:

$$\hat{\alpha} = \sum_{k=1}^K \frac{n_k}{N} (\overline{Y_{k1}^{**}} - \overline{Y_{k1}'}) - (\overline{Y_{k0}^{**}} - \overline{Y_{k0}'}) \quad \text{eq. (4.12)}$$

where  $k$  represents the stratum.

#### 4.3.2 The results

The assignment effect is found to change the composition of the NSA stayers in terms of activity choice, leading to an increase in the take-up rate by NSA recipients of MO activity (and a corresponding decline in the take-up of alternative exemption activities). There seems to be no indication of job seekers unusually obtaining MO exemptions merely in reaction to the additional activity test requirement for NSA receipt. The composition of NSA recipients staying past the 15<sup>th</sup> fortnight changed, with the proportion of those participating in MO activities increasing by 13.3 percentage points to 25 percent (see Table 11). This change in the take-up rate is equivalent to 155 job seekers, using the sample size for the study<sup>25</sup>. Despite the considerable proportion of NSA recipients tending to apply for an MO exemption, likely caused by the disadvantage most NSA stayers face, obligating NSA stayers to take-up MO did make a difference in their decision to take it up. Even with the possible irrelevance of MO activity to these mostly disadvantaged NSA recipients, the MO initiative is effective in making some of them consider taking up MO activities, which are designed to improve job prospects. They would presumably have been the least disadvantaged of the NSA stayers, having the willingness to improve work prospects to the extent that their participation barriers allow them to.

<sup>25</sup> Given that the LDS used is an 11 percent sample of the actual number of job seekers, the increase in take-up by 155 job seekers is equivalent to 1,410 for the entire population of NSA recipients in the 46 to 49 age cohort who stayed on benefit for at least 15 fortnights.

**Table 11 Impact on MO activity participation or MO exemption of having to comply with MO, the MO activity assignment effect, 2002 exits net of 2001 exits**

	Weighted difference-in- differences (policy change impact)	Chi-square test	Weighted mean proportion in Treatment 02, post- treatment (%)	Number of jobseekers in Treatment 02, post-treatment	Approximate change in participation as a result of treatment (policy change impact) (no.)
All jobseekers				1,171	
Participated in MO activities	<b>13.28</b>	28.2 ***	24.7	289	155
Completed MO activity	<b>5.20</b>	12.7 ***	7.7	90	61
Did not complete MO activity	<b>8.08</b>	14.0 ***	17.0	199	95
Obtained MO exemption	<b>-13.28</b>	28.2 ***	75.3	882	-155
Had long-term exemption	<b>-12.78</b>	14.3 ***	44.7	524	-150
Had short-term exemption	<b>-0.50</b>	0.0	30.5	358	-6
Female jobseekers				507	
Participated in MO activities	<b>6.90</b>	3.2	23.6	120	35
Completed MO activity	<b>5.91</b>	7.0 **	7.3	37	30
Did not complete MO activity	<b>1.00</b>	0.1	16.3	82	5
Obtained MO exemption	<b>-6.90</b>	3.2	76.4	387	-35
Had long-term exemption	<b>-17.73</b>	11.5 ***	44.1	224	-90
Had short-term exemption	<b>10.83</b>	4.8 *	32.3	164	55
Male jobseekers				664	
Participated in MO activities	<b>13.60</b>	19.6 *	25.7	171	90
Completed MO activity	<b>5.98</b>	11.8 ***	8.0	53	40
Did not complete MO activity	<b>7.62</b>	8.0 ***	17.7	117	51
Obtained MO exemption	<b>-13.60</b>	19.6 ***	74.3	493	-90
Had long-term exemption	<b>3.73</b>	0.7	45.1	300	25
Had short-term exemption	<b>-17.33</b>	16.6 *	29.2	194	-115

\*\*\* Significant at 0.5% level

\*\* Significant at 1% level

\* Significant at 5% level

With this increase in MO activity participation comes a corresponding reduction in the number of job seekers who apply for a long-term MO exemption. This reduction in long-term MO exemptions is mainly driven by the results for female job seekers. This could have been due to the sample of female job seekers left over by the 15<sup>th</sup> fortnight, after all those who could transfer to another payment had been removed. As seen in previous sections, female job seekers tend to transfer to DSP, Partner Allowance and even Carer Payment in anticipation of the impending MO activity. If these same female job seekers had stayed past the 15<sup>th</sup> fortnight, these personal circumstances that would have made them qualify for the other payments would also have made them qualify for a long-term MO exemption.

They would then have been like the female job seekers in the other experimental groups applying for long-term MO exemption, in which case no change in the difference-in-difference estimate would be registered. However, in our sample, the treatment group of female job seekers is rid of long-term MO exemption applicants and the other experimental groups of female job seekers still have proportionately more long-term MO exemption applicants, due to the absence of anticipation effect in the latter group. These long-term-MO-exemption eligible female job seekers in the other experimental groups would still have been chosen in the matching process, scoring similarly in their propensity index as

those female job seekers in the treatment group who stayed past the 15<sup>th</sup> fortnight, on the strength of other characteristics they have in common with the treatment group. As a result, the difference-in-difference estimate of MO exemptions would register a reduction for the treatment group.

It is interesting to see that female job seekers in the treatment group who remain in the sample past the 15<sup>th</sup> fortnight show an increase in the complete participation in MO activity. This complements earlier findings showing that women who are free from non-vocational barriers to participate in MO activities are more likely to take up education or training courses than their male counterparts. The finding in this section shows that, quite possibly, if this predisposition to take up education and training courses is coupled with obligation to participate in an additional MO activity, women with no participation barriers who are still on NSA by the 15<sup>th</sup> fortnight are likely to participate and complete the MO activity. In contrast, male job seekers are not biased towards participating and completing their MO activity. This also complements the earlier finding that, compared to women, men assign greater value to immediate workforce participation and/or participation in an activity that enhances their basic job search skills than participation in a skill-enhancing MO activity. It follows then that it is not unreasonable to see men participating in an MO activity, when obligated to, but not finishing it because they accept a job offer when it arrives.

While in terms of finishing an MO activity female job seekers respond to the assignment effect much better than male job seekers, male job seekers tend to perform better than female job seekers in terms of taking up an MO activity in response to the assignment effect. Male job seekers' take-up of MO activity increases by 13.6 percentage points to 25.7 percent, as a result of the assignment effect; female job seekers have improved their participation rate by only 6.9 percentage points to 23.6 percent in reply to the assignment effect (Table 11). In terms of numbers, the assignment effects on the respective MO participation rates of men and women translate to increases of 90 and 35 job seekers.

It has been shown that the assignment effect reassigned into MO activity around 13.3 percent of job seekers in the treatment group. If they have been re-sorted into the more fitting activity between MO and exemption activities and they participated in the activity, positive workforce outcomes can be expected. Table 12 shows that the subjection to the entire MO process of the remaining NSA recipients from the 15<sup>th</sup> fortnight brings about increased exits out of income support by both men and women. Income support exits increased by 10.12 percentage points bringing the proportion of the sample that leave the income support to 15 percent. These exits account for 76 percent of the outcomes of around 155 job seekers who instead took up an MO activity as a result of the assignment effect. The rest are more likely to stay on NSA following participation in the MO activity.

The subjection effect made a greater positive impact on women than on men with virtually all those women who have been reassigned into an MO activity ending up leaving income support. The 6.69 percentage point increase in the income support exits of female job

seekers -- equivalent to an increase of 34 exits – represents 96 percent of those female job seekers who have been re-sorted into MO activity participation. Male job seekers register an 11.48 percentage point increase in their income support exits – equivalent to an increase of 76 exits; this represents 84 percent of those male job seekers who were re-sorted into MO activity participation. It shows that the increase in male job seekers' income support exits occur with a reduction in transfers to another payment by those who obtain an MO exemption. This indicates that these men who have been re-assigned into the MO activity would have instead obtained an exemption and then transfer into another payment, in the absence of the subjection effect.

**Table 12 Impact on NSA exits of being re-sorted into an NSA activity and participating in it, the MO subjection effect, 2002 exits net of 2001 exits**

	Weighted difference-in- differences (policy change impact)	Chi-square test	Weighted mean proportion in Treatment 02, post- treatment (%)	Number of jobseekers in Treatment 02, post- treatment	Approximate change in participation as a result of treatment (policy change impact) (no.)
All jobseekers (total number)				1,171	
Participated in MO activities	<b>13.28</b>	28.2 ***	24.7	289	155
Stayed on NSA	<b>3.17</b>	2.91	9.0	105	37
Transferred to another payment	<b>-0.01</b>	0.00	0.8	9	0
Exited income support	<b>10.12</b>	33.02 ***	15.0	176	118
Obtained MO exemption	<b>-13.28</b>	28.2 ***	75.3	882	-155
Stayed on NSA	<b>-4.70</b>	2.2	28.6	335	-55
Transferred to another payment	<b>-4.55</b>	4.7 ***	7.2	84	-53
Exited income support	<b>-4.04</b>	1.5	39.6	463	-47
Female jobseekers (total number)				507	
Participated in MO activities	<b>6.90</b>	3.2	23.6	120	35
Stayed on NSA	<b>0.03</b>	0.0	8.8	45	0
Transferred to another payment	<b>0.17</b>	0.0	1.0	5	1
Exited income support	<b>6.69</b>	6.0 *	13.8	70	34
Obtained MO exemption	<b>-6.90</b>	3.2	76.4	387	-35
Stayed on NSA	<b>0.03</b>	0.0	32.1	163	0
Transferred to another payment	<b>-3.26</b>	0.7	9.0	46	-17
Exited income support	<b>-3.68</b>	0.6	35.3	179	-19
Male jobseekers (total number)				664	
Participated in MO activities	<b>13.60</b>	19.6 ***	25.7	171	90
Stayed on NSA	<b>2.29</b>	1.0	9.0	60	15
Transferred to another payment	<b>-0.16</b>	0.1	0.6	4	-1
Exited income support	<b>11.48</b>	26.3 ***	16.0	106	76
Obtained MO exemption	<b>-13.60</b>	19.6 ***	74.3	493	-90
Stayed on NSA	<b>2.89</b>	0.5	25.9	172	19
Transferred to another payment	<b>-10.59</b>	19.3 ***	5.7	38	-70
Exited income support	<b>-5.90</b>	1.7	42.7	284	-39

\*\*\* Significant at 0.5% level

\*\* Significant at 1% level

\* Significant at 5% level

This pattern is not observed for women, as those with predisposition to transfer to another payment had already done so and hence been removed from the sample by the 15<sup>th</sup> fortnight by virtue of the anticipation effect. Men have also been found to treat their participation barriers as short-term conditions and tend to stay on NSA (as opposed to transfer to another payment) after the 15<sup>th</sup> fortnight and instead apply for an exemption from activity testing.

## 5 SUMMARY AND CONCLUDING REMARKS

### 5.1 SUMMARY

It was found that the rate of departure among mature age jobseekers who had started an NSA spell in January to June 2002 was highest in the first 5 fortnights with a quarter of them, regardless of sex, leaving NSA. The fairly substantial exits from the income support system (45 percent) in the first 15 fortnights of the NSA spell were associated with characteristics theoretically asserted to positively influence work outcomes: being male, having a mortgage, having a partner who is working, absence of disability and non-vocational barriers, good English language skills, absence of income support history and living in an area with good job prospects. That is, leavers of income support are not only the most able to work but they are also driven (by the need to pay their home mortgage) to find work. It does show that there is something to be said about willingness to find a job, but only to the extent that these *willing* job seekers are *able* to work and *can find* work.

If job seekers who are still on income support by the 15<sup>th</sup> fortnight do not face their own personal barriers, family commitments could act as barriers for them such as having to care for a partner who is also on income support or for an offspring less than the age of 16. The influences on outcomes are slightly different between men and women. Female job seekers with these characteristics tend to transfer to another payment which is not activity-tested such as DSP or Partner Allowance. Male job seekers with these characteristics tend to stay on NSA and seek exemption from MO activities. It seems that male job seekers would rather remain attached to the workforce, engaged in job search activities or some intensive support. Females on the other hand seem to take the path of personally caring for their family by quitting job search and spending time at home.

It is also found that despite the compulsory nature of MO activities, full compliance is not observed with only 22.6 percent taking up an MO activity. This small take-up rate is consistent with the finding of Richardson (2002) who looked into the experience of job seekers aged 24 to 25 who were similarly obligated to participate in MO activity in 1998. The take-up rate is even smaller among older job seekers, at 6.8 percent, who are not obligated to participate in MO activities. If MO activities are designed to improve the chances of finding work, it is fair to expect job seekers willingly taking up this opportunity. The large take-up rate of non-MO activities raises the question of the relevance of MO activities in boosting the work chances of older job seekers who are still on NSA receipt past the 6<sup>th</sup> month. Apart from the possible irrelevance of MO activities to long-term job seekers, there is reason to believe that the small take-up rate of MO activity is due to the higher job placement fees and star ratings given to Job Network members for granting jobs

to NSA recipients who are enrolled in Intensive Assistance and have been continuously unemployed for 6 months<sup>26</sup>.

Using program evaluation methods, it was found that having to participate in MO activities functions as a threat to NSA recipients aged 46 to 49, pushing them to leave NSA from the 10<sup>th</sup> fortnight right through to the 15<sup>th</sup> fortnight. The impact of anticipation is estimated to be a 3.1 percentage increase in exits out of NSA over the entire decision window which, given the size of job seekers at the beginning of the 10<sup>th</sup> fortnight, translates to around 40 exits out of the NSA. These exits out of NSA are mainly driven by exits out of the income support system by male job seekers, who show sustained departure from the system in fortnights 12, 13 and 15. Seemingly surprisingly, female job seekers still manage to register a slightly statistically significant increase in payment transfers over the decision window.

These exit patterns confirm that, regardless of age (cohort), Job Network incentives and Partner Allowance age-eligibility, mature age men tend to respond to an impending tightening of NSA rules by exiting and mature age women by transferring to another payment. While both see the impending MO activity as costly and hence generating an increased need to leave NSA, the results may be interpreted as follows: men seem to see this additional time as competing against their work time whereas women seem to see this additional time as eating into their time spent outside the workforce, either caring for their partner or children. For the men who leave, the next best use of their time after job search activity (which is the main and only activity in the first 6 months of NSA receipt) is actually working; for women, the next best use of their time after job search lies in looking after their family members or recuperating from a disability at home. They respond to the treatment by maintaining the time allocated to these activities. In summary, men find work and women transfer to non-activity tested payments (no required job search and/or MO additional activity) if possible.

However, it also appears that there are job seekers who are slipping through the cracks and missing out on the opportunity to improve their prospects for economic engagement through MO participation. Those who transfer to another payment, particularly carer-friendly payments, and tend to stay on this payment are the ones missing out. Through no fault of their own, they decide (and reasonably so) to care for their partners or children, and end up losing their workforce skills during their absence from the workforce. Those who transfer by the 15<sup>th</sup> fortnight are most likely to have ill health or unemployed/ill partners or have an offspring (particularly aged 16 and below). They are likely to be partnered and female. Being female with family responsibilities seems to be a barrier to participating in activities aimed at improving their workforce chances. If working is seen by the government as the key to addressing job seekers' entrenched economic

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<sup>26</sup> Outcome fees awarded to Job Network members, as at July 2007, range from \$550 to \$4,400 per job placement depending on the unemployment duration of the job seeker on Intensive Assistance -- \$550 if the job seeker has been unemployed for 1-13 weeks, \$4,400 if the job seeker has been unemployed for up to 14-25 weeks and \$825 to \$2,200 if the job seeker has been unemployed for 26 weeks or more.

disadvantage, the MO initiative seems to be failing in promoting this aim among women with caring responsibilities. The MO activities usually undertaken by female job seekers lead us to believe that they too, if not facing any family responsibilities or any disability, would want to participate economically in our society. They seem to want to improve their work prospects if given the chance and are free to do so.

The anticipation effect of MO effectively acts as a sorting mechanism. The knowledge of having to do MO activity separates those job seekers who can find work and are able to work from those job seekers who face barriers. Following them past the 15<sup>th</sup> fortnight, it was found that assigning them an MO activity makes 13.3 percent of those who stay on NSA reconsider taking up MO, continuing the sorting function of MO activity past the 15<sup>th</sup> fortnight. Virtually all of the women complete the MO activity and exit the income support system, complementing the earlier finding that women are more likely to take to studying and training than men. In contrast, over half of the men do not complete the MO activity but still exit the income support system; this shows not only their preference for working over participating in a skill-enhancing activity but also the irrelevance of completing an MO activity in getting a job for males.

These findings indicate the varying effectiveness of the MO initiative depending on the job seeker's gender. The findings reveal the greater relevance of the MO activity to women compared to men in getting them a job, with most of the former completing the activity and exiting the income support system. The MO initiative is effective in allowing willing and able women to participate in skill-enhancing activities which appear to be appropriate to their human capital needs. The MO activity is relevant to women's needs if they are free from non-vocational barriers to undertake such activity. It seems that the MO activity is valued by women for its *enhancing effect*. In contrast, some men see the enhancing role of the MO activity and some men see the *stick effect* of the activity. The former type of men finish the MO activity while the latter do not finish the activity as soon as the more rewarding work offer comes, taking them away from what they possibly see as an irrelevant skill-enhancing exercise.

However, the policy seems to have failed in extending the full beneficial effects of the MO initiative to all female job seekers. The non-vocational barriers women face together with the anticipation effect, make them leave by the 15<sup>th</sup> fortnight, before they even get the chance to experience the enhancing effect of the MO activity. With women's relatively greater predisposition to take up training and education courses compared to men, they may be missing out on an opportunity to improve their economic prospects. If the barrier of caring for a family member can be addressed by policy makers, the MO initiative will be more effective in making available opportunities for addressing the social and economic disadvantage of job seekers who will find the activity relevant and valuable if given a chance to participate in the activity. If the results for men are any guide, if women can put off their preference to transfer to another payment, it seems that they can be enticed away from applying for an MO exemption and then transferring to another payment and towards taking up the MO activity and leaving the income support system.

## 5.2 CONCLUSIONS

The aim of the research is to empirically assess the effectiveness of the MO policy change implemented in 2002, in terms of the objective for which the Task Force recommended it. It is found that MO is not effective in the way the Task Force envisioned it to be. The effect of MO on the workforce outcomes of mature age job seekers does not revolve around its supposed function of enhancing the skills of the jobseekers. The total effect of MO, while positive, mainly results from the threat job seekers see in spending additional time on MO activity or from losing their allowance – that is, from the ‘stick’ and not the ‘carrot’ function of MO. MO proves to be more of a social security policy-tightening initiative, operating on *threat*, rather than a skill-enhancing labour policy which the Coalition government suggested it was.

Of the 2175 mature age NSA recipients, 8.9 percent (195 job seekers) changed their behaviour due to the MO policy institution. This total effect refers to the total number of job seekers who changed their behaviour as a result of the MO policy change. Of the 195 job seekers only 46 of them (24 percent) follow the path intended for them by the government -- staying on NSA, participating and completing the MO activity and then leaving income support altogether, with skills supposedly enhanced and all ready for the labour market. As a proportion of the sample of mature age NSA entrants, these 46 job seekers only represent 2.2 percent of the sample. That is, only a very small proportion of the total sample of mature age NSA entrants is affected by the program effect intended by the government<sup>27</sup>. This raises questions about the cost-effectiveness of the policy.

Supporters of MO also argue about the much bigger benefit from its compliance effects:

“... the real benefit [of MO] is not so much in these program effects but in the compliance effect. That is, if you are capable of getting a job, after six months when you have to either get a real job or work for your benefit, you will try to get a real job.”  
(Lunn writes in *The Australian* quoting Peter Saunders from the Centre for Independent Studies, 12 June 2008).

However for mature age job seekers in our sample, it is estimated that the compliance effect is even smaller than the intended program effect, 1.0 percent of the entire sample. This refers to those job seekers in the 195 totally affected by MO, who leave income support altogether. The rest of the 195 job seekers mainly leave the decision window to transfer to other payments or stay on NSA, participate in the MO activity and leave without completing the activity.

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<sup>27</sup> Translated to population terms, the number of job seekers who change their behaviour in response to the MO policy is around 1,800. Of these job seekers, only 420 take up MO, complete the activity and then leave income support.

The majority of the 195 job seekers (76 percent) exhibited other types of behavioural changes - which were not the supposed aim of MO as hailed in the McClure Report - namely, to enhance their work prospects. For those with caring responsibilities, departure from NSA works through the fear of MO eating into the time they would rather use caring for their family. They end up transferring to other payments, without at all participating in any of the supposedly skill-enhancing MO activities. For those without work alternatives or who are not eligible to transfer to carer payments or obtain an exemption, the fear of losing their income support for eight weeks makes them take up an MO activity and complete it - but they still remain on NSA afterwards.

Moreover the low take-up rate found is worth noting, as this demonstrates the possible irrelevance of the MO activities to mature age NSA recipients. The large proportion of mature age job seekers successfully obtaining an MO exemption shows that they either need assistance in forming more fundamental job search skills or face barriers that need to be addressed first, prior to attending skill-enhancing activities under MO. For most of these disadvantaged job seekers, it is not a matter of choice that they are not participating in the MO activity. Regardless of the extent to which MO activities enhance the skills of job seekers, the non-vocational barriers they may face - or disabilities or inadequate job search skills they may have - render these additional MO activities meaningless in their preparation for the labour market. Immediate attention should be given in addressing inadequacies in more fundamental skills. The low take-up rate of MO activities among younger NSA recipients is also found in the literature (Richardson 2002).

What can be seen from the discussion above is that for 8.9 percent of the mature age job seekers considered in the sample, MO is most effective in sorting them into the most appropriate activities. The sorting effect operates through the threat of having to do an activity that is not particularly favoured by them and subjecting them to it past the 15<sup>th</sup> fortnight -- in the face of more meaningful alternative activities or in the face of income support loss. Job seekers see the additional time required of them to spend on MO activities as taking away from the time they would rather spend on other more favoured activities, such as caring for a family member, working, and addressing any participation barriers. During the anticipation stage, MO sorts the job seekers into those who could do without NSA receipt, either by transferring to other payments or working, and those who are more disadvantaged due to participation barriers (temporary or longer-lasting). Further sorting occurs during the subjection stage, in which some of them who would have not taken up an MO activity consider taking it up. Job seekers sort themselves, in response to the policy change, into the most meaningful outcomes/activities, given their time use preferences, barriers, and expected demand for their labour.

The key to improving the program is does not lie, therefore, in weakening the penalty (income support loss for 8 weeks) for not meeting one's MO, as proposed in *The Future of Employment Services in Australia* - a discussion paper of the current government. Especially for mature age job seekers who change their exit behaviour or activity choice as a result of

MO imposition, the penalty does not necessarily come from this loss in income support; the penalty rather comes from being prevented from using their residual time in their preferred way. In fact weakening the penalty may even prevent some of the job seekers from engaging in an MO activity, which may be the most suitable activity for them (with account of their time use preference, barriers and expected demand for their labour). One key improvement that can be made to the program is making available to job seekers MO activities that are meaningful, given older job seekers' time-use preferences, barriers and expected demand for their labour. This may increase not only the 8.9 percent of the sample who benefit from the sorting effect but also the proportion of these job seekers who will reconsider the MO activity, take it up, complete it and exit from NSA. This will effectively increase the take-up rate of MO, hopefully even among those who are not obligated to participate in it, as the job seekers on the margins of benefiting from being on NSA increase in numbers.

The large incidence of mature age job seekers taking up the alternative MO exemption activity alludes to the type of activities relevant to their needs. Activities that address any non-vocational barriers and/or job search skill inadequacy may prove to be more relevant at the early stage of their unemployment spell than education or training courses. However it is also observed that those with work alternatives do leave income support, which is the ultimate objective of an active labour market policy. It is important that inadequacies in life skills are addressed simultaneously with inadequacies in labour skills. As job seekers improve their life skills, more hours should be spent on education or training courses, since becoming ready for a job in terms of acquiring the appropriate job skills will make them opt for leaving NSA in the face of policy tightening. In this way, the MO initiative can be seen not just a policy-tightening initiative but an active labour market policy that addresses any skill inadequacies or participation barriers of mature age job seekers, who may face no choice but to apply for an MO activity exemption.

There is also a gender story behind the sorting effect, highlighting the difference in the way male and female job seekers want to use their residual time, after having done job search. It shows that female job seekers with caring responsibilities tend to transfer to other payments – whereas male job seekers in a similar position maintain attachment to the workforce. This predisposition of women to transfer to other payments may lead to them missing out on the enhancing function of MO activity. Women, who have no caring responsibilities and who stay on NSA past the 15<sup>th</sup> fortnight, are found to be more likely to participate in education and training courses than men. Men are more likely to require assistance in improving their job search skills. Moreover, virtually all women who take up an MO activity due to MO subjection complete the activity and exit out of the income support system. Perhaps these women may have fewer work opportunities than their male counterparts, making it worth their while to participate in and complete the chosen MO activity. Perhaps they are more cognizant of their skill inadequacy and are willing to deal with it through participation in an MO activity. For either reason, it is important that women with caring responsibilities be given the opportunity to participate in skill-

enhancing activities, as they are more likely than men to engage in an MO activity if they do not have any caring responsibilities.

### **5.3 POLICY RECOMMENDATIONS**

Six policy recommendations arise from these findings and are discussed below.

First, given its usefulness in sorting job seekers, it is recommended that MO be introduced earlier in the NSA spell of job seekers. This will prevent job seekers from unnecessarily staying on NSA and accordingly reducing their chances of leaving NSA due to skill atrophy and increased stigma from having stayed on NSA. The MO activity can be made compulsory from the 6th fortnight onwards, capitalising on the natural exit pattern exhibited by job seekers and what is found to be an effective length of the decision window. The highest rate of exit occurs in the first five fortnights of the NSA spell, with 25 percent of job seekers leaving NSA. Also, the 5-fortnight length of the decision window is found to be sufficiently long to facilitate a series of exits made by job seekers who would like to and could escape from the threat of having to participate in an MO activity.

Second, intensive assistance in job search, Intensive Support, is also recommended to be made available to mature age job seekers right from the start of the NSA spell, as is the case with younger job seekers. Gaining fundamental skills in finding a job – from writing resumes, to improving one's vocational profile on JobSearch, right through to preparing for an interview – should be readily accessible by job seekers of any age group at any time in their NSA spell. Such training facilitates a more effective exchange of information between prospective employers and job seekers, addressing frictional unemployment (which arises from poor information flow between the owners of the labour needed in the economy and the specific employers in the local area in need of such labour). Since this type of unemployment does not arise from a mismatch between the type of labour demanded and the labour available, no time should be unnecessarily wasted in employing these job-ready job seekers. No time should be wasted in matching employers with job seekers due to some policy prescriptions on when job seekers can avail themselves of Intensive Support.

Third, any inadequacy in life skills and/or skills required to be able to work as part of a team need to be addressed intensively right from the very beginning of the unemployment spell. Similarly, non-vocational barriers such as homelessness and domestic violence need to be addressed right from the start of the spell. Participation in activities that address these skill inadequacies and/or barriers should form an integral part of the activity test requirements for the first six fortnights of the NSA spell, prior to engaging in an MO activity – and even right through the unemployment spell until these inadequacies and/or barriers are reasonably addressed. That is, compulsory participation in these activities needs to be ongoing, if necessary. Life skills and job skills are equally important to have and are not substitutable. Any inadequacies in both these skills need to be

addressed simultaneously through attendance of non-mainstream and mainstream activities.

Fourth, if participation in an activity that addresses non-vocational barriers extends past the 6th fortnight, the activity is recommended to be treated as an MO activity, if taken in conjunction with a short course or any training. Currently, activities that address non-vocational barriers do not count as an MO activity and are taken up by job seekers who obtain an MO exemption. It is suggested that such activity be regarded as an MO activity, if taken up with training that enhances a job seeker's vocational skills (such as literacy or numeracy courses, short courses and training). Depending on the severity of the non-vocational barrier, participation in the training program, at the onset, does not have to be as intensive. This ensures that relevant activities are made available to disadvantaged job seekers, without losing sight of the need to also enhance their vocational skills to the extent they can. The important thing to highlight is that participation in non-vocational training be done together with a vocational training during the MO period.

Community or volunteer work can provide job seekers the opportunity to put into practice the non-vocational skills they obtain in the first six fortnights. For example, job seekers may participate in Work for the Dole, as they hone their non-vocational skills, and in a training program or short course, from the 6th fortnight onwards. This stands in contrast to the proposals made in the discussion paper of the current government, in which training occurs in the first 12 to 18 months with Work for the Dole made available after. The low take-up rate of MO activities among mature age job seekers and, conversely, the high take-up rate of exemption activity, indicates that consideration needs to be given to the type of activities that are most relevant to disadvantaged job seekers.

Fifth, once the non-vocational barriers are reasonably addressed, the MO activity can solely be intensive training in vocational skills. While non-vocational training can only be accepted as an MO activity (as opposed to an exemption) if taken with a vocational program, participating solely in a vocational program can be listed as an MO activity. Given indications in the literature that part-time arrangements are common in low skill jobs and that such part-time arrangements are on the rise, there is a basis for making such training available and compulsory for job seekers. That is, this research is not advocating a diminished focus on intensive training to enhance vocational skills. It is just that the outcomes shown in this thesis have indicated that there are non-vocational barriers that not only bar job seekers from participating in the workforce but also from participating in vocational training. These barriers need to be addressed intensively - and for as short time as possible - prior to (or perhaps at the same time as) job seekers' engaging in vocational training or programs. In fact if job seekers improve their preference for training in vocational skills and find it to be a more meaningful alternative to a non-vocational program, they will take it up, even in the absence of threat, compulsion or any penalty. In time, they may even find that leaving NSA and working is a more meaningful alternative to a vocational program. This may be the case with on-the-job training, as job seekers see the real possibility of getting a job that offers a wage higher than their allowance and

improves self-esteem and societal engagement. That is, the incentive structure needs to revolve around job seekers' time-use preferences, barriers, and the expected demand for their labour.

Lastly, women with caring responsibilities need to be assisted so that opportunities for human capital development are made available to them even after they transfer to other income support payments – and incentives should be given for taking up such opportunities. In this way, their human capital does not get unnecessarily eroded or become irrelevant as they fulfil their duty as carers.

#### **5.4 FUTURE RESEARCH**

The research finding on workforce outcomes following subjection of mature age job seekers to MO is limited to those outcomes occurring within 18 months of starting an NSA spell. One possible extension to this research would be finding out the length of time over which those job seekers, who have been subjected to MO are independent of income security support. The complicating influences of exposure to subsequent MOs and labour market spells will have to be removed, however. This may need a bigger sample to work with.

Another fruitful area for further research that can be undertaken is the response to MO by job seekers from other age cohorts. This will complement this current study and Richardson's earlier study (2002). If the sample permits it, the impacts of different MO activities may also be analysed. The activities may be grouped into community service/volunteer work, education and paid work. Any analyses should also be broken down by sex, to allow for the different time-use preferences of males and females.

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