



Centre of Full Employment and Equity

Working Paper No. 07-15

The impact of education on employment outcomes for people with mental illness

Gorica Trajkovic¹

December 2007

Centre of Full Employment and Equity
The University of Newcastle, Callaghan NSW 2308, Australia
Home Page: <http://e1.newcastle.edu.au/coffee>
Email: coffee@newcastle.edu.au

1. Introduction

According to the National Survey on Mental Health and Wellbeing, almost one in five (18 per cent) Australian adults had a mental disorder at some time during the 12 month period between mid 1996 to mid 1997. The highest prevalence of mental disorder (27 per cent) is in the age group 18-24 years, falling steadily to 6 per cent for those aged 65 years and over (ABS 4326.0). Springgay (2007) states that five out of ten medical conditions, that cause most disabilities around the world, relate to mental illness. At least a quarter of a million people in Australia will experience schizophrenia, bipolar, schizo-affective disorder or depression at some stage in their lives. Taken into account their family members and carers, it could be concluded that a large number of Australians will be affected by disorders related to psychosis². These illnesses 'typically occur in the second and third decades of life' (Waghorn *et al.* 2004 b: 444) when several developmental tasks occur. For example, the completion of education and training, and the beginning of career-based employment (Killackey E J, *et al.* 2006). The onset of a severe mental illness at this stage of life can permanently disrupt education, employment and career development (Waghorn *et al.* 2005) and lead those affected into dependence on the welfare system. Recipients, who enter Disability Support Pension (DSP) at a young age, are more likely to stay on DSP for longer periods Cai (2006). However, 'an effective early intervention program may reduce the duration and intensity of psychotic states as well as the secondary effects of psychosis, such as social and educational or vocational disruption and substance abuse' (Tee, *et al.* 2003:573).

One of the elements of the early intervention in psychosis is related to employment of these persons. Their labour market outcomes could be influenced by a range of factors. However, Waghorn *et al.* (2004b: 444) state that: 'over the past two decades research of employment outcomes of persons with severe mental illness in the United States has consistently concluded that educational attainment is not associated with employment outcomes. Tsang *et al.* (2000) reviewed literature on predictors of employment outcomes for people with psychiatric disabilities since mid 1980s. Of the 35 relevant studies reviewed, three studies identified education as a non-significant predictor of employment outcomes for people with psychiatric disabilities and neither study identified education as a significant predictor. Nevertheless, in the recent literature there is a noticeable change of the opinion about the relation between employment outcomes and educational achievements for people with mental health problems. Mechanic *et al.* 2002: 252 state that for individuals with mental illness it would be a major challenge to maintain 'educational and job continuity when illness occurs in late adolescence and young adulthood'. In order to manage mental illness it would be very useful for these people to complete their education and prevent secondary impairments, as well as the inability to work. In addition, the same authors state that 'educational attainment is the strongest predictor of employment in high-ranking occupations among both the general population and persons with mental disorders' (Mechanic *et al.* 2002: 242). This finding holds for all disability types including mental disabilities. In the US, more than 20 per cent of people with disabilities in vocational rehabilitation achieve competitive employment in occupations that require 'relatively little training and minimal skill levels' like cook, cleaner, kitchen worker, attendant (Hagner, 2000: 22). In other words, a significant number of people with disabilities occupy the lowest paid jobs without possibility to advance in their career. Hagner (2000) also identifies in the literature, that rehabilitation counselling is focused on one-time job placement of people with disabilities and that not enough assistance is provided to these people in their career development.

This paper makes an attempt to further analyse the association between education and employment outcomes for people with mental illness. It also looks into different educational options for these people and employment solutions that are workable for them. This, paper is organised as follows: Section 2 summarizes labour market outcomes for people with mental

illness and difficulties that they experience in finding a job. Section 3 speaks about the VET system in Australia and Supported Education as two educational options for people with mental illness. Section 4 talks about the relationship between education attainment and employment outcomes for people with mental illness by providing evidence from Australia and the US. Section 5 talks about proposal for a Job Guarantee (JG) as an effective employment solution for people with psychiatric disabilities. Section 6 summarises findings in this paper and outlines further research issues.

2. Labour market outcomes of people with mental illness

Willkins (2003) states that labour market outcomes of persons with mental illness are worse than those of people with other types of disability. Table 1 illustrates that people with mental illness have the lowest employment rate, lowest rate of people employed full-time, the highest unemployment rate and the highest proportion of people not in the labour force, compared to people with sensory and mobility disability. This finding holds for both, males and females with mental disability.

Overall, males have better labour market outcomes than females among the persons with mental illness. In 1998 in Australia, males with mental illness were employed more (50.4 per cent) than females (37.5 per cent). Also, a greater proportion of males were employed full time (37.6 per cent) compared to 15.7 per cent for females. The unemployment rate was lower for females with mental disability (9.9 per cent compared to 15.8 per cent for males). However, a significantly higher proportion of females with mental disability were out of the labour force compared to males (52.6 per cent and 33.8 per cent respectively).

Table 1 Labour market outcomes of persons with disabilities aged 15-64 years in Australia in 1998 (per cent)

Employment status	Employed		Employed full-time		Unemployed		Not in labour force	
	Males	Females	Males	Females	Males	Females	Males	Females
Mental	50.4	37.5	37.6	15.7	15.8	9.9	33.8	52.6
Sensory	78.8	59.0	69.8	27.6	7.1	1.8	14.1	39.2
Mobility	56.6	44.8	46.2	21.0	8.2	3.5	35.2	51.7

Source: Willkins (2003: 30).

Poor labour market outcomes of people with mental illness are consequence of a number of difficulties that they experience in finding a job. In the SANE research bulletin (2006) it is stated that the main barriers in finding a job for people with mental illness is a lack of suitable work, lack of training, lack of support in finding a job and lack of support on-the job. Waghron *et al.* (2005: 20) differentiate between direct and indirect barriers to employment. Direct barriers are related to the “positive, negative and disorganised symptoms of psychosis, including side effects of antipsychotic, mood stabilising, anti-depressant medications, subsequent impairments to social skills, sense of self, personal confidence, and self-efficacy”. Indirect barriers are related to stigma, unfair discrimination, disrupted education due to the early onset of the illness, delayed school-to-work transition and consequently damage of core work-skills. One of the reasons why people with mental illness are at the end of the labour queue is a negative attitude toward them. Even though 80 per cent of Australians believe that people with schizophrenia can or want to work, yet only 50 per cent think they should work in a workplace like their own (MIFA, 2007). Individuals with psychiatric disabilities experience stigma not only from the general population but also from employers. Gilbride *et al.* (2000:17) note that negative employer attitudes toward people with mental illness are often identified as a barrier to successful job placement.

However, finding a job is not the only problem that these people experience. Unavailability of flexible working conditions undermines their chance of retaining a job for a longer period. People with mental illness “may face both the general problem of accessing paid employment and the specific issue of accessing employment which is flexible enough to accommodate their mental health needs” (Bill *et al.* 2004: 3). Furthermore, Becker *et al.* (1998: 71) state that “for persons with psychiatric disabilities, maintaining a job is often more difficult than acquiring a job. A large proportion of jobs end unsatisfactorily”.

3. Education of people with mental illness

There are three major sectors in the education and training continuum in Australia, namely school (i.e. primary and secondary), Vocational Education and Training (VET) (e.g. technical and further education [TAFE]) and higher education (i.e. university) (Buys *et al.* 1999: 4).

This section will talk about education of people with mental illness in the VET in Australia and supported education programs, specially developed to assist people with psychiatric disability to Access University or other higher educational institutions.

3.1 Vocational Education and Training

The VET sector is responsible for the delivery of education and training programs that prepare people for work or improve the skills and knowledge of people who are already working (Buys *et al.* 1999: 4).

3.1.1 Participation of students with mental illness in VET

In 2003 the total number of VET population was 1,717,795 students, of which 91,437 (5.3 per cent) reported some kind of disability. The highest proportion of students reported physical disabilities 19.8 per cent (18,111 persons), medical condition 16.8 per cent, vision impairment 14.9 per cent, learning disability 13.5 per cent, and hearing impairment 11.5 per cent (see Table 2). Students with mental illness comprise 8.4 per cent (7663 persons) of VET population with disabilities. Among students with mental illness, 5544 reported mental illness only and 2119 reported multiple disabilities including mental illness (Cavallaro *et al.* 2005: 15).

Table 2 Participation of students with disabilities in VET, 2003

Type of disability	Number of students ('000)	Proportion
Hearing/deaf	10.56	11.5
Physical	18.11	19.8
Intellectual	8.77	9.6
Learning	12.32	13.5
Mental illness	7.66	8.4
Acquired brain impairment	1.86	2
Vision	13.65	14.9
Medical condition	15.37	16.8
Other	12.75	13.9
Type unspecified	6.98	7.6
Total with disabilities	91.44	100

Source: Cavallaro *et al.* (2005: 16).

3.1.2 Employment status of VET students with mental illness

Table 3 illustrates that at the time of enrolment in 2003, the employment rate of VET students with a single mental illness was the lowest (20.8 per cent) among all students with disabilities. The highest employment rate was among students with vision disability (53.1 per cent). Also, VET students with a single mental illness had the highest unemployment rate of 34.5 per cent and the highest proportion of students not being in the labour force (35.6 per cent). Again, the lowest rate of students not being in the labour force was for students with vision disability (15.7 per cent). A similar pattern is evident for students who, in addition to mental illness, reported other disabilities. The employment rate, unemployment rate and the proportion of students not in the labour force were 19.7, 31.4 and 40.3 per cent respectively. Overall, VET students who reported mental illness together with other disabilities also reported a lower employment status than students who reported mental illness only.

Table 3 Employment status of VET students with disabilities at the time of enrolment in 2003, (per cent)

Employment Status Disability type	Employed		Unemployed		Not in the labour force	
	Single disability	Multiple disabilities	Single disability	Multiple disabilities	Single disability	Multiple disabilities
Physical disability	30.5	22.5	31.4	28.6	28.5	39.7
Medical condition	33.8	24.6	28.5	27.2	29.7	39.4
Vision disability	53.1	29.6	23.4	28.5	15.7	32.7
Learning disability	38.3	25.7	27.8	29.5	23.7	33.9
Hearing disability	48.7	31.1	20.9	25.1	21.5	33.8
Intellectual disability	29.1	24.9	20.7	23.3	37.1	38.4
Mental illness	20.8	19.7	34.5	31.4	35.6	40.3
Acquired brain impairment	27.6	26.6	24.7		34.5	
Other disabilities	41.3	28.9	23.1	28.8	22.5	34.2

Source: Cavallaro *et al.* (2005), Appendix 1

Cavallaro *et al.* (2005) do not provide data on the employment outcomes of graduates with mental disability. However, provided data shows poorer employment outcomes of graduates with disability compared to graduates without disability. Table 4 demonstrates unequal employment outcomes for VET graduates with and without disability in 2003. The employment rate of graduates with disability is significantly lower than for graduates without disability (52.6 per cent and 77.6 per cent respectively). Furthermore, the unemployment rate and proportion of graduates not seeking work after training is higher for students with disabilities than for students without disabilities.

Table 4 Employment status of VET graduates with and without disability in 2003 (per cent)

Employment status	With disability	Without disability
Employed after training	52.6	77.6
Unemployed after training	21.1	12.2
Not seeking work after training	26.3	10.2
Total	100	100

Source: Cavallaro *et al.* (2005).

Motive for study of VET students is an important factor for employment outcomes. Those graduates who undertook their training for an employment-related reason have better employment outcomes than graduates who undertook training because of further study or personal development. Those who undertook training because of further study or personal development have lower participation in the labour force. Similar patterns are for graduates without disability (Cavallaro *et al.* 2005).

3.1.3 Characteristics of the VET students with mental illness

Table 5 summarises key characteristics of the mentally disabled students in VET.

Table 5 Summary of key characteristics – students with mental disability, 2003

Students with single mental illness	
<i>Gender</i>	There are slightly more females (53.1 per cent) than males (46.8 per cent)
<i>Age</i>	<ul style="list-style-type: none"> ▪ More than half (55.6 per cent) were aged 30 years or older ▪ More than one-quarter (26.6 per cent) of students were old between 30 and 39 years of age ▪ Approximately 12 per cent of students were aged between 15 and 19 years
<i>Previous education</i>	<ul style="list-style-type: none"> ▪ More than one-third (34.1 per cent) of students completed year 12. This is higher compared to total VET population where 32.8 per cent completed year 12. ▪ More than one-third (35.6 per cent) of students completed tertiary education.
<i>Employment status</i>	<p>At the time of their enrolment:</p> <ul style="list-style-type: none"> ▪ 20.8 per cent of students were employed ▪ 35.6 per cent of students were not in the labour force ▪ 34.5 per cent of students were unemployed
<i>VET participation and attainment</i>	<ul style="list-style-type: none"> ▪ The subject completion rate was 67.4 per cent (lower than other disability groups) ▪ The largest number of students was studying mixed field programs (30.3 per cent), more than three times the rate for the total VET population (9.6 per cent). Other education fields above the rate for the total VET population included society and culture (12.5 per cent), creative arts (6.7 per cent), information technology (6.3 per cent) and natural and physical science(0.7 per cent)
Students with multiple disabilities including mental illness	
<i>Previous education</i>	<ul style="list-style-type: none"> ▪ Lower secondary school attainment than students with mental illness only ▪ 11.2 per cent of students completed Year 11 and 25.4 per cent completed Year 12
<i>Employment status</i>	<p>At the time of enrolment:</p> <ul style="list-style-type: none"> ▪ 19.7 per cent were employed ▪ 31.4 per cent were unemployed ▪ 40.3 per cent were not in the labour force
<i>VET participation and attainment</i>	<ul style="list-style-type: none"> ▪ Subject completion rate 67.5 per cent and this is lower than for other disability groups <p>32.5 per cent of students were undertaking mixed field programs. Significant number was study Management and commerce 15.4 per cent and Society and culture 11.4 per cent.</p>

Source: Cavallaro *et al.* (2005), Appendix 1.

3.2 Supported Education

Many people with mental illness do not pursue higher education, despite their intellectual abilities. Reasons for this are the early onset of mental illness, educational discrimination, lack of support, personal fears of failure, and the episodic nature of their illness. In response to this situation, supported education programs were developed (Mowbray *et al.* 1999). These are relatively new rehabilitative intervention for adults with psychiatric disabilities (Collins *et al.* 2000). Supported education programs for people with a psychiatric disability were developed by the Centre for Psychiatric Rehabilitation at Boston University in 1984. The aim of the programs was to provide access to university or higher learning opportunities through a normal, non-stigmatising environment (Frost *et al.* 2002:19), ‘to help them succeed in postsecondary educational environments’(Collins *et al.* 2000:774) ‘where they can experience life as a student rather than as a mental patient’ (Bellamy and Mowbray, 1998:

401). Supported education services include sessions on career planning and vocational assessments, assistance in obtaining financial aid, self-awareness, stress management, time management, rights and resources of people with disabilities, academic skill practice and development, and other support services (Bellamy and Mowbray, 1998: 404).

Leonard and Bruer (2007) noted that not much research has been done on Supported Education, especially in the area of the randomized controlled trial. Nevertheless, based on the limited research that does exist, they are optimistic that future research would provide positive results.

Bellamy and Mowbray (1998) provide a qualitative assessment of the Michigan Supported Education Program³ (MSEP) from the perspective of a student. With 16 students who graduated from this program, two focus group sessions were conducted. Inductive analysis was used for the qualitative description of the data collected from the focused groups. The following topics come out from the data: problems and concerns, wishes and desires, impact of supported education involvement, personal empowerment, collective empowerment, and supports needed after graduation from the MSEP. Focus group participants saw education as an important instrument for achieving their career goals and as a way to find a meaningful life. Though, they also expressed a number of problems and concerns in making the decision to return to school. Most notable were concerns about stigma, prejudice, fear and financial concerns. Based on the comments of the participants, empowerment was an important aspect of their rehabilitation and their integration in the community, although it was not initially a major focus of the supported education. However, participants noticeably expressed the need for further support after graduation from MSEP.

3.2.1 Supported education in Australia

In Australia, specialised supported education for persons with psychiatric disorders is currently not provided neither by Federal nor State Governments (Waghorn *et al.* 2004b). The same study provides an example of an innovative Specialised Supported Education program in Australia that was run only once. The program was developed in 2001-2 as a result of collaboration between TAFE and Early Psychosis Intervention Program (EPIP) in Liverpool within the South West Sydney Area Health Service. The aim of the program was to provide people with psychosis experience in post-secondary education, help them develop a career plan and have easier access to usual TAFE resources.

Eligible students were required to be EPIP clients and to pursue educational or career targets. The course was free of charge and students could attend classes at the Liverpool TAFE campus twice per week for four hours per day. Four TAFE modules were available to students, namely Computing, Horticulture and Art modules and Focus on Skills, so that they could graduate with a TAFE Statement of Attainment in Outreach Access. TAFE teachers assisted in the program with more teaching time assigned and assessment tasks were adjusted as required. However, the learning outcomes remained the same as for students without disability.

Unfortunately, participants were not followed-up and no evaluation of the program was made, although, 'anecdotal impressions from the staff and participants involved were positive' (Waghorn *et al.* 2004b: 452).

4. Association between education and employment outcomes

4.1 Evidence from Australia

Waghorn *at al.*(2004 a) investigate the disruption of secondary education of persons with psychosis using confidential data provided by Australian Bureau of Statistics collected in a national survey titled "Survey of Disability, Ageing and Carers, Australia 1998". This study compares the school leaving ages of persons with psychosis to a control group (persons without disability or long term health conditions).

The authors find (see Table 6) that at the age fourteen and younger and sixteen years of age, more persons with psychosis left school compared to those from a control group (11.3 per cent compared to 6.8 per cent and 36.6 per cent compared to 21.3 per cent respectively). At the age of fifteen similar percentages left school (19.8 per cent for psychosis and 18.2 per cent for persons without disability or long term health conditions). As the age of psychosis onset could impact the degree of educational disruption, authors also examined whether persons with psychosis managed to obtain post-secondary school qualifications after the onset of the illness. They find that 24.2 per cent of persons with psychosis managed to complete postsecondary school study after the onset of illness.

Table 6 Disruption of secondary education of persons with psychosis compared to persons without disability or long term health conditions (per cent), 1998

Disability Type Age	Persons with psychosis	Persons without disability or long term health conditions
14 years or younger	11.3	6.8
15 years of age	19.8	18.2
16 years of age	36.6	21.3

Source: Waghorn *et al.* (2004 a: 283), and original data from ABS (1998).

Higher education is positively associated with employment and labour market participation in the wider Australian community (Waghorn *et al.* 2004 a: 284). However, an important conclusion of the authors is that for people with psychosis, greater employment outcomes was related to completing school years 10 or 11, compared to year 12. They also find that vocational training contributed to employment more than undergraduate diplomas or higher degrees. Among the people with psychosis who attended post school education, those with basic or skilled vocational qualification had the highest employment rate of 32.1 per cent.

4.2 Evidence from the US

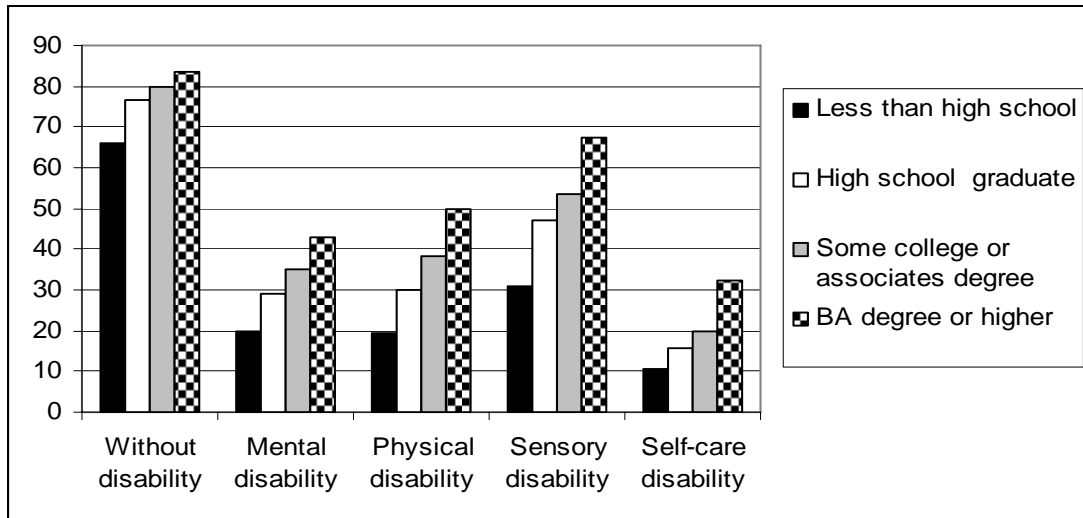
According to Kessler *et al.* (1995) disrupted educational attainment is one, from the range of adverse consequences, of the early-onset of psychiatric disorders. The same authors estimate that more than 7.2 million people in the United States prematurely terminated their education because of early-onset of psychiatric disorder, and only a small part will later complete either high school or college.

According to the data collected by the American Community Survey in 2005 (Houtenville *et al.* 2007), level of education is associated with employment outcomes of people with mental illness⁴. Furthermore, this finding holds for all other disability types as well as for people without disability. As it can be seen from Figure 1, number of employed people increases as educational level increases. Among people with mental disability without high school qualification, only 19.7 per cent were employed in 2005. That number increased to 28.9 per cent for high school graduates with mental health disability and to 34.9 percent for mentally disabled with some college or associates degree. Among persons with mental health disability with bachelor degree (BA) or higher, 43.1 per cent were employed in 2005. Also, in contrast to the people with a self-care disability, people with a mental health disability are disadvantaged compared to people with physical and sensory disability as well as to people without disability. For people with mental health disability, the employment rate for each of the four different educational levels remains constantly bellow the employment rates of people with physical and sensory disability and people without disability.

Figure 1 shows that higher employment is associated with higher level of education. However, greater education has more significance for people with disabilities than for people without disabilities. For people with mental disability, a higher school degree brings an

increase in employment of 46.7 per cent relative to the employment rate of those whose education level is less than high school (see Table 7). With completion of some college or associate degree, the employment rate rises for additional 30.45 per cent, which gives an increase of 77.15 per cent relative to the employment of people with educational level less than high school. BA degree or higher provides an additional increase of 41.65 per cent, giving a total increase of 118.8 per cent compared to the lowest (non-high-school) educational level. A similar pattern is noticed with other disability types. On the other hand, for people without disabilities, higher education is associated with a lower relative increase, compared to people without high school.

Figure 1 The number of non-institutionalized, men & women, with or without a disability, aged 21 to 64 years, all races, regardless of ethnicity, in the United States who were employed in 2005. (in %)



Source: Houtenville *et al.* (2007).

Note: Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters.

Table 7 Increase in employment with each additional educational level relative to the lowest level of education (Less than high school), in the USA, 2005, (per cent)

Disability \ Educational level	Less than high school (Employed)	High school graduate (Increase)	Some college or associate degree (Increase)	BA degree or higher (Increase)
Without disability	66.1	15.6	20.6	26.2
Mental disability	19.7	46.7	77.15	118.8
Physical disability	19.5	54.3	95.4	154.9
Sensory disability	30.8	53.6	74.4	119.8
Self-care disability	10.7	44.9	86.9	203.7

Source: Source: Houtenville *et al.* (2007).

Note: Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters.

5. Effective employment solution for people with mental illness

While research shows that there is a positive correlation between employment and educational level of people with mental health problems, higher educational level will not solve the problem of high unemployment rate on the aggregate level. Training and education

is important for social equity, however, higher skilled population does not create its own demand. According to Mitchell (2001: 1) 'the unemployed cannot find jobs that are not there'. The major barrier to finding employment, experienced by 53 per cent of people with mental illness, was lack of suitable work (SANE, 2006). In the case when private sector demand is insufficient to provide employment to this people, the government should take responsibility for the job creation.

5.1 The Job Guarantee

In order to provide effective employment solution for people with psychiatric disabilities, Bill *et al.* (2004) propose a Job Guarantee (JG) for people with psychiatric disabilities. This is based on the original development of employment guarantees as a means to achieving full employment by Mitchell (1998). 'Under this proposal, the Federal Government would maintain a "buffer stock" of jobs that would be available to, and suitable for the targeted group. The JG would be funded by the Commonwealth, but organised on the basis of local partnerships between a range of government and non-government organisations. JG workers would be paid the Federal minimum award wage. The "buffer stock" is designed to be a fluctuating workforce that expands when the level of private sector activity falls and contracts when private demand for labour rises. Instead of forcing workers into unemployment when private demand slumped, the JG would ensure that workers with psychiatric disability would have immediate access to a public sector job at the safety net wage. Accordingly, workers can maintain an attachment to paid employment, and not be forced, by systemic job shortage, into welfare dependency' (Bill *et al.* 2004: 22). The state will have two vital tasks: First, to 'provide the quantum of JG jobs required'. Second, to 'ensure that the design of jobs is flexible enough to meet the heterogeneous and variable support needs of workers' (Bill *et al.* 2004: 2).

6. Conclusion

A higher level of education is positively associated with employment outcomes of people with mental illness as is for other disability types and people without disability. However, early disruption in education due to mental illness, prevent these people from successful integration into the workforce. Furthermore, even for students with disabilities who complete education, their training becomes a "dead end" (Buys, 1999:12), due to the lack of suitable work, which, for people with severe mental illness is a major barrier to finding employment (SANE, 2006). Failure to find a paid job will lead them into dependence on the welfare system. According to Cai (2006) recipients, who enter Disability Support Pension (DSP) at a young age, are more likely to stay on DSP for longer periods. Hence, Bill *et al.* (2004) suggest that a "buffer stock" of available and suitable jobs for people with psychiatric disability should be maintained by the Federal Government. In this way, while these people may initially have low skill levels, over time and under certain circumstances, they can advance. Significantly, they would always have guaranteed work and be freed from welfare dependence (Mitchell and Quirk 2005: 16). Once they integrate into the workforce, further training could help people with mental illness improve their skills.

People with mental illness, who pursue higher education and career goals, should be given opportunity and support for easier access to tertiary education. However, more research needs to be done on the evaluation of supported education programs and their possible implementation in Australia.

References

ABS (1998) *Mental Health and Well-being: Profile of Adults, Australia, 1997* Cat. No. 4326.0, Australian Bureau of Statistics, Canberra.

- Becker, D.R., Smith, J., Tanzman, B., Drake, R.E., and Tremblay, T. (2001) 'Fidelity of Supported Employment Programs and Employment Outcomes', *Psychiatric Services*, 52(6), 834-836.
- Becker D.R., Drake R.E., Bond G.R., Xie H., Dain B.J., and Harrison K.(1998) 'Job terminations among persons with severe mental illness participating in supported employment', *Community Mental Health Journal*, 34(1), 71-82.
- Bellamy C. D., Mowbray C.T. (1998), 'Supported Education as an Empowerment Intervention for People with Mental Illness', *Journal of community Psychology*, 26(5) 401-413.
- Bill A., Cowling S., Mitchell W., Quirk V., 'Creating effective employment solutions for people with psychiatric disabilities', *Working Paper No. 04-06*, Centre of Full Employment and Equity, University of Newcastle.
- Boardman J., Grove B., Perkins R., Shepherd G. (2003) 'Work and employment for people with psychiatric disabilities', *British Journal of psychiatry*, 182, 467-468.
- Buys N., Kendall E., Ramsden J. (1999), 'Vocational Education and training for people with disabilities', National Centre for Vocational Education Research (NCVER), Adelaide.
- Cai L. (2006) 'An Analysis of Duration on the Disability Support Pension Program', *Australian Economic Papers*, 45(2), 106-126.
- Cavallaro T., Foley P., Saunders J., Bowman K. (2005), 'People with a Disability in Vocational Education and Training: a statistical compendium', National Centre for Vocational Education and Training (NCVER), Adelaide.
- Collins M. E., Mowbray C. T., Bybee D., (2000), 'Characteristics Predicting Successful Outcomes of Participants with Severe Mental Illness in Supported Education', *Psychiatric Services*, 51(6), 774-780.
- Frost, B., Carr, V., Halpin, S., (2002) 'Employment and psychosis' *National Survey on Mental Health and Wellbeing*, Bulletin 3, October, National Mental health strategy.
- Gilbride D., Stensrud R., Ehlers C., Evans E., Peterson C. (2000), 'Employers' Attitudes Toward Hiring Persons with Disabilities and Vocational Rehabilitation Services' *Journal of Rehabilitation*, 66(4), 17-23.
- Hagner D. (2000), 'Primary and Secondary Labour Markets: Implications for Vocational Rehabilitation', *Rehabilitation Counselling Bulletin*, 44(1), Fall, 22-29.
- Houtenville, A. J., Erickson, W. A., Lee, C. G. (2007, March 16). *Disability Statistics from the American Community Survey (ACS)*. Ithaca, NY: Cornell University Rehabilitation Research and Training Center on Disability Demographics and Statistics (StatsRRTC). Retrieved October 10, 2007 from www.disabilitystatistics.org
- Kessler R.C., Foster C.L., Saunders W.B, Stang P.E. (1995) 'Social Consequences of Psychiatric Disorders, I: Educational Attainment', *The American Journal of Psychiatry*, 152, 7, pg.1026, July.
- Killackey E. J., Jackson H. J., Gleeson J., Hickie I. B., McGorry P. D. (2006) 'Exciting career opportunity beckons! Early intervention and vocational rehabilitation in first-episode psychosis: employing cautious optimism', *Australian and New Zealand Journal of Psychiatry*, 40, 951-962.
- Leonard E. J., Bruer R. A. (2007), 'Supported Education Strategies for People with Severe Mental Illness: A Review of Evidence Based Practice', *International Journal of Psychosocial Rehabilitation*, 11(1), 97-109.
- Marwaha S., Johnson S. (2004) 'Schizophrenia and employment: a review', *Social Psychiatry and Psychiatric Epidemiology*, 39, 337-349.

Mechanic D., Bilder S., McAlpine D.D. (2002), 'Employing Persons with Serious Mental Illness', *Health Affairs*, 21(5), September/October, 242-253.

Mitchell, W.F. (1998) 'The Buffer Stock Employment Model - Full Employment without a NAIRU', *Journal of Economic Issues*, 32(2), 547-55.

Mitchell W., Quirk V., 'Skills shortages in Australia: concepts and reality', *Working Paper No. 05-16*, Centre of Full Employment and Equity, University of Newcastle.

Mitchell W., 'The Unemployed cannot find jobs that are not there', *Working Paper No. 01-05*, Centre of Full Employment and Equity, University of Newcastle.

MIFA (2007), 'Australinas Talk Mental Illness: Key Recommendations from MIFA', Mental Illness Fellowship of Australia Inc.

Mowbray C. T., Collins M., Bybee D. (1999), 'Supported education for individuals with psychiatric disabilities: Long-term outcomes from an experimental study', *Social Work Research*, June, p89.

Mueser K. T., Michelle P. S., Mueser P.R. (2001), 'A Prospective Analysis of Work in Schizophrenia', *Schizophrenia Bulletin*, 27(2), 281-296.

Springgay M. (2006-2007), 'Member Organisation Report – Mental Illness Fellowship', *The Australian Health Consumer*, 1, 25-26.

Waghorn G., Chant D., White P., Whiteford H. (2004 a) 'Delineating disability, labour force participation and employment restrictions among persons with psychosis'. *Acta Psychiatrica Scandinavica* 109, 279–288.

Waghorn G., Still M., Chant D., Whiteford H. (2004 b) 'Specialised supported education for Australians with psychotic disorders', *Australian Journal of Social Issues*, 39(4), November, 443-458.

Waghorn, G. & Lloyd, C. (2005). 'The employment of people with mental illness', *Australian e-Journal for the Advancement of Mental Health*, 4(2), Supplement.

www.auseinet.com/journal/vol4iss2suppl/waghornlloyd.pdf

Wilkins, R. (2003) 'Labour Market Outcomes and Welfare Dependence of Persons with Disabilities in Australia', *Melbourne Institute Working Paper No. 2/03*, University of Melbourne, February.

SANE (2006) Research Bulletin 3: *Employment and mental illness*, June.

Tee K., Ehmann T.S., MacEwan G.W. (2003) 'Early psychosis identification and intervention' *Psychiatric services*, 54(4), April, 573.

Tsang H., Lam P., Ng B., Leung O. (2000), 'Predictors of Employment Outcome for People with Psychiatric Disabilities: A Review of the Literature Since the Mid '80s', *Journal of Rehabilitation*, 66(2), April – June, 19-31.

² Disorders related to psychosis include schizophrenia, schizoaffective and schizophreniform disorders, affective disorders when psychosis is present (e.g. in depression, mania, bipolar affective disorder) and delusional disorders. (Waghorn *et al.* 2004 b: 444).

³MSEP – Michigan Supported Education Program was developed in metropolitan Detroit. The project was federally funded for three years, as a research-demonstration, and involved public-academic collaboration between state and local mental health agencies and four academic institutions. The purpose of the research demonstration was to test out innovative ways of providing supports and assistance to individuals with psychiatric disabilities who wish to pursue postsecondary education (Bellamy and Mowbray, 1998).

⁴According to the Census Bureau: Mental Disability (ACS 2003-2005) definition based on a two-part question: "Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities: (a) learning, remembering, or concentrating ..." (asked of persons ages 5 years old and older) (http://www.ilr.cornell.edu/edi/disabilitystatistics/glossary.cfm?g_id=247&view=true)

¹ Doctoral student, Centre of Full Employment and Equity, University of Newcastle.