

A Review of the Research Literature on Supported Employment:

**A Report for the cross-Government learning
disability employment strategy team**

Dr. Stephen Beyer
Welsh Centre for Learning Disabilities
School of Medicine
Cardiff University

Dr. Carol Robinson
Carol Robinson Consulting

June 2009

CONTENTS

	Page Number
INTRODUCTION	5-9
REVIEW OF THE EVIDENCE	10-64
Demonstrating that people with a learning disability can learn complex work tasks	10
Characteristics of people entering supported employment	11
The role of volunteering and work experience	12-13
An overview of the outcomes of supported employment	13-20
• The place of Supported Employment in the USA	15-16
• Job Retention	16-17
• Reasons for job loss	17
• Wage rates	18
• Social integration and interaction	19-21
Support for working	22-26
• Learning social skills	21-23
• Support in the job	23-24
• Natural support approaches	24-25
• Job coach tasks and training	25-26
Personal outcomes for employees	27-29
• Self esteem and satisfaction	26-27
• Engagement in meaningful activity	27-28
• Quality of Life	28-29
Employer attitudes to people with a learning disability working	29-30

Contents Continued

	Page Number
Cost: Benefit Analyses of Supported Employment	29-39
• Introduction	29-30
• American studies	31-36
• UK studies	36-39
The Impact of funding models	40-42
• Results based funding	40-41
• The Use of Personalised Budgets	41-42
The relationship between approaches to Supported Employment and outcomes	42-45
• The role of fidelity scales	42-43
• Customised employment	43-44
• Factors for success	44-45
Supported Employment Policy and Practice in Europe	46-51
Policy and Practice - Summaries from America	51-58
• Maine	52
• Washington	52-53
• Oklahoma	53
• Vermont	54
• Tennessee	54
• Florida	55
• California	55
• Ohio	56
• New Hampshire	56
• Wisconsin	57-58

Other approaches to Employment for people with learning disabilities	56-61
• Micro enterprises	57-59
• Social Firms	59-61
• Project SEARCH	63-64
Conclusions	66- 72
REFERENCES	74-93

INTRODUCTION

The context of the review

This review was commissioned to inform the cross-government strategy on increasing employment for people with learning disabilities: Valuing Employment Now. This strategy arose because of the widespread concern that, despite eight years of social policy focussing on improving the lives of people with learning disabilities¹, there has been little, or no progress, in helping this group of citizens into work. Recent policy initiatives such as Valuing People Now (2009) and Public Service Agreement 16 aim to increase the numbers of people with learning disabilities in paid work. However, neither have yet specified an overall target to achieve increased employment rates for this group.

Focus of the review

This review focuses on current knowledge about training and employment techniques that specifically meet the needs of people with learning disabilities. Whilst there is a vast literature on training and employment of the general population, it has been important to concentrate on literature relevant to the needs of people with a learning disability.

The emphasis here is on supported employment rather than social or micro enterprises because these approaches to employment offer fewer opportunities for social inclusion in wider society.

The needs of people with a learning disability

The *Disability Discrimination Act 1995* defines a person with a disability (“disabled person”) as a person with “a physical or mental impairment which has a substantial and long-term adverse effect on his ability to carry out normal day-to-day activities.” *Valuing People* define people with a learning disability as having the presence of:

- A significantly reduced ability to understand new or complex information,

- to learn new skills (impaired intelligence), with;
- A reduced ability to cope independently (impaired social functioning); which started before adulthood, with a lasting effect on development. (DH 2001, p 14)

The UK statutory sector has no formal definition of mild, moderate, severe and profound learning disability. However, the normally accepted definition of these terms is that provided by the World Health Organisation's *International Classification of Diseases and Related Health Problems*, Tenth Edition, Geneva, 1992, (hereafter, ICD-10).⁶⁹ The ICD-10 defines four levels of intellectual disability, based on IQ score: *mild* (IQ of 50-70), *moderate* (IQ of 35-49), *severe* (IQ of 20-34) and *profound* (IQ of under 20). IQ is not generally used in adult social care and it is therefore difficult to identify who in the population "known to social services" might be described as having a mild, moderate, severe or profound learning disability. Further, if one takes into account the local application of *Fair Access to Care* and the increasing allocation of services only to those having "critical or substantial need," breaking down the learning disability population served or known to social services by severity becomes very difficult, (Emerson and Hatton, 2008)

There are a wide number of causes of learning disability. Down's syndrome (or other chromosomal anomalies) account for about 26%, while in the largest group of cases of learning disability (48%), the causes are unknown. The effects of learning disabilities will range from mild to profound. In relation to employment, people with mild learning disabilities will, if they have difficulties at all, be likely to experience social disadvantage and may require additional educational support. Those people who have impairments in the moderate to profound range will require much higher levels of specialist support, for the whole of their lives. Again, the level and type of support needed could vary enormously between individuals. There are associations between the degree of learning disability

¹ Valuing People, Department of Health, 2001

people experience and the likelihood of a person having other forms of impairment. People in the severe and profound range are much more likely to experience an additional sensory or physical impairment along with their learning disability than are those in the mild to borderline range. In general, about half of people with learning disabilities have an additional sensory impairment, 18% may have two such impairments. Between 30% and 40% suffer from poor vision, this rising to 75% among those with severe learning disabilities. Some 60% and 70% of people with learning disability have measurable hearing loss, particularly people with Down's Syndrome. As many as 60% of people with a learning disability may suffer problems with speech and language and physical disabilities are obviously common where a learning disability is related to underlying conditions such as cerebral palsy, but is often present in people with severe levels of learning disability. Epilepsy affects one in three children with severe learning disabilities and generally increases in severity with severity of learning disability.

In the context of employment we are interested in the impact learning disability has on performance in learning and employability. It is difficult to predict the result of a learning disability on independence, learning and employment from cause of disability. This can be illustrated by people with Down's syndrome, where diagnosis usually leads to a label of severe learning disability, but where people can achieve good academic results in mainstream educational qualifications. However, the nature of the learning disability has implications for vocational training, learning and keeping a job:

- Most people with mild learning disabilities would have difficulty with reading and writing, difficulty increasing rapidly within the moderate range to a point where reading would prove impossible. This makes learning the tasks of a job difficult.
- Substantial numbers of people will have some difficulty understanding receptive language, questioning and responding in a fully appropriate way. Ability to understand verbal instruction and to answer will decrease rapidly

for many people as level of learning disability increases with severity of disability. Again this will make learning a job difficult and make adapting socially to a workplace more difficult.

- People are heavily dependent on the stimuli in one context or place. They then find it difficult to take tasks learned in one place and generalize them to another. This makes pre-training difficult, particularly for people with very severe learning disabilities.
- Many people with mild learning disabilities who cannot respond fully to verbal instructions will respond positively to demonstrations of tasks. People with greater needs will respond to more detailed demonstration, structured learning and direct physical help to carry out the steps.

Supported employment and why it works for people with a learning disability

Supported Employment has sometimes been called the "*place, train and maintain*" model of vocational rehabilitation. The same task can be done in many different ways across different workplaces. Workplaces differ in a myriad of small ways. The social demands of real workplaces can often be as important as the jobs themselves, they can differ between jobs, and are difficult to replicate in day or training centres. All these potential differences make the transition to open employment difficult for people with a learning disability. For this reason, placement in an ordinary job is seen not as an end-point but a necessary first step in successful training, the supported employee being taught a specific job, in a specific work place, usually by a skilled job trainer or job coach.

Task training for people with a substantial learning disability commonly involves breaking tasks down into component steps and the use of a prompting hierarchy by the trainer to give just enough information for the person to do the job without creating dependency. Task training and support to cope with the social aspects of work are ideally reduced over time to levels consistent with monitoring, but with the supported employment service continuing to maintain a problem solving and career development brief for the individual. Descriptions of the supported

employment process vary in the number of key stages required (Wehman and Kregal, 1985; Trach and Rusch, 1989; O'Bryan and O'Brien, 1995; BASE 2008), but they can be usefully summarised under five main headings: Vocational Profiling, Job Finding, Job Analysis and placement, Job Training and Follow-along services.

More recently the term "Customised Employment" has been used to describe the individualised techniques of supported employment but blended with some of the techniques taken from person centred planning (National Center on Workforce and Disability 2005; O'Bryan 2008). To an extent Customised Employment has been coined to re-state the relationship between successful employment outcomes for substantially disabled people and a well described, necessary set of steps, aligned with a positive philosophy of what people can achieve with appropriate support.

Supported employment research

Evaluations of the benefits of supported employment schemes have been multi-dimensional. Success has been seen in terms of levels of jobs obtained, and numbers of jobs retained over time. Benefits can accrue to the individual in terms of wage levels achieved compared to alternative types of employment or day placement, increased self-worth, job satisfaction, increased earnings, time in employment and quality of life gains. Proponents of supported employment argue that this approach offers the worker greater variety within the work role and wider social contact and this impacts upon the confidence and self-esteem of the worker. Researchers have also looked at the relationship between the implementation of steps or elements of supported employment and outcome, sometimes called the "fidelity" of the supported employment model.

Much of the research on supported employment has been carried out in the US, mainly because the model was developed in the USA, because the supported employment entitlement was enshrined in law, and its roll-out across the USA

was supported through research and development contracts with a wide range of Universities. Research on supported employment in the UK is less common because the later start point for supported employment in the UK, the lack of a defined and funded supported employment model, and the associated lack of commissioned research. Supported employment has also developed slowly in Europe, and the availability of research on it suffers from similar issues to those of the UK.

REVIEW OF THE EVIDENCE

Demonstrating that people with a learning disability can learn complex work tasks

For many years in the USA, people with a learning disability were served within a continuum model of employment rehabilitation. This stretched from day centres, work units, sheltered workshops and transitional programmes and represented a progressive skill teaching model where people were to move between services as their skills improved. Progression rates were, however, very poor and the whole system came under criticism (Whitehead, 1979). In the 1970s a number of researchers began to challenge the belief that having a learning disability meant that one had little chance of attaining independence and being vocationally productive. A number of researchers were able to demonstrate that given small-scale, individual teaching, people with learning disabilities in the moderate and severe range could learn complex real work tasks, and that these tasks could (and should) be taught on the job (Bellamy, Horner and Inman, 1979; Rusch and Schutz, 1979; Gold, 1972a 1972b, 1978); Wehman, Hill and Keohler, 1979; Wehman, 1981). The effective approach was the use of applied behaviour analysis and systematic instruction- breaking tasks down into stimulus: response chains and using prompting hierarchies and reinforcement to teach them (Bellamy, Horner and Inman , 1979). These studies challenged the very basis that entry-level skills had to be taught before people had a job placement. Such approaches were then tried socially in real workplaces, extending task training to training for real jobs and creating demonstration projects of what were effectively the first supported employment agencies, (Vogelsberg, 1990).

Simmons and Flexer, (1992) demonstrated that the same methods of instruction to clients can be used regardless of level of disability. Two clients were taught techniques for cleaning a restroom using a “*least to most*” training regime, which involved breaking tasks into chains and teaching steps independently based on complexity. They found that whilst the client with mild mental retardation learnt

the steps quicker than the client with severe mental retardation, both were ultimately able to perform the tasks.

Test and Wood (1997) provide a summary of systematic instruction which stems from applied behaviour analysis, and is based on the earlier research discussed here. They discuss how the skills of prompting, chaining and shaping tasks, reinforcing and giving feedback to workers, and fading to leave them independent are applied in the workplace by a job coach.

Characteristics of people entering supported employment

Supported employment has been able to serve a wide range of people with a learning disability in the US. Brickley *et al.* (1985) followed up a group of 53 people with a learning disability transferred from sheltered to supported employment. He found the people had severe to no IQ (IQs from 32-101) with an average IQ of 56.1, in the moderate range. Wehman *et al.* (1985) in a six year follow-up study of 167 people with a learning disability found an average IQ of 50, with 52% described as having a moderate, and 41% a mild, learning disability. Similarly, Kregel *et al.* (1989) reported on 1550 people receiving supported employment through 96 local programmes in eight states. Again, a range of people with a learning disability were served, 8.2% being described as having a severe or profound learning disability; 27.4% a moderate one; 36.2% a mild one and 9.2% a borderline learning disability. Vogelsberg, (1986) in a separate study of supported employment, reported IQs between 10 and 79 for the 91 people involved.

There is conflicting evidence as to the characteristics of the individual that predict both access to supported employment schemes and the likelihood of successful workplace integration. Severity of disability appears to be inversely correlated with success in achieving employment and associated outcomes such as wage levels and work integration. (Mank *et al* 1997a and b, 1998 and 1999).

Faubion *et al.* (2000) also demonstrated that severity of disability (and age) were significantly negatively correlated to whether an individual would be referred to a supported employment scheme.

There is also conflicting evidence around the effect of gender in work placements. In a 1992 study, Botuck *et al.* found no difference between employment rates for men and women. However in another, later, study following a different cohort, the same research team found that women were more likely to have their employment stopped and to have worked a shorter period of time than men Levy *et al.* (1994). In a subsequent study Botuck and Levy (1998) reported that women worked significantly fewer hours (20 hours) than men (24 hours). Rimmerman (1995b) observed that differences in employment rates by gender were dependent upon age. Males under the age of 35 had higher employment rates than women whereas over 35 the opposite became true. This was confirmed in a further study confined to those predominantly under 30 years of age which found that women were both less likely to be employed and also took longer to achieve employment, Rimmerman *et al.* (1996)

A study by Olson *et al.* (2000) found that monthly wages were significantly higher for men than women (\$622 versus \$543), although this was explained by differences in the number of hours worked as there was no significant difference in hourly pay. In addition, women were significantly more likely to be employed within catering and office jobs, whereas males were significantly more likely to be employed within janitorial or custodian jobs.

Beyer *et al.* (1996) found that in a sample of 2446 supported employees in the UK, 90% of whom had a learning disability, 65.8% of the workers placed were men, and 34.2% women.

The role of volunteering and work experience

Bates (2006) notes that a volunteer in the UK is defined by Department for Work and Pensions as a person who: receives no money, apart from expenses; who is not legally obliged to volunteer; is doing something for a not-for-profit organisation; or for someone who is not a family member. In relation to paid employment, there are claims that volunteering is a stepping stone to employment. Bates also notes that 22% of the first participants in the Capital Volunteering Scheme said that they chose their particular volunteering activity to gain work experience and improve their work skills (Murray *et al.* 2006). However, Hirst (2001) in a survey of volunteers on Job Seeker's Allowance (JSA) found more than half reported that their volunteering had a positive impact on their chances of employment. JSA claimants who had sought volunteering to enhance their employment prospects left welfare benefits quicker than volunteers for social reasons. Volunteering has also been reported to increase employability for those most disadvantaged in the labour market (Gay, 1998; Gaskin, 2004). However, Hirst (2001) also found that generally unemployed volunteers remained on benefits longer than their counterparts who did not volunteer. However, we did not find data on how people with a learning disability fared through volunteering in relation to employability.

Corden (2002), reporting a study of Incapacity Benefit claimants, found that time spent in doing voluntary work may help some recipients who want to move towards paid work by enhancing their employability, reducing some of the barriers they face or bringing them into closer touch with paid job opportunities. It found that it may take a long time for such effects to become apparent.

Lacey (2006) notes that volunteering is assumed to be helpful in getting a paid job, but says:

“There is however only limited research evidence to support all of this. Most studies identified are based on specific sections of the population, namely job seekers who are refugees, or members of deprived urban or rural communities. The evidence is anecdotal with much of it directed to what helped or hindered access to employment with little information on where they get jobs.”

Work experience while at school has been shown to improve students' self-esteem, to promote learning of workplace culture and what is expected, and to develop ideas for future job searches (Hoerner & Wehrley, 1995; Bailey & Hughes, 1999; Wehman, 2001). There is a solid evidence base for work experience contributing to subsequent employment (Colley & Jamison, 1998; Luecking & Fabian, 2000). Factors that increase the likelihood of employment for people with mild learning disabilities after leaving school are: successful completion of high school rather than not graduating (Warner *et al.* 2006; Scuccimarra & Speece 1990); being male (Peraino, 1992); having had a summer job or part-time supported job experience while at school (Hasazi *et al.* 1985; Scuccimarra & Speece 1990; Phelps & Hanley-Maxwell 1997); receiving vocational-technical training (Humes & Brammer 1985); duration of community based training and age appropriate integration with non-disabled peers (White and Weiner 2004); and use of a job coach (Howarth *et al.* 2006). Gray *et al.* (2000) found that job coaching was only effective in urban areas and regions with low or intermediate unemployment rates. Work experiences have been found to help identify the workplace supports that young people with disabilities need in later employment (Hughes & Carter, 2000).

Research suggests a number of elements of work experience programmes that help ensure quality outcomes (Benz & Lindstrom, 1997; Haimson & Bellotti, 2001; Hoerner & Wehrley, 1995):

- Clear program goals
- Clear roles and responsibilities for worksite staff
- Clear, individualized training plans
- Good links between students, schools, and employers
- On-the-job learning
- A range of work-based learning opportunities
- Mentoring available in the workplace
- Clear expectations and feedback

- Assessments to identify skills, interests, and support needs
- Reinforcement of work-based learning outside of work
- Appropriate academic, social, and administrative support all partners

Luecking & Fabian (2000) report on outcomes from the *Bridges...From School to Work* project developed by the Marriott Foundation for students with special education needs. Here paid internships are offered in local companies for young people with disabilities in their last year of secondary school. Support was provided by specified staff. A placement rate of almost 90%, was achieved, regardless of primary disability label, gender, and race of the participants. Follow-up studies of participants also demonstrate a high rate of post-school employment among participants.

Overview of the outcomes of supported employment

The place of supported employment in the USA

Following the passing of an Act defining and mandating funding for supported employment in 1984, significant expansion in the number of agencies providing this in the US took place. Shafer *et al.* (1990) were able to report in a survey of twenty seven states receiving federal supported employment grants that 1,400 programs of supported employment were authorised in the previous three years. Participating individuals increased 157% during the study period. Employment outcomes associated with the individual placement option were superior to outcomes associated with other models. People with a learning disability were the most frequent participants; individuals experiencing other handicapping conditions or those considered 'severely handicapped' were not well represented at this time. Further growth and the continued majority utilisation of these services by people with a learning disability, was reported by West *et al.* (1992).

In a national survey reported in 1994, 42 states responded and reported that a total of 74,960 individuals participated in supported employment in 1991. People with a learning disability accounted for 62.8% of all supported employment participants and 30.4% of these individuals were in the moderate classification with 8.7% in the severe or profound classification. The individual placement model (79.7%) was the dominant supported employment option utilized. This was a period of severe economic recession in many parts of the United States, yet the supported employment programme initiative continued to grow.

While many researchers and policy makers called for the substitution of sheltered employment with supported employment, the growth of supported employment began to tail-off towards the end of the 1990's. Rusch and Braddock (2004) note that, despite the evidence on outcomes, segregated services continue to outpace the growth of supported employment, such that the growth of supported employment had all but stalled by 2000. They recommended diverting staff and resources at transition age to allow schools to coordinate post-placement follow-up for 3 years following employment or enrolment in post-secondary education.

Job retention

There is considerable divergence in the literature about the proportion of clients achieving successful employment in community jobs. However some schemes have reported retention figures as low as 20% (Goldberg *et al.* 1990). Within the New York area, a study of people with intellectual and psychiatric disability considered employment outcomes following a three-month employment-training program and of those who entered employment (109), 28% worked for between 12 and 24 months (Botuck & Levy, 1998). A large proportion (77%), changed jobs at least once during the study period either through their own choice (21%), due to redundancy (35%) or due to termination for absenteeism, behaviour problems or inadequate skills (37%). The majority of people who lost their jobs, did so within the first six months of employment, (Lagomarcino, 2002).

Wehman *et al* (1986) found better results, with an average time employed of 19 months for his 6 year follow up cohort. Wehman notes that, given the jobs that people are doing, general rates of job turnover are high and the mean length of time non-disabled co-workers stayed was 5 months.

In a cohort of people with autism in North Carolina, 89% were retained in employment (Keel *et al.* 1997) and similar figures have been reported for other groups (Gilmore *et al.*, 2000). Beyer *et al.* (1996) found that in 1995, 53.5% of workers had been in their job for more than a year. This was less than that found in a previous survey in 1991 (Lister *et al.* 1991) where the figure was 58%. In general there were now more people who had been in jobs for over two years, 31.1% in 1995 compared to 22% in 1991. They found a job retention rate of 88% for people in supported employment jobs in the UK over a 12-month period.

Based on a study of 1100 people with intellectual disability in Oklahoma, Blanck (1994) demonstrated that in the three year period after the passing of the American Disabilities Act only 14% were either in competitive or supported employment. A third remained unemployed and over a half were maintained in sheltered workplaces. In the three-year study period 25% of people improved their employment grouping (by Blanck's criteria) whereas 16% regressed, that is moved from supported or competitive employment to a sheltered regime or unemployment. These findings however have to be seen in light of the national context. Overall the unemployment rate for this group fell whilst over the same time period for the population as a whole the unemployment rate increased.

Reasons for job loss

The reasons for failed employment have been addressed by Jauss *et al.* (1994). They argue that it is necessary to adopt an analytical approach to identifying potential problems. In particular a placement will fail on the part of the worker due to either problems with skills or motivation and it is therefore necessary to observe the worker and determine strategies for remedying the problem. Two

case studies in their paper demonstrate how this can effectively improve the performance of the worker.

In a retrospective study, Lemaire and Mallik (2008) examined supported employment barriers for 112 adults with mild to moderate learning disabilities. Inattention, interpersonal, and behavior problems were frequent barriers (37.5%) to maintaining employment. Poor attendance, inadequate work quality, or interpersonal problems were responsible for 20.8% of involuntary employment terminations. The authors conclude that an understanding of work-related issues for people with learning disabilities may assist support staff, such as nurses, to better address the psychosocial needs of this population.

In a study by Olsen (2000), women were found to have better rates of job retention. Men had significantly greater problems in the areas of personal hygiene, sexual inappropriateness and aggression towards objects. Perhaps as a result of this, men had a significant increase in involuntary terminations of employment

Wage rates

Studies in the U.S.A. have shown that people experience higher income in supported employment than alternative day services, national studies finding supported employment having approximately double the hourly pay rates found in sheltered workshops and higher net wages than other more restrictive day care environments (Lewis *et al.* 1992; Noble *et al.*, 1991). For example, Schallock, Mcgaughey and Kiernan (1989) in a national study of 1629 vocational services, found wages per hour in supported employment to be almost double those achieved in sheltered workshops, and average full-time hours worked to be higher in supported employment.

In an overview of supported employment in various states of America, Mills (2006) has identified a commitment to prevailing wage rates in open employment by several states such as Oklahoma, Ohio and Washington. However, there is some concern that the wages of people in supported employment do not grow over time in the same way as others, implying lack of career development. Gilmore *et al.* (2000) found that weekly earnings for individuals registered with the Rehabilitation Services Administration and placed in a supported employment setting increased from \$104 to \$107 over a ten-year period (1985-1995). In relative terms however, this represented a significant decrease for people with disabilities due to the rise in inflation and general wage levels over the period. Similar findings were observed for registered clients who were employed in the competitive labour market without supported employment help, although their wage levels were significantly higher than those in supported employment (\$169 versus \$107 in 1995).

Studies in Britain in the 1990s have been less positive about the financial rewards of becoming a supported employee, low hourly rates of pay and low net incomes leading to workers largely substituting earned income for welfare benefit income. In a national study of 101 supported employment agencies primarily serving people with a learning disability, Beyer *et al.* (1996) found that just over half of all workers increasing their income by less than 60%, only 2% of workers more than doubled their income, and 17% experienced no change in income at all. Supported employees can also lose income or entitlement if skilled advice is not forthcoming when moving from long-term disability benefits to earned income (Bass, 1996).

However, in a study of supported employment in North Lanarkshire, Beyer (2008) found a more positive picture, people with a learning disability:

- working 22.1 hours on average, with 94.0% working for 16 hours or more
- were on average 94.8% financially better off after employment

- experienced a shift from Income Support, to Working Tax Credit once employed
- had average gross earned wages in employment of £129.60
- had an average gross total income in employment of £252.25 pp per week
- had earnings that represented 50.3% of income in work, the rest being made up of Disability Living Allowance and Working Tax Credit.
- found income from Welfare Benefits or Working Tax Credits fell by 12.1% on entering employment (for people with learning disabilities).

Social integration and interaction

An important outcome of vocational rehabilitation within the employment setting is the level of integration and interaction between the worker with learning disabilities and his or her non-disabled co-workers. Chadsey-Rusch *et al.* (1997) have indicated that generally there is agreement between clients, employers and job-coaches as to what constitutes appropriate social integration outcomes and which interventions can facilitate these outcomes.

Kilsby *et al.* (1996) have shown that within the United Kingdom, levels of social interaction within day centres were greater than within a supported employment setting with interaction being predominantly task related. They also found that within the supported employment setting there was a greater level of joking that was considered to be a positive indication of social acceptance. Beyer *et al.* (1995) found that when people with a learning disability moved from traditional day centres into supported employment their pattern of interaction changed in the balance between work and social talk, and in frequency of interaction, becoming more like the those observed among their non-disabled colleagues than people with a learning disability observed in day centres. The content of people's interaction was different, supported workers being directed to do things by other workers at nearly double the rate of non-disabled colleagues. Supported workers were also found to receive superficial interaction, such as praise and greetings, more frequently than colleagues (Beyer *et al.* 1995).

There is also evidence of different levels of integration and interaction between different models of supported employment. A comparison of the job-coach method, where the client is supervised by an external agent, and the mentoring method, where the client is supervised internally by a member of staff at the placement, has demonstrated that levels of integration with co-workers are higher with the latter (Lee *et al.* 1997). Similar findings were found in the United Kingdom by Beyer *et al.* (1995) who found no significant difference between levels of interaction between eight workers with learning disabilities and eight non-disabled co-workers except when a job coach was present. In this instance, the job coach became the focus of the workers' attention. In a comparison of work training strategies amongst 30 employees at Pizza Hut, Lee *et al.* (1997) found that interaction with non-disabled co-workers was greater for those trained using a mentor compared with a job-coach.

In a study of 462 workers with a learning disability Mank *et al.* (1998) made five important observations concerning factors which predict integration. These were:

- There is a direct correlation between levels of interaction and wage rates
- Length of time employed does not predict level of integration
- Increasing severity of disability predicts lower levels of integration
- The type of work does not predict levels of integration
- The 'typicalness' of the work setting, that is the similarity in treatment of disabled and non-disabled workers in terms of recruitment, compensation and training, is significantly related to integration

In a study comparing levels of social integration of workers with mental retardation and their co-workers performing identical tasks, Parent *et al.* (1992) found no significant difference in total levels of interaction, although levels of interaction were higher for co-workers at break times. Conversely, there were significantly higher levels of work related interactions for disabled workers in

supported employment and of interactions considered to be inappropriate. This might indicate the need for employment specialists to consider the importance of social interactions in the workplace when preparing clients for employment.

Rusch *et al.* (1994) found no significant difference between workers with a learning disability and their co-workers in eight of nine different indices of a Co-worker Involvement Index: physical integration, social integration, training, associating (frequency), associating (appropriateness), advocating, evaluating, and giving information. The only item where there was a significant difference was in befriending which involved socialising outside the workplace.

In a study of those with severe levels of mental retardation, Rusch *et al.* (1995) found that using the Co-worker Involvement Index described above the worker with severe mental retardation were significantly less likely to receive training or be given information from their peers when compared with their non-disabled co-workers. They were also less likely to develop friendships with their co-workers outside their place of work.

In an American study of 34 clients working within a supported employment setting, Test *et al.* (1993) found that all but one believed that they had friends in the work place and 44% socialised with their colleagues outside.

Support for Working

Learning Social skills

Chadsey-Rusch (1992) identified inadequate social skills as a major cause of job loss for the population with intellectual disability. The lack of definition of what constitute social skills has hampered research into methods of improving them.

Chadsey-Rusch believes that they are:

1. goal oriented
2. rule-governed learned behaviours
3. dependent on context
4. involve observable and non-observable cognitive and affective elements
5. assist in eliciting positive responses and avoiding negative responses

It is not surprising, therefore, that many vocational rehabilitation schemes incorporate social skills within their training. In a survey of schemes in three American states, McCuller *et al.* (2002) found that 70% offered social skills training. However, this is often provided within a classroom environment, which has been shown to be less effective in developing usable skills than training provided in the workplace. For example, Clement-Heist *et al.* (1992) demonstrated that, in developing social skills for students prior to working, social skill behaviours improved following on-site training in addition to simulated training received prior to commencement of work. This indicates the importance of context for developing social skills, which the authors believe maybe particularly relevant for those with more severe intellectual disability.

Hyun-Sook and Gaylord-Ross (1989) found that social skills could be achieved using on-site training alone, and that these were generalisable and could be transferred to other environments. This was not found to be the case when a role-playing method was used. Huang and Cuvo (1997) also argue that social skills training programs are more effective if they incorporate the natural cues that occur within the real working environment. In addition, they argue that only

those skills which are relevant to the person's current situation should be taught. Eckert (2000) has shown that the skill of accepting criticism could be successfully taught to women with moderate disability using individualised instruction.

In a review of the topic, Chadsey and Beyer (2001) identify two types of approach that have been used for developing social skills and relationships in the workplace. First, are strategies that involve changing social behaviour of workers with learning disabilities. These include social skills instruction (role play, scripts), problem solving strategies, self-management (checklists, picture prompts, self-monitoring of positive and negative behaviour, tape recorded guides). Second are strategies that involve co-worker assistance. Co-workers have been asked to train people in their jobs and then act as social bridges to work colleagues and this has led to increased social integration. In a wider strategy, better social integration outcomes have been observed where specific thought has been given to work-based culture when finding jobs. Workplaces chosen because they involve team work, having set times for staff to interact, and a team building management style have led to better worker integration (Butterworth *et al.* 2000).

Not all strategies of this type have been successful. Asking co-workers to identify best approaches to integrate people, to try them, and modify the approach if it was unsuccessful, did not work well. Asking co-workers to advocate for the person were less successful than teaching disabled workers social skills.

Support in the job

Longitudinal observation of clients within a supported employment program reveals that there is a trend for reduced contact between the client and their training advisor over time. This fading of support underpins a move for the individual to independence within the job, and underpins any reduction in cost of the supported employment model over time. This can be demonstrated as a ratio of hours employed to contact hours over time. Botuck *et al* (1992) showed that in

the first three month period of employment, contact with the employee was 35%, but that this fell over subsequent periods to 9% and 5.5%. There was however considerable variation between individual employees with contact in the first period ranging from between 2 and 395 hours.

It takes longer to develop jobs for clients with severe intellectual disability. In a study in North and South Dakota, clients with profound mental retardation require an average of 512 hours per job whilst those with moderate mental retardation required 120 and those with mild mental retardation only 72 (1993). They provide a model to estimate the number of hours needed to implement supported employment for people with a range of learning disabilities. They estimate that input for people with a moderate learning disabilities falls from 100% direct support to 50% after 20 weeks, and to a maintenance of around 5% after 40 weeks. For people with a mild learning disability, input falls more quickly to 50% after 4 weeks 29% after 12 weeks and to the maintenance level after 32 weeks.

For some people with a learning disability, successful placement appears to be dependent on co-workers within the employing company taking on-going responsibility for assisting them. Mank *et al.* (1998) demonstrated that the most successful outcomes for those with the more severe forms of disability were achieved where co-workers had received some form of training and less contact with supported employment personnel. The approach of job coaches assisting co-workers to play a full role is known as “natural support.”

Beyer *et al.* (1996) using average figure from a national study in the UK confirm that the amount of time required to support a worker on the job falls rapidly over the first 6 to 8 months to a maintenance level of around 1 hour per week. The general trend is for Job Coach support to fall while hours worked stay stable in the first year (at around 15 hours per week). Those in jobs for a five year period or more need even less support with Job Coach involvement usually being provided only when the worker or employer request it.

Natural support approaches

Farris and Stancliffe (2001) used direct training of the co-workers in an ordinary fast food chain to induct and train people with a learning disability for 16 hours over 2 days. Training consisted of disability awareness as well as a “do, explain, watch” protocol of teaching and reinforcing workers with disabilities. The researchers found that outcomes for workers with learning disabilities, such as hours worked, wages and job tenure, were equal to those of a comparison group that had professional job coach support. They also found that the co-worker group received less hours of support than those with job coaches, and experienced a high level of social involvement with their co-workers.

Information from Washington State (1997) highlights the amount of individual employment support received when people are newly employed, intermittently employed and continuously employed. These were, in order, an average of nine months at 15 hours per month, eleven months at average of 10 hours support per month and for the continuously employed, twelve months at a rate of 7 hours per month. The type of support varied: for newly employed folk (N) it was preparation for the job and finding a suitable employer plus some received job coaching and retention services; intermittently employed (I) group required job preparation, marketing and job coaching. Some required job retention services at a rate similar to those continuously employed; continuously employed clients tended to receive job coaching, job support, retention and follow along. Job retention accounted for 1-4 hours per month for most people and record keeping and travel accounted for the rest.

For every hour of individual employment services provided, the groups worked:

Grp	Mean number of hours worked	No. in Sample	Total number in each group
N	2	250	301
I	5	250	1,081

C	12	250	1,466
---	----	-----	-------

The average response for the samples was 75%

Job coach tasks and training

Bollingmo (1997), in a survey of employment staff in Norway, including staff from sheltered workshops, supported employment, vocational special education and day activity centres, provides a list of the most needed training by vocational rehabilitation professionals. The most common need was for training in behavioural management techniques (54% of respondents), “*to make the employee stay on task*”. Other skills included training procedures, independence training, identifying good work tasks, and knowledge of learning disabilities. The findings are similar to studies carried out in the context of supported employment and school transition (Everson 1991; Morgan *et al.* 1992). Moallem (1994) carried out a study of the capacity of 110 French instructors to cope with the changing demands of working in sheltered employment through the Centre d'Aide par le Travail (CAT) workshops. Moallem found that majority of instructors were generally un- or under-qualified in core skills of the enterprises, and that over 80% had no education in disability. He concluded that instructors were unprepared for supporting people with a learning disability to work in a more competitive production environment within the CATs.

As we have seen earlier, the involvement of co-workers in training and induction can yield positive outcomes for the worker with a learning disability. Butterworth *et al.* (1997) describe strategies used to expand the role of Employment Training Specialists (ETS) to become consultants and facilitators to enhance co-worker support. Data show that social integration and provision of co-worker support were enhanced by ETSs using these strategies to enhance workplace involvement. Strategies covered the following areas: Job performance; prompts for teaching job tasks; specific instructional support around the individual, such as designing picture prompts; empowering co-workers to problem solve; and build relationships.

The recruitment and training of job coaches can remain problematic. Conley (2003) collected information using a postal questionnaire from 85% of Maryland's service and this provided strong evidence that substantial improvements were needed in relation to:

- the ability to recruit and retain qualified vocational workers;
- training for vocational workers.
- enhanced procedures for locating more, and higher quality, jobs;
- expanded transportation arrangements; and
- information systems to measure performance and identify problems.

Personal Outcomes for Employees

Self-esteem and satisfaction

Researchers have compared more qualitative outcomes for supported employment and more sheltered options, and day services. In a study of 200 people, Griffin *et al.* (1996) demonstrated that those clients trained within a supported employment setting had higher self-esteem and higher job satisfaction than those trained within a sheltered employment setting. There was also a correlation between self-esteem and higher job satisfaction with the status of being in a semi-independent living environment, leading to those people in supported employment and independent living having the highest scores. This finding was echoed by Test *et al.* (1993) found in a study of 34 individuals that the majority liked their jobs, were satisfied with the help that their job coach had provided, had had a voice in choosing their job, said that would rather work in the community than attend a workshop, and also said they had friends at work. Overall, a majority (67.6%) of workers interviewed for a study were happy with their job. In a UK study, Bass (1996) found people were more satisfied with their activities in supported employment than in their previous day service, and reported people making new friends at work.

Gliner and Sample (1996) found that individuals within a sheltered employment group scored significantly lower on measures of quality of life, environment control and community integration. Whilst these subjects had been matched for age, sex and IQ it should be noted that there were significant differences between the comparison groups in communication, physical mobility and work and social skills.

More recently, self-determination has emerged as a key area of outcome for people with a learning disability, being an outcome that should be pursued through all services and activities. Wehmeyer, (1994), one of the major researchers in the area of self-determination, found in a sample of over 200 that

workers in programmes providing competitive employment reported feeling a greater sense of control over their lives than those within a sheltered setting or unemployed. He also found that reported levels of sense of control and quality of life were significantly lower amongst those within a sheltered setting than amongst those in open employment.

Engagement in meaningful activity

The pattern of engagement in work activity by disabled people and how this relates to workplace norms can be an important indicator of a successful supported employment placement. A mismatch between the engagement levels of disabled and non-disabled co-workers can lead to tension between the parties, with the mismatch being characterised as either the disabled worker not working well or exposing any under performance of co-workers. Engagement in job tasks is also directly linked to level of productivity, and meeting the expectations of employers about productivity is still an important aim of those involved in vocational rehabilitation.

Kilsby and Beyer (1996) compared supported employment with day centre provision and found that the proportion of time supported employees spent purposefully engaged in meaningful activity rose significantly from 62% in traditional day services to 83% on moving into supported employment. Patterns of engagement for supported employees had more in common with non-disabled workers than with people attending day centres facilities, indicating successful integration into the workplace. Bass (1996) also found that engagement rose from 25 minutes per hour in day services to 45 minutes per hour in supported employment and reported relief from boredom as an important outcome in moving to employment.

Quality of Life

How people feel about their daily lives is of great importance and this is an under researched area of outcome. The data that do exist are favourable to supported

employment. In a study of workers in two projects, McCaughrin *et al.* (1993) reported the results of a questionnaire probing people's quality of life through use of a worker loneliness scale, and assessments of the degree of integration into the workplace and degree of involvement with non-disabled co-workers. Workers in supported employment scored significantly higher than those in sheltered workshops. Degree of dependency was a factor, people with mild learning disabilities scoring less favourably than those in sheltered workshops on worker loneliness, while those with moderate or severe learning disabilities scored higher on both.

Not all results are positive. Holloway and Sigafoos (1998) explored the quality of life of 36 young adults with learning disabilities in competitive employment training programmes that trained supported people in open jobs, and young learning disabled adults in sheltered employment. They found that there were no significant differences between the two groups except in the domain of work. Here young people in open employment earned higher wages, were more satisfied with wages, and had greater social integration.

Employer attitudes to people with a learning disability working

Employers questioned in a survey of their attitudes to supported employment and employing people with disabilities were broadly positive. Interestingly, this increased amongst those who had hired a worker through a supported employment scheme (Nietupski *et al.*, 1996). Those surveyed believed that the dedication of supported employment workers and the quality of their work was equal or superior to that of other workers.

Employers have raised concerns about the cost of extra training and supervision and whether the worker had the necessary skills; although the latter was a concern predominantly of those who had no experience of hiring staff (Nietupski *et al.*, 1996). When asked to quantify the cost of the extra accommodations required for a worker with intellectual disability, one third could not give an

estimate, one third thought they were between \$0 and \$50, and the remainder expressed values between \$50 and \$5,000 (Olson *et al.* 2001)

Cost:Benefits Analyses of Supported Employment

Thornton (1984) suggests the purpose of cost: benefit studies are to determine:

"Whether the various outcomes justify their costs in terms of economic efficiency..... does society have more goods and service at its disposal as a result of funding a particular program or would society have more goods and services if the resources devoted to the program were used for alternative purposes?"

Cost benefit analysis involves calculating a net present value for the service by summing all financial costs and outputs, and adjusting these for the effects of time between estimates (discounting). A programme is efficient if the value of its effects are greater than costs involved in delivering them. Economists have identified a number of activities required to carry out an analysis of good quality. The resources that constitute the programme such as staff, buildings, and materials, must be identified along with a comparison situation that may form an alternative use of these resources. This alternative is often called "the counterfactual". The counterfactual can often be an existing service people were using, or may have used, prior to a new service type being created.

A number of analytical perspectives can be specified depending on the purpose of the analysis. The most common perspective used in studies of supported employment are:

- The service user, here the supported worker, is also often used to quantify their gain through participation in the programme.
- The taxpayer is also often used as social programmes are usually funded through tax revenues. This taxpayer perspective may be further broken down into local and national taxpayers.

- Society as a whole (is getting more goods and services as a result of the programme's operation). This takes into account the same cost and benefit elements as the taxpayer perspective, but ignores tax paid and welfare benefits reduced, as these are transfer payments between sectors of society (taxpayer and employees).

Many of the cost-benefit studies we have identified compare sheltered work, with individual supported employment and group supported employment models, such as work crews and enclaves. It is clear that, in many cases, the transition to employment will lead to an increase in income for the individual and the withdrawal, or partial reduction of welfare benefit income. For the taxpayer and society as a whole, the benefits may be less obvious in the short term as the cost of schemes helping disabled people enter open employment maybe greater than that previously spent within a sheltered employment or day care settings. However, in the long-term, savings on welfare benefit payments, the payment of taxes on earnings by the worker, savings in the cost of attending other services, the provision of other supports in the community, and the economic contribution of the individual may create a positive economic benefit.

American Studies

Wehman and Hill (1989) followed a group of 214 consumers who had taken part in individual placement supported employment between 1978 and 1986 in a university based supported employment scheme. The majority had moderate learning disabilities. The mean length of time in employment was 21 months. On average, supported employees earned more in one month than they did in one year before their placement. During the first two years taxpayer costs exceeded benefits. By the third year, net benefits to the taxpayer were greater than costs and they continued to increase over the eight year period. By 1986, for every \$1.00 invested the taxpayer realised a return of \$2.93.

Another early study dealt with the costs and benefits from 30 supported employment programs in Illinois starting from the year of their implementation in 1986 through to 1990 (Conley, Rusch, McCaughrin, & Tines, 1989; McCaughrin & Rusch, 1990; Rusch, Conley, & McCaughrin, 1993). The study covered 729 people, the majority of whom were individually placed, the rest working in enclaves and mobile work crews. Seventy-nine percent were people with a learning disability. The amount of benefit increased over the four year period. For every \$1.00 invested, society received a return of \$0.75 in the first year, \$0.88 in the second year and \$1.09 in the fourth year. From the taxpayers perspective, for every \$1.00 invested there was a return of \$0.66 in the first year, \$0.78 in the second, and \$0.89 in the third year. Net earning for supported employees increased by 37% in the first year of supported work to 57% in the fourth year. The improvements in economic efficiency over time were attributable to increasing financial benefits rather than falling programme costs. The cost: benefit analysis of long-term workers projected that supported employment would eventually provide a net taxpayer gain.

Hill, *et al.* (1987) analysed the costs and benefits accruing between 1978 and 1986 in a Virginia individual placement supported employment programme that was primarily serving people with moderate a learning disability. In the first two years, costs exceeded financial returns to the taxpayer. By the eighth year the taxpayer received a return of \$2.93 for every \$1.00 invested, and all consumers significantly increased their income after enrolling in the programme. Looking at the whole period during which the programme operated, taxpayers received a return of \$1.87 on every \$1 invested in programme costs and the net yearly benefit to the taxpayer was \$4,063 per person.

Noble and Conley (1987) analysed a variety of existing cost: benefit data from nine different programmes for people with a severe learning disability. Each programme worked on one of the following models: adult day care, specialised training programme, supported employment enclave model, supported

employment job coach model, sheltered workshop or work activity centre and transitional work. Earnings were lower and costs higher for clients with a learning disability in sheltered workshops and work activity centres than for those in the enclave and job coach models. Since participants of these programmes had similar IQ levels, one could infer that the level of disability was also similar, suggesting that clients would benefit financially from a move from sheltered to supported employment.

Naeve, Allen, Harding and Shea (1990) conducted a study of the first two years expansion of twelve agencies offering individual supported employment services in California. In the absence of supported employment, data collectors reported that 35% of consumers would be in sheltered workshops. Using these figures, the analysis revealed net financial gain to the consumer and society and net loss to the taxpayer. However, the authors believed this was a conservative estimate and by assuming instead that 53% of consumers would otherwise be in sheltered workshops, net taxpayer gain was calculated. In a situation in which the number of participants is stable, costs, it was assumed, would be 30% lower and the net benefit to the taxpayer larger still.

Noble, Conley, Banerjee and Goodman (1991) reported data from 45 agencies serving a total of 1,250 clients with various kinds of disabilities receiving individual supported employment in New York State. Estimated earnings were 2.15 times greater than before supported employment, but costs were higher when compared to alternative programmes (between 83%-91% higher), yielding a societal benefit: cost ratio of 0.69. The authors note that 75% of society benefits came from decreased use of alternative programmes. Overall, costs exceeded taxpayers' benefits giving a ratio of 0.60 (this can be interpreted as a \$0.60 return on each \$1 spent). Differences in costs and benefits were found between different disability groups. For people with a learning disability, the authors found a benefit: cost ratio of 0.39 for people with a mild, and 0.49 for people with a more severe learning disability.

Lewis, Johnson, Bruininks, Kallsen and Guillery (1992) reported on the application of a benefit: cost accounting framework to evaluate supported employment in eleven agencies in Minnesota serving 1,892 individuals. These agencies were offering different forms of day provision categorised as either habilitation training, on-site employment, community based group or individual supported employment. Cost: benefit comparisons were made between all the programmes within each agency and, in each case, the least restrictive job setting was compared with a more restrictive environment. Consumers gained financially from supported rather than workshop based employment in the majority of cases. In 23 out of 28 comparative cases, individual supported employment showed greater net benefit at the society level, than all other training and employment options. Selected comparisons show supported employment to compare favourably at the society level with: vocational habilitation (\$2 returned on \$1 spent on supported employment); on-site employment (\$1.30-\$4 for \$1 spent on supported employment) . Further, Lewis, Johnson and Mangen (1997) report that, using the same data, group supported employment cost \$753 less and that wages were \$155 higher per person than in sheltered employment. The costs of individual supported employment was \$1480 less and wages \$2691 higher than in sheltered employment and that benefit: cost ratios were 1.44 for group supported employment and 4.01 for individual supported employment.

A follow-up study (McCaughrin *et al.* 1993) demonstrated that supported employment schemes were fully cost-effective for both the individual and for society as a whole when viewed from a longer perspective, with savings exceeding costs. After one year from the standpoint of the individual, the scheme represented a benefit as earnings increased by a mean of \$1,027 for those with severe mental retardation and \$4,607 for those with mild mental retardation. This trend continued over the following five years. For society, the benefit at the first year was again negative; -\$5,099 and -\$766 respectively for severe and mild mental retardation. The first year absorbed the majority of the costs per client due

to the transfer process from sheltered to supported employment. In the following years the net cost progressively fell so that by year five, the benefits outstripped costs with respective figures of \$1,132 and \$5,003. The authors carried out a further cost-effectiveness analysis of this cohort and considered various quality of life indices (integration, co-worker involvement, loneliness and quality of life) as a function of cost. Supported employment was significantly more cost-effective for all indices and for all levels of learning disability when compared with alternative sheltered settings, supported employment providing higher level of outcome per \$1 than the alternative.

Cimera (1998) looked at the cost-efficiency of supported employment compared to sheltered workshops by people's IQ, level of learning disability, multiple disabilities and other characteristics. The three perspectives of person, taxpayer and society were adopted. He found that regardless of the severity or number of disabilities all individuals were cost-efficient from each perspective. Cimera found that, from the taxpayer and society perspectives, people with a severe learning disability are just as likely to be cost-efficient to provide supported employment to as people with a mild learning disability. Supported employees with high IQs benefited more as individuals from supported employment in the community than people with lower IQs.

Cimera and Rusch, (1999) found that for the individual worker, wages increased irrespective of the level of learning disability within a supported employment setting. This, however, is contradicted by Thompson *et al.* (1992) who found that those with the severest form of learning disability earned more within a sheltered workshop than in supported employment. Cimera acknowledges that lower IQ and severity of impairment were significantly associated with reduced individual cost-efficiency. In addition, Cimera observed that in one of three time periods that men were significantly more cost-efficient than women from the societal point of view, as were African Americans when compared with European Americans.

A review by Cimera (2000) identified 21 cost studies of supported employment, nine published since 1991, all relating primarily to people with learning disability. Again, he found that, at the individual level, the cost-benefit ratio is almost always positive, regardless of level of disability, although people with higher IQs seem to do better monetarily than those with lower IQs. At the taxpayer level the evidence is less clear and differs over time. Cimera estimates that by the fourth year, taxpayers achieve a net benefit.

Cimera (2007) investigated the cumulative costs generated by supported and sheltered employees with mental retardation from the moment they entered their respective programmes to when they exited or stopped receiving services. Data indicate that supported employees acquired services costing a total of \$6,619 over 5.98 fiscal quarters or a per fiscal quarter cost of \$1,107. In comparison, sheltered employees acquired services costing funding sources a total of \$19,388 over 6.22 fiscal quarters or a cost per fiscal quarter cost of \$3,117.

Cimera (2007) investigated the costs of supported employment in Wisconsin over a four-year period (FY 2002 – FY2005). Findings suggest that the average annual per capita cost incurred by Vocational Rehabilitation (VR) rose 61.7% over the duration of the study. Further, this increase was not influenced by the supported employee's disabling condition or its severity. The average cost per supported employee in FY 2002 was \$4,553. This number increased 8.7% to \$4,950 in FY 2003 and then dropped 44.2% to \$2,760 in FY 2004. By FY 2005, the average cost per supported employee rose approximately 166.8% to \$7,364. From FY 2002 to FY 2005, the average per capita cost increased 61.7% in four years. The increase in costs is evident across disabling conditions. Individuals who were classified by their VR counsellors as having a "most significant" disability were more expensive to serve in three out of the four periods (i.e., FY 2002, FY 2004, and FY 2005) than individuals classified as less significantly disabled. However, these cost differentials were minimal across all four years (i.e., ranging from \$736 to -\$438).

As supported employment has developed, there has become a greater emphasis on using a natural support approach, involving greater responsibility being taken by employers and co-workers. As we saw earlier, this approach has been associated with better wage and integration outcomes for supported employees. Zivolich, Shueman and Weiner (1997) have attempted to assess the cost: benefit implications of this. They compared a natural support model, involving training Pizza Hut restaurant managers to act in job coach roles instead of external agencies, with sheltered workshops. Seventy-five percent of the supported workers in the study sample of 59 workers had a learning disability (described as severe). The study identifies a net benefit: cost ratio of 1.21 for taxpayers and 1.46 for society. This model appears to create good cost: benefit outcomes three years before similar outcomes are seen from external job coaching arrangements.

United Kingdom studies

In a national study of Supported Employment Agencies in Great Britain (Beyer *et al.* 1996), 101 Agencies (48%) who responded were supporting 2446 people with disabilities in jobs, 90.3% of whom were people with a learning disability. A cost-benefit analysis showed workers gained £2.47 for every £1 they lost in taking up employment, and taxpayers received 43p back in savings for each £1 invested. Taxpayer cost-benefit improved over time, recouping 54p for every £1 invested after 6 years. Supported employment was more expensive on average than sheltered options in net cost and hourly rate terms, while agencies in operation for over 5 years compared more favourably with these alternatives. Independent status of agencies, length of time in operation and higher staffing ratios were positively related to worker outcomes. Welfare benefit regulations and the absence of mainstream funding for supported employment were seen as significant restrictions on the growth of supported employment in the UK. High rates of part-time working with supported workers working for a few hours on

Therapeutic Earnings Disregard (now Permitted or Supported Permitted Work) led to relatively unfavourable levels of cost: benefit compared to the US.

Beyer and Kilsby (1998) compared the cost-benefit of two types of supported employment schemes (A and B) that worked with people with a learning disability. Scheme A's supported employees worked for an average of 7.9 hours per week whilst those in scheme B worked an average of 28.6 hours per week. As a consequence of this, hourly costs of both schemes were significantly different at £22.15 and £2.84 respectively. The accumulated costs and benefits over that time led to benefit: cost ratios of 0.2 and 0.5 for the taxpayer perspective respectively. As shown from studies above, five years may be a necessary period of follow up before financial benefits outstrip the costs of support schemes to society become apparent. The authors again drew attention to the detrimental impact on net cost: benefit of caseloads having large proportions of part-time jobs, and jobs taken under Therapeutic Earnings Disregard.

Shearn *et al.* (2000) compared people with severe learning disability and challenging behaviour from a UK day centre who were entered into part time employment with a peer control group of clients who remained within the day centre. The overall cost of supported employment was greater (£7.36 per hour) than the cost incurred by the workers whilst in the day centre prior to beginning their employment (£3.67) and for the control group (£4.61). However, supported employment was found to generate greater outcomes per £1 in terms of social integration but was less cost-effective in terms of social involvement. It is noted that the workers were in receipt of high levels of welfare payments and as a result were limited in the number of hours they could work while maintaining themselves within pay levels allowable by welfare benefits agencies and local authority residential care providers without threatening receipt of these welfare benefits. Again, economies of scale in terms of numbers of workers employed and hours worked per person, were important factors in determining cost: benefit.

Beyer, Thomas and Thornton (2002) in a study of the UK Supported Employment Programme (SEP) (pre-cursor to WORKSTEP) found better cost: benefit outcomes for community placement than for sheltered factories. The programme provided for 38% of people with “a learning disability.” The average gross cost per disabled worker per year, derived from national returns, was £12,164 for Remploy factories, £9,390 for Local Authority (LA) and Voluntary Body (VB) factories, and £4625 for LA,VB and Remploy Interwork community job placements. These costs increased when in-work welfare benefits and the cost of displacing people elsewhere in the labour market were taken into account. However, when flow-backs from the tax and NI paid by disabled people and VAT on spending were taken into account, returns of 46p for Remploy factories, 32p for LA/VB factories and 64p for community placements, were found for each £1 spent on jobs.

When the cost of supporting disabled people outside of the SEP were taken into account, the net cost of SEP fell significantly, net costs being £1821 for Remploy factories, £1872 for LA and VB factories, and -£2925 for LA, VB and Remploy placements, the latter representing a net gain for the exchequer with flow-backs exceeding costs.

Beyer and Seebohm (2003) carried out a financial net cost research study that looked at the three public authorities (two local authorities and one health authority) at different stages in developing social enterprises. The cross-sectional data illustrates the different stages in the development process, from the very earliest point where the activity, a bakery, remains within the day centre (Site 1), followed by a rapidly progressing enterprise in Site 2, contract gardening service, to a social enterprise on the point of externalisation in Site 3, a professional printing service. All services served people with a learning disability except the social firm in area 3, which served people with mental health problems.

From the perspective of the taxpayer, public authority and disabled worker - one model of provision emerged as the most financially advantageous, and this was the social enterprise which employed disabled people who had previously been trainees (or otherwise unemployed), and which had a significant trade income to offset costs from printing (£6132 net cost taxpayer, benefit: cost ratio of 0.68). The two developing enterprises were more expensive, with less financial benefits from any perspective (£8001 and £12452 net cost, benefit: cost ratios of 0.05 and 0.37 respectively). This was largely because the workers remained on benefits (receiving £20 a week under Permitted Work rules), and there is limited trade income to offset the delivery and development costs. The three comparison supported employment schemes catered for more people, and so were financially less costly per person to the public authority. However, in two sites, a high proportion of disabled workers continued to claim welfare benefits so the financial gain to them was nil or limited (some are paid within Permitted Work rules) and the costs to the taxpayer are high (£8553 and £7946 net cost, benefit: cost ratios of 0.01 and 0.04 respectively). In Site 2, where more people gain full-time paid employment, there was a net saving to the taxpayer, and more financial gain to the workers (£3829 net cost, benefit: cost ratio of 0.24). The total net cost per service user was highest for day centre provision, where there was no financial gain under any perspective (£11977, £13694 and £8791 net cost, benefit: cost ratios of 0.02, 0.0 and 0.04 respectively).

Beyer (2008) carried out a study of North Lanarkshire Supported Employment (NLSE) agency since its inception. NLSE supported 119 people in jobs, of whom 93 were people with a learning disability. With an average number of hours worked per week of 22.1, the cost of NLSE per person was £7,216 pp pa based on an average of 122 people in work in 2007. The equivalent cost per person based on “actual capacity” for Locality Support Services (community day service) was £14,998 pp pa. Overall, government contribution through Welfare Benefits or Tax Credits fell by 12.1% as people with a learning disability entered paid work. NLSE achieved a benefit: cost ratio of 0.21 to the taxpayer, without including any

replacement cost of day service. A more comprehensive financial cost: benefit analysis, taking into account reduction in Welfare Benefit payments when in work, tax and NI receipts, the costs of sustaining disabled people if NLSE did not exist, and the cost of displaced non-disabled workers estimated that the cost to government for NLSE to be -£6,894 pp pa (a saving). Care is needed in interpreting this figure as there were some significant factors that could not be fully costed, but it indicates a likely saving is possible through investment in supported employment of this type in the UK if similar hours of employment can be achieved.

Impact of funding models

Novak *et al.* (1999) have reviewed results based funding mechanisms (RBF) in comparison to traditional funding formats. There are a number of advantages:

- Increased emphasis on valued outcomes- fee for service formats can emphasise billing hours of support rather than emphasizing client independence
- Greater cost efficiency and effectiveness- enabling greater flexibility in administration of programmes in return for greater performance
- Increased accountability for results- rather than an emphasis on rules and regulations.
- Improved consumer choice and satisfaction- improving the speed and quality of outcomes.

The authors identify a number of versions of RBF operating in different states:

- Fully results based- with payments for assessment (10%); Placement (15%); retention 4 weeks (15%) and 10 weeks (15%); stabilization (20%) and closure (25%)
- Results based with hourly service component- Assessment plan (\$520) and report (\$780); Placement career plan (\$1400), placement (\$1400) and 30 day retention (\$700); Initial employment supports for 30 day retention (\$1480) and stabilisation (\$2220); and additional support (variable hourly rate)
- Results based and fee for service- assessment (\$30 per hour with \$570 cap); job development (\$30 per hour with \$900 cap); Placement (\$3000); Additional support (\$30 per hour)

The mechanisms can include bidding processes by potential providers for people with different levels of need, including information on historical failure to reach outcomes by group. Outcome payments structures can then be fixed by percentage payments of the agreed total payable. Flexibility can be achieved by varying percentage levels between client groups (e.g. people with a learning

disability vs people with a mental health problem). Outcome payments can also be tiered by level of support need. Authors also note that one off incentive payments can be included for exceptional outcome, such as jobs of particularly high quality. The authors identify the possible downsides of RBF such as 'cherry picking' easy to place candidates, seeking poor job matches for easy but short-term jobs, lack of attention to career development and inadequate overall funding to enable the job to be done with quality. These must be avoided in any RBF system.

Block, S.R. Athens, K. & Brandenburg (2002) show that outcomes can be improved by use of RBF. They note that spending on supported employment in Colorado was twice the national average in 1996 with an average cost per head of \$7,000, but that success rates were poor despite there being a low unemployment rate at the time. They introduced a performance scheme with outcome related payments to keep costs down and improve success rates in 1998-9. This required completion of a three day staff training scheme in order for people to become Supported Employment Consultants. Successful people could attract higher fees. The training covered five phases:

1. Career Planning
2. Job Placement (included requirement for at least minimum wage paid direct to employee, integrated setting and 20+ hours and that job matched the clients preferences. For incentive payment to be made needed to be in paid work 3 months after career phase completed.
- 3 & 4. Retention phases
5. Maintenance

Providers received payments at 1, 2 and 3 months, and monthly up to a bigger sum after 6 months. Providers could earn up to \$1000 dollars depending on outcomes achieved. This increased to \$1,200 for fully trained staff. It led to 37% increase in number of long term jobs in the community.

Callahan (1999) reports the use of personalised budgets on employment in a United Cerebral Palsy Association five year demonstration project. Using a personalised budget, individuals were given control over either a pre-determined average amount of money or an individually determined amount approved by the funding system. In most cases these funds were held by an intermediary organisation such as local Development Disability services, private organisations or one-stop employment centres. The participants then entered into a contract with employment providers. He identified two ways of establishing the funding offered to families: set rates, which have some downsides in that average figures become a “cap” and some families are distanced by the arbitrary nature of the arrangement; individualised budgets, where the person’s employment drives the budget. Callahan suggests that individualised discovery, employment planning and budget development need to be core elements of the service to enable estimation of needs and budget. There is a dilemma in how the consumer controls the “core” planning and how this is paid for as it pre-dates the funding plan. One solution mentioned is the use of a pre-determined element to the budget and then a remainder that is fully consumer controlled. Down sides include lack of clarity on overall budget required and the danger of services backing away from higher cost packages. One implication of the approach is that there needs to be a separation between those who help people plan (contract planners) and those who approve the resulting individual budgets.

UCPA’s experience shows that people still require structure to be comfortable and it has developed materials and guidance around the process of employment, contracts, provider qualifications, conflict resolution, transport, education, therapy and personal assistance. Callahan notes that fundamental changes are needed in the way that provider agencies respond to greater uncertainty and a market economy. Brokerage organisations can play a role in receiving resources from a number of funders and managing these in relation to individualised budgets.

The relationship between approaches to supported employment and outcomes

The role of Fidelity Scales

Beyer *et al.* (1996) found the relationship between what supported employment agencies do and outcomes confusing. The only significant difference between agencies offering all of an idealised list of supported employment procedure is the hourly rate of pay, where those scoring lowest in degree of model implementation delivered the higher average pay rates. While other variables are not significantly different, in each case the agencies scoring lower on full implementation of the model seemed to deliver slightly more favourable outcomes. Researchers speculate that agencies which maintain a clear focus on the needs of the individual are likely to vary their use of approaches like job tasters and systematic training, thereby reporting having the capacity to use these techniques but using them "sometimes" rather than "always". Alternatively, the higher hourly rates of pay for those agencies with relatively low scores may indicate that they are working with generally more productive workers who require less intensive support.

Trach and Rusch (1989) found that a Degree of Implementation tool measuring fidelity of agencies to the supported employment model found a relationship between high implementation scores and agencies serving people with lower IQs, spending more time on job survey and analysis and in job matching. This is consistent with agencies having intensive procedures being better at serving people with more significant learning disabilities. McDonnell *et al.* (1988) using the Utah Supported Employment Project Implementation Checklist found relationships between high implementation scores and better wages and greater hours, and retention. Wacker *et al.* (1989) found higher scores on a 10 point checklist and longer-term employment of worker.

Customised Employment

In the United States, the Office of Disability Employment Policy has invested in demonstration sites around Customised Employment. Information on the web site describes these as aiming to:

- Focus on the establishment of client preferences for a career choice;
- Individualize the program to the individual's strengths, interests and choices;
- Coordinate services that move the worker in the direction of that career choice;
- Negotiate with employers to locate a job that fits with the individual's and the employer's interests: rapidly placing the person into a competitive job:
- Provide on-going support in that job that is not time-limited.

The adult demonstration programmes target, among others, people with significant disabilities who are either unemployed or under-employed.

Research conducted by Westat for the Department of Labor in the USA (2005), suggests that Customised Employment can be used successfully for people who are severely disabled or who would otherwise not be considered for work. The study looked at outcomes achieved from customised employment demonstration programmes and in the first round of data collection, information was obtained on 345 customers who had been placed in competitive employment. The majority of these respondents found high quality employment after participating in the demonstration programmes and 95 percent were earning the minimum wage or higher in jobs they obtained through the programme. More than one-third of these respondents were earning more than \$8.15 an hour while more than 17 percent were receiving benefits (such as health insurance or paid vacations) from their employer. More than half (54 percent) of those who had been placed in competitive employment obtained jobs with the potential for career advancement.

A second round of data collection on competitive employment placements yielded similar findings. Westat collected data on 536 randomly selected individuals who were involved in the programme through thirty demonstration

projects. Approximately 42 percent self-disclosed a psychiatric or emotional disability, and 1 in 5 reported a cognitive disability. Everyone in this sample received at least one type of customized employment service, and each customer received an average of 5.6 customized employment services.

Westat found on this occasion, that 99 percent of all the respondents obtaining employment earned above minimum wage. One-third now have full-time jobs (more than 35 hours a week), and 27 percent have jobs in which their employer offers at least one fringe benefit. It was also reported that 63 percent of the sampled program customers have obtained employment with future career potential and that 14 percent went off at least one public benefit after receiving customised employment. To date, the evaluation project has not reported on job retention rates but it is likely that given the attention to careful matching of individual interests, skills with employer needs as well as indefinite follow on support, retention rates should be higher than for a more generic approach to job placement.

Factors for success

Mills (2006) summarises the findings from 25 states in the US and included a detailed study of 12. Her study summarises the factors that she found led to success in those states with the most impressive record for integrated employment. These were:

1. The existence of strong, clear and unambiguous state Developmental Disabilities policies ,rules and programme requirements intended to support a clearly articulated agency preference for, & commitment to integrated employment for people with Developmental Disabilities'
2. Use of funding incentives to encourage the expansion of integrated employment and discourage use of facility based employment and non work services

3. A liberal definition of the kinds of employment arrangements which qualify for supported employment
4. Adequate state agency staffing dedicated to employment
5. Investment in on-going training and Technical support
6. A commitment to supporting organisational change among facility based providers
7. Use of a data tracking system focused on integrated employment outcomes
8. The existence of strong, clear and unambiguous state Developmental Disabilities policies ,rules and programme requirements intended to support a clearly articulated agency preference for, & commitment to integrated employment for people with Developmental Disabilities'
9. Use of funding incentives to encourage the expansion of integrated employment and discourage use of facility based employment and non work services
10. A liberal definition of the kinds of employment arrangements which qualify for supported employment
11. Adequate state agency staffing dedicated to employment
12. Investment in on-going training and Technical support
13. A commitment to supporting organisational change among facility based providers
14. Use of a data tracking system focused on Integrated employment outcomes

Supported employment policy and practice in Europe

It is difficult to find data on the employment of people with a learning disability in Europe. There is, however, some information on the policies in place affecting people with learning disabilities and the level of employment being achieved. In 2005, the Open Society Institute produced a series of reports on the education and employment of people with intellectual disabilities across EU states. Definitions were broadly equivalent to people with a learning disability in the UK. Below, we summarise what is happening in a variety of countries but it is clear that the impact of supported employment has been minimal in most of them.

Netherlands

In the Netherlands, commentators suggest that employment has evolved from a medical approach, where “patients” received occupational therapy or therapeutic employment in the mid nineteenth century, to a client-oriented approach in the 1970s, which focused on employment-like activities in day centres or in sheltered workshops, to a current view of people with intellectual disabilities as citizens and employees, who are able to participate on the open market (Krober and Dongen, 2003). However, there remain two basic routes for disabled people to enter paid work (OSI, 2005a):

- sheltered employment projects at the municipal level; including ‘external’ and supported employment (there were 100 sheltered employment firms and 95,000 disabled workers in the Netherlands)
- supported employment on the open market with funding either via the Sheltered Employment Act or the Reintegration Act

Employers who hire people with disabilities are eligible for some subsidies, including wage dispensation for underproduction, compensation for workplace accommodations, and release from insurance obligations, under their Reintegration Act. Job coaching is available for up to three years, which is flexible and provides personal support in the workplace by a job coach from a

reintegration agency. The support is limited to 15 per cent of the number of hours worked per week, and is reduced to 7.5% the second year, and 6% the third year. A form of individualised payment was introduced in 2005, where an “individual reintegration contract” funded under the Reintegration Act is available to the client so the beneficiary can hire a “reintegration specialist” from a reintegration agency.

There were approximately 73,000 adults with intellectual disabilities roughly 30,000 (41%) participated in sheltered employment (the majority people with mild intellectual disabilities), approximately 3,000 (4%) receive Reintegration Act support for supported employment on the open employment market and approximately 15,000 (21%) attend adult day care centres. Many people with intellectual disabilities engage in some form of employment-like activity without pay. The annual subsidy per sheltered employment place in 2002 was €23,000 for employees in the *mildly* and *moderately* disabled category, and more than €28,000 for employees assessed as *severely* disabled.. (Op City, 2005, p 87-88, 94).

The lower level of supported employment is regarded as due to the power of the sheltered workshops. *“The Commission is of the opinion that the poor utilisation of supported employment via the Sheltered Employment Act is caused in part by the negative image young people with an employment disability have of the sheltered workplace. In addition, supported employment does not contribute to the income of the firm providing sheltered employment. This does not encourage sheltered employment organisations to make greater use of the supported employment option, so that placing the “better employees” on the open market is more likely to be experienced as a threat to the continuity of the organisation.”* (Op Cit, p 87-88)

Greece

In Greece (OSI, 2005b) there are no official data on the unemployment level of

people with disabilities, or intellectual disabilities in particular. The consensus is that few people with a learning disability are in paid jobs. Eurostat estimates that 9.3 percent of the population have disabilities, and among this group are those with intellectual disabilities. An evaluation consultant of the European programme against vocational isolation estimated that the percentage of unemployment for people with disabilities to be 64 per cent for men and 88 per cent for women.² There has been no system of sheltered employment for people with intellectual disabilities developed in Greece. Statistical information provided by the OAED indicates that, out of the total number of 12,120 people with disabilities registered as unemployed, 11,942 were placed in employment programmes implemented by the OAED, and 178 individuals were placed in co-funded European programmes. Out of 5,275 adults with special needs who were placed in the programmes for new employment positions and for new entrepreneurs to create personal companies or partnerships, only 266 individuals, or 5 per cent, had intellectual disabilities.

Poland

In Poland in 2003, 13.2% of disabled people were employed (OSI, 2005c). OSI report that *“most people with intellectual disabilities are unemployed on a long-term basis”* (Op Cit, 2005c, p 110). A sample survey reported that 6.4% of people with an intellectual impairment were employed in 2003. People with intellectual disabilities made up 2.7% of the total unemployed and job-seeking population with disabilities combined, and most had not been employed for over two years. (Op Cit, 2005c, p 112).

Finland

There are some worrying trends in parts of the EU. In a study that covered the period 1998 to 2003 in Finland Saloviita and Pairsittimaa (2007) identified a decline in the provision of intensive employment supports, albeit that supported employment served very small numbers of people (52-68 people only). People

² Eurostat, new Kronos Database.

with intellectual disability fell as a proportion served from 90% in 1998 to 58% in 2003. The authors suggest that this reflects a change in public policy on employment supports and a conceptual shift in supported employment from serving people with significant disabilities to a “technical tool” for the employment of people with limited support needs. They note that in Finland supported employment agencies were effectively barring people with significant disabilities from their services.

Bulgaria

Bulgaria is a good example of an Eastern European country entering the EU. It has been estimated that there are 49,000 people with intellectual disabilities. Approximately 15% of the population was registered as being unemployed for the first nine months of 2003 (OSI, 2005d). 265,000 people were registered with permanent disabilities, 90,000 of whom were assessed.³ as having “a 90 per cent reduced working capacity, 106,000 with over 71 per cent reduced working capacity, and 69,000 with from 50 to 70 per cent reduced working capacity”. Even people with a mild intellectual disability are generally rated as over 70% reduced working capacity, or as unemployable. People with a learning disability are therefore, not generally regarded as part of the economically active group. The proportion of people with disabilities among all unemployed people in 2003 it was 3% and of these, people with an intellectual and mental disabilities registered as “searching for a job” comprised only 11%. In Bulgaria, OSI conclude that “*In practice, however, opportunities for people with intellectual disabilities to achieve autonomy and independence remain extremely limited, and even those measures that are intended to address the situation of people with disabilities generally fail to take into account the specific needs of people with intellectual disabilities.*” (Op Cit, 2005d, p 84)

The system of *plenary* and *partial* guardianship exist in many parts of Europe,

³ National Programme for the Employment of People with Permanent Disabilities, chapter 1, p. 1.

and Bulgaria is an example. Here, people under guardianship retain the right to work, but for those under *plenary* guardianship, the guardian must sign the employment contract on behalf of the person, and, in practice, this can be a serious barrier to employment. Guardianship presents problems primarily for people in institutions, who are likely to be under the *plenary* guardianship of the institution's director. Conflicts of interest emerge in these cases, as the person cannot leave the institution or find employment without the guardian's permission. There is no effective oversight as to whether the persons' interests are respected and around 8,000 people were in institutions, including residential schools, in 2005.

Norway

Arbeid med Bistand (AB) is the development of Supported Employment for people with disabilities through the use of Job Coaches/Support Workers to assist people with extensive vocational disabilities to find and retain employment (Evans, 2000; Schafft and Spjelkavik, 1999). AB was piloted throughout Norway over 1992-1995 and employed around 40 Support Workers through 30 projects nation-wide. At that time people with an intellectual disability were the largest group of users at 32%. In the 3 year period 384 people secured employment of which 258 remained in employment by the end of the Project in June 1995. Norway now has 260 Support Workers funded by the Directorate of Labour. Support through AB is limited to a period of 3 years to encourage independence as quickly as possible and to motivate the Job Coach to work effectively. Time limited wage subsidies may be available for the employer (75 % for 6 months then 40 % for 18 months) or the disabled person may retain their disability benefits. Job Coaches/Support Workers are expected to work with at least five disabled people at any time. The AB provider receives grants to cover the job coaches' wages and operational expenses of 30000 NK (£2400) (2000) per month per support worker; each one dealing with five clients (72000 NK (£5760) per worker).

There are also companies (AMBs) with the objective of rehabilitation work to recruit and prepare people with vocational disabilities for open employment. The workshops can offer permanent employment to a percentage of disabled people. There were 92 labour AMBs with a total of 4138 approved places for disabled people in 2000.

AFT is a programme designed to help the disabled people secure employment, access education opportunities or to make use of other suitable measures. The programme is for people who are more severely disabled and who would not benefit from less supportive/intensive programmes. Programmes offer initial assessment, job seeking/job ready skills, work site visits, job tasters, job coaching and work experience placements. There is usually a ratio of five clients to one trainer. People may remain in the programme for up to nine months and in certain circumstances, this can be extended to 18 months. AFT providers receive a subsidy in the form of a fixed monthly rate per approved place. The monthly subsidy per place was 9324 NK (£750) (year 2000) and there were 102 AFT's in operation at that time with a total of 1473 approved places.

The ASVO scheme is to establish permanent work places for people with severe disabilities who are unlikely to access the open labour market. ASVO must be organized as a share company and as in the case of AMB's district and county councils must be the major shareholder. People employed within ASVO continue to receive disability benefits and in addition, disabled workers can receive a limited salary of up to 48000 NK (£3800) (year 2000) per year depending upon the ASVO profitability. ASVO providers received a fixed monthly subsidy per occupied place of 82000 NK (£6560)(year 2000) per place per year, and a further 20% from the local authority.

Policy and Practice – summaries from the USA

Mills (2006) provides a commentary on definitions of integrated employment and Supported Employment in use in the United States. The extent to which the following are prescribed varies by states in terms of the:

- minimum number of hours required
- minimum wage specified
- whether the person can be employed by Supported Employment agency or not
- whether the total number of people with Developmental Disabilities is limited
- whether more than one Supported Employee can be employed at the same business, at the same time, in the same department, share a job.

Mills (2006) found that the more liberal the definition, the higher the percentage of people in paid work. Nationally it is hard to know where people in work fall in relation to these factors. However, the Institute for Community Inclusion estimates that the ratio of people in individualised work situations relative to those in work crews or enclaves is 2:1

Mills (2006) also provides a helpful overview of different strategies employed by various states achieving success in supported employment. These provide an insight into the types of policies that need to be in place and the attention that needs to be paid to ensuring they are implemented as intended.

Maine

Maine has a -policy of real work for real wages and everyone has the potential to work. A statement in 2000 said everyone should make at least the same amount of money as they did in sheltered workshop, no one should leave one workshop just to go to another and everyone should be able to try at least three jobs before making a choice. The reimbursement rate for sheltered workshops was reduced and no new funding was given. The funding for Supported Employment

increased to more than for day services or sheltered workshops and Supported Employment service expanded to meet the demand. Maine aimed to have 5% 'move on' from workshops each year and in 2001 had 31% in integrated employment but had dropped to 22% by 2004. In 2007 a new policy initiative was launched, with consideration of the Washington state approach.

Washington

People with learning disabilities have a right to integrated community jobs. In 2004 integrated employment became the rule rather than the exception:

“Supports to pursue and maintain gainful employment in integrated settings shall be the primary service option for working age adults with disabilities.”

Services that do not emphasise employment have to get special authorisation for funding and a rate of over 50% in integrated employment has been achieved.

Oklahoma

Oklahoma Developmental Disabilities service does not offer non-work day services except for elderly individuals. Employment is through sheltered workshops or community based programmes and the range of options includes:

1. Individualised, community based employment
2. Group bases, community based employment
3. Sheltered employment
4. Community based pre vocational services
5. Facility based pre-vocational services

There is a clear preference for options 1 and 2 and a preference is given in order to:

- a full-time job at prevailing wage
- a full-time job at minimum wage
- 2 p/t jobs at prevailing wage
- 2 p/t jobs at min wage

If individualised jobs are not available, then employment in an enclave of up to 8 people is permitted with prevailing wage preferred. If none of above can be secured, it is permitted to have temporary work related training or voluntary work in the community or, as a last resort, in a sheltered workshop. Oklahoma pays for services according to how many hours the person works not the number of hours that support is provided to do the job and this has encouraged providers to promote full-time work and fade supports as much as possible. It also pays 33% less for group employment than individualised employment. If a group model is in place the state will only pay for each hour of support rather than the hours supported employees do. Rates for sheltered workshops are much lower than for community based, open employment and if someone dies or moves from sheltered workshop then the place is no longer available.

Vermont

A 25 year old policy of integrated employment is in place that phases out sheltered workshops. In 1995 notice was given to provider agencies that state funding could no longer be used for sheltered workshops or enclaves. By 2005, Vermont had 43% in individualised community jobs earning an average of \$7.74 per hour with an average working week of 12 hours. They are now implementing incentives to shift remaining the remaining people into work.

Colorado

The state has had an *employment first* policy since the late 1980s. The removal of incentives formerly in place led to a decline in the percentage employed in individual community jobs. A 5-year plan to address this was introduced in 2003.

They also recommended a 5% move into integrated employment each year and bringing together of two sources of funding from Developmental Disabilities state agency and the Vocational Rehabilitation agency to cover up-front costs of career planning, job development and initial job coaching.

Tennessee

In 2002 a new policy of *employment first* was implemented when developing individual service plans. Other types of services need special justification. For those not employed, they must have a community based work assessment every three years. A quality system is in place to ensure all those wanting to work are given that option. Since 2002, there has been a 40% increase in people from day services in integrated employment (Winsor 2006). Since 2001 Tennessee has given \$1,500 to service providers who help individuals obtain integrated employment. There are 60 stipends across the state each year on a first come first serve basis. It also has an employment first policy in place and ensures the highest rates are paid for Supported Employment. Prior to the Employment First policy Tennessee offered agency incentive grants to move away from segregated facility based options to community based programmes.

Florida

The state has launched a 5 year initiative in 2004 for people with Developmental Disabilities. It has two main goals:

- To enable 50% of working age adults (18-55) to receive some form of day vocational service to achieve integrated employment
- To enable 25% of those in facility based day or vocational services to obtain employment

Statutory legislation was passed to call for systems change under a bill of rights for people with Developmental Disabilities - it states:

“The legislative intent is to reduce the use of sheltered workshops and other non-competitive employment day activities and promote opportunities for those who choose to seek (competitive) employment.”

Between 2004 and 2006 they achieved a 92% increase in the numbers of people with Developmental Disabilities in community employment. This was, however, from a baseline of 2%. Costs of Supported Employment services remained roughly the same despite the increase in numbers while costs of sheltered work and facility based non-work were roughly twice as expensive.

California

Senate Bill 1270 has been recently passed. This requires the state Developmental Disabilities Services to make available to local regional centres for people with Developmental Disabilities and to post on the internet, information about employment options for working age adults with learning disabilities. All staff in regional centres are to be trained in employment issues including helping people make informed choices about employment. They must also work towards community inclusion.

Ohio

The state has used individual budgets to pay for job coaches since 1998. These can be used to pay for support from friends and neighbours as well as traditional employment agencies. The system was expanded to all counties in 2000. Anyone who is a job coach is known as an Employment Agent and is paid on a commission basis once someone is in work. The higher the earnings, the more they get. Micro enterprise is encouraged and service money can be used for start up costs. Commission rates are: 50% of a year's earnings of the person with Developmental Disabilities if the person has never worked before; 40% if worked in a sheltered environment before; and 30% of the person has had a community

job before. Each subsequent year the commission is reduced by 10% until 20% when it will persist at that level. If the person increases hours or earns more this is reflected in the commission paid. For every \$1 invested, person with Developmental Disabilities earned \$3.3 and for every dollar paid to agents, individuals earned \$20.37.

New Hampshire

There have been no congregate day or employment settings for nine years. There is a big emphasis on community inclusion and individualised outcomes, and they have introduced a quality assurance system around each person's plan. In 2004, the state had 48% of people in community employment.

Wisconsin

This state has a long track record of innovation in the development of community based services for disabled people. In particular, it has worked hard to develop alternatives to segregated and congregate services such as residential care homes. However, only 15% of adults with developmental disabilities were working in community settings in 2005 and the financial investment in supported employment was reduced between 2000 and 2004. Whilst supported employment was carefully defined in 1999 to exclude enclaves and work crews but not job sharing or the sharing of a single job coach, there was no clearly articulated state policy until 2008.

In 2006 the Department of Health Services commissioned research to provide an understanding of why Wisconsin had slipped behind other states in relation to employment and provide recommendations for the future. Following this, a stakeholder task force was convened to determine how to improve integrated employment outcomes and it produced a report, (Wisconsin 2008) with many recommendations including:

- Managed Care Organisations (MCOs) to be responsible for developing an individualised care plan in collaboration with the individual.

- MCOs being responsible for developing greater capacity amongst providers to expand and support integrated employment
- Increased funding to expand employment through optimal use of both the Medicaid Infrastructure Grant and the Family Care (social care) monies. In addition, the aim should be to blend funding streams to increase support for employment
- In future all school leavers eligible for Family Care who have been included in the Vocational Rehabilitation Systems should be covered by Family Care funding to create a smooth transition to work.
- The certification of MCOs should take account of their capacity to support integrated employment
- The Department should offer MCOs strong support with technical assistance and financial incentives to increase positive outcomes.
- Work should be done to increase the pool of potential employers to increase the range of employment options
- The elimination of disincentives to work in relation to Medicaid and the associated Medical Assistance Purchase Plan
- More information on work to be built into the assessment and planning process to facilitate informed choices
- The development of an efficient monitoring system for all the employment data.

It will be noted that the fourth recommendation mirrors the policy in, one area of Wisconsin, Dane County. This county decided, back in 2003, that they needed to take some action on improving employment outcomes. They decided that it is sound fiscal and ethical policy to continue to provide funding for young people to continue with on-the-job training and support once they have left school if they are already in supported employment.

However, in order to be fair to the waiting list, the policy emphasises continuity of service as opposed to new or increased service. This means that students for whom taxpayer funds have provided job training and placement will receive the

needed support to maintain that job schedule when the student has completed school so long as:

- The student remains within the school system throughout the year that the individual turns 21 years old
- The student is working in paid employment at the time of transition.

Funding for vocational supports from Dane County (Dane County 2003) continues as long as needed, using other funding sources if available.

In December 2008, the Wisconsin wide stakeholder task force received formal endorsement from the Department of Health Services for its report and it is now working hard to implement the recommendations.

Additional approaches to enabling people with learning disabilities to work

Micro-enterprise and self-employment

Self-employment is emerging as an additional option for people with disabilities and there are examples of this being used for people with a learning disability. The model is based on an individual assessment of the wishes and interests of one person with a learning disability that are then used to design a money making venture. There is a difference then, between micro - enterprises and small social firms, a micro-enterprise being, in the US context, a small business created around one person (Hogg, 2005). The National Development Team and Mencap Cymru have hosted high profile events in the last few years showcasing the work of Doreen Rosimos and Darcy Wilson from Income Links in the US⁴ who are well know developers of micro enterprises for people with a disability.

The main strengths of the model are reported to be:

- That it respects the capacity and assets of people with learning disabilities, focuses on people's interests and strengths, and can be more flexible than mainstream employment and working conditions.

- That it pursues equality by opening up the self-employed sector of the labour market, where people with a learning disability are not represented.
- That any additional income earned from a micro-enterprise enables people to do be more active and included in their communities.
- That micro-enterprises reflect aspects of government thinking on increasing employment for disadvantaged groups, and that services should be developed that meet individual needs.
- For some a small business is a way of gaining income from a hobby or an interest and that person centred planning, direct payments and individualised budgets are ways to help a person get supports and funding.
- Micro-enterprises are another way of people with a learning disability moving from being a client to being a citizen.

Micro-enterprises can be seen as an offshoot of a much wider initiative to foster independence of poor people in a variety of countries (Harris, 2001)

There is another variant which has been largely targeted at people with higher support needs and involves the use of a “micro-board” to develop the business, manage grant funding and take care of professional service functions relating to the business that the individual might be unable to carry out themselves. Usually developed from a small group of family and friends, a micro-board creates a non-profit society to take forward an individual’s employment. The board will link person centred planning to a business plan, seek and administer small business and personal support funding, manage accounts and business processes and hire support staff, where needed, to help the person carry out the business. The board addresses the person's planning and support needs in customized way. “Vela Microboards” are the most well known version of this approach (Vela Microboard Association, 2009) and this model has been replicated to a small extent in Newry Northern Ireland.

⁴ <http://www.incomelinks.biz/>

The penetration of the micro-enterprise model into the UK has been limited. Hogg (2005) cites two case studies of people working part time in their own businesses in the UK, but notes that:

“people with learning disabilities do not presently operate as self-employed (or as sole traders) in this country. Whilst this group of people is poorly represented in the labour market, they are almost totally absent from this category of work” (Op Cit, 2005, p 2). Hogg concludes that :

“Micro-enterprises are likely to appeal to a relatively small number of people but for those people its future development is important and we should seek ways of supporting them” (Op Cit, p 12).

Social Firms

Social Firms UK (2002) explain that Social firms are businesses that achieve 50% or more of their income through sales and must have a paid workforce that comprises at least people with disabilities or who would otherwise be disadvantaged in the open labour market.

Jeffrey (2005) suggests that *“There is some evidence from countries such as Germany that, with subsidy, social firms can succeed as businesses. This is supported by evidence from both the UK and the Irish republic.”* (Op Cit, p 1155). Subsidy appears to be a significant factor in Social Firm success. However, Jeffrey (2005) also notes that there is limited published research and evaluation on the effectiveness of social firms in general and the UK in particular.

Social Firms Scotland report that the number of social firms is growing in the UK. They report that between 1997 and 2007 the number of Social Firms rose from 5 to 151 and had 1600 (FTE) jobs. Half of these jobs were held by severely disadvantaged people, the majority of whom have mental health problems or learning disabilities (Social Firms Scotland, 2008). There have been reviews of

research on social firms and social enterprises, but these have tended to focus on organisation, management and broader community outcomes, such as social capital development (Johnson, 2000; Simon Clarke Associates 2002). Warner and Mandiberg (2006) review and survey social firms (or affirmative businesses for people with mental health issues) and finds strengths in the model:

- Empowerment that is compatible with psychiatric recovery principles.
- Greater opportunity for developing a sense of community in the workplace. The authors note that the supportive atmosphere may explain why the rate of transition from social enterprises into competitive employment is low in most countries.
- Belief in an organization's social mission enhances worker participation and promotes organizational success.
- Social firms can build a sense of purpose among the workforce, resembling commitment to a social movement.

Secker, Dass and Grove (2003) suggest that indicators of good practice should include: user/worker participation in the firm's development and operation; the availability of expert advice to enable informed choice about payment, with payment at the minimum wage rates or higher for those who choose this; opportunities for workers to develop to their full potential; a workforce comprising disabled and non-disabled workers; the involvement of carers and local socio-economic agencies in developing the social firm.

Spear and Bidet (2005) identify 14,209 “work integration social enterprises” (WISE) companies across European 12 countries supporting nearly 240,000 staff and beneficiaries. In the UK they identify 1,030 organisations in the UK (coops, social firms, community businesses, independent labour market organizations

and quasi-state social enterprises. In the UK, the authors identify 38 social firms serving 380 people. In addition they identify a further 154 “emerging” social firms in the UK. The number of people with learning disabilities is not recorded. The authors conclude that the WISE sector is not fully capitalised. They argue that the sector is under-resourced with fragmented support structures such as federations, and development agencies making it difficult for them to flourish and achieve their full potential. The spread of social co-operatives and other effective models alongside some new social enterprise structures provides grounds for optimism.

However, there remains limited information on the outcomes achieved by social firms for disabled workers. McKeown et al. (1992) found that mental health and social functioning indicators increased whilst the need for medical services and treatment reduced among the workers of an Irish social firms initiative over a 2 year period. Research on people with a learning disability, and how they fare in social firms, is particularly scarce. Forrester-Jones, McGill and Gwillim (2008) have carried out a comparison of 40 individuals with a learning disability working in a social enterprise and 40 others attending day centres. Compared to day centres, social enterprises scored significantly higher on measures of life experience, self-esteem and satisfaction and differences in knowledge of employment rights were found. There were not differences in social network size or density. They concluded that social enterprises represented better training settings for future employment compared to day centres but that social inclusion was still inadequate.

Project SEARCH

Project Search is an employment focussed programme designed to give disabled people the opportunity to learn more about the world of work, develop employability

skills and experience real life work placements with the goal of achieving paid employment.

Project SEARCH began at Cincinnati Children's Hospital in Ohio USA thirteen years ago in support of a policy statement that said:

"...healthcare executives must take the lead in their organizations to increase employment opportunities for qualified persons with disabilities and to advocate on behalf of their employment to other organizations in their communities."

With this statement as a guiding principle, Project SEARCH serves people with disabilities and aims to educate employers about the potential of this under-utilised group of people while meeting their need for a stable and effective workforce.

Project SEARCH represents a new approach to developing sustainable employment opportunities by working with a large corporate employer in delivering support and training to students on site to help fulfil their future recruitment needs.

It quickly became a successful way of introducing students to working at the hospital in a supportive way, leading to many of the students becoming hospital employees. Project Search now offers two programmes; one for young people in their last year of secondary school and another for adults and has expanded beyond the hospital to work with other employers in both the public and commercial sectors.

The School Transition Programme lasts for one-year. It is targeted at students whose main goal is competitive employment. The programme takes place in a healthcare or business setting where total immersion in the workplace helps the teaching and learning process. During the year, each student will be offered three different placements within the host employer's premises. Individualised job development and placement begins after the rotations are completed. Students are given support through on-the-job coaching and adjustments in the work setting.

The Adult Employment Programme aims to match qualified employees with open positions in a variety of settings. It provides on-the-job support, such as job coaching, adaptations and adjustments, final task definitions and travel training. The on-site, job-retention staff provide a unique support system where people with disabilities can successfully maintain employment and advance in their chosen careers.

Project SEARCH has been adopted as a pilot programme in the UK. Since 2008, Norfolk and Norwich University Hospital, Leicester City Council and Leicester College have been running an internships programme for students with learning disabilities. In Leicester, Remploy provides job coaches and Leicester City College provides a tutor. In Norwich, job coaches are again provided by Remploy and the tutor is provided by City College Norwich.

Rutkowski *et al.* (2006) describe Project SEARCH as a school-to-work transition model for young people with significant disabilities. Data for students from the period 2003- 2005 show that, 78.3% of young people going through the project were placed in jobs at the end of it. The average time in a job was 3.25 years⁵.

⁵ This data is based on the US Project Search model.

Conclusions

In this final section, we attempt to draw together the key themes emerging from the literature and to provide an indication of the significance of supported employment as a means of increasing the numbers of people with learning disabilities in paid jobs in the open market. We have inevitably, been selective in order to highlight the most significant issues.

Outcomes of supported employment

Supported employment was designed for people with a severe and moderate learning disability, but there is evidence that it has been used disproportionately with people who have a mild or even borderline learning disability. However, research shows that supported employment does place people with moderate and severe learning disabilities in paid jobs.

Outcomes are harder to obtain for people with severe and moderate learning disabilities, but research suggests that when severity of learning disability is controlled statistically, supported employment still provides better outcomes than sheltered alternatives.

Overall, there do appear to be gender differences with more men receiving supported employment than women, and men working more hours, and some separation of job types taking place. This needs to be understood and challenged if equality of opportunity is to be achieved.

Job retention

In the 1980 and 1990s supported employment in the US was poor at keeping people in jobs, although people with a learning disability tended to be in work longer than others due to high normal rates of job turnover for the entry level jobs that most people with learning disabilities undertake. People do move on to other jobs. Customised employment arrangements are likely to lead to better job

retention rates as careful attention is given to the matching of interests and skills with the job. However, little research has been carried out on this aspect to date.

Job loss

Studies show that people tend to lose jobs more commonly for social reasons than an inability to do the tasks of any job. This would suggest more emphasis is needed in employment support strategies that emphasise socially embedding people better within their workplace

Wage rates

Wages in supported employment tend to be higher than in more segregated forms of employment. However, working part time for short hours in the UK context has not generally increased the incomes of people entering employment from their position prior to employment. Data for people working over 16 hours per week are more positive as those on low hourly rates above minimum wage can be topped up with Tax Credits.

The growth in individual incomes on leaving sheltered work that have been found in the US are likely not to be replicated in the UK as sheltered wage rates in the US were particularly low in relation to community based rates. In the UK, rates of pay in WORKSTEP and Remploy factories are well above minimum wage and that makes it difficult to better these in the community, particularly for people with a learning disability who tend to work at entry level jobs.

Integration and interaction

There is evidence that patterns of interaction do change to fit more closely to the norm in the workplace as people with a learning disability enter work. However, patterns of interaction are different from those of co-workers, are under-developed in non-work communication, and people can struggle to join in with wider social groupings and contact outside work. As we have seen, this can lead to job loss. More emphasis is needed on helping people to adjust socially in their

particular workplace, and a number of techniques are available to assist in this. In particular, engaging co-workers formally to assist people learn a job and integrate socially, and creating mentoring roles, appear to be effective strategies. In addition, we have seen that doing things very differently in recruitment, induction and other arrangements, can have a negative effect on wage outcomes also. Approaches that emphasise advising and supporting employers to work with their supported employees, including creating their own job coaching roles, have potential for better outcomes.

Learning social skills

There are well established procedures, with research evidence on outcomes, for teaching people with a learning disability to learn relevant skills for the workplace. These need to be part of the skill set of job coaches.

Self esteem, satisfaction and “engagement”

Results for supported employment are positive and generally appear to return higher rates of satisfaction with work than sheltered options. People are observed to spend more time engaged in meaningful activity in work than day centres and relate more closely to co-worker rates of engagement than people with a learning disability in day services.

Quality of life

The results in quality of life are not conclusive, and there are still few studies using replicable scales. People with mild learning disabilities do appear to fare better in this respect than those with higher levels of learning disability and associated lower adaptive functioning.

The role of volunteering and work experience

Volunteering is carried out for many reasons, including social, engagement, contribution and to improve employment prospects. The research is not conclusive but, on balance, where people want to use volunteering for

employment gain, it is likely to deliver some positive outcomes. Volunteering for other reasons does not necessarily improve employment prospects and may be a negative factor. The impact of volunteering for people with a learning disability in particular on employment is unclear.

The case for work experience for young people while at school is strong. However, it needs to be well-structured, supported work experience, if people with a significant learning disability are to benefit from it in relation to employability.

Support for working

It seems clear that the job coach role involves a number of skills that are not generally part of the repertoire of social care workers, nor of Disability Employment Advisors, Connexions Advisors or the range of Personal Advisors in Government Schemes. While a cohort of supported employment professionals do exist, it is far from clear that they are proficient in all the aspects of supported employment relevant for supporting people with moderate or severe learning disabilities, particularly systematic instruction. The training systems to deliver these skills are fragmented. The delivery of job coaching on any scale has implications for the training of current and future staff.

Job coach input in supported employment is an input that reduces over time. People with more severe learning disabilities generally need more support time from job coaches or others to become independent than people with mild learning disabilities. This is the driver for the positive cost: benefits we have seen in this review. It is crucial that job coaches, and any natural support arrangements that are in place, are skilled enough to reduce input to maintenance levels in a reasonable time. This includes being able to deliver skilled systematic instruction where people require it.

Much information has been signposted here of relevance to vocational training, for use in workshops, in pre-employment training, and for training in open

workplaces. Good socially validated assessment and vocational profiling, job matching, job analysis and breaking down tasks into manageable teaching steps are all important, irrespective of whether the context is community or workshop jobs. Systematic instruction, with sensitive amendments, is still a powerful and relevant tool for teaching people with a learning disability. It is crucial that training is geared to meeting the fundamental difficulties that people with a learning disability commonly experience.

Natural support

Recognition of the social element in work and the need to equip people and/or workplaces to face the challenge is another important message from the review. The jury is still out on whether the best strategy is to train the person to improve their social skills, or to select workplaces with cultures that favour interdependence between staff and work with co-workers to help them accommodate the needs of workers with learning disabilities. Co-worker training can work and a number of strategies exist for helping co-workers and employers to play a more central role in the placement, training and on-going support of their colleagues with learning disabilities. One suspects that both worker and workplace initiatives are relevant and that the selection of the best approach should be based on good individual planning.

There is evidence that vocational trainers are under equipped in the fundamental skills related to the training and employment of people with a learning disability.

Cost benefit analysis

The cost: benefit of supported employment improves over time in comparison to sheltered workshops where cost: benefits tend to be static. Cost: benefit ratios in the first two years tend to be below 1.0, but generally have been found to be over 1.0 after four -five years (savings outstrip costs). Cost - benefits have to be looked at over longer periods than one year and services need to become mature to deliver their full potential in relation to cost: benefits.

Delivering real cost reductions in alternative services (e.g. day services) are important to the making supported employment cost: beneficial.

Natural support approaches, which put employers and co-workers at the forefront of induction and training, with support from skilled job coaches, appears to offer the prospect of greater cost: benefit outcomes.

The Impact of funding models

There is evidence of US states adopting results based funding (RBF). There is little evidence that such schemes improve results at present, although financial incentives to develop supported employment in the community rather than for day centres or sheltered employment do appear to have been effective in states such as Oklahoma.

However, commentators state that careful attention needs to be paid to the type of funding arrangements used if outcomes are to improve. Consideration needs to be given to the type of RBF used, the weighting of incentive payments and the provision of adequate compensation for services that are placing people with higher support needs. The implications for the organisation of employment service providers and funders of employment support are likely to be profound if this option is followed at any great scale.

We found some accounts, although little peer reviewed research evidence, on whether wholesale change and disinvestments from sheltered provision is possible on a large scale. The experience in US over a generation is pessimistic. They have seen growth in supported employment underpinned by legislation and considerable financial investment, but the scale of sheltered workshop provision remains undiminished. More information is needed on the wholesale change that is taking place in some states, and what the most effective strategies are for individual organisations to achieve better outcomes, and for authorities pursuing large scale change.

The relationships between the supported employment process and outcomes

There do seem to be relationships between the extent to which services follow established supported procedures and some key outcomes for workers. Clearly, getting the model correct is important if outcomes are to be achieved.

European Research

The broad trend in many countries in EU and the world is towards supporting disabled people in community jobs and away from segregated workshops. The current situation is still that many more resources are invested in specialist workshop provision than community provision. Heavy subsidies are being employed here, or services still only serve people with mild learning disabilities. Few, if any states in Europe, have yet invested heavily in supported employment or other community based support systems, and none have made the wholesale transition from workshop to community provision. Clearly there is a long continuum in the scale to which supported employment is being delivered across the continent.

Conclusions from US case studies

There are several states that have impressive records in enabling people with developmental disabilities to find and keep paid jobs through supported employment. Some of these states have over 50% of the group in paid work although not all have adhered to an individualised approach to finding jobs. Nonetheless, it is clear that when there are state policies in place that aim to increase the numbers of disabled people in work, coupled with financial arrangements that provide incentives to help people get jobs rather than go into day services, much can be achieved.

Micro-enterprise and self-employment

Self-employment is emerging as an additional option for people with disabilities and there are examples of this being used as an option for people with a learning

disability. It has strengths, in that it respects the capacity and assets of people with learning disabilities, focuses on people's interests and strengths, and a small business is a way of gaining income from a hobby or an interest. Self-employment can be more flexible than mainstream employment and working conditions and can open up the self-employed sector of the labour market, where people with a learning disability are not represented.

The penetration of the micro-enterprise model into the UK has been limited and is unlikely to make a major impact on total numbers of people entering employment.

Social Firms

Social firms provide an interesting growth area for employment of people with a disability in general. However, information from a European study for 2005 suggests that numbers in employment are relatively low in the UK, and there is a lack of data on either the number of people with a learning disability served by social firms or the outcomes achieved for them.

Project SEARCH

Project SEARCH is an amalgamation of a number of principles with credible evidence. It highlights jobs that are complex but repetitive and which play to the strengths of people with moderate to severe learning disabilities. They provide on the job support, with systematic instruction as a support strategy. They provide additional training on-site and linked to concrete jobs being done. The experiences provide an effective "working interview" and lay the foundations for a job within a large employer setting. The downsides of the approach will be that not all people's job aspirations will be met within a large corporation such as a hospital or bank and it cannot be the complete solution to transition from school to employment. Also, at present, we do not know the exact breakdown of people with a learning disability going through the scheme. While there is little published research data on the outcomes of this specific

project, we do know that the various elements would be supportive, and the evidence we have appears to provide greater than average employment rates.

Overall conclusion

Overall, the literature supports the view that supported employment is both worthwhile at an individual and societal level and that there is much that can be done to improve employment rates for people with learning disabilities. However, at present, funding arrangements and policies are not in place, as they are in some parts of America, to support a large scale increase in the numbers employed, nor to promote a move away from traditional day activities. Examples of how best to plan for this can be derived from the states such as Oklahoma, Vermont, Tennessee Washington, Wisconsin and Ohio.”

REFERENCES

- Albin, J. M., Rhodes, L. and Mank, D. (1994). Realigning Organizational Culture, Resources, and Community Roles - Changeover to Community Employment. *Journal of the Association for Persons with Severe Handicaps*, 19, 2, 105-115.
- Bailey, T., and Hughes, K. (1999). *Employer involvement in work-based learning programs*. Berkeley, CA: National Center for Research in Vocational Education.
- Benz, M., and Lindstrom, L. (1997). *Building school-to work programs: Strategies for youth with special needs*. Austin, TX: Pro-ed.
- Brickey, M., Campbell, K., and Browning, L. (1985). A five year follow-up of sheltered workshop employees. *Mental Retardation*, 23, 2, 67-73.
- British Association for Supported Employment (BASE) *Definition of Supported Employment*. http://www.base-uk.org/about_se/definitions.htm
- Bass, M. (1996). *Supported Employment for People With Learning Disabilities*. Social Care Research Findings, 86. York: Joseph Rowntree Foundation.
- Bates, P. (2006). *Employment and Mental Health*. Bath: The National Development Team.
- Belcher, T. L. (1994). Behavioral-Change with Environmental-Change. *Psychological Reports*, 74, 2, 74-74.
- Bellamy, G.T., Horner, R.H. and Inman, D.P. (1979). *Vocational rehabilitation of severely retarded adults: A direct service technology*. Baltimore: University Park Press.
- Bergeskog A. (2001). *Labour Market Policies, Strategies and Statistics for People with Disabilities. A Cross-National Comparison*. Ifau: Uppsala, Sweden.

Beyer, S., Goodere, L. and Kilsby, M. (1996). *Costs and Benefits of Supported Agencies. Findings From A National Survey*. Employment Service Research Series R37. Stationery Office: London.

Beyer, S. and Kilsby, M. (1998). Financial Costs and Benefits of Two Supported Employment Agencies in Wales. *Journal of Applied Research in Intellectual Disabilities*, 11, 4, 303-319.

Beyer, S., Kilsby, M. and Willson, C. (1995). Interaction and Engagement of Workers in Supported Employment: A British Comparison between Workers with and without Learning Disabilities. *Mental Handicap Research*, 8, 3, 137-155.

Beyer, S and Seebohm, P. (2003) *Employment Creation in Social Enterprises: A Public Authority Perspective 2001 – 2003- The financial net cost analysis*.
<http://resources.socialfirms.co.uk/files/ISB%20cost%20benefit%20analysis%20-%20full%20version.pdf> accessed March 2009.

Beyer, S., Thomas, J. and Thornton, P. (2002) *The Net Costs and Social Benefits of the Supported Employment Programme*. Sheffield: DWP.

Blanck, P. D. (1994). Employment Integration, Economic-Opportunity, and the Americans-with-Disabilities-Act - Empirical-Study From 1990- 1993. *Iowa Law Review*, 79, 4, 853-923.

Block, S.R., Athens, K. and Brandenburg, G. (2002). Using Performance Based contracts and Incentive Payments with Managed Care; Increasing Supported Employment Opportunities for People with Developmental Disabilities. *Journal of Vocational Rehabilitation*, 17, 165-174.

Bolton, B. and Roessler, R. (1986). *Manual for the Work Personality Profile*. Arkansas Research and Training Center in Vocational Rehabilitation. University of Arkansas, Fayetteville. Arkansas Rehabilitation Services.

Botuck, S., Levy, J. M. Post-Placement Outcomes In Competitive Employment: How Do Urban Young Adults with Developmental Disabilities Fare Over Time? *Journal of Rehabilitation*, 1998, 64 (3), 42-47.

Botuck, S. and Levy, J. M. (1998). Post-Placement Outcomes In Competitive Employment: How Do Urban Young Adults with Developmental Disabilities Fare Over Time? *Journal of Rehabilitation*, 64, 3, 42-47.

Botuck, S., Levy, J. M., Kramer, M. E., Levy, P. H. and Rimmerman, A. (1992). A One Year Follow-Up of Urban Young Adults with Mental Retardation in Supported Employment. *International Journal of Rehabilitation Research*, 15, 2, 103-114.

Brackhane, D.R. (1994). Vocational Training in Workshops: A Method, *European Journal on Mental Disability*, 4, 3-12.

Butterworth J., Hagner, D. and Helm, D.T. (2000). Workplace Culture, Social Interactions, and Supports for Transition-Age Young Adults, *Mental Retardation*, 38, 342-353.

Butterworth J. Whitney-Thomas, J. and Shaw, D. (1997). The Changing Role Of Community Based Instruction: Strategies For Facilitating Workplace Supports, *Journal of Vocational Rehabilitation*, 8, 9-20.

Chadsey-, J. and Beyer, R. (2001). Social Relationships In The Workplace, *Mental retardation and Developmental Disabilities Research Reviews*, 7, 128-133.

Chadsey-Rusch, J., Linneman, D. and Rylance B. J. (1997). Beliefs about Social Integration from the Perspectives of Persons with Mental Retardation, Job Coaches, and Employers. *American Journal on Mental Retardation*, 102, 1, 1-12.

Cimera, R. E., and Rusch, F. R. (1999). The Cost-Efficiency of Supported Employment Programs: A Review of the Literature. *International Review of Research in Mental Retardation*, 22, 175-225.

Cimera, R.E. (1998) Are Individuals with Severe Mental Retardation and Multiple Disabilities Cost-Efficient to Serve via Supported Employment Programs? *Mental Retardation*, 36, 4, 280-292.

Cimera, R. E. (2000). The Cost-efficiency of Supported Employment Programs: A Literature Review. *Journal of Vocational Rehabilitation*, 14, 51-61.

Cimera, R.E. (2007a) The cumulative cost-effectiveness of supported and sheltered employees with mental retardation. *Research and Practice for Persons with Severe Disabilities*, 32, 4, 247-252.

Cimera, R.E. (2007b) The cost of supported employment in Wisconsin (FY 2002 – FY 2005).

Clement-Heist, K., Seigel, S., and Gaylord-Ross, R. (1992). Simulated and In Situ Vocational Social Skills Training for Youths with Learning Disabilities. *Exceptional Children*, Feb., 336-345.

Colley, D. and Jamison, D. (1998). Post school results for youth with disabilities: Key indicators and policy implications. *Career Development for Exceptional Individuals*, 21, 2, 145-160.

Conley R.W. (2003) Supported employment in Maryland: successes and issues. *Mental Retardation*, 41, 4, 237-249.

Conley, R. W., Rusch, F. R., McCaughrin, W. B., and Tines, J. (1989). Benefits and costs of supported employment: an analysis of the Illinois supported employment project. *Journal of Applied Behavior Analysis*, 22, 441-447.

Corden A. and Thornton P. (2002). *Employment Programmes for Disabled People:*

Lessons from Research Evaluations. In-House Report 90, Social Policy Research Unit. York: University of York.

Corden, A. (2002) Voluntary Work: A Bridge from Long-Term Incapacity to Paid Work? *Voluntary Action*, 4, 2 Spring, Pp.31-47.

Decker, P. T. and Thornton, C. V. (1995). The Long-Term Effects of Transitional Employment Services. *Social Security Bulletin*, 58, 4, 71-81.

Delsen L. (1996). Employment Opportunities For The Disabled, In: G. Schmid , J. O'Reilly, and K. Schoemann (Eds). *International Handbook of Labour Market Policy and Evaluation*. Cheltenham: Elgar Publishing.

Department of Health (DoH) (2001) *Valuing People: A New Strategy for Learning Disabilities for the 21st Century*, CM 5086. London: DoH,

Eckert S.P. (2000) Teaching the Social Skill of Accepting Criticism to Adults with Developmental Disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, 35, 1, 16-24.

EIM Business and Policy Research (2002). The Employment Situation of People with Disabilities. National reports. <http://www.employment-disability.net>

Emerson, E and Hatton, C (2008) *Estimating Future Need for Adult Social Care Services for People with Learning Disabilities in England: Centre for Disability Research , University of Lancaster*. Carried out for Mencap and the Learning Disability Coalition.

Evans, M. (2000) *History of Supported Employment and Vocational Rehabilitation Measures in Norway*. Dundee: Employment Disability Unit.

European Group for the Employment of People with Disabilities Special Issue on Vocational Training. *European Journal on Mental Disability*, 1996, 2-64.

Everson, J.M. (1991). Supported Employment Personnel: An Assessment of their Self-Reported Training Needs, Educational Backgrounds, and Previous

Employment Experiences. *Journal of Association of Persons with Severe Handicaps*, 16, 140-145.

Faubion, C. W. and Andrew, J. (2000). A Systems Analysis of the Case Coordinator Model and an Outcomes Analysis in Supported Employment. *Rehabilitation Counseling Bulletin*, 43, 2, 75-83.

Forrester-Jones, R., McGill, P., and Gwillim, J. (2008). Does social enterprise help social inclusion? *Journal of Intellectual Disability Research*, 52, 689-689.

Gaskin, K. (2004) *Volunteering and Availability for Work: an Evaluation of the Change to Jobseeker's Allowance Regulations*. Sheffield: Department for Work and Pensions.

Gay, P. (1998) Getting into Work: Volunteering For Employability. *Voluntary Action*, 1, 1, 55-67.

Gilmore, D. S., Schuster, J. L., Timmons, J. C. and Butterworth, J. (2000) An Analysis of Trends for People with ME Cerebral Palsy, and Epilepsy Receiving Services from State VR Agencies: Ten Years of Progress. *Rehabilitation Counseling Bulletin*, 44, 1, 30-38.

Gliner, J. A. and Sample, P. (1996). A Multi-method Approach to Evaluate Transition into Community Life. *Evaluation and Program Planning*, 19, 3, 225-233.

Gold, M. (1972). Stimulus factors in skill training of the retarded on a complex assembly task: Acquisition, transfer and retention. *American Journal on Mental Deficiency*, 76, 517-526.

Gold, M. (1972) Factors affecting production by the mentally retarded: Base rates. *Mental Retardation*, 11, 9-11.

Gold, M. (1978) *Try Another Way: Training Manual*. Austin, Texas: Marc Gold & Associates.

Goldberg, R. T., Mclean, M. M., Lavigne, R., Fratolillo, J. and Sullivan, F. T. (1990). Transition of Persons with Developmental Disability from Extended Sheltered Employment to Competitive Employment. *Mental Retardation*, 28, 5, 299-304.

Gray B.R., McDermott S. and Butkus S. (2000). Effect of job coaches on employment likelihood for individuals with mental retardation. *Journal of Vocational Rehabilitation*, 14, 5-11.

Griffin, D. K., Rosenberg, H., Cheyney, W. A Comparison of Self-Esteem and Job Satisfaction of Adults with Mild Mental Retardation in Sheltered Workshops and Supported Employment. *Education and Training in Mental Retardation and Developmental Disabilities*, 1996, 31 (2), 142-150.

Haimson, J., and Bellotti, J. (2001). *Schooling in the workplace: Increasing the scale and quality of work-based learning*. Final Report, Princeton, NJ: Mathematical Policy Research, Inc. Hamilton, M., and Hamilton, S. (1997). *Learning well at work: Choices for quality*. New York, NY: Cornell University Press.

Hall, P. S. and Wheeler, J. J. (1993). An Exploratory Resource-Allocation Model for Implementing Supported Employment Services. *Education and Training in Mental Retardation and Developmental Disabilities*, 1993, 28 (4), 288-295.

Hanko, J. and Polman, W. (2003) *A handbook for training of disabled on rural enterprise development*. Bangkok: Food and Agriculture Organization of the United Nations, Regional Office for Asia and the Pacific.

Harris, C. (2001). *From Disability to Opportunity: Self-Employment and the Disabled in Developing Countries*. IDRC Reports, 21, 4. Calgary: International Development Research Centre.

Hasazi, S., Gordan, L., and Roe, C. (1985). Factors associated with the employment status of handicapped youth exiting high school from 1979 to 1983.

Exceptional Children, 51, 455-469.

Hill, M., Banks, P., Handrich, R., Wehman, P. Hill, J. and Shafer, M. (1987) Benefit-Cost Analysis of Supported Competitive Employment for Persons with Mental Retardation. *Research in Developmental Disabilities*, 8, 71-89.

Hirst, A. (2001) *Links between Volunteering and Employability*, Department of Education and Science, Research Report No. 309. London: DfES.

Hoerner, J., and Wehrley, J. (1995). *Work-based learning: The key to school-to-work transition*. New York, NY: Glencoe/McGraw-Hill.

Hogg, J. (2005). *Micro-Enterprises South West: A report on the viability of the US micro-enterprise model and possible implementation across the South West region for the Valuing People Team*. <http://www.afse.org.uk/news/micro-enterprise.pdf>

Hood, E., Test, D., Spooner, F. and Steele, R. (1996). Paid Co-Worker Support for Individuals with Severe and Multiple Disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, 31, 251-265.

Holloway, J.D. and Sigafos, J. (1998). Quality Of Life for Young Adults with Mental Retardation in Open versus Sheltered Employment. *European Journal on Mental Disability*, 20, 13-25.

Howarth E., Mann J.R., Zhou H., McDermott S. and Butkus S. (2006). What predicts re-employment after job loss for individuals with mental retardation? *Journal of Vocational Rehabilitation*, 24, 183-189.

Hughes, C. and Carter, E. (2000). *The transition handbook: Strategies that high school teachers use that work*. Baltimore: Paul H. Brookes Publishing Company.

Hughes, C. and Scott S.V. (1997). Teaching Self-Management in Employment Settings, *Journal of Rehabilitation*, 8, 43-53.

Hughes, C. (1992). Teaching Self-Instruction Utilizing Multiple Exemplars To Produce Generalized Problem-Solving in Individuals with Severe Mental Retardation, *American Journal of Mental Retardation*, 1992, 97, 302-314.

Hughes, C, Harmer, M.L., Killian, D.J. and Niarhos, F. (1995). The Effects of Multiple Exemplar Self-Instructional Training on High School Students' Generalized Conversational Interactions, *Journal of Applied Behaviour Analysis*, 28, 201-218.

Humes C. and Brammer G. (1985). LD Career Success after High School. *Academic Therapy*, 21, 2, 171-176.

Hyun-Sook, P. and Gaylord-Ross, P (1989) A Problem-Solving Approach to Social Skills Training in Employment Settings with Mentally Retarded Youth. *Journal of Applied Behavior Analysis*, 22, 4 373-80

Jauss, J. M., Wacker, D. P., Berg, W. K., Flynn, T. H. and Hurd, R. (1994). An Evaluation of Long-Term Maintenance in Supported Employment Placements Using a Hypothesis-Testing Approach. *Journal of Rehabilitation*, 60, 1, 52-58.

Jeffery, S. (2005). Social firms: Developing business, economic viability, stakeholder value and worker inclusion. *International Congress Series*, 1282, 1153– 1157.

Johnson, S. (2000). *Literature review on social entrepreneurship*. Canadian Centre for Social Entrepreneurship. Accessed April 2009:
<http://www.business.ualberta.ca/ccse/Publications/>

Keel, J. H., Mesibov, G. B., and Woods, A. V. (1997). TEACCH-Supported Employment Program. *Journal of Autism & Developmental Disorders*, 27, 1, 3-9.

Kilsby, M. and Beyer, S. (1996). Engagement and Interaction: A Comparison between Supported Employment and ATCs. *Journal of Community and Applied Social Psychology*, 6, 2, 141-152.

Kilsby, M. and Beyer, S. (1996). Engagement and Interaction: A Comparison between Supported Employment and Day Service Provision. *Journal of Intellectual Disability Research*, 40, 348-358.

Krober, H. and van Dongen, H. (2003) *Mensen met een handicap en Betaalde Arbeid, Strategieën voor support* (People with a Disability and Paid Employment, Strategies for Support), Soest: Uitgeverij Nelissen.

Lacey, M. (2006) *Pathways into Employment in The Voluntary and Community Sector: An Evidence Review*. UK Voluntary Sector Workforce Hub.

Lagomarcino, T. (1996). *Job Separation Issues in Supported Employment*. In F.R. Rusch (Ed.) *Supported employment: Models, methods, and issues*. Sycamore, IL: Sycamore Publishing.

Lemaire, G.S. and Mallik, (2008) K. Barriers to Supported Employment for Persons with Developmental Disabilities. *Archives of Psychiatric Nursing*, 22, 3, 147–155

Lee, M., Storey, K., Anderson, J. L., Goetz, L. and Zivolich, S. (1997). The Effect of Mentoring Versus Job Coach Instruction on Integration in Supported Employment Settings. *Journal of the Association for Persons with Severe Handicaps*, 22, 3, 151-158.

Levy, J. M., Botuck, S., Levy, P. H., Kramer, M. E., Murphy, B. S. and Rimmerman, A. (1994). Differences in Job Placements between Men and Women with Mental Retardation. *Disability & Rehabilitation*, 16, 2, 53-57.

Lewis, D. R., Johnson, D. R., Bruininks, R. H. and Kallsen, L. A. (1993). Accounting for Costs of Habilitation Training, Sheltered Workshops, and Supported Employment. *Education and Training in Mental Retardation and Developmental Disabilities*, 28, 1, 75-89.

Lewis, D.R., Johnson, D.R., Bruininks, R.H., Kallsen, L.A. and Guillery, R.P. (1992). Is Supported Employment Cost-Effective in Minnesota? *Journal of Disability Policy Studies*, 3, 67-92.

Lewis, D. R., Johnson, D. R., And Mangen, T. (1997) Evaluating The Multidimensional Nature Of Supported Employment. *Journal of Applied Research in Intellectual Disabilities*, 11, 8, 95-115.

Luecking, R., and Fabian, E. (2000). Paid internships and employment success for youth in transition. *Career Development for Exceptional Children*, 23(2), 205-221.

McCaughrin, W.B. and Rusch, F.R. (1990) *Supported employment in Illinois: A benefit-cost analysis during the first 2 years*, The Secondary Transition Intervention Effectiveness Institute, University of Illinois at Urbana-Champaign, Urbana, IL

McCuller W.J, Sussman S., Holiday K., Craig S. and Dent, C.W. (2002) Tracking Procedures for Locating High-Risk Youth. *Evaluation & the Health Professions*, 25, 3, 345-362

McDonnell, J., Nofs, D. and Hardman, M. (1989) An analysis of the procedural components of supported employment programs associated with employment outcomes. *Journal of Applied Behavior Analysis*, 22, 4, 417-428.

Mank, D., Cioffi, A. and Yovanoff, P. (1997a). Analysis of the Typicalness of Supported Employment Jobs, Natural Supports, and Wage and Integration Outcomes. *Mental Retardation*, 35, 3, 185-197.

Mank, D., Cioffi, A., Yovanoff, P. (1997b). Patterns of Support for Employees with Severe Disabilities. *Mental Retardation*, 35, 6, 433-447.

Mank, D., Cioffi, A. and Yovanoff, P. (1998). Employment Outcomes for People with Severe Disabilities: Opportunities for Improvement. *Mental Retardation*, 36, 3, 205-216.

Mank, D., Cioffi, A. and Yovanoff, P. (1999). Impact of Co-worker Involvement with Supported Employees on Wage and Integration Outcomes. *Mental Retardation*, 37, 5, 383-394.

Mattika, L. (2001). *Service-Oriented Assessment of Quality of Life of Adults with Intellectual Disabilities*. Helsinki: Finnish Association on Mental Retardation.

McCaughrin, W. B., Ellis, W. K., Rusch, F. R. and Heal, L. W. (1993). Cost-Effectiveness of Supported Employment. *Mental Retardation*, 31, 1, 41-48.

Mcgaughey, M. J., Kiernan, W. E., McNally, L. C., Gilmore, D. S. A Peaceful Coexistence? State Mr/Dd Agency Trends in Integrated Employment and Facility-Based Services. *Mental Retardation*, June 1995, 33 (3), 170-180.

McKeown, K., O'Brien, T.J. and Fitzgerald, G. (1992). *The European Project on Mental Health in Ireland 1989–1991: An Evaluation*. Dublin: Dublin Irish Social Firm Initiative.

Mcgaughey, M. J., Kiernan, W. E., McNally, L. C., Gilmore, D. S. (1995). A Peaceful Coexistence? State MR/DD Agency Trends in Integrated Employment and Facility-Based Services. *Mental Retardation*, 33, 3, 170-180.

Moallem, A. (1994). Profile of Instructors in Sheltered Workshops (in France). *European Journal on Mental Disability*, 1, 25-31.

Montgomery, A.J, O'Reilly, M.F., Lancioni, G.E., Fumiss, F. Rocha, N. and Cunha, B. Seedhouse, P. (1996). Decision Models for Instructional Strategies for Learning Disabled Persons. *European Journal on Mental Disabilities*, 10, 43-59.

Morgan, R.L., Moore, S.C., Mcsweyn, C.A. and Salzberg, C.L. (1992). Transition from School to Work, Views of Secondary Special Educators. *Education & Training in Mental Retardation*. 27, 315-323.

Murray J., Bellringer, S. and Easter, A. (2006) *Evaluation of capital volunteering: evaluation of the first 60 participants*. Institute of Psychiatry at the Maudsley.

Naeve, L., Allen, W., Harding, F. and Shea, J. (1989). *Costs and Outcomes Study of Individual Supported Employment Placements by Selected California Department of Rehabilitation Funded Employment Service Providers*. California: California Department of Rehabilitation.

National Center on Workforce and Disability (2005) *Customized Employment: Practical Solutions For Employment Success.. www.onestops.info/pdf/CE101.pdf* accessed March 2009.

Nietupski, J., Hamrenietupski, S., Vanderhart, N. S. and Fishback, K. (1996). Employer Perceptions of the Benefits and Concerns of Supported Employment. *Education and Training in Mental Retardation and Developmental Disabilities*, 1996, 31, 4, 310-323.

Noble, J.H. and Conley, R.W. (1987). Accumulating Evidence on the Benefits and Costs of Supported and Transitional Employment for Persons with Severe Disabilities. *Journal of the Association for Persons with Severe Handicaps*, 12, 3, 163-174.

Noble, J. H., Conley, R. W., Banerjee, S. and Goodman, S. (1991). *Supported Employment In New York State: A Comparison Of Benefits And Costs*. *Journal of Disability Policy Studies*, 2, 39-73.

Novak, J., Mank, D., Revell, G. and O'Brien, D. (1999) Paying for Success: Results-Based Approaches to Funding Supported Employment. In G. Revell, G., K.J. Inge, M. Mank, D. and P. Wehman (1999). *The Impact of Supported*

Employment for People with Significant Disabilities: Preliminary Findings From The National Supported Employment Consortium Monograph.

<http://www.worksupport.com/research/viewcontent.cfm/111>

O'Bryan, A. and O'Brien, J. (1995) *Supported Employment Quality Assurance*. Bath: National Development Team.

O'Bryan, A (2008) *Work And Jobs Fact Sheets*. www.in-control.org.uk/site/INCO/Templates/General.aspx?pageid=524&cc-GB accessed March 2009. Accessed March 2009

Olson, D., Cioffi, A., Yovanoff, P., Mank, D. (2000). Gender Differences in Supported Employment. *Mental Retardation*, 38, 2, 89-96.

Olson, D., Cioffi, A., Yovanoff, P. and Mank, D. (2001). Employers' Perceptions of Employees with Mental Retardation. *Journal of Vocational Rehabilitation*, 16, 2, 125-33,

Open Society Institute (2005a). *Rights of People with Intellectual Disabilities: Access to Education and Employment- Netherlands Monitoring Report*. Budapest, Hungary: OSI/EU Monitoring and Advocacy Program.

Open Society Institute (2005b) *Rights of People with Intellectual Disabilities: Access to Education and Employment- Netherlands Monitoring Report*. Budapest, Greece: OSI/EU Monitoring and Advocacy Program.

Open Society Institute (2005c) *Rights of People with Intellectual Disabilities: Access to Education and Employment- Netherlands Monitoring Report*. Budapest, Poland: OSI/EU Monitoring and Advocacy Program.

Open Society Institute (2005d) *Rights of People with Intellectual Disabilities: Access to Education and Employment- Bulgaria Monitoring Report*. Budapest, Hungary: OSI/EU Monitoring and Advocacy Program.

Panscofar, E.L and Steere, D.E. (1997). The C.A.P.A.B.L.E. Process: Critical Dimensions of Community-Based Assessment. *Journal of Vocational Rehabilitation*, 8, 99-108.

Parent, W. S., Kregel, J., Metzler, H. M. D. and Twardzik, G. (1992). Social Integration in the Workplace - An Analysis of the Interaction Activities of Workers with Mental-Retardation and their Co-workers. *Education and Training in Mental Retardation and Developmental Disabilities*, 27, 1, 28-38.

Peraino, J.M. (1992). Post-21 Follow-Up Studies: How do special education graduates fare? P. Wehman (Ed.). *Life beyond the classroom: Transition strategies for young people with disabilities*, p 21-37. Baltimore: Paul H. Brooks.

Phelps, A. and Hanley-Maxwell, C. (1997). School-to-Work Transitions for Youth with Disabilities: A Review of Outcomes and Practices. *Review of Educational Research*, 67, 2, 197-226.

Prinz, C. (2001). *Disability Policies for the Working Age Population*. Framework and Preliminary Analysis. Paris: OECD Internal Report.

Revell WG, Wehman P, Kregel J, West M, and Rayfield R. (1994). Supported Employment for Persons with Severe Disabilities - Positive Trends in Wages, Models and Funding. *Education and Training in Mental Retardation and Developmental Disabilities*, 29, 4, 256-264.

Revell, G., Inge, K.J. Mank, D. and Wehman, P. (1999). *The Impact of Supported Employment for People with Significant Disabilities: Preliminary Findings from the National Supported Employment Consortium Monograph*. Accessed April 2009: <http://www.worksupport.com/research/viewContent.cfm/111>

Rimmerman, A., Botuck, S. and Levy, J. M. (1995a). Job Placement for Individuals with Psychiatric Disabilities in Supported Employment. *Psychiatric Rehabilitation Journal*, 19, 2, 37-43.

Rimmerman, A., Botuck, S., Levy, J. M. and Royce, J. M. (1996). Job Placement of Urban Youth with Developmental Disabilities: Research and Implications. *Journal of Rehabilitation*, 62, 1, 56-64.

Rimmerman, A., Levy, J. M., Botuck, S. (1995b). Predicting the Likelihood of Job Placement - A Short-Term Perspective. *Journal of Rehabilitation*, 61, 1, 50-54.

Rogan, P., Hagner, D. and Murphy, S. (2000) Natural Supports: Re-conceptualising Job Coach Roles. *Journal of the Association For Persons with Severe Handicaps*, 18, 275-281.

Rusch F.R. and Braddock D. (2004) Adult day programs versus supported employment (1988-2002): Spending and service practices of mental retardation and developmental disabilities state agencies. *Research and Practice for Persons with Severe Disabilities*, 29, 4, 237-242.

Rusch, F.R. and Scutz, R.P. (1979) Non-sheltered employment of the mentally retarded adults: Research to reality? *Journal on Contemporary Business*, 8, 4, 85-89.

Rusch, F. R., Conley, R. W., and McCaughrin, W. B. (1993). Benefit–cost analysis of supported employment in Illinois. *Journal of Rehabilitation*, 59, 31–36.

Rusch, F. R., Wilson, P. G., Hughes, C. and Heal, L. (1994). Matched-Pairs Analysis of Co-worker Interactions in Relation to Opportunity, Type of Job, and Placement Approach. *Mental Retardation*, 32, 2, 113-122.

Rusch, F. R., Wilson, P. G., Hughes, C., Heal, L. W. (1995). Interaction of Persons with Severe Mental-Retardation and their Non-disabled Co-workers in Integrated Work Settings. *Behavior Modification*, 19, 1, 59-77.

Rutkowski, S., Daston, M., Van Kuiken, D. and Riehleb E. (2006). Project SEARCH: A Demand-Side Model of High School Transition. *Journal of Vocational Rehabilitation*, 25 85–96.

Schafft, A. and Spjelkavik, O. (1999) A Norwegian approach to supported employment: Arbeid med bistand. *Journal of Vocational Rehabilitation*, 12, 3, 147-158.

Scuccimarra D. and Speece D. (1990). Employment outcomes and social integration of students with mild handicaps: The quality of life two years after high school. *Journal of Learning Disabilities*, 23(4), 213-219.

Secker, J., Dass, S. and Grove, B. (2003). Developing Social Firms in the UK: a contribution to identifying good practice. *Disability & Society*, 18, 5 , 659 - 674.

Shafer, M. S., Wehman, P., Kregel, J., West, M. (1990). National Supported Employment Initiative: A Preliminary Analysis. *American Journal of Mental Retardation*, 95, 3, 316-327.

Shearn, J., Beyer, S. and Felce, D. (2000). The Cost-Effectiveness of Supported Employment for People with Severe Intellectual Disabilities and High Support Needs: A Pilot Study. *Journal of Applied Research in Intellectual Disabilities*, 13, 1, 29-37.

Shroeder, S.R., Gerry, M., Gerty, M.G. and Valezquez, F (2002). *Final Report: Usage of the Term "Mental Retardation:" Language, Image and Public Education*. Resource Network International. Accessed April 2009:
<http://www.ssa.gov/disability/MentalRetardationReport.pdf>

Simmons, T. J. and Flexer, R. W. (1992). Community Based Job-Training for Persons with Mental- Retardation - An Acquisition and Performance Replication. *Education and Training in Mental Retardation and Developmental Disabilities*, 27, 3, 261-272.

Simon Clarke Associates (2002). *The Social Economy: A literature review*. Edinburgh:
Communities Scotland, Research Department. Accessed April 2009:

http://www.communitiesscotland.gov.uk/stellent/groups/public/documents/webpages/cs_008698.pdf

Social Firms UK (2002). *Understanding the Social Firm Model*.

Social Firms Scotland (2008). *Welfare Reform Green Paper “No one written off: reforming welfare to reward responsibility”*: Response from Social Firms Scotland. Accessed April 2009:

<http://www.socialfirms.org.uk/FileLibrary/Resources/Policy/081020%20DWP%20Welfare%20Reform%20Green%20Paper%20Social%20Firms%20Scotland%20%20response.doc>

Spear, R., and Bidet, E. (2005). Social Enterprise for Work Integration in 12 European Countries. A Descriptive Analysis. *Annals of Public and Cooperative Economics*, 76, 2, 195-231.

Test, D. W., Hinson, K. B., Solow, J. and Keul, P. (1993). Job-Satisfaction of Persons in Supported Employment. *Education and Training in Mental Retardation and Developmental Disabilities*, 28, 1, 38-46.

Test, D.W. and Wood, W.M. (1997). Rocket Science 101: What Supported Employment Specialists Need to Know about Systematic Instruction, *Journal of Vocational Rehabilitation*, 9, 109-120.

Thompson, L., Powers, G. and Houchard, B. (1992). The Wage Effects of Supported Employment. *Journal of the Association for Persons with Severe Handicaps*, 17, 2, 87-94.

Thornton, C. (1984). Benefit-Cost Analysis of Social Programs. In: R. Bruinicks and C. Lakin (Eds.) *Living and learning in the least restrictive environment*, p 225–244 Baltimore: Paul H. Brooks.

Tines, J., Rusch, F. R., Mccaughrin, W. and Conley, R. W. (1990). Benefit-Cost Analysis of Supported Employment in Illinois: A Statewide Evaluation. *American Journal of Mental Retardation*, 95, 1, 44-54.

Trach, J.R. and Rusch, F.R. (1989). Supported Employment Program Evaluation: Evaluating Degree of Implementation and Selected Outcomes". *American Journal on Mental Retardation*, 94, 134-140.

Van Lin M., Prins R. and De Kok J. (2002). *Active Labour Market Programmes for People with Disabilities: Fact and Figures on Use and Impact*. Zoetermeer (the Netherlands): EIM Business & Policy Research.

Vela Microboard Association (2008). *What is a Vela Microboard?* Vancouver Canada: Vela Microboard Association. Accessed March 2009: www.microboard.org

Vogelsberg, R.T. (1990). Supported Employment in Pennsylvania. In F.R. Rusch (Ed.) *Supported Employment: Models, methods and issues*, p 45-64. Sycamore, Il: Sycamore.

Wacker, D. P., Fromm-Steege, L., Berg, W., & Flynn, T. (1989). Supported employment as an intervention package: a preliminary analysis of functional variables. *Journal of Applied Behavior Analysis*, 22, 429-439.

Warner, R. and Mandiberg, J. (2006). An Update on Affirmative Businesses or Social Firms for People With Mental Illness. *Psychiatry Services*, 57, 1488-1492.

Wagner, M., Newman, L., Cameto, R., Levine, P. and Garza, N. (2006). *An Overview of Findings From Wave 2 of the National Longitudinal Transition Study 2 (NLTS2)*. Institute of Education Sciences. Accessed March 2007: http://policyweb.sri.com/cehs/publications/nlts2_report_2006_08.pdf

Walsh, P. N., Lynch, C. and Delacey, E. (1994). Supported Employment for Irish Adults with Intellectual Disability: The Open Road Experience. *International Journal of Rehabilitation Research*, 17, 1, 15-24.

Washington Dept of Social and Health Services (2007). *Individual Employment Support Services for Persons with Developmental Disabilities. Report to the Legislature*. Olympia: Washington.

Wehman, P. (1981) *Competitive employment: New horizons for severely disabled individuals*. Baltimore: Paul H. Brookes.

Wehman, P., Hill, J.W. and Keohler, F. (1979) Placement of Developmentally Disabled Individuals into Competitive Employment: Three Case Studies. *Education and Training of the Mentally Retarded*, 14, 269-276.

Wehman, P. and Kregel, J. (1985), A Supported Work Approach to Competitive Employment for Individuals with Moderate and Severe Handicaps. *The Journal of the Association for Persons with Severe Handicaps*, 10, 3-11.

Wehman, P., Revell, G. and Kregel, J. (1998) Supported Employment: A Decade of Rapid Growth and Impact. *American Rehabilitation*, 24, 1, 31-43.

Wehman, P. (2001). *Life beyond the classroom: Transition strategies for young people with disabilities*. Baltimore: Paul H. Brookes.

Wehmeyer, M. L. (1994). Employment Status and Perceptions of Control of Adults with Cognitive and Developmental Disabilities. *Research in Developmental Disabilities*, 15, 2, 119-131.

West, M. Revell, W.G. and Wehman, P. (1992). Achievements and Challenges: A 5-Year Report on Consumer and System Outcomes from the Supported Employment Initiative. *Journal of The Association for Persons with Severe Handicaps*, 17, 4, 227-235.

White J. and Weiner J.S. (2004). Influence of least restrictive environment and

community based training on integrated employment outcomes for transitioning students with severe disabilities. *Journal of Vocational Rehabilitation*, 21, 149-156.

Whitehead, C.W. (1979). Sheltered workshops in the decade ahead: Work, wages or welfare. In G.T. Bellamy, G. O'Conner and O.C. Karan (Eds.) *Vocational rehabilitation of severely handicapped persons*. p 71-84. Baltimore: Paul H. Brookes.

Williams, E. R. (1997). Work Personality Profile: Validation within the Supported Employment Environment. *Journal of Rehabilitation*, 63, 2, 26.-30.

Winsor, J. (2006). *Employment First!: Making Integrated Employment the Preferred Outcome in Tennessee*. Boston, Massachusetts: Institute for Community Inclusion, University of Massachusetts.

World Health Organisation (1992). *International Classification of Diseases and Related Health Problems*, Tenth Edition, Geneva.

Zivolich, S., Shueman, S.A. and Weiner, J.S. (1997). An exploratory cost-benefit analysis of natural support strategies in the employment of people with severe disabilities. *Journal of Vocational Rehabilitation*, 8, 211-221.

ACKNOWLEDGEMENTS

Peter Bates, National Development Team for Inclusion

Lisa Mills, Department of Health Services, Wisconsin, USA

Ben Pledger, Department of Health