

Final Report

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Experiences of Income Support Recipients with a
Mental Illness

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List of Abbreviations

ABS: Australian Bureau of Statistics

APE: Average Partial Effect

CDEP: Community Development Employment Program

DEEWR: Department of Education, Employment and Workplace Relations

DSM: Diagnostic and Statistical Manual of Mental Disorders

DSP: Disability Support Pension

DVA: Department of Veterans Affairs

HILDA: Household, Income and Labour Dynamics in Australia

ICD: International Classification of Diseases

ISIS: Income Security Integrated System

JCA: Job Capacity Assessment

LPS: Longitudinal Pathways Survey

NSA: Newstart Allowance

OLS: Ordinary Least Squares

PPR: Predicted Probability Ratio

RED: Research and Evaluation Database

TPI: Total Proportion of Income from welfare payments

U.K: United Kingdom

U.S: United States of America

Executive Summary

- This report documents the type and nature of mental health conditions among income support recipients using administrative data from the Research and Evaluation Database (RED). For Disability Support Pension (DSP) recipients, the percentage of individuals with a mental illness only remained relatively constant between the financial years 2002-03 and 2007-08 – in the range of 18 to 21 per cent. However, over the same time period, there was an increase in the proportion of DSP recipients who reported having both a mental illness and other disabilities – this increased from 8 to 15 per cent. In comparison, there was an increase in the percentage of Newstart Allowance (NSA) recipients who reported having a mental illness only (from 8 per cent in 2002-03 to 14 per cent in 2007-08) and an increase in the proportion of NSA recipients who reported having both a mental illness and other disabilities (from 6 to 11 per cent).
- An interesting aside is whether there were any significant changes observed in the reporting of medical conditions by NSA recipients as a result of the introduction of the Welfare to Work policy on 1 July 2006 (whereby the eligibility criterion for DSP were tightened). The observed increase in NSA recipients who reported having a disability of some sort after 2006-07 could reflect the fact that persons with a moderate disability who would have been eligible for DSP prior to 1 July 2006 were thereafter only eligible for NSA. Thus, there may have been an increase in actual disability rates within the population of NSA recipients, rather than merely an increase in the reporting rates of relevant medical conditions.
- DSP recipients were found to generally have high levels of welfare reliance, with between 70 to 85 per cent highly reliant on welfare. In comparison, between 30 to 40 per cent of NSA recipients with a mental illness were highly reliant on income support.
- As would be expected, DSP and NSA recipients with permanent or recurring mental illnesses were more likely to be highly welfare reliant than recipients with only temporary mental illnesses. Using medical condition codes from RED, it was found that the types of mental illnesses experienced also differed by income support type. Depression, anxiety, and alcohol and drug disorders were

more common among NSA recipients than DSP recipients. Whereas, psychological disorders were more prevalent among DSP recipients than NSA recipients.

- Attitudes towards work clearly differ between DSP and NSA recipients. For DSP recipients, given the physical, intellectual and psychiatric impairments they face in their daily lives, it is not surprising that, on average, DSP recipients believed that given their circumstances they should not be expected to work. On the other hand, NSA recipients generally had positive attitudes towards work and did not believe that they should be completely reliant on income support.
- For both DSP and NSA recipients with a mental illness, the two major employment barriers they faced were having psychological/psychiatric issues and not being able to concentrate/focus for sustained periods on work tasks. In addition, and perhaps not surprisingly, many DSP recipients also found lifting, sitting, or standing for long periods to be an issue. To a lesser extent, work stress and pressure were also an issue for both DSP and NSA recipients.
- Given that DSP recipients have an inability to work 15 or more hours per week, only about 10 per cent of DSP recipients with a mental illness reported that they were working in each of the three waves of the Longitudinal Pathways Survey (LPS) data for Cohort 1. Smaller sample sizes made it more difficult to estimate the corresponding percentages for NSA recipients with a mental illness, but it is unlikely that this figure is higher than 30 per cent.
- To investigate the impact of mental health conditions on employment we combined RED with the first three waves of the LPS for Cohort 1, and estimated multivariate panel data models which account for observed characteristics and unobserved individual heterogeneity. The results suggested that an NSA recipient with a mental illness has about one-third the probability of being employed relative to an equivalent person with no mental illness or other disability. It was also found that NSA recipients with a mental illness were more likely to have higher welfare reliance (TPI) levels than NSA recipients with no mental illness or other disabilities.
- Although NSA recipients with a mental illness did not differ considerably to other NSA recipients in terms of attitudes towards welfare and work (see Figure 5b), many still faced considerable employment related difficulties (see

Table 5.2). In particular, they were faced with psychological/psychiatric difficulties that disrupt work and the ability to concentrate/focus on work tasks for sustained periods. As we better understand income support recipients who face mental health conditions and the ways these conditions can inhibit steady employment or prolong welfare reliance, policy makers may be able to consider further improvements to the existing approaches which link income support recipients to mental health services.

1. Introduction

According to the National Mental Health Policy 2008 formulated by the Australian Government, mental illness can be defined as a clinically diagnosable disorder which interferes significantly with the cognitive, emotional or social abilities of an individual.¹ To diagnose mental illness the Diagnostic and Statistical Manual of Mental Disorders (DSM) or the International Classification of Diseases (ICD) are generally used. A less severe condition, referred to as a mental health problem, is said to exist when an individual has diminished cognitive, emotional or social abilities but not to the extent that the criteria for a mental illness are met.² Across a lifetime, few people escape some degree of mental illness or impaired functioning as a result of life events. Estimates of the prevalence of lifetime mental health conditions for the general Australian population are available from two related surveys conducted by the Australian Bureau of Statistics (ABS) – the 1997 National Survey of Mental Health and Wellbeing of Adults and the 2007 National Survey of Mental Health and Wellbeing.³ According to the 2007 survey, among the 16 million Australians aged between 16 and 85 years, approximately 45 per cent had experienced a mental health disorder at some point in their lives.

In a growing body of Australian and international research, it has been found that mental health conditions are much more prevalent among income support or welfare recipients than the general population (see, for example, Zedlewski, 1999; Sweeney, 2000; Butterworth, 2003). In fact, Jayakody, Danziger and Pollack (2000), in a study focusing on the relationship between mental health conditions and welfare receipt in the U.S, found that having one or more of the following four psychiatric disorders – major depression, generalized anxiety disorder, panic attacks, or agoraphobia – increased the likelihood of receiving income support by 32 per cent. Poor mental health has also been found to significantly affect one's ability to obtain and/or maintain employment. For example, in a review of research in the U.S, Johnson and Meckstroth (1998) reported

¹ The National Mental Health Policy 2008 was endorsed by all Australian Government Health Ministers in March 2009 and a report is available online at: <http://www.health.gov.au/internet/main/Publishing.nsf/Content/mental-pubs-n-pol08> (date accessed: 25 August 2009).

² The definitions of 'mental illness' and 'mental health problem' were both taken from the Glossary section (page 30) of the National Mental Health Policy 2008.

³ These surveys are similar but should not be considered merely iterations of the same survey as a key aim of the 1997 survey was to provide prevalence estimates for mental disorders in a 12 month timeframe, whereas the aim of the 2007 survey was to provide lifetime prevalence estimates for mental disorders.

that mental illness not only results in lower rates of labour force participation, but also in reduced work hours and lower earnings.

For income support recipients aiming to make the transition to work, limited work history and educational attainment leave many of those with a mental health condition in entry-level, low-wage jobs (Baron, Raudenbush, Wilson and Marinelli, 1996). This likely occurs because a mental health condition can cause interruptions in work and school that create skill and knowledge deficits, and it may also cause limited interpersonal skills. These factors, in turn, influence both the likelihood of being hired and the types of jobs people with severe mental illness qualify for.⁴ In addition, for income support recipients that do find employment, mental illnesses can create difficulties in the work environment (Zuckerman, Debenham and Moore, 1993). These workplace difficulties occur because mental illness is often episodic and unpredictable in nature, and is often associated with behaviours such as the loss of concentration, irritability and anxiety. However, there are also many people with mental illnesses who are gainfully employed and able to manage the symptoms of their condition. Mechanic, Blider and McAlpine (2002) provide evidence to show that many persons with mental illness with appropriate education hold jobs throughout the occupational structure. They found that employed persons with mental illness, including those with serious mental illness, had occupational profiles similar to those of persons without mental illness.

The effects that mental illness has on the welfare dependency and labour market outcomes of income support recipients is an important issue that requires further research. At present in Australia, relatively little is known about the incidence of mental illness among the income support population. A primary purpose of this report, therefore, is to document the type and nature of mental health conditions among income support recipients on Disability Support Pension (DSP) and Newstart Allowance (NSA) over the period of 2002 to 2008, using the Research and Evaluation Database (RED). The RED data is also used to examine the effects of mental illness on welfare dependency and labour market outcomes. In order to consider labour market outcomes, the project links the RED data to the Longitudinal Pathways Survey (LPS) to examine

⁴ It is, of course, also possible that individuals with a mental illness may have psychological or emotional deficiencies, such as low levels of self-esteem, confidence or resiliency, which may limit the types of jobs these individuals may be able to obtain or qualify for. Thus, even well-educated and highly skilled individuals with a mental illness may struggle to find and maintain appropriate employment.

labour market participation, job search, the sustainability of employment, attitudes towards welfare and work and access to social support networks.⁵

More specifically, this report aims to address a broad set of research objectives which are organised into three main sections. The first section examines the incidences and nature of mental illness among DSP and NSA recipients in Australia by considering:

- Types and nature of mental health conditions among income support recipients;
- Extent of welfare dependency of income support recipients with mental health conditions, particularly in comparison to income support recipients with (i) other disabilities only, (ii) mental and other disabilities, and (iii) no illness or disability; and
- Impact of the longevity of recipients' mental illness on their reliance on income support.

The attitudes and difficulties faced by income support recipients with a mental illness are then presented with an examination of:

- Attitudes towards welfare and work of income support recipients with mental health conditions, particularly in comparison to income support recipients with other disabilities, or with no disability;
- Employment related difficulties that income support recipients with a mental illness face in the labour market; and
- Degree to which income support recipients with mental health conditions rely on social support networks to ameliorate these obstacles.

The final section examines the welfare reliance and employment outcomes of income support recipients with mental health conditions by considering:

- Correlations between specific groups of disorders to reliance on income support and to employment outcomes;
- Impact of mental health conditions on income support recipients' ability to find employment; and

⁵ The scope of this project has been restricted to DSP and NSA recipients because both of these payments require people to provide evidence of medical conditions from a medical practitioner, and because the number of people receiving other payments in the LPS data is relatively small.

- Nature (i.e. full-time, part-time) and sustainability of employment of income support recipients with mental health conditions since achieving an employment outcome.

The report proceeds as follows. Section 2 presents some background information regarding mental illness and welfare receipt. The data used in the analyses – namely, the RED and LPS data – are discussed in Section 3. The three sections of analyses mentioned above are then presented in Sections 4, 5 and 6. Section 7 provides a brief conclusion.

2. Background

The Australian welfare system, in comparison to other developed countries such as the U.S, is considerably more extensive in scope and consists of a wide range of Government payments which cater to the disadvantaged in society (e.g., Age Pension, Carer Allowance, Widow Allowance, Youth Allowance, etc.). Similar to the U.S, however, the Australian welfare system has recently been subject to reform. This welfare reform was partly influenced by the experiences of welfare reform in other developed countries like the U.S and U.K.⁶

In the U.S, welfare reform was driven by the notion that income support recipients should be expected to work, or actively participate in activities that promote participation in work. Discussions regarding barriers to employment typically focused on structural barriers, such as the labour supply disincentives of the welfare system and childcare and transportation costs (Olson and Pavetti, 1996). Discussions of individual barriers to employment often focused on the lack of education and training, but made little mention of mental health issues (Olson and Pavetti, 1996). The implicit assumption underlying welfare reform in the U.S was that persons on income support are similar in functioning to persons not on income support (Jayakody and Stauffer, 2000). It is only more recently that a growing literature has documented how many welfare recipients experience higher levels of psychiatric distress than individuals in the general population, and how these problems may affect their economic self-sufficiency. Sweeney (2000), for example, estimated that between one-quarter and one-third of current welfare recipients in the U.S had a severe mental health problem.

An important objective of Australia's welfare reform, through policies such as Welfare to Work and Australians Working Together, was to increase workforce participation for those with a capacity to work. In order to assist people with significant barriers to employment, such as those with mental illness, the Australian Government has for many years been providing specialist employment services such as the Personal Support

⁶ In 2000, a reference group made recommendations to the government regarding the direction of welfare reform in Australia (see the report "*Participation Support for a More Equitable Society: The Interim Report of the Reference Group on Welfare Reform*" by the Department of Family and Community Services).

Programme, Job Placement, Employment and Training, Disability Employment Network, Vocational Rehabilitation Services and specialist Job Network members.

To date, relatively little research on the mental health conditions of income support recipients has been done within the Australian context. Notable exceptions are the studies by Butterworth (2003) and Butterworth, Crosier and Rodgers (2004). Using data from the 1997 ABS National Survey of Mental Health and Wellbeing of Adults, Butterworth (2003) estimated the prevalence of mental health conditions among income support recipients and compared it to the general Australian population. His study found that mental illness is a significant issue among income support recipients with approximately 19 per cent of persons aged 18 years and over, and not on income support, having experienced a mental health disorder in the 12 months prior to the survey, compared with more than 30 per cent of income support recipients. Using data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey, Butterworth et al. (2004) similarly found that 28 per cent of income support recipients experienced a moderate to severe mental disability compared to about 14 per cent among those not receiving income support, echoing the results from Butterworth (2003).⁷

An important limitation of these two studies is that they were both based on self-reported survey data. Such self-reporting of health conditions is arguably less reliable than the administrative data held by agencies administering income support payments which require certified evidence of medical conditions. A significant contribution of this report, therefore, is its use of administrative data to analyse the relationship between mental illness, welfare dependency and employment outcomes. Technically, administrative data should be more reliable than self-reported survey data, since measurement error is less likely to be present within administrative data for medical conditions. It is worth bearing in mind, however, that administrative data could be subject to some reporting biases since people are only recorded as having a mental illness if they choose to submit a medical report to Centrelink. To the extent that input

⁷ It should be noted, however, that while Butterworth's (2003) measure of mental health was based on a computerised version of the Composite International Diagnostic Interview, Butterworth et al. (2004) used a definition based on the mental component summary score from the SF-36, which is a widely used self-completion measure of health status.

problems exist (e.g., human error in coding data, people interpreting requirements differently), administrative data may also be subject to inaccuracies.

The focus of the current report is restricted to DSP and NSA recipients in an attempt to reduce the likelihood of any bias from the under-reporting of medical conditions. The reason for this is that eligibility for DSP requires people to provide evidence for their medical conditions. Whereas, for NSA recipients information on medical conditions will be available if individuals have previously applied for DSP, been referred to a Job Capacity Assessment (JCA) because of an illness, injury or disability (whereby a JCA assesses their barriers to work and identifies services that can help them find work), or reported a medical condition to claim an exemption from participation requirements (which require them to look for work of at least 15 hours per week).

As an interesting aside to the main objectives of this report, a brief consideration is given to whether there were any observable changes in the reporting of medical conditions by NSA recipients that resulted from the introduction of the Welfare to Work policy on 1 July 2006. The most significant impact of the Welfare to Work policy, for the number of NSA recipients who report medical conditions, was the tightening of eligibility for DSP from persons who are unable to work 30 or more hours per week within two years to persons who are unable to work 15 or more hours per week within two years. Prior to the Welfare to Work changes, to be eligible for DSP one had to be classified as unable to work, where “work” was defined as a minimum of 30 hours per week (i.e., could not work a full 30 hours per week). From 1 July 2006, new claimants for DSP needed to have an assessed work capacity of less than 15 hours per week after two years with specialist services. Any new claimants with an assessed capacity to work of 15 to 29 hours per week were ineligible for DSP and instead applied for another income support payment, typically Newstart Allowance or Youth Allowance (other). On these payments each person had a part-time participation requirement in line with their assessed work capacity.

The introduction of the Welfare to Work policy resulted in persons with a moderate disability, who would have been eligible for DSP prior to 1 July 2006, only being eligible for NSA. Therefore, it may be the case that the proportion of individuals

receiving NSA who report having a mental illness (or other disability) will have increased after 1 July 2006.

It is important to note that NSA recipients are considerably different from DSP recipients in that they have always been activity-tested – meaning that they have always had requirements around working or looking for work. What is interesting about the Welfare to Work changes is that there now exist people who are receiving NSA who would have previously expected to be eligible for DSP.

There is some evidence to suggest that the dynamics of reporting mental health issues changed following the introduction of the Welfare to Work policy.⁸ If this is indeed found to be the case using the RED data, then emphasis should be placed on interpreting the results for NSA recipients from the post-Welfare to Work period.

⁸ This is based on internal research work done by DEEWR.

3. Data Sources

As previously mentioned, the data used in this project come from the Research and Evaluation Database (RED) and the Longitudinal Pathways Survey (LPS). The RED data analysed contain unit record level data for all individuals in Australia who received an income support payment (excluding the Age Pension and Department of Veterans Affairs (DVA) pensions) for at least one day between 1 July 2002 and 27 June 2008. This time period enables a consideration of the introduction of the Welfare to Work policy. Individuals who have had an episode of entitlement on an income support payment (excluding the Age Pension and DVA pensions) and who later reach pension age, still have their records retained in the RED data.

The LPS was undertaken as part of the Government's Welfare to Work initiative. It tracked the experiences of income support recipients over time. A distinguishing feature of the LPS is that, unlike administrative data, it continues to track income support recipients after they stop receiving income support. This is important as it provides information on the transitions people make between income support and employment, which can help to explain why some people manage to stay off income support, while others return to it.

This report used the first three waves of data from Cohort 1 of the LPS. These respondents were first interviewed in May/June of 2006 and interviewed again in November/December 2006 and May/June 2007 (i.e., in six month intervals). The sample for this cohort was drawn from individuals who had been receiving income support payments during the period September 2005 to February 2006 and prior to the Welfare to Work reforms. The LPS Cohort 1 sample was created by sampling sequentially from five strata: people with disability, principal carers, the very long-term unemployed, mature age income support recipients, and all other income support recipients. The first four strata were the Welfare to Work target groups.

4. Descriptive Statistics on the Incidence and Nature of Mental Illness

In this section we examine the incidence and nature of mental health conditions reported by individuals receiving DSP or NSA. Specifically, we look at their prevalence, the longevity of these conditions, the specific types of mental illness experienced and the extent to which affected individuals are reliant on income support. The analysis uses RED data, meaning the figures reported represent the entire Australian population of income support recipients. Five categories of mental health conditions are used in this report and Table 4.1 explicitly defines the conditions (as listed in RED) contained within each category. The first four categories were chosen to consist of mainly single conditions as on their own they each had relatively high frequencies in the RED data. The final category, however, was defined to consist of all remaining mental health conditions reported in RED.

Table 4.1: Definition of Mental Illness Categories

Category	Mental Health Conditions listed in RED
Depression	Depression
Anxiety	Anxiety
Alcohol/Drug Dependence	Alcohol Dependence Drug Dependence
Psychological Disorders	Psychological /Psychiatric Disorder - Other
Other	Anorexia Nervosa Bulimia Asperger's Disorder Autistic Disorder Behaviour Disorder Bi Polar Affective (Manic Depression) Child Disintegrative Disorder Emotionally Disturbed; Child/Adolescent Encopresis Enuresis Obsessive Compulsive Disorder Oppositional Defiant Disorder Paranoid Personality Disorder Phobias Post Traumatic Stress Disorder Psychosocial Deprivation Psychotic Schizophrenia Tourette's Syndrome

The incidences of mental illness and physical or other disabilities for DSP and NSA recipients over the financial years 2002-03 to 2007-08 are presented in Table 4.2.⁹

Table 4.2: Incidences of mental illness and other disability – DSP and NSA recipients (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
DSP recipients						
Mental illness only	18.4	19.7	20.4	20.7	20.6	19.8
Other disability only	69.9	70.7	69.8	68.7	67.0	64.8
Mental illness and other disability	7.5	8.4	9.2	10.4	12.3	15.4
No mental illness or other disability	4.1	1.2	0.6	0.2	0.1	0.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>694,835</i>	<i>716,946</i>	<i>730,810</i>	<i>736,850</i>	<i>736,296</i>	<i>750,372</i>
NSA recipients						
Mental illness only	8.2	9.4	10.6	11.7	12.7	14.2
Other disability only	21.7	24.3	26.5	28.2	29.0	30.2
Mental illness and other disability	5.5	6.1	6.8	7.5	9.5	10.9
No mental illness or other disability	64.6	60.2	56.1	52.6	48.9	44.6
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>942,266</i>	<i>886,250</i>	<i>837,712</i>	<i>795,664</i>	<i>762,878</i>	<i>700,132</i>

Notes: Medical conditions are identified using the four ‘medical condition code’ variables in the ‘Medical Details’ dataset. To present figures by financial year, the start and end dates for medical conditions ‘medical details start date’ and ‘medical details end date’ are used. In cases where end dates are missing, an end date of 27 June 2008 (RED extraction date) is assigned if a medical condition is reported as being temporary, recurring or permanent. For current DSP recipients with no medical conditions identified in the ‘Medical Details’ dataset, information regarding their earliest recorded medical condition in the ‘DSP Claim Medical Details’ dataset is used to determine their type of medical condition.

In order to place the incidence of mental illness into perspective, recipients with mental illnesses are compared with recipients with disabilities other than mental illness. As a result, we defined the following four sub-groups based on the types of disability experienced:

- “Mental illness only” - if the individual experienced any type of mental illness condition during the year regardless of duration (e.g. whether temporary, recurring or permanent)
- “Other disability only” - if the individual experienced a physical or intellectual learning disability during the year¹⁰

⁹ Financial years in Australia begin on 1 July and end on 30 June.

¹⁰ This covers a wide array of physical and intellectual learning disabilities (in excess of 200 conditions), which can be found listed in the RED supporting documentation.

- “Mental illness and other disability” - if the individual experienced any type of mental illness condition and experienced some other disability during the year
- “No mental illness or other disability” - all remaining cases.

For DSP recipients, the proportion of individuals with a mental illness only remained relatively constant between 2002-03 and 2007-08 (between 18 and 21 per cent). Over the same period, there was a small decrease in the percentage of DSP recipients with other disabilities (from 69.9 to 64.8 per cent), but an increase in the percentage of DSP recipients with both a mental illness and other disability (from 7.5 to 15.4 per cent). In comparison, there was an increase in the proportion of NSA recipients reporting a mental illness only (from 8.2 per cent in 2002-03 to 14.2 per cent in 2007-08), an increase in the percentage of NSA recipients with other disabilities only (from 21.7 per cent in 2002-03 to 30.2 per cent in 2007-08), and an increase in the percentage of NSA recipients reporting both a mental illness and other disabilities (from 5.5 per cent in 2002-03 to 10.9 per cent in 2007-08). On the other hand, the proportion of NSA recipients with no mental illness or other disability decreased. In 2002-03, 64.6 per cent of NSA recipients reported having no disability, but this percentage decreased to 44.6 per cent by 2007-08.

As noted earlier, it is possible that the tightening of DSP eligibility criteria could have contributed to this increase in the number of NSA recipients who reported a mental illness or other disability, although the upward trend seems to have started even before Welfare to Work. In Table 4.2, noteworthy too is the decrease in sample sizes from 2002-03 to 2007-08, which imply that fewer people were on income support by 2007-08. This likely reflects the strong economic conditions prevailing during that time period.

4.1 Longevity of Mental Illness

In addition to containing information on the types of medical conditions experienced by individuals, the RED data contain information regarding the longevity of each individual’s condition. This longevity is categorised into four possibilities: permanent, recurring, temporary and no mental illness. A permanent medical condition is one that persists for an extended period of time, such as paraplegia, and is likely to have a significant impact on the individual and their continuing capacity to work. A recurring

medical condition is one that will come and go with periods of wellness or remission of the symptoms, such as asthma or multiple sclerosis. A temporary incapacity is generally accepted to mean the individual is incapacitated for less than two years, whereby in most cases the recovery of the ability to work or look for work is expected to occur before week 52 and is likely to be resolved from medical treatment. Table 4.3 tabulates this information for DSP and NSA recipients.

Table 4.3: Longevity of mental illness – DSP and NSA recipients (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<i>DSP recipients</i>						
Permanent	22.5	25.0	26.8	28.5	30.1	32.0
Recurring	0.1	0.1	0.1	0.1	0.2	0.2
Temporary	1.0	1.0	1.0	1.0	1.3	1.9
No mental illness	76.5	73.9	72.1	70.4	68.4	65.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>673,209</i>	<i>697,209</i>	<i>713,241</i>	<i>721,212</i>	<i>722,237</i>	<i>737,468</i>
<i>NSA recipients</i>						
Permanent	2.1	2.7	3.2	3.7	4.9	7.3
Recurring	0.5	1.0	1.6	2.1	2.9	2.7
Temporary	11.1	11.8	12.7	13.4	14.2	15.2
No mental illness	86.3	84.5	82.6	80.8	77.9	74.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>942,266</i>	<i>886,250</i>	<i>837,712</i>	<i>795,664</i>	<i>762,878</i>	<i>700,132</i>

Notes: Longevity of mental illness is identified using the four ‘medical condition type’ variables in the ‘Medical Details’ dataset, which have three values: temporary, recurring, and permanent. For individuals with multiple mental illness conditions, their longevity of mental illness is defined as the most serious of their individual conditions: whereby permanent > recurring > temporary. For current DSP recipients with no medical conditions identified in the ‘Medical Details’ dataset, information regarding the longevity of their mental illness is unable to be identified. This explains why sample sizes in Table 4.3 for DSP recipients are slightly smaller than in Table 4.2.

For the vast majority of DSP recipients with a mental illness, the medical condition was diagnosed as permanent. In contrast, less than one-third of NSA recipients who reported having a mental illness were reported as having a permanent condition.¹¹ Particularly noteworthy is the increase in permanent conditions over time for DSP recipients. For example, the percentage of DSP recipients with a permanent mental illness was 22.5 per cent in 2002-03, but increased to 32.0 per cent in 2007-08. There was also a gradual increase over time in the percentage of NSA recipients with permanent (recurring) conditions, from 2.1 (0.5) per cent in 2002-03 to 7.3 (2.7) per cent in 2007-08.

¹¹ This proportion is calculated using the numbers in Table 4.3 for individuals who reported having a mental illness. For example, in 2007-08, this is computed as $[7.3/(7.3 + 2.7 + 15.2)] = 29$ per cent.

4.2 Type of Disability and Reliance on Income Support

To examine how recipients with mental illness or other disabilities differ in the extent to which they are reliant on income support, we employ a measure of welfare reliance known as the total proportion of income from welfare payments (TPI). The TPI measure was derived in several steps. First, we calculated the total amount of income support basic entitlements received by each individual in each year. Next, we calculated total income as the sum of the total amount of continuous earnings (income from non-variable earnings), total variable earnings (income from non-regular earnings), and total unearned income (income from ordinary income that is not employment income, such as income support) received by each individual in each year. Then, following Black, Oguzoglu and Wilkins (2006), we calculated a TPI measure which is equivalent to the ‘average fortnightly TPI for each individual over the year’ as follows:

$$\text{TPI} = (\text{Total income support basic entitlements} / \text{Total income}) \times \text{Proportion time on income support during the year (in fortnights)}$$

Using this TPI measure, we defined four categories of welfare reliance, the same categories as used in Black et al. (2006), which capture different degrees of welfare reliance as follows:¹²

- ‘Zero’: $\text{TPI} = 0$
- ‘Low’: $0 < \text{TPI} < 0.50$
- ‘Medium’: $0.50 \leq \text{TPI} < 0.90$
- ‘High’: $0.90 \leq \text{TPI} \leq 1.0$.

From the data we observed that in some instances individuals have a $\text{TPI} = 0$, which occurs when individuals have a total income support basic entitlement of zero during their time on income support in a particular year. There are several reasons why an individual may have a zero basic entitlement: (i) individuals accessing the Community Development Employment Project (CDEP) may have zero basic entitlement, but their income support recipient status is maintained; (ii) under social security legislation, individuals can continue to qualify for an income support payment for up to 12 weeks

¹² Although different groupings of TPI are possible, our grouping is based on an examination of the muted ‘U-shaped’ TPI distribution in the data (e.g., see Figures 5a and 5b in Black et al. (2006)) and helps to distinguish between heavily reliant income support recipients and less heavily reliant recipients.

after they stop receiving a payment due to employment income in some circumstances; and (iii) individuals who recently commenced an income support payment and the entitlement to payment is recorded in the Income Security Integrated System (ISIS) after the extract date (i.e., the date when the administrative data are extracted from the system) or the entitlement amount has a date of effect after the extract date.

It is also worth remembering, that in constructing a TPI measure from administrative data, the potential exists for under-reporting of private income. That is, since all income support benefits are subject to income tests there exist incentives for under-reporting of private income. The extent to which under-reporting actually occurs is, by definition, unknown, although it is likely that failure to report income is largely confined to untaxed earnings in the ‘informal’ economy.¹³ The implication of this feature of the data is that welfare reliance estimates may be upwardly biased. However, as the number of people who under-report income is likely to be a very small proportion of all people on income support, and the amount of any unreported income is likely to be small, any upward bias of the estimates caused by this is likely to be insignificant.

In Table 4.4 we observed that DSP recipients generally have high levels of TPI, with between 70 to 85 per cent highly reliant on welfare, irrespective of the year or type of disability. Over time, among DSP recipients, there appears to be a downward trend in the proportion of DSP recipients who have high levels of TPI.

¹³ Centrelink checks the reported income of income support recipients against tax returns filed with the Australian Taxation Office to identify people who are not reporting earnings from employment. Therefore, it is highly likely that under-reporting of income is confined to untaxed earnings from the ‘informal’ economy.

Table 4.4: Welfare reliance (TPI) by instances of mental illness and other disability – DSP recipients (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<i>Mental illness only</i>						
Zero (TPI=0)	0.3	0.1	0.2	0.1	0.1	0.1
Low (0<TPI<0.50)	5.1	7.4	8.1	8.5	8.4	8.5
Medium (0.50≤TPI<0.90)	8.7	14.1	15.7	15.9	15.6	15.6
High (0.90≤TPI≤1.0)	85.9	78.4	76.1	75.5	75.9	75.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>128,087</i>	<i>141,173</i>	<i>149,034</i>	<i>152,372</i>	<i>151,433</i>	<i>148,735</i>
<i>Other disability only</i>						
Zero (TPI=0)	0.6	0.3	0.4	0.3	0.3	0.2
Low (0<TPI<0.50)	6.6	9.6	10.5	10.7	10.7	10.7
Medium (0.50≤TPI<0.90)	9.1	17.8	20.1	20.4	19.0	19.3
High (0.90≤TPI≤1.0)	83.7	72.2	69.1	68.6	70.1	69.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>485,919</i>	<i>506,696</i>	<i>510,231</i>	<i>506,052</i>	<i>493,198</i>	<i>486,097</i>
<i>Mental illness and other disability</i>						
Zero (TPI=0)	1.2	0.7	0.8	0.78	0.5	0.3
Low (0<TPI<0.50)	9.3	10.4	10.9	11.2	11.7	11.1
Medium (0.50≤TPI<0.90)	11.9	17.0	18.9	19.0	18.6	18.7
High (0.90≤TPI≤1.0)	77.7	71.8	69.3	69.2	69.2	69.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>52,043</i>	<i>60,401</i>	<i>67,425</i>	<i>76,821</i>	<i>90,841</i>	<i>115,523</i>
<i>No mental illness or other disability</i>						
Zero (TPI=0)	10.3	0.1	0.1	0.4	0.1	0.0
Low (0<TPI<0.50)	1.9	4.5	6.7	7.5	7.8	11.8
Medium (0.50≤TPI<0.90)	6.4	15.9	17.1	19.5	19.2	23.5
High (0.90≤TPI≤1.0)	81.4	79.5	76.0	72.5	72.9	64.7
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>28,786</i>	<i>8,676</i>	<i>4,300</i>	<i>1,605</i>	<i>824</i>	<i>17</i>

Notes: Derivation of the TPI measure was based on the ‘Basic Entitlements’, ‘Continuous Earnings’, ‘Variable Earnings’ and ‘Unearned Income’ datasets. The ‘Unearned Income’ dataset does not contain information prior to 20 September 2003, so TPI measures for the financial year 2002-2003 do not contain information on unearned income.

In contrast, Table 4.5 indicated that NSA recipients were relatively less likely to be heavily welfare reliant, with between 30 to 40 per cent of NSA recipients with a mental illness having a TPI value between 0.9 and 1. The sub-group of NSA recipients most heavily reliant on welfare are those with both a mental illness and some other disability. Across all years, more than 40 per cent of these NSA recipients had TPI values between 0.9 and 1. As for DSP recipients, there also appears to be a downward trend in the proportion of NSA recipients who are highly dependent on income support.

Table 4.5: Welfare reliance (TPI) by instances of mental illness and other disability – NSA recipients (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<i>Mental illness only</i>						
Zero (TPI=0)	1.1	0.8	1.1	1.4	1.4	1.4
Low (0<TPI<0.50)	35.3	37.3	39.4	40.4	42.7	43.6
Medium (0.50≤TPI<0.90)	24.7	24.8	25.4	24.6	24.2	23.4
High (0.90≤TPI≤1.0)	39.0	37.1	34.0	33.7	31.8	31.7
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>77,351</i>	<i>83,389</i>	<i>88,946</i>	<i>93,389</i>	<i>96,498</i>	<i>99,638</i>
<i>Other disability only</i>						
Zero (TPI=0)	1.4	1.3	1.7	1.9	1.9	2.0
Low (0<TPI<0.50)	38.7	41.2	44.8	46.0	48.0	49.5
Medium (0.50≤TPI<0.90)	23.4	24.3	25.1	24.3	23.9	22.9
High (0.90≤TPI≤1.0)	36.5	33.2	28.4	27.8	26.2	25.6
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>204,267</i>	<i>215,112</i>	<i>221,974</i>	<i>224,428</i>	<i>221,383</i>	<i>211,463</i>
<i>Mental illness and other disability</i>						
Zero (TPI=0)	0.3	0.4	0.7	0.8	0.8	0.7
Low (0<TPI<0.50)	21.3	24.6	27.1	28.1	28.8	30.1
Medium (0.50≤TPI<0.90)	24.4	25.9	27.9	27.5	27.9	27.2
High (0.90≤TPI≤1.0)	54.0	49.2	44.3	43.6	42.5	42.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>51,917</i>	<i>53,857</i>	<i>56,753</i>	<i>59,672</i>	<i>72,067</i>	<i>76,529</i>
<i>No mental illness or other disability</i>						
Zero (TPI=0)	4.0	3.2	4.1	4.7	5.2	5.6
Low (0<TPI<0.50)	55.0	57.8	61.0	62.3	65.0	66.0
Medium (0.50≤TPI<0.90)	17.9	18.7	18.5	17.5	16.4	15.6
High (0.90≤TPI≤1.0)	23.2	20.3	16.5	15.5	13.4	12.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>608,731</i>	<i>533,892</i>	<i>470,039</i>	<i>418,175</i>	<i>372,930</i>	<i>312,502</i>

Note: See Notes on Table 4.4.

In general, the large difference observed in welfare reliance (TPI) for DSP and NSA recipients is not surprising for several reasons. First, most DSP recipients have a more severe disability than NSA recipients, and the latter are more likely to be working. In addition, NSA recipients are subject to an activity test which requires them to work, look for work, or undertake activities that improve their chances of finding work, thus making it less likely that they will be long-term recipients. Finally, NSA recipients also receive lower benefit payments than DSP recipients.

Focusing only on DSP recipients with a mental illness, Table 4.6 compares the impact of the longevity of the recipients' mental illness on their reliance on income support. For DSP recipients, persons with permanent or recurring mental illnesses were equally likely to be highly welfare reliant (although only a small number of DSP recipients had recurring mental illnesses); DSP recipients with temporary mental illnesses were less

reliant on welfare, although there was still a large proportion of them (approximately 60 to 70 per cent) in the highest TPI category.

Table 4.6: Welfare reliance (TPI) by longevity of mental illness – DSP recipients with a mental illness (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<i>Permanent mental illness</i>						
Zero (TPI=0)	0.5	0.3	0.3	0.3	0.2	0.2
Low (0<TPI<0.50)	6.8	8.7	9.3	9.6	9.6	9.7
Medium (0.50≤TPI<0.90)	10.1	14.9	16.6	16.9	16.6	16.9
High (0.90≤TPI≤1.0)	82.6	76.1	73.7	73.1	73.5	73.2
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>151,236</i>	<i>174,313</i>	<i>191,186</i>	<i>205,722</i>	<i>217,452</i>	<i>235,862</i>
<i>Recurring mental illness</i>						
Zero (TPI=0)	2.3	0.2	0.5	0.7	0.5	0.2
Low (0<TPI<0.50)	3.6	7.1	8.7	9.0	8.3	7.7
Medium (0.50≤TPI<0.90)	11.0	20.6	20.6	19.4	18.2	18.2
High (0.90≤TPI≤1.0)	83.2	72.1	70.2	70.9	73.1	73.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>564</i>	<i>602</i>	<i>759</i>	<i>985</i>	<i>1,140</i>	<i>1,552</i>
<i>Temporary mental illness</i>						
Zero (TPI=0)	3.0	1.3	1.1	0.8	0.8	0.5
Low (0<TPI<0.50)	11.8	9.3	10.1	11.5	16.9	12.0
Medium (0.50≤TPI<0.90)	13.9	17.8	20.1	19.3	21.2	20.1
High (0.90≤TPI≤1.0)	71.4	71.7	68.7	68.5	61.1	67.4
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>6,704</i>	<i>6,917</i>	<i>6,765</i>	<i>6,848</i>	<i>9,623</i>	<i>13,940</i>

Note: See Notes on Tables 4.3 and 4.4.

In the case of NSA recipients, persons with permanent conditions were more likely to be highly welfare reliant than persons with recurring conditions, who in turn were more likely to be highly welfare reliant than persons with temporary conditions (Table 4.7). The proportion of NSA recipients with temporary mental illness in the low TPI category was 32.5 per cent in 2002-03 and increased each year to 43.2 per cent by 2007-08. On the other hand, the proportion of NSA recipients with temporary mental illness in the high TPI category was 41.5 per cent in 2002-03 and decreased each year to 31.4 per cent in 2007-08. Overall, as relatively fewer recipients were in the medium TPI category, the TPI distribution for NSA recipients is more concentrated at low and high values of TPI (i.e., TPI has a ‘U-shaped’ or bi-modal distribution among NSA recipients).

Table 4.7: Welfare reliance (TPI) by longevity of mental illness – NSA recipients with a mental illness (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<i>Permanent mental illness</i>						
Zero (TPI=0)	0.3	0.4	0.9	0.9	0.7	0.6
Low (0<TPI<0.50)	16.8	19.8	23.1	24.6	25.7	27.3
Medium (0.50≤TPI<0.90)	20.8	23.2	24.5	24.3	25.5	26.1
High (0.90≤TPI≤1.0)	62.1	56.6	51.69	50.2	84.2	46.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>20,032</i>	<i>23,954</i>	<i>26,361</i>	<i>29,205</i>	<i>37,518</i>	<i>51,198</i>
<i>Recurring mental illness</i>						
Zero (TPI=0)	0.4	0.4	0.6	0.8	0.6	0.7
Low (0<TPI<0.50)	23.1	24.2	26.9	29.3	31.4	35.2
Medium (0.50≤TPI<0.90)	25.7	26.6	27.7	27.4	28.1	27.9
High (0.90≤TPI≤1.0)	50.8	48.9	44.8	42.5	39.8	36.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>4,637</i>	<i>8,891</i>	<i>13,011</i>	<i>16,906</i>	<i>22,409</i>	<i>18,616</i>
<i>Temporary mental illness</i>						
Zero (TPI=0)	0.9	0.7	1.0	1.3	1.3	1.4
Low (0<TPI<0.50)	32.5	35.9	38.4	39.6	41.7	43.2
Medium (0.50≤TPI<0.90)	25.2	25.6	26.7	25.9	25.4	24.1
High (0.90≤TPI≤1.0)	41.5	37.9	33.8	33.3	31.6	31.4
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>104,599</i>	<i>104,401</i>	<i>106,327</i>	<i>106,950</i>	<i>108,638</i>	<i>106,353</i>

Note: See Notes on Tables 4.3 and 4.4.

For our analyses in this report, we classified the various mental health conditions listed in the RED data into five broad mental illness type categories, these are: depression, anxiety disorders, substance use disorders, psychological disorders, and other disorders.¹⁴ Focusing again on DSP and NSA recipients with a mental illness, it is apparent that the nature of mental health conditions differs by income support payment type. Table 4.8 suggests that depression, anxiety, and alcohol/drug disorders were more common among NSA recipients than DSP recipients. On the other hand, psychological disorders and other disorders were found to be more prevalent among DSP recipients than NSA recipients.

¹⁴ Such a broad grouping of the 24 mental disorders listed in RED is necessary to avoid small cell sizes. See Table 4.1 (above) for details on how the five broad categories are defined in this report.

Table 4.8: Types of mental illness – DSP and NSA recipients with a mental illness (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
DSP recipients						
Depression	24.2	24.7	25.6	27.4	30.3	34.7
Anxiety	8.0	8.0	8.3	8.8	9.9	11.5
Alcohol or drug dependence	6.5	6.6	6.9	7.4	7.8	8.5
Psychological disorders	81.5	78.8	71.5	65.5	57.5	47.9
Other	18.3	18.6	20.1	22.2	24.5	26.9
Sample size (N)	158,504	179,203	194,840	208,363	222,684	245,582
NSA recipients						
Depression	64.0	63.6	63.6	63.3	65.0	65.0
Anxiety	28.0	27.9	28.2	28.3	30.8	30.4
Alcohol or drug dependence	20.4	20.9	20.7	20.9	21.6	21.7
Psychological disorders	15.3	13.6	13.3	13.2	12.2	9.6
Other	14.2	14.4	14.1	14.5	15.6	15.7
Sample size (N)	129,268	137,246	145,699	153,061	168,565	176,167

Notes: Individuals may report experiencing multiple mental illness conditions at any one time and during each year, so these figures need not sum to 100.0%. For current DSP recipients with no medical conditions identified in the ‘Medical Details’ dataset, information regarding the type of their mental illness is unable to be identified.

4.3 Mental Illness by Age

In Tables 4.9 and 4.10 we examined the age distribution of DSP and NSA recipients with mental illness.¹⁵ We found that DSP recipients in the 45-54 and 55-64 age ranges had the highest rates of depression and anxiety (Table 4.8). On the other hand, DSP recipients in a younger age group – the 35-44 and 45-54 age ranges – were most likely to have issues involving alcohol or drug dependence. Further, the incidence of psychological disorders among DSP recipients was highest for recipients in the 45-54 age range (over 30 per cent), while DSP recipients in the 35-44 age range had the second highest incidence of psychological disorders (23-27 per cent). Despite DSP recipients in the 55-64 age range having a relatively low incidence of psychological disorders in 2002-2003 (13.7 per cent), an approximate 3 percentage point increase every year led to a doubling of the proportion of recipients with psychological disorders by 2007-08 (27 per cent).

¹⁵ Note we do not present results for the age category 65-74 years since we are primarily interested in individuals of working-age (15 to 64 years) and because in all cases these cells contain 0.2% or less of the population being considered.

Table 4.9: Mental illness by age – DSP recipients with a mental illness (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Depression						
15-24	4.5	4.3	4.1	3.8	3.7	3.6
25-34	11.6	11.0	10.3	9.6	9.1	8.5
35-44	23.2	22.0	21.5	20.8	20.8	20.4
45-54	35.6	34.5	34.1	33.7	33.4	33.4
55-64	25.2	28.1	30.0	31.9	32.9	33.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>38,377</i>	<i>44,307</i>	<i>49,966</i>	<i>57,136</i>	<i>67,429</i>	<i>85,244</i>
Anxiety						
15-24	5.2	5.2	5.4	5.3	5.4	5.6
25-34	12.0	11.1	10.8	10.0	10.2	10.3
35-44	22.1	21.4	20.7	20.4	20.7	21.2
45-54	33.9	32.7	31.9	31.7	31.2	30.8
55-64	26.8	29.6	31.3	32.5	32.4	31.9
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>12,686</i>	<i>14,251</i>	<i>16,215</i>	<i>18,246</i>	<i>21,932</i>	<i>28,275</i>
Alcohol or drug dependence						
15-24	4.5	4.0	3.5	2.8	2.6	2.8
25-34	19.4	18.4	17.1	16.2	15.1	14.0
35-44	33.8	33.3	32.9	32.3	31.8	31.3
45-54	30.4	31.1	32.2	32.9	33.6	34.5
55-64	12.0	13.2	14.3	15.8	16.9	17.4
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>10,359</i>	<i>11,838</i>	<i>13,463</i>	<i>15,339</i>	<i>17,297</i>	<i>20,753</i>
Psychological disorders						
15-24	8.7	7.9	7.1	6.3	5.4	4.4
25-34	18.9	18.3	17.5	16.6	15.6	14.0
35-44	27.6	26.7	25.9	25.0	24.1	23.1
45-54	31.0	30.8	30.8	30.7	30.9	31.2
55-64	13.7	16.3	18.6	21.7	23.8	27.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>129,147</i>	<i>143,264</i>	<i>141,786</i>	<i>139,146</i>	<i>120,207</i>	<i>119,499</i>
Other						
15-24	18.4	18.5	18.8	17.5	17.0	16.4
25-34	24.6	24.3	24.0	24.0	23.5	22.6
35-44	26.7	25.7	25.6	25.5	25.7	26.0
45-54	21.9	21.6	21.6	21.8	22.0	22.6
55-64	8.4	9.9	10.5	11.2	11.8	12.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>28,947</i>	<i>33,281</i>	<i>39,217</i>	<i>46,221</i>	<i>54,633</i>	<i>66,124</i>

Note: Individuals' age is defined at 1 July for each financial year.

Table 4.10: Mental illness by age – NSA recipients with a mental illness (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Depression						
15-24	13.5	13.9	13.9	13.6	12.8	12.2
25-34	30.0	29.4	29.0	28.0	27.1	26.3
35-44	26.8	26.3	25.8	25.6	26.3	26.9
45-54	21.5	21.5	21.7	22.0	22.6	23.2
55-64	8.3	8.9	9.7	10.7	11.3	11.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size (N)	82,727	87,260	92,689	96,879	109,498	114,430
Anxiety						
15-24	13.3	13.8	13.9	13.9	13.3	12.9
25-34	28.7	28.8	28.9	27.9	27.4	27.0
35-44	26.2	25.5	25.0	24.5	25.0	25.7
45-54	22.0	21.6	21.4	21.8	22.2	22.4
55-64	9.9	10.3	10.9	11.9	12.1	12.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size (N)	36,134	38,268	41,135	43,376	51,966	53,599
Alcohol or drug dependence						
15-24	20.6	19.6	18.6	16.8	15.3	13.4
25-34	43.6	44.1	44.0	43.8	42.5	41.9
35-44	24.4	24.9	25.1	26.3	27.6	28.8
45-54	9.6	9.6	10.1	10.8	11.8	12.7
55-64	1.8	1.9	2.2	2.3	2.8	3.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size (N)	26,414	28,612	30,208	32,032	36,481	38,239
Psychological disorders						
15-24	15.4	16.5	16.3	15.8	16.1	15.3
25-34	33.6	33.4	33.1	32.1	31.7	31.9
35-44	25.6	24.8	24.5	25.2	25.4	26.3
45-54	18.6	17.9	18.1	18.6	18.4	18.4
55-64	6.9	7.4	8.0	8.3	8.3	8.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size (N)	19,808	18,601	19,361	20,190	20,544	16,924
Other						
15-24	22.8	22.5	22.2	22.1	20.5	19.3
25-34	39.1	39.1	39.6	38.1	36.9	36.0
35-44	22.5	22.5	22.4	23.1	24.4	26.0
45-54	12.4	12.4	12.0	12.4	13.3	14.0
55-64	3.3	3.6	3.8	4.3	4.9	4.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Sample size (N)	18,302	19,766	20,582	22,146	26,322	27,602

Note: See Note on Table 4.9.

From Table 4.10, we observed that between 2002-03 and 2006-07, NSA recipients in the 25-34 age range had the highest rates of depression and anxiety, followed closely by recipients in the 35-44 age range, and then by recipients in the 45-54 age range. In all three of these age categories, between 20 and 30 per cent of recipients reported having depression and anxiety disorders. NSA recipients in the 25-34 age range are also most likely to suffer from alcohol/drug dependence, psychological disorders and other

disorders. From 2002-03 to 2007-08, there was a decrease from 20.6 per cent to 13.4 per cent of NSA recipients in the 15-24 age range who had alcohol/drug dependence issues, but an increase from 1.8 per cent to 3.2 per cent of 55-64 year olds with such issues.

In general, it appears that depression and anxiety affect NSA recipients over a wide age distribution, and mainly DSP recipients over 35. Substance abuse disorders are more likely to be a problem affecting younger NSA recipients, but are also a problem for middle-aged DSP recipients. To some extent, however, these differences in the incidence of mental illness by age reflect the different age distributions of persons in the DSP and NSA populations – whereby, on average, DSP recipients are older than NSA recipients. For example, in 2007-08, the average age of DSP recipients was 48.64 whereas the average age for NSA recipients was 38.88.

5. Attitudes and Difficulties of Income Support Recipients with Mental Illness

5.1 Attitudes Towards Welfare and Work

This section examines the attitudes towards welfare and work of DSP and NSA recipients with mental health conditions, and compares them with those of income support recipients with other disabilities, or with no disability. The data analysed in this section comes from responses to a series of questions in LPS that asked:

“Now a few questions to get an overview of your attitudes and opinions. It is important that we ask these questions of everyone. To what extent do you agree or disagree that...?”

The possible responses range from 1 to 5, with 1 denoting ‘strongly agree’, 3 denoting ‘neither agree nor disagree’ and 5 denoting ‘strongly disagree’.¹⁶

Figures 5a and 5b provide a summary of the responses based on combining Waves 1 to 3 of the LPS data. For each of the seven attitudinal questions asked, the proportion of recipients either strongly agreeing, agreeing, neither agreeing nor disagreeing, disagreeing, or strongly disagreeing has been provided. In the top left panel of Figure 5a, for example, it can be seen that DSP recipients are more likely to have agreed than disagreed that studying and training is a good way of getting ahead. In Cohort 1 of the LPS data, note that no DSP recipients are identified as having no mental illness or other disability.¹⁷ Hence, Figure 5a only depicts three groups of recipients: those with mental illness only; those with other disabilities only; and, those with both mental illness and other disabilities. In general, the differences in attitudes among DSP recipients with different types of disorders are not large.

¹⁶ Note that the mid-point response was not read out to respondents, and was selected by the interviewer if the respondent couldn’t really say if he/she agreed or disagreed with the statement.

¹⁷ This is also reflected in Table 4.2, where with improved recording procedures over time in the administrative data, hardly any DSP recipients were identified as having no mental illness or other disability.

Figure 5a: Attitudes to welfare and work by instances of mental illness and other disability – DSP recipients

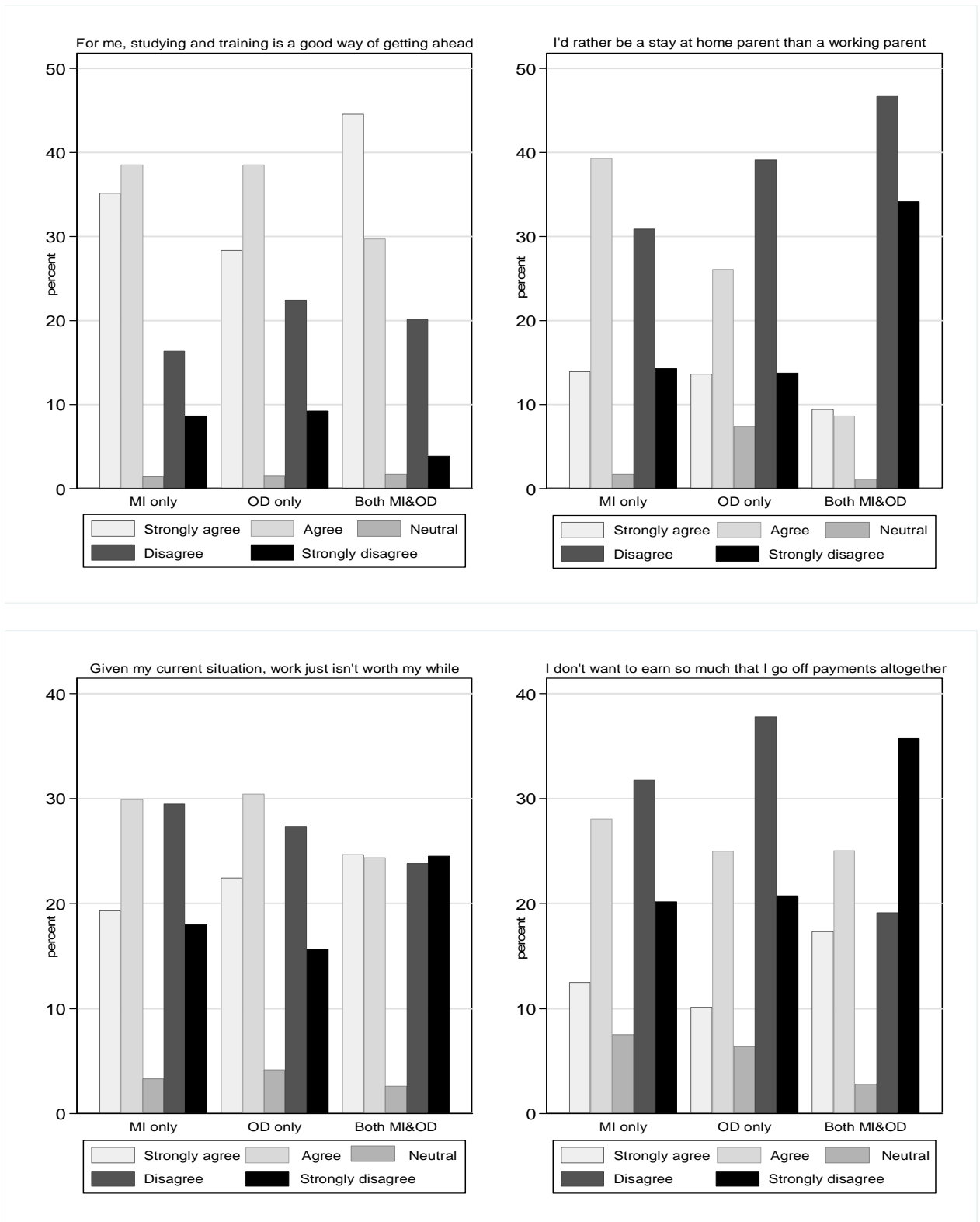
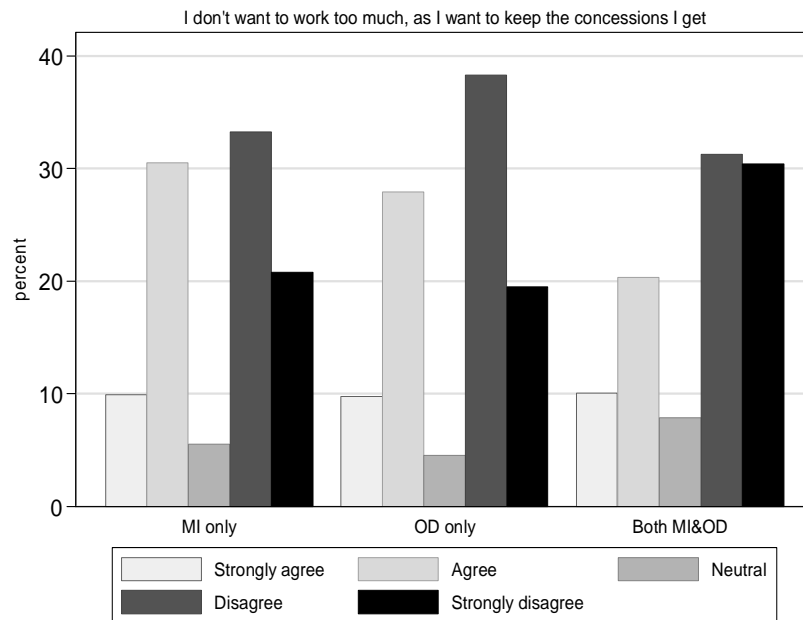
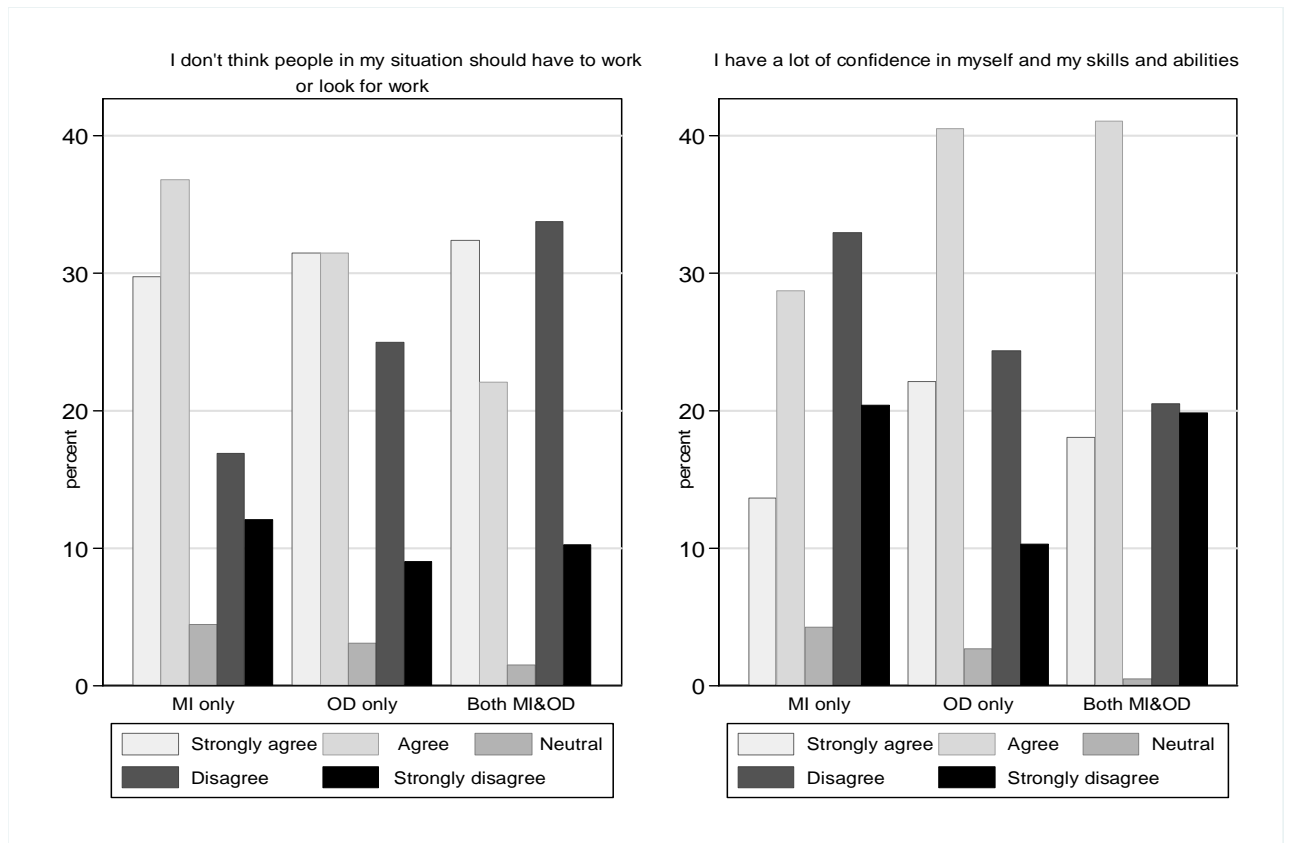


Figure 5a: continued



Note: Figures are based on analysis of LPS data pooled across Waves 1 to 3 and are weighted to make them representative of all individuals on income support during the respective reference periods.

It appears that DSP recipients with a mental illness, on average, disagreed with the following statements:

- *I want to work to get extra money, but not so much that I go off payments altogether; and,*
- *I don't want to work too much, as I want to keep the concessions I get.*

They also, on average, agreed with the statement that:

- *For me, studying and training is a good way of getting ahead;*
- *I don't think people in my situation should have to work or look for work.*

Finally, DSP recipients with a mental illness were somewhat neutral on the notions that:

- *Given my current situation, work just isn't worth my while;*
- *I'd rather be a stay home parent than a working parent; and,*
- *I have a lot of confidence in myself and my skills and abilities.*

For DSP recipients as a whole, despite the physical, intellectual and psychiatric impairments they face in their daily lives, many still saw studying and training as a way to get ahead in the future.

Figure 5b: Attitudes to welfare and work by instances of mental illness and other disability – NSA recipients

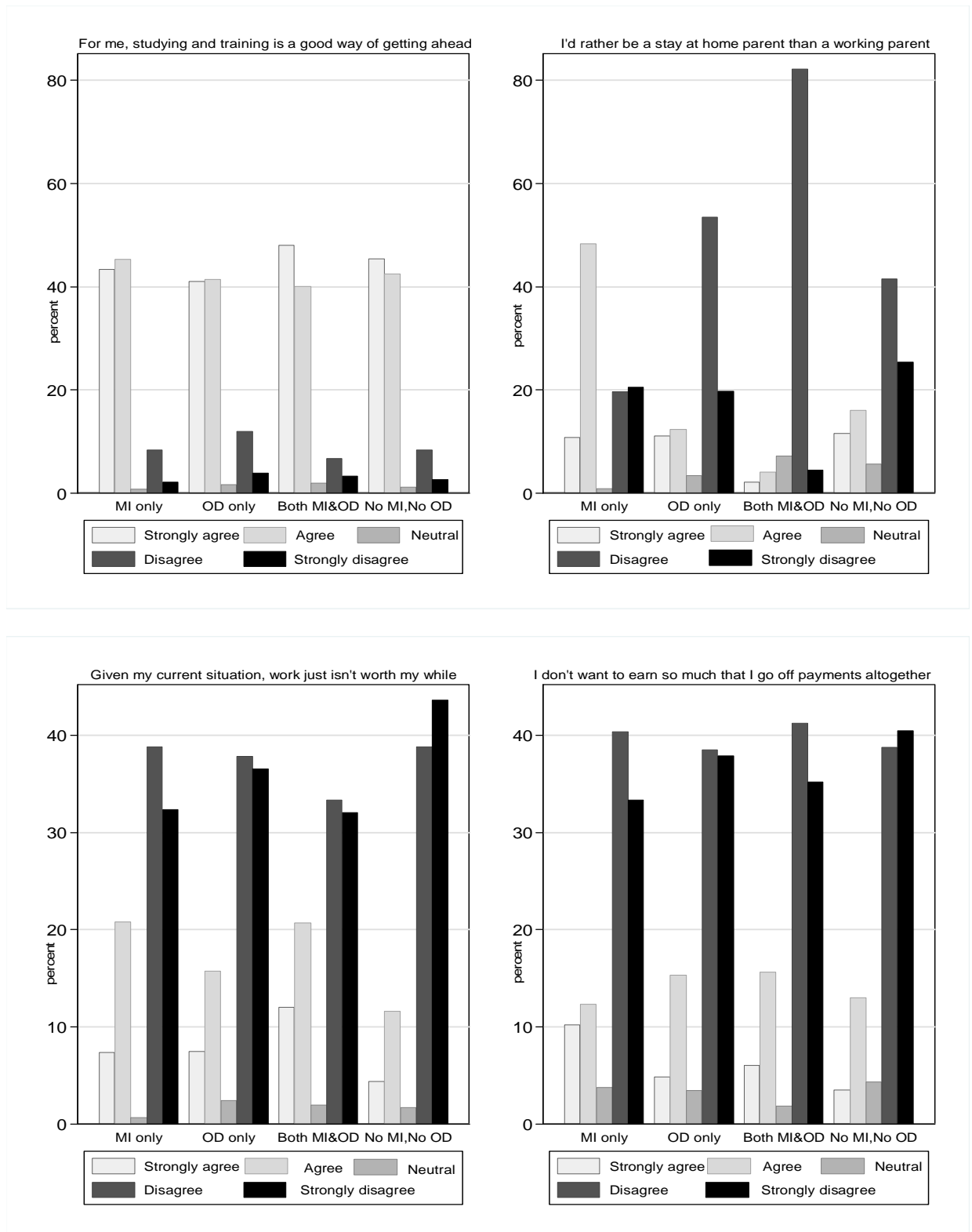
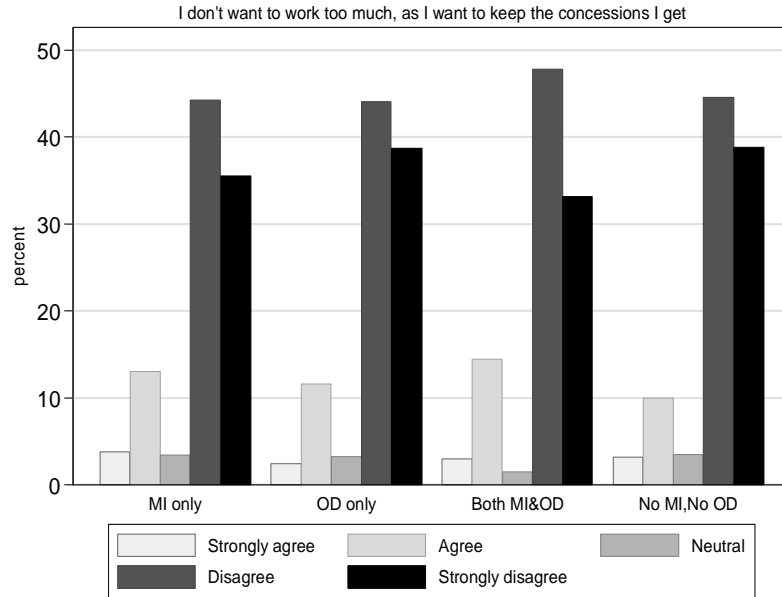
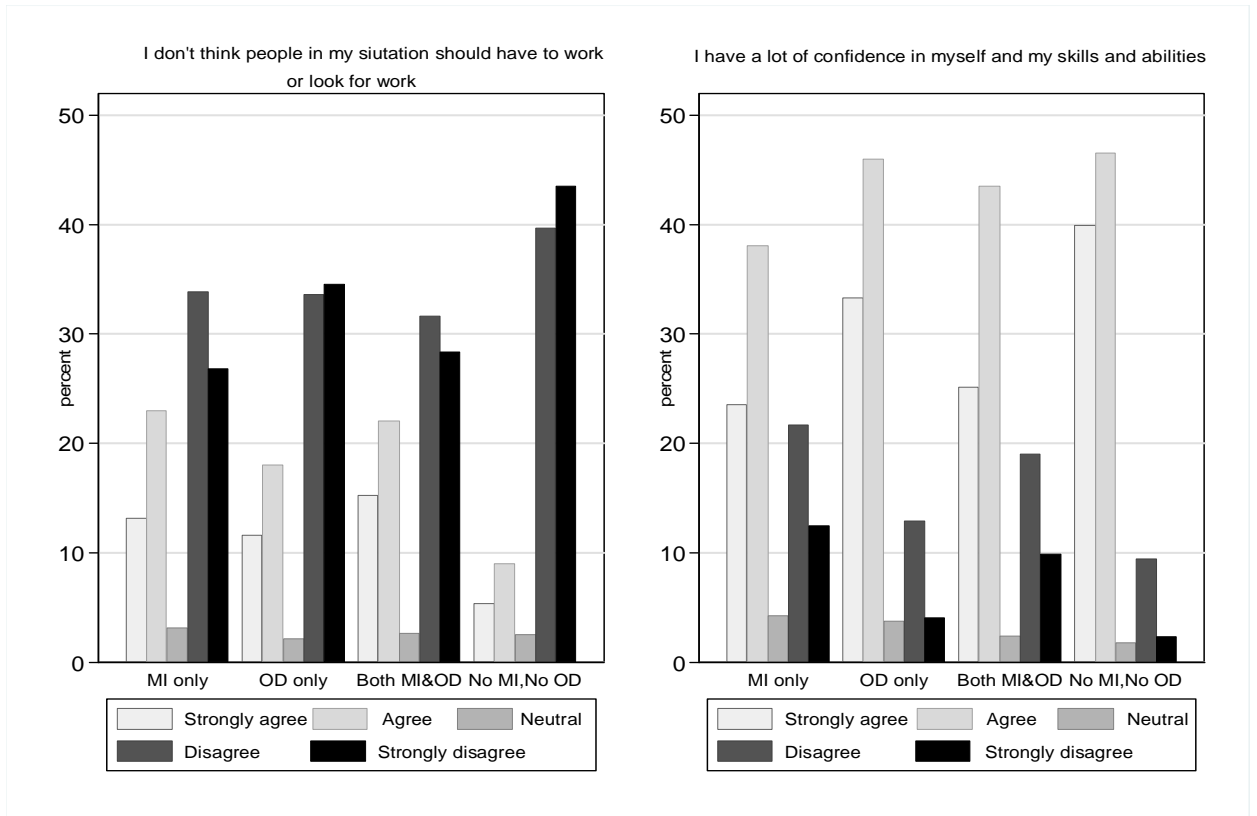


Figure 5b: continued



Note: See Note on Figure 5a.

It appears that NSA recipients with mental illness, on average, disagreed with the following statements:

- *I'd rather be a stay home parent than a working parent;*
- *Given my current situation, work just isn't worth my while;*
- *I want to work to get extra money, but not so much that I go off payments altogether*¹⁸;
- *I don't think people in my situation should have to work or look for work; and,*
- *I don't want to work too much, as I want to keep the concessions I get.*

They also, on average, agreed with the statement that:

- *For me, studying and training is a good way of getting ahead; and,*
- *I have a lot of confidence in myself and my skills and abilities.*

Comparing NSA recipients with mental health conditions and those with no mental health conditions, it appears that NSA recipients with a mental illness were more likely to prefer to be a stay at home parent.

Overall, based on their survey responses, it can be inferred that both DSP and NSA recipients generally had positive attitudes towards work. Whereas DSP recipients face barriers that make them more reliant on income support, NSA recipients did not believe that they should be completely reliant on income support.

5.2 Employment Related Difficulties

The analysis in this section describes the employment related difficulties that DSP and NSA recipients with mental illness face in the labour market. Such an analysis is useful because it can shed light on the specific barriers that persons with mental illness encounter when attempting to integrate into the workforce. The summary statistics below are based on combining Waves 1 to 3 of the LPS data. Tables 5.1 and 5.2 show the proportion of persons who agreed with the statement in question (individuals provide binary responses whereby a zero indicates 'no' and one indicates 'yes'), such

¹⁸ It is possible that this statement could have been interpreted differently among survey participants. Disagreement with this statement could suggest that the person does not want to work to get extra money, or alternatively that the person wants to work to get extra money and is not concerned about losing their income support payment. However, pilot testing suggests that respondents knew what the question was intended to measure and did not have any difficulties in answering the question.

that a higher percentage in these tables indicates that more respondents agreed with the statement in question.

Table 5.1: Employment related difficulties by instances of mental illness and other disability – DSP recipients (%)

	<i>Mental illness only</i>	<i>Other disability only</i>	<i>Mental illness and other disability</i>	<i>No mental illness or other disability</i>
Can't concentrate/focus for sustained periods on work tasks	28.7	14.2	12.2	-
Unable to work on consecutive days	6.2	6.9	8.1	-
Find it difficult to communicate or interact with others	9.9	3.9	9.9	-
Can't lift, bend, sit or stand for long periods	30.2	56.2	38.7	-
Other psychological/psychiatric issues	33.5	6.9	30.6	-
Physical problems related to addiction	2.6	1.5	2.7	-
Restricts mobility/movement	22.5	46.3	45.3	-
Other people's attitudes	2.4	0.6	1.4	-
Waiting for operation/court case	0.1	1.0	0.1	-
Find it difficult to learn new tasks	2.7	2.2	1.4	-
Find it difficult to understand and follow instructions	3.6	1.6	0.6	-
Can't cope with stress/work pressure	14.1	4.7	3.9	-
<i>Sample size (N)</i>	<i>1,199</i>	<i>4,157</i>	<i>377</i>	<i>-</i>

Note: See Note on Figure 5a.

Table 5.2: Employment related difficulties by instances of mental illness and other disability – NSA recipients (%)

	<i>Mental illness only</i>	<i>Other disability only</i>	<i>Mental illness and other disability</i>	<i>No mental illness or other disability</i>
Can't concentrate/focus for sustained periods on work tasks	36.7	9.2	21.0	12.1
Unable to work on consecutive days	5.6	5.7	3.5	3.9
Find it difficult to communicate or interact with others	9.6	2.2	6.1	5.5
Can't lift, bend, sit or stand for long periods	9.5	56.4	39.2	34.4
Other psychological/psychiatric issues	45.9	2.6	22.3	13.1
Physical problems related to addiction	1.9	1.1	0.8	1.2
Restricts mobility/movement	10.1	44.2	32.8	26.5
Other people's attitudes	5.7	1.6	3.4	2.5
Waiting for operation/court case	0.0	1.9	1.6	0.0
Find it difficult to learn new tasks	0.8	0.0	0.1	1.6
Find it difficult to understand and follow instructions	0.0	0.4	1.0	1.3
Can't cope with stress/work pressure	26.2	4.6	8.1	8.5
<i>Sample size (N)</i>	<i>380</i>	<i>1,372</i>	<i>401</i>	<i>4,212</i>

Note: See Note on Figure 5a.

For NSA recipients with a mental illness, two prominent barriers they faced were: (i) Other psychological/psychiatric issues, and (ii) Can't concentrate/focus for sustained periods on work tasks. DSP recipients with a mental illness also faced the same two

prominent barriers. In addition, many DSP recipients also found lifting, sitting, or standing for long periods to be an issue. To a lesser extent, work stress and pressure were also issues for both DSP and NSA recipients with a mental illness. However, it appears that the attitudes of co-workers did not pose any significant problems, nor did these recipients find learning new tasks or following instructions particularly difficult.

When comparisons were made across illness/disability categories within payment types, it is generally the case that DSP and NSA recipients with mental illnesses were more likely to have problems with focusing for sustained periods and stress from work pressure relative to DSP and NSA recipients with other disabilities. On the other hand, the latter were more likely to have problems with mobility and movement than the former.

5.3 Social Support Networks

For many individuals, the support of family and friends plays a critical role in helping them get back on their feet after experiencing adverse life events. In order to examine the extent to which DSP and NSA recipients with mental health conditions rely on social support networks to ameliorate the obstacles that they face, we analyse pooled data from Waves 1 to 3 of the LPS concerning three statements on social support:

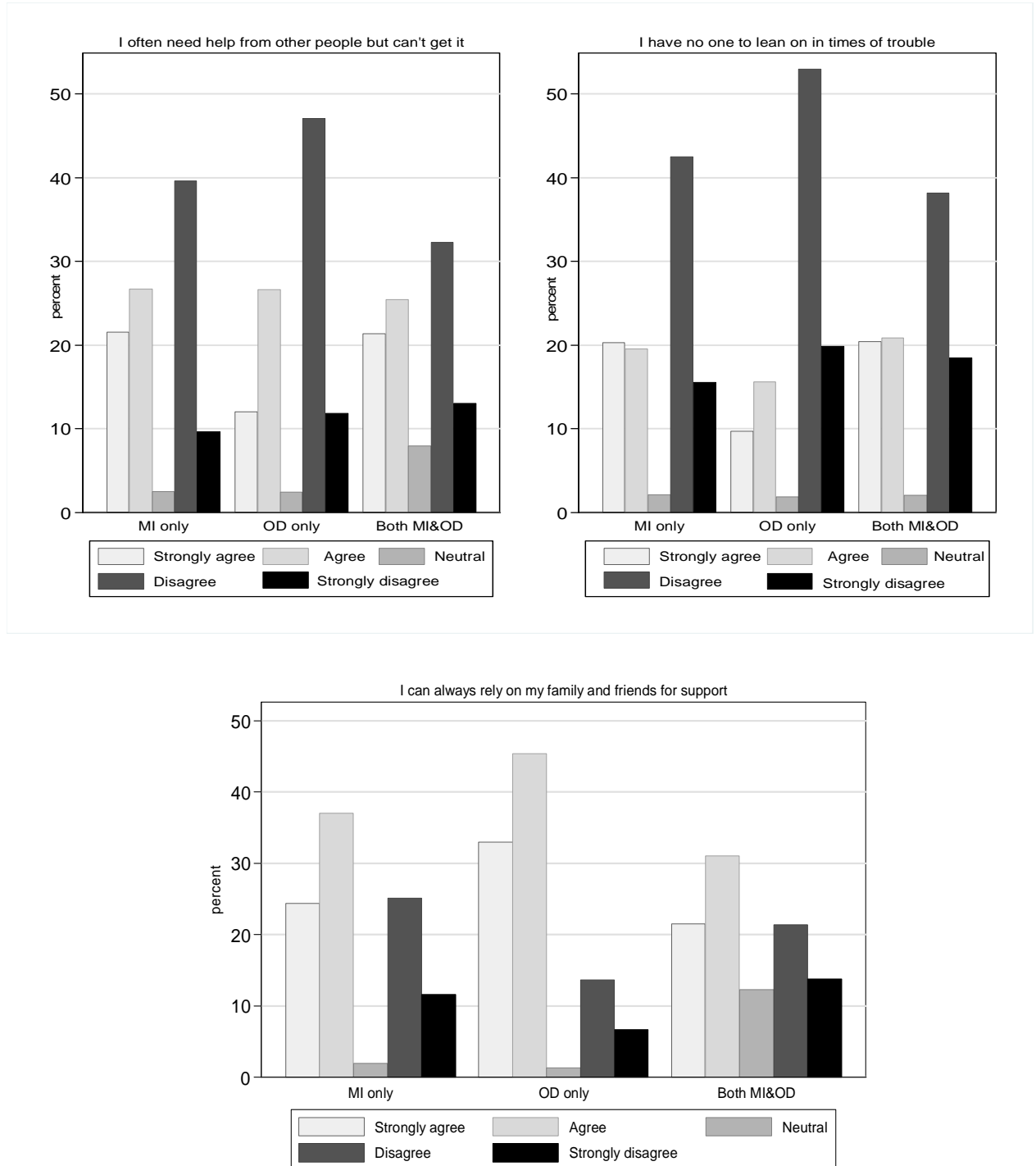
- *I often need help from other people but can't get it;*
- *I have no one to lean on in times of trouble; and*
- *I can always rely on my family and friends (outside this household) for support.*

Survey respondents were asked to respond on a scale of 1 to 5 to indicate the extent to which they agreed with the statement, whereby a value of 1 indicates 'strongly agree' and a value of 5 corresponds to 'strongly disagree'.

Figures 5c and 5d show that DSP and NSA recipients were more likely to agree with the statement that they always had family and friends they could rely on to help them. In addition, the fact that they were more likely to disagree with the statement that they couldn't get help from others when they needed it and that they had no one to lean on in times of trouble suggests that DSP and NSA recipients are not socially isolated. Overall,

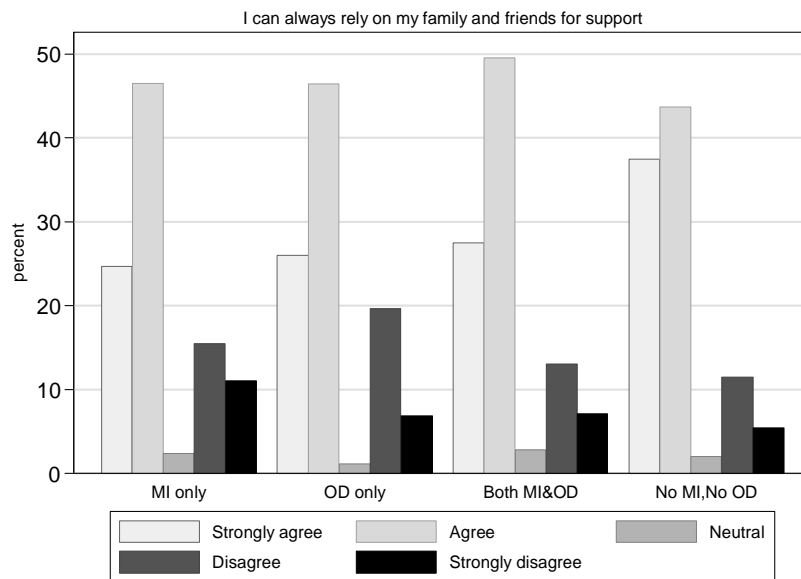
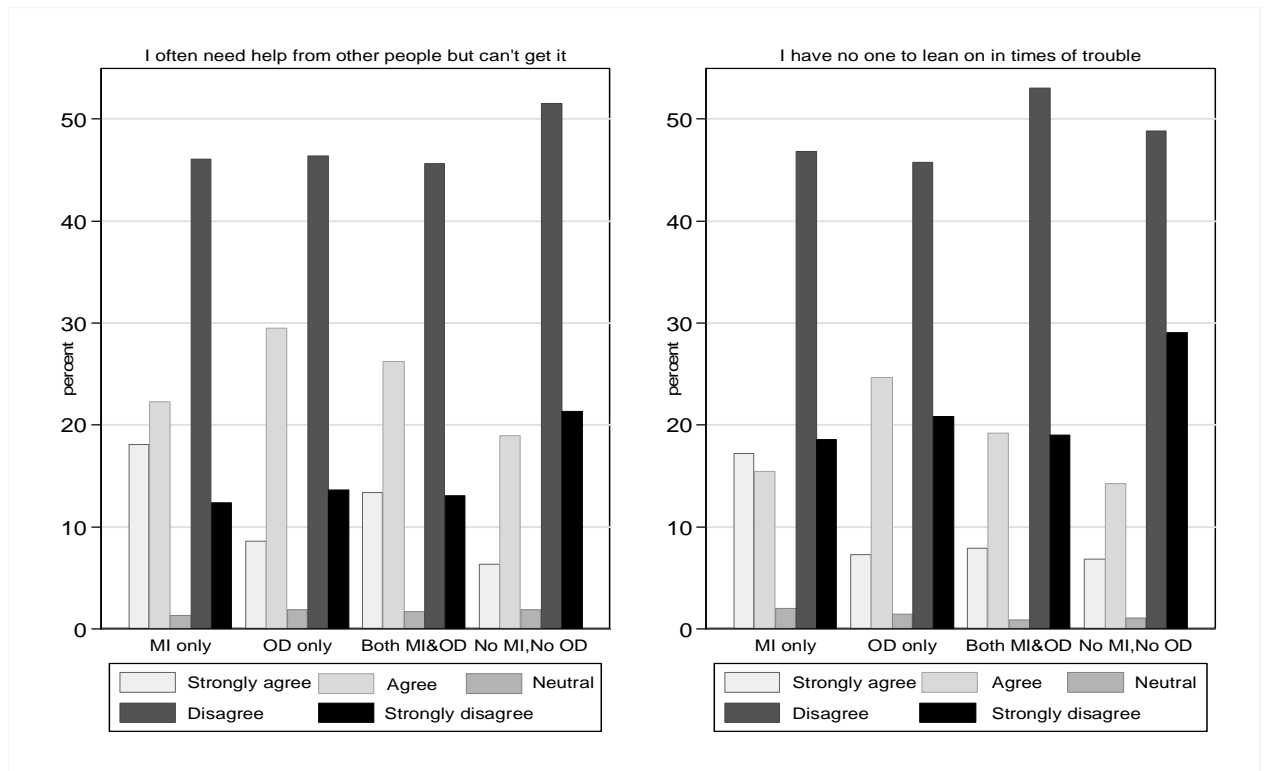
there were not significant differences in access to social support between recipients with mental health conditions and those with other or no disorders.

Figure 5c: Reliance on social support networks by instances of mental illness and other disability – DSP recipients



Note: See Note on Figure 5a.

Figure 5d: Reliance on social support networks by instances of mental illness and other disability – NSA recipients



Note: See Note on Figure 5a.

6. Employment Outcomes

6.1 Type of Mental Illness and Reliance on Income Support

Extending the analysis performed in Section 4.2, which described how TPI varies by type of disability, in this section, we further examine the correlations between the specific types of mental health conditions and income support reliance among DSP and NSA recipients. That is, we focus on recipients with a mental illness and examine how the types of mental illness (Table 4.8) interact with income support reliance (Tables 4.4 and 4.5).

Table 6.1 presents descriptive statistics of the level of TPI by the five broad mental illness type categories defined in Section 4 for DSP recipients. Among DSP recipients with a mental illness, persons with alcohol/drug issues and persons with psychological disorders were most likely to be highly reliant on welfare, although it is the case in general that DSP recipients with any of the five broad mental illness types were very likely to be highly welfare reliant.

Table 6.1: Welfare reliance (TPI) by type of mental illness – DSP recipients with a mental illness (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Depression						
Zero (TPI=0)	1.3	0.8	0.8	0.7	0.5	0.3
Low (0<TPI<0.50)	9.1	11.0	11.4	11.8	12.3	11.5
Medium (0.50≤TPI<0.90)	12.0	17.5	19.4	19.4	19.4	19.5
High (0.90≤TPI≤1.0)	77.7	70.7	68.4	68.1	67.9	68.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>38,377</i>	<i>44,307</i>	<i>49,966</i>	<i>57,136</i>	<i>67,429</i>	<i>85,244</i>
Anxiety						
Zero (TPI=0)	0.8	0.5	0.5	0.4	0.3	0.2
Low (0<TPI<0.50)	7.9	10.1	10.6	10.7	11.1	10.4
Medium (0.50≤TPI<0.90)	12.1	17.3	19.0	19.1	19.3	19.4
High (0.90≤TPI≤1.0)	79.2	72.1	69.9	69.9	69.3	70.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>12,686</i>	<i>14,251</i>	<i>16,215</i>	<i>18,246</i>	<i>21,932</i>	<i>28,275</i>
Alcohol or drug dependence						
Zero (TPI=0)	1.0	0.1	0.1	0.1	0.1	0.1
Low (0<TPI<0.50)	5.0	6.4	7.0	7.6	7.5	7.4
Medium (0.50≤TPI<0.90)	9.8	12.0	13.3	13.2	13.0	12.7
High (0.90≤TPI≤1.0)	84.2	81.6	79.6	79.1	79.4	79.8
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>10,359</i>	<i>11,838</i>	<i>13,463</i>	<i>15,339</i>	<i>17,397</i>	<i>20,753</i>
Psychological disorders						
Zero (TPI=0)	0.2	0.2	0.2	0.2	0.1	0.1
Low (0<TPI<0.50)	6.4	7.5	8.1	8.5	8.1	8.0
Medium (0.50≤TPI<0.90)	9.9	14.1	15.6	15.9	15.5	15.3
High (0.90≤TPI≤1.0)	83.5	78.2	76.1	75.4	76.3	76.6
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>129,147</i>	<i>143,264</i>	<i>141,786</i>	<i>139,146</i>	<i>130,307</i>	<i>119,499</i>
Other						
Zero (TPI=0)	0.9	0.4	0.4	0.3	0.2	0.2
Low (0<TPI<0.50)	8.3	9.7	10.5	11.1	11.0	10.8
Medium (0.50≤TPI<0.90)	12.6	16.5	18.1	18.3	17.8	17.6
High (0.90≤TPI≤1.0)	78.1	73.5	71.0	70.3	71.0	71.4
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>28,947</i>	<i>33,281</i>	<i>39,217</i>	<i>46,221</i>	<i>54,633</i>	<i>66,124</i>

Note: See Notes on Tables 4.4 and 4.8.

In Table 6.2 we observe that there are generally not many differences across mental illness types for NSA recipients, although the distribution is slightly different for alcohol and drug dependence. In 2007-08, between 35 and 45 per cent of all NSA recipients with a mental illness had TPI values of between 0.9 and 1. For both DSP and NSA recipients, there was a downward trend in the percentage of recipients in the high reliance group across all groups between 2002-03 and 2007-08.

Table 6.2: Welfare reliance (TPI) by type of mental illness – NSA recipients with a mental illness (%)

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
Depression						
Zero (TPI=0)	0.7	0.6	0.9	1.1	1.0	1.0
Low (0<TPI<0.50)	29.8	32.7	34.7	35.6	36.7	37.7
Medium (0.50≤TPI<0.90)	24.4	25.0	26.5	25.7	25.9	25.3
High (0.90≤TPI≤1.0)	45.1	41.7	37.9	37.7	36.4	36.1
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>82,727</i>	<i>87,260</i>	<i>92,689</i>	<i>96,879</i>	<i>109,498</i>	<i>114,430</i>
Anxiety						
Zero (TPI=0)	0.7	0.6	0.9	1.1	0.9	0.9
Low (0<TPI<0.50)	27.4	30.1	32.4	33.2	34.2	36.1
Medium (0.50≤TPI<0.90)	23.8	25.1	27.1	25.9	26.5	25.7
High (0.90≤TPI≤1.0)	48.1	44.3	39.7	39.9	38.5	37.4
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>36,134</i>	<i>38,268</i>	<i>41,135</i>	<i>43,376</i>	<i>51,966</i>	<i>53,599</i>
Alcohol or drug dependence						
Zero (TPI=0)	0.4	0.4	0.6	0.9	1.0	0.9
Low (0<TPI<0.50)	21.8	24.5	27.7	29.0	29.9	29.9
Medium (0.50≤TPI<0.90)	26.2	26.4	27.2	26.8	26.9	25.9
High (0.90≤TPI≤1.0)	51.5	48.7	44.5	43.3	42.3	43.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>26,414</i>	<i>28,612</i>	<i>30,208</i>	<i>32,032</i>	<i>36,481</i>	<i>38,239</i>
Psychological disorders						
Zero (TPI=0)	0.4	0.5	0.8	1.0	0.9	0.9
Low (0<TPI<0.50)	21.4	25.7	28.3	30.3	31.9	35.3
Medium (0.50≤TPI<0.90)	23.3	24.9	25.9	25.1	25.2	25.4
High (0.90≤TPI≤1.0)	54.9	48.8	44.9	43.6	42.0	38.5
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>19,808</i>	<i>18,601</i>	<i>19,361</i>	<i>20,190</i>	<i>20,544</i>	<i>16,924</i>
Other						
Zero (TPI=0)	0.6	0.6	0.7	0.9	0.9	0.9
Low (0<TPI<0.50)	25.3	27.8	31.3	32.9	33.2	34.5
Medium (0.50≤TPI<0.90)	24.8	25.5	26.5	26.3	26.8	26.4
High (0.90≤TPI≤1.0)	49.3	46.2	41.5	39.8	39.2	38.3
<i>Total</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>
<i>Sample size (N)</i>	<i>18,302</i>	<i>19,766</i>	<i>20,582</i>	<i>22,146</i>	<i>26,322</i>	<i>27,602</i>

Note: See Notes on Tables 4.4 and 4.8.

6.2 Type of Disability and Employment Outcomes

In the RED data, information on employment is not available as RED is drawn from income support administrative data and there is no equivalent administrative data for individuals when they are not in receipt of income support. Therefore, for analysing employment outcomes, we use the LPS data as it was specifically developed to provide information on what happens to recipients once they move off income support, including the kind of employment they find. In order to analyse employment and medical conditions jointly, we merge information on illness type and benefit received

from RED data to the LPS data. It is important to note that as sample sizes for some groups are small after merging RED and LPS data, all results reported in this section should be interpreted with caution.

Table 6.3: Employment outcomes by instances of mental illness and other disability – DSP recipients (%)

	Wave 1	Wave 2	Wave 3
<i>Mental Illness Only</i>			
Working	10.6	8.6	10.5
Not working, but have worked in the past six months	5.7	3.6	2.2
Not working in the past six months	83.7	87.8	87.3
<i>Sample size (N)</i>	502	381	316
<i>Other Disability Only</i>			
Working	15.0	15.1	16.3
Not working, but have worked in the past six months	4.0	2.7	2.4
Not working in the past six months	81.0	82.2	81.4
<i>Sample size (N)</i>	1,672	1,349	1,133
<i>Mental Illness and Other Disability</i>			
Working	20.9	5.1	4.4
Not working, but have worked in the past six months	0.8	5.8	0.2
Not working in the past six months	78.3	89.1	95.5
<i>Sample size (N)</i>	186	101	89
<i>No Mental Illness or Other Disability</i>			
Working	-	-	-
Not working, but have worked in the past six months	-	-	-
Not working in the past six months	-	-	-
<i>Sample size (N)</i>	-	-	-

Note: Figures are weighted to make them representative of all individuals on income support in the respective reference periods.

In Cohort 1 of the LPS data, recall that as in Figure 5a, no DSP recipients were identified as having no mental illness or other disability. Given that DSP recipients have an inability to work 15 or more hours per week, independently of support, within two years, only a small proportion (between 10 to 20 per cent) reported that they were working at the time of the survey (Table 6.3). For DSP recipients who had a mental illness and other disability, there was a noticeable decrease across waves in the proportion who are employed.

About half of NSA recipients with no mental illness or other disability reported that they were working at the time of interview in each of the first three waves of LPS data (Table 6.4). As one might expect, NSA recipients with some form of mental or other disability had relatively lower employment rates, compared with NSA recipients with no mental illness or other disability. In Wave 2, NSA recipients with a mental illness

exhibited a sudden dip in the percentage who were employed (from 22 per cent to 13 per cent). Between Waves 2 and 3, there was a reversal in trend, with a large increase in the percentage of NSA recipients with a mental illness only that were employed (from 13.0 to 27.6 per cent). However, given the small sample sizes these percentages are based on, these results should probably not be taken at face value.

Table 6.4: Employment outcomes by instances of mental illness and other disability – NSA recipients (%)

	Wave 1	Wave 2	Wave 3
<i>Mental Illness Only</i>			
Working	22.3	13.0	27.6
Not working, but have worked in the past six months	16.9	24.5	9.8
Not working in the past six months	60.8	62.5	62.6
<i>Sample size (N)</i>	179	113	87
<i>Other Disability Only</i>			
Working	24.2	37.9	25.1
Not working, but have worked in the past six months	18.9	14.1	26.8
Not working in the past six months	56.9	48.0	48.1
<i>Sample size (N)</i>	626	428	318
<i>Mental Illness and Other Disability</i>			
Working	25.2	28.5	23.6
Not working, but have worked in the past six months	12.9	16.5	7.7
Not working in the past six months	61.9	55.0	68.7
<i>Sample size (N)</i>	167	136	98
<i>No Mental Illness or Other Disability</i>			
Working	51.2	48.6	52.3
Not working, but have worked in the past six months	14.3	13.8	13.1
Not working in the past six months	34.5	37.6	34.6
<i>Sample size (N)</i>	2,062	1,239	907

Note: See Note on Table 6.3.

In Tables 6.5 and 6.6, we examined a different aspect of employment – whether or not recipients were currently in part-time or full-time employment. Confirming the results in Tables 6.3 and 6.4, we see that a majority of DSP recipients reported they were currently not employed. Among NSA recipients, it is once again the case that those with no mental illness or other disabilities were most well-off – more than 30 per cent were in part-time employment, and more than 10 per cent were in full-time employment in all three waves. In Wave 3, nearly 15 per cent were employed full-time compared to those with mental illness only (6 per cent) or those with other disabilities (2 per cent). The finding that less than seven per cent of NSA recipients with a mental illness were full-time employed in all waves suggests that such recipients encounter considerable barriers to employment.

Table 6.5: Employment status by instances of mental illness and other disability – DSP recipients (%)

	Wave 1	Wave 2	Wave 3
<i>Mental Illness Only</i>			
Not Employed	90.5	93.0	89.9
Part-Time Employment	6.3	5.2	7.8
Full-time Employment	3.2	1.9	2.3
<i>Sample size (N)</i>	481	361	301
<i>Other Disability Only</i>			
Not Employed	87.7	88.2	88.0
Part-Time Employment	7.8	6.9	6.3
Full-time Employment	4.5	4.8	5.8
<i>Sample size (N)</i>	1,596	1,286	1,080
<i>Mental Illness and Other Disability</i>			
Not Employed	90.7	96.4	97.0
Part-Time Employment	8.3	0.9	2.7
Full-time Employment	1.1	2.8	0.3
<i>Sample size (N)</i>	177	100	86
<i>No Mental Illness or Other Disability</i>			
Not Employed	-	-	-
Part-Time Employment	-	-	-
Full-time Employment	-	-	-
<i>Sample size (N)</i>	-	-	-

Note: See Note on Table 6.3.

Table 6.6: Employment status by instances of mental illness and other disability – NSA recipients (%)

	Wave 1	Wave 2	Wave 3
<i>Mental Illness Only</i>			
Not Employed	80.3	88.0	73.5
Part-Time Employment	13.0	11.7	20.3
Full-time Employment	6.7	0.3	6.2
<i>Sample size (N)</i>	176	111	85
<i>Other Disability Only</i>			
Not Employed	77.7	64.3	77.8
Part-Time Employment	19.0	30.2	19.8
Full-time Employment	3.3	5.5	2.4
<i>Sample size (N)</i>	605	409	305
<i>Mental Illness and Other Disability</i>			
Not Employed	79.6	71.7	79.0
Part-Time Employment	14.9	20.8	6.3
Full-time Employment	5.6	7.5	14.7
<i>Sample size (N)</i>	157	135	94
<i>No Mental Illness or Other Disability</i>			
Not Employed	52.5	54.9	51.7
Part-Time Employment	32.2	34.0	33.3
Full-time Employment	15.4	11.1	15.0
<i>Sample size (N)</i>	1,923	1,159	848

Note: See Note on Table 6.3.

Although statistics on the proportions of persons who were working or not working in each wave of LPS broken down by type of mental illness are potentially interesting, small sample sizes in the LPS make such an analysis infeasible.

6.3 Impact of Mental Health Conditions on Employment

Thus far, the analysis in this report has been based solely on descriptive statistics in order to provide a broad picture of the type and nature of mental illness among DSP and NSA recipients. While descriptive statistics are useful in suggesting correlations between types of disorders and disabilities and employment outcomes, it is difficult to make any causal inferences as no other factors are controlled for. In this and the subsequent section, we attempt to estimate the effects of mental illness on employment outcomes and welfare reliance using appropriate multivariate approaches. Such multivariate analysis can be useful in shedding more light on how mental health conditions, attitudes towards work and welfare, and social support networks are associated with labour market outcomes.

To investigate the impact of mental health conditions on employment using the first three waves of the LPS data, a random effects probit model is estimated to exploit the availability of panel data.¹⁹ The standard random effects model assumes that the unobserved individual specific effects are uncorrelated with the observed characteristics. As this assumption is potentially restrictive, we adopt the Mundlak-Chamberlain approach and allow for such correlation between the observed and unobserved characteristics of individuals. This is achieved by specifying a relationship between the unobserved individual specific effects and the means of the time-varying individual level characteristics.²⁰

The regression results estimating the probability of employment for NSA recipients are presented in Table 6.7. For completeness, we report results from both the simple pooled probit model and the panel probit model. From these results, two comparisons are worth

¹⁹ A panel data regression model can be thought of as being similar to the standard textbook linear regression model that readers with non-mathematical backgrounds might be more familiar with. The main difference is that in addition to cross-sectional between person variation, panel data models can also use variation over time for each person. A probit model is used because in this case the outcome in question is of a binary nature.

²⁰ The econometric approaches used in this section and the next are standard econometric practice and we omit discussion of specific technical details here. We recommend that readers interested in the specific details of the approaches taken refer to the textbook by Wooldridge (2002).

highlighting: the average partial effect (APE) and the predicted probability ratio (PPR). These are both defined relative to the ‘no mental illness or other disability’ state, with the former being defined as a difference and the latter a ratio. The APEs and PPRs of interest are given in the bottom of the Table 6.7.

Relative to NSA recipients with no mental illness or other disabilities, both the pooled probit and panel probit results suggest that recipients with any kind of disorder have a lower probability of being employed. This is reflected in the negative coefficients for ‘Mental illness only’ (coefficient of -0.602 in the panel probit), ‘Other disability only’ (coefficient of -0.277 in the panel probit), and ‘Mental illness and other disability’ (coefficient of -0.396 in the panel probit), which are all statistically significant at the one per cent level. In addition, it was found that not being able to get help when needed (coefficient of -0.198 in the panel probit and significant at the one per cent level), or having someone to lean on in times of trouble (coefficient of -0.140 in the panel probit and significant at the five per cent level), significantly reduces the probability of becoming employed.

The pooled probit model produces an APE of NSA recipients having mental illness only of -0.203. After we have controlled for unobserved individual heterogeneity using the panel probit model, the magnitude of this APE increased to -0.258. In other words, NSA recipients with a mental illness only are about 25 percentage points less likely to be employed than NSA recipients with no disorder of any kind; they are also less likely to be employed than NSA recipients with other disabilities, or NSA recipients with both mental illness and other disabilities. From an alternative perspective, the PPR from the panel probit model suggests that an NSA recipient with a mental illness has about one-third the probability of being employed relative to an equivalent person with no mental illness or other disability.

Table 6.7: Estimation results from probit models for probability of employment – NSA recipients

Dependent variable: Employed or not	Pooled Probit		Panel Probit	
	Coef.	p-value	Coef.	p-value
Mental illness only	-0.627	0.000	-0.602	0.000
Other disability only	-0.322	0.000	-0.277	0.000
Mental illness and other disability	-0.377	0.000	-0.396	0.000
Age	-0.226	0.216	0.726	0.000
Age-squared	0.002	0.364	0.001	0.755
Female	0.370	0.000	0.373	0.000
Bachelor degree or higher	0.242	0.007	0.230	0.007
Certificate / Diploma	0.210	0.048	0.227	0.036
Trade qualifications / TAFE	0.153	0.012	0.167	0.005
Year 12	0.036	0.602	0.030	0.657
Partnered	0.083	0.139	0.077	0.141
Number of children in household	0.017	0.205	0.022	0.070
English-speaking household	0.236	0.013	0.278	0.003
Attitude: Studying and training is good	-0.049	0.529	-0.032	0.696
Attitude: Work isn't worth while	-0.012	0.875	0.020	0.780
Attitude: Want to work but not so much	-0.048	0.491	-0.059	0.405
Attitude: Don't think people in my situation should work	-0.110	0.204	-0.131	0.109
Attitude: Have a lot of confidence in myself	0.018	0.837	0.039	0.635
Attitude: Want to keep the concessions	0.083	0.346	0.080	0.325
Support: Often need help from others but can't get it	-0.174	0.013	-0.198	0.003
Support: Have no one to lean on in times of trouble	-0.161	0.031	-0.140	0.048
Support: I can always rely on my family and friends	-0.062	0.414	-0.040	0.593
m(Age)	0.296	0.107	-0.656	0.001
m(Age-squared)	-0.003	0.180	-0.001	0.434
m(Number of children in household)	-0.020	0.177	-0.027	0.045
m(Attitude: Studying and training is good)	0.011	0.920	0.029	0.798
m(Attitude: Work isn't worth while)	-0.533	0.000	-0.501	0.000
m(Attitude: Want to work but not so much)	0.045	0.682	0.044	0.683
m(Attitude: Don't think people in my situation should work)	-0.408	0.001	-0.397	0.001
m(Attitude: Have a lot of confidence in myself)	0.408	0.001	0.375	0.001
m(Attitude: Want to keep the concessions)	-0.011	0.933	-0.002	0.990
m(Support: Often need help from others but can't get it)	-0.095	0.334	-0.053	0.578
m(Support: have no one to lean on in times of trouble)	0.162	0.139	0.156	0.135
m(Support: I can always rely on my family and friends)	0.251	0.022	0.260	0.015
Constant	-2.165	0.000	-1.896	0.000
N	4678		4678	
Log likelihood	-2787.6		-2527.7	
Prob(Emp Mental illness only)	0.225		0.141	
Prob(Emp Other disability only)	0.317		0.264	
Prob(Emp Mental illness or other disability)	0.30		0.214	
Prob(Emp No disability)	0.428		0.399	
APE: Prob(Emp Mental illness only)/ Prob(Emp No disability)	-0.203		-0.258	
APE: Prob(Emp Other disability only)/ Prob(Emp No disability)	-0.111		-0.135	
APE: Prob(Emp Mental illness or other disability)/ Prob(Emp No disability)	-0.128		-0.185	
PPR: Prob(Emp Mental illness only)/ Prob(Emp No disability)	0.526		0.353	
PPR: Prob(Emp Other disability only)/ Prob(Emp No disability)	0.741		0.662	
PPR: Prob(Emp Mental illness or other disability)/ Prob(Emp No disability)	0.701		0.536	

Note: The m(.) variables denote time averages of the variables in parentheses.

6.4 Impact of Mental Health Conditions on Reliance on Income Support

Mental health conditions can affect a person's ability to find and maintain employment. A related outcome examined in this report is how mental health conditions affect the welfare reliance levels of DSP and NSA recipients. In Black et al. (2006), associations between welfare reliance and a host of individual and household-level characteristics were analysed. For example, Black et al. (2006) report that individuals with the strongest attachment to the labour force have the lowest level of welfare reliance (TPI), and that there was a positive relation between TPI and age.

In this section, we examine the role that mental health conditions, attitudes towards work and welfare, and social support networks play in affecting welfare reliance levels (TPI). More specifically, we model an individual annual TPI level using fixed and random effects panel data models.

The main advantage of fixed effects models is that unobserved effects do not need to be assumed uncorrelated with the observed characteristics. For example, it can be argued that unobserved characteristics such as individual beliefs will be a major determinant of family structure, which in turn may affect welfare reliance. However, the relaxation of this assumption comes at a price – namely, we cannot include any observed time-constant characteristics (such as highest level of education) in any such models. To be clear, fixed effects estimations do not ignore the effect of time-constant variables, since the coefficient estimates are conditional on such time-constant characteristics, but rather they are unable to produce estimates of their effects.

An alternative to the fixed effects approach is to estimate a random effects model, where the unobserved effects are assumed to be uncorrelated with the observed characteristics. In such models, the marginal effects of time-constant characteristics are separately identifiable. Therefore, unlike fixed effects models, we can quantify the effect of variables such as place of birth and make inferences about them. However, if the assumption of zero correlation between observed and unobserved traits is not correct, the random effects model produces biased estimates for both time-constant *and* time-varying variables (Wooldridge, 2002).

Table 6.8 reports the coefficient estimates from both fixed effects and random effects panel models for DSP recipients. As there are no DSP recipients with no mental illness or other disability, the reference category in these regression models are persons with both a mental illness and other disability.

Table 6.8: Estimation results from fixed and random effects models of welfare reliance level (TPI) – DSP recipients

Dependent variable: TPI	Fixed Effects		Random Effects	
	Coef.	p-value	Coef.	p-value
Mental illness only	0.115	0.024	0.068	0.003
Other disability only	0.049	0.136	0.050	0.011
Mental illness and other disability	-	-	-	-
Age	-0.017	0.426	-0.005	0.157
Age-squared	0.000	0.150	0.000	0.047
Female			0.032	0.016
Bachelor degree or higher			-0.149	0.000
Certificate/ Diploma			-0.129	0.000
Trade qualifications/ TAFE			-0.069	0.000
Year 12			-0.055	0.007
Partnered	-0.021	0.297	-0.057	0.000
Number of children in household	0.004	0.040	-0.000	0.885
English-speaking household			-0.087	0.006
Attitude: Studying and training is good	-0.003	0.784	-0.008	0.372
Attitude: Work isn't worth while	0.008	0.348	0.034	0.000
Attitude: Want to work but not so much	-0.005	0.565	-0.011	0.153
Attitude: Don't think people in my situation should work	-0.005	0.541	0.028	0.000
Attitude: Have a lot of confidence in myself	-0.019	0.041	-0.043	0.000
Attitude: Want to keep the concessions	-0.008	0.418	0.010	0.230
Support: Often need help from others but can't get it	0.003	0.693	0.018	0.025
Support: Have no one to lean on in times of trouble	-0.010	0.350	-0.003	0.761
Support: I can always rely on my family and friends	0.009	0.400	-0.007	0.466
Constant	0.749	0.166	0.882	0.000
N	4018		4018	
R-Squared				
Within	0.0164		0.0037	
Between	0.0098		0.1118	
Overall	0.0028		0.0873	

The fixed effects model suggests that DSP recipients with mental illness only were more likely to be heavily reliant on welfare than DSP recipients in the omitted reference group – those with both a mental illness and other disability. For example, the coefficient of 0.115 on the mental illness only variable in the fixed effects model can be interpreted to mean that DSP recipients with mental illness only have on average a TPI value that is higher by 0.115 than DSP recipients with both a mental illness and other disability. This rather counter-intuitive result is also borne out in the RED data (see Table 4.4). We speculate that a possible explanation for such a result is that DSP recipients with a mental illness only could have it as their primary problem, whereas

those who report having multiple disabilities could have relatively more minor secondary disabilities. The coefficient on having confidence in one's own abilities is also significant and negative (coefficient equals -0.019 and is significant at the five per cent level), suggesting that having a positive self-image is important and negatively correlated with the level of welfare reliance.

Although the coefficient estimates from the corresponding random effects model are somewhat different, they do remain qualitatively consistent with the findings from the fixed effects model. In addition, however, not being able to get help when needed (coefficient equals 0.018 and is significant at the five per cent level) is found to be significantly related to welfare reliance, as well as beliefs that one should not be working (coefficient equals 0.028 and is significant at the one per cent level) and that work isn't worth while (coefficient equals 0.034 and is significant at the one per cent level).²¹

Table 6.9 presents the corresponding results from the panel models for NSA recipients. Reflecting the descriptive results already seen in Table 6.6, the fixed effects model suggests that NSA recipients with a mental illness only were more likely to have higher TPI levels than NSA recipients with no mental illness or other disability (coefficient equals 0.067 and is significant at the five per cent level). NSA recipients with both a mental illness and other disability (coefficient equals 0.054 and is significant at the five per cent level) were also found to have relatively high TPI values (see also Table 4.4). In addition, having the attitude that one shouldn't be expected to be working given their circumstances (coefficient equals 0.035 and is significant at the five per cent level) and not being able to obtain help when needed (coefficient equals 0.035 and is significant at the one per cent level) were also found to be significantly and positively related to TPI levels. These results were once again reinforced by the random effects model, although the magnitudes of the coefficients differ somewhat. The random effects model also suggests that the attitude of having confidence is significant and negatively related to

²¹ The low R-Squared values in the models are a result of the dependent variable in the model being clustered at low or high values of the distribution, and the fact that our limited set of covariates cannot explain well variation in earned and unearned income given receipt of a specific type of income support payment. In Black et al. (2006), R-Squared values of between 0.13 to 0.23 were obtained in panel data models because their regressions were not restricted by income support type, and type of payment accounted for most of the variation in TPI.

TPI levels (decreases TPI by 0.065), and that believing that work isn't worth their while is significant and related to having higher TPI (increases TPI by 0.039).

Table 6.9: Estimation results from fixed and random effects models of welfare reliance level (TPI) – NSA recipients

Dependent variable: TPI	Fixed Effects		Random Effects	
	Coef.	p-value	Coef.	p-value
Mental illness only	0.067	0.038	0.154	0.000
Other disability only	0.025	0.252	0.102	0.000
Mental illness and other disability	0.054	0.067	0.124	0.000
Age	0.027	0.392	-0.018	0.000
Age-squared	0.000	0.547	0.000	0.000
Female			-0.074	0.000
Bachelor degree or higher			-0.097	0.000
Certificate/ Diploma			-0.095	0.001
Trade qualifications/ TAFE			-0.058	0.000
Year 12			-0.037	0.042
Partnered	-0.015	0.571	-0.054	0.000
Number of children in household	-0.000	0.862	0.001	0.677
English-speaking household			-0.078	0.001
Attitude: Studying and training is good	0.011	0.490	0.019	0.099
Attitude: Work isn't worth while	0.008	0.558	0.039	0.000
Attitude: Want to work but not so much	0.011	0.406	0.007	0.530
Attitude: Don't think people in my situation should work	0.035	0.022	0.057	0.000
Attitude: Have a lot of confidence in myself	-0.018	0.258	-0.065	0.000
Attitude: Want to keep the concessions	-0.026	0.089	-0.007	0.574
Support: Often need help from others but can't get it	0.035	0.006	0.054	0.000
Support: Have no one to lean on in times of trouble	0.028	0.038	0.025	0.024
Support: I can always rely on my family and friends	0.007	0.634	-0.004	0.701
Constant	-1.057	0.165	1.019	0.000
N	4679		4679	
R-Squared				
Within	0.0295		0.0118	
Between	0.0019		0.1482	
Overall	0.0003		0.1147	

7. Conclusion

The relatively high incidence of mental health conditions among income support recipients is an important policy issue. In this report we focussed on the incidence and nature of mental illnesses reported by individuals receiving DSP or NSA in Australia.

For DSP recipients, the proportion of individuals with a mental illness only remained relatively constant between 2002-03 and 2007-08 (between 18 and 21 per cent). For the vast majority of DSP recipients with a mental illness, the medical condition was diagnosed as permanent. DSP recipients generally had high levels of welfare reliance, with between 70 to 85 per cent highly reliant on welfare. Those with temporary mental illnesses were less reliant on welfare than those with permanent or recurring illnesses. Overall, there was a general downward trend in the proportion of recipients who had high levels of welfare reliance between 2002-03 and 2007-08. Among DSP recipients, psychological disorders and other disorders were found to be the most prevalent mental illness. Given that DSP recipients have an inability to work 15 or more hours per week, only about 10 per cent of DSP recipients with mental illness reported that they were working at the time of the LPS interview.

For the same period, we observed an increase in the proportion of NSA recipients who reported having a mental illness only (from 8.2 per cent in 2002-03 to 14.2 per cent in 2007-08). It is possible that the tightening of DSP eligibility criteria could have contributed to this increase in the proportion of NSA recipients who reported a mental illness or other disability, although the upward trend seems to have started even before the Welfare to Work policy was introduced. Less than one-third of NSA recipients who reported having a mental illness were reported as having a permanent condition. Between 30 to 40 per cent of NSA recipients with a mental illness were highly reliant on income support. Depression was by far the most likely mental illness condition for a person on NSA. As for DSP recipients, between 2002-03 and 2007-08, there also was a downward trend in the proportion of recipients who were highly dependent on income support.

Attitudes towards work clearly differ between DSP and NSA recipients. For DSP recipients, given the physical, intellectual and psychiatric impairments they face in their

daily lives, it is not surprising that the majority think that given their circumstances they should not be expected to be working (Figure 5a). On the other hand, NSA recipients generally had positive attitudes towards work and did not believe that they should be completely reliant on income support (Figure 5b).

It is not yet understood how mental health conditions affect a person's ability to find sustainable employment and become less welfare reliant. Are current services catering to the needs of this population? Do new programs need to be introduced to help recipients with mental illnesses cope better?

The research undertaken in this report does not provide a full answer to these questions. However, it does make an important first step by clearly highlighting that NSA recipients with a mental illness, aiming to make the transition to self-sufficiency, face considerable obstacles. Although NSA recipients with a mental illness only do not differ considerably to other NSA recipients with regards to attitudes towards welfare and work (Figure 5b), many still face considerable employment related difficulties (Table 5.2). In particular, they are faced with psychological/psychiatric difficulties that disrupt work and the ability to concentrate/focus on work tasks for sustained periods. Multivariate panel models which account for observed characteristics and unobserved individual heterogeneity suggest that NSA recipients with a mental illness only are significantly less likely to be employed and more likely to be welfare reliant, as compared to NSA recipients with no disabilities. As we better understand more about the number of income support recipients who face mental health conditions and the ways these conditions can inhibit steady employment or prolong welfare reliance, policy makers may be able to consider further improvements to the existing approaches which link income support recipients to mental health services.

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