

Supported employment: a decade of rapid growth and impact.

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Supported employment was initiated through the Rehabilitation Act Amendments of 1986 specifically to assist persons with the most significant disabilities to successfully achieve and retain competitive employment. This study reports the results of a 10-year effort to chart the growth of supported employment in areas such as the number and disability profile of participants, consumer outcomes, funding mechanisms, and program expenditures. The costs and outcomes for supported employment and sheltered employment are also compared. Strategies are presented to expand the utilization of supported employment and thereby increase employment opportunities available for persons with the most significant disabilities.

In recent years, the unemployment levels of persons with disabilities have received increased attention. A number of federal agencies, public policy makers, consumer groups, and professionals have focused significant attention on why the unemployment rate of people with disabilities remains so high. This unemployment rate has consistently hovered in the 60-70 percent area for decades despite increased innovations in rehabilitation and newer laws, such as the Americans with Disabilities Act (P.L. 101-336). Innovations such as assistive technology, job coaches, and new training techniques along with progressive laws designed to ease the entry of persons with disabilities into the competitive workplace have not resulted in a noticeable improvement in their level of employment.

For example, the most frequently cited poll in recent years has been by Louis Harris and Associates (1994), which presents a rather discouraging view of the work outcomes achieved by persons with disabilities. Louis Harris and Associates found that two-thirds of Americans with disabilities between the ages of 16 and 64 are not working, with only 20 percent working full time and 11 percent working part time. They also found that 84 percent of unemployed people with disabilities say they want to work, an overwhelming majority that has actually risen by 13 percentage points from an earlier poll taken by Louis Harris in 1986.

In addition, the number of working age people with disabilities who receive Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) benefits from the Social Security Administration increased from 4 million in 1985 to 6.3 million in 1994 (General Accounting Office, June 1996). These figures are dramatic indeed because of the enormous expenditures associated with long-term retention on Social Security cash benefits. For example, in 1994 the Social Security Administration reports that the SSDI and SSI programs provided \$52.9 billion in cash benefits to the 6.3 million working age beneficiaries (General Accounting Office, June 1996). Yet, the Louis Harris Poll indicates that the majority of individuals with disabilities want to work. Considering the substantive advances in assistive technology, rehabilitation technology, and medicine, it is reasonable to ask: What employment strategies have demonstrated success in overcoming the perplexing problem of extremely high unemployment among persons with disabilities?

Supported employment is one program specifically designed to assist persons with the most significant disabilities to achieve competitive level, community integrated employment. Supported employment first received public funding through the Rehabilitation Act Amendments of 1986. It has enjoyed steadily increasing popularity since its inception and has achieved carefully documented positive outcomes (Mank, O'Neill, & Jensen, in press; Revell, Wehman, Kregel, West, & Rayfield, 1994). The major premise of a supported employment program is that many persons with significant disabilities need some additional support at the jobsite to work successfully. Through the use of employment specialists, mentors, coworkers and employers, the impediments to employment faced by prospective workers are reduced, and their abilities and work potentials are emphasized through supports designed at the workplace. Despite the demonstrated success and value of this model and research that confirms its efficacy (e.g., Bond, Dietzen, McGrew, & Miller, 1995; Drake, McHugo, Becker, Anthony, & Clark, 1996; Coker, Osgood, & Clouse, 1995), supported employment has not yet been fully utilized to impact the thousands of people with disabilities who remain unemployed.

The ability to be employed is important for many reasons. First, working in competitive employment provides an opportunity to receive wages and benefits that may lead to greater independence and mobility in the community at large. Second, being productive on a daily basis in a meaningful vocation is critically important to one's self-esteem and dignity. Third, establishing new friendships and networks of social support in the community is almost always facilitated by having a job within a career path. And finally, as described above, the extraordinary costs associated with maintaining persons with disabilities on Social Security disability rolls are a highly nonproductive and inefficient use of human potential that are

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now reaching an unacceptable level in this country. This high level of entitlement leads to greater federal deficits and ultimately fosters the incorrect perception among society that people with disabilities must be dependent on public support and are not capable of active lives that include competitive employment.

As we consider the obvious need to increase our nation's resolve to promote employment for people with disabilities, one must look carefully at how supported employment might play a role. A number of specialized employment programs for individuals with disabilities have been developed over the years. Some have been effective and some less so. Supported employment is one of the few specialized programs in the Rehabilitation Act that has grown to a size where it has the potential to make a real national impact on the hundreds of thousands of people with disabilities still unemployed. It is a program with carefully documented positive employment outcomes for persons with disabilities in a number of important areas, including consumer satisfaction (Test, Hisson, Solow, & Kuel, 1993), job placements (Mank et al., in press), wages and benefits (Kregel, Wehman, & Banks, 1989; Thompson, Powers, & Houchard, 1992), favorable employer perceptions (Kregel & Unger, 1993), and effective support strategies (Parent, Unger, Gibson, & Clements, 1994). Therefore, supported employment has shown itself to be a highly useful program with potential for expansion. This report presents further information on the size and outcomes of the supported employment program by providing FY 1995 data collected from state rehabilitation and other state level agencies funding supported employment services in each of the 50 states in the country.

Method

The method employed in the present study built upon a national survey strategy initially developed in 1988 (Wehman, Kregel, & Shafer, 1989) that has been repeatedly modified through feedback by the Rehabilitation Services Administration (RSA) and the Council of State Administrators of Vocational Rehabilitation (CSAVR).

Respondents

The study involved a national survey of 54 state/territorial supported employment systems consisting of the 50 states, the District of Columbia, Puerto Rico, the Virgin Islands, and the Pacific Islands. Vocational rehabilitation (VR) agencies contacted for data on time-limited supported employment services included combined, general, and agencies for persons with visual disabilities. Data covering FY 1995 were received from 51 of the 54 state/territorial systems, a 94 percent response rate for systems surveyed. Data were obtained from systems representing 99 percent of the persons with disabilities closed successfully in employment by vocational rehabilitation agencies in FY 1994 after receiving supported employment services (RSA, 1996). The population of the three state/territorial systems that chose not to respond to the survey represented less than 0.3 percent of the total population of the United States, and the missing data have minimal impact on the study results.

Supported employment central office program managers within the VR agency typically served as primary respondents within each state system and frequently assisted staff in coordinating the gathering of information from non-VR data sources. Due to the interagency nature of state supported employment systems, representatives from other state agencies, such as mental health and mental retardation/developmental disabilities, served as secondary respondents. The study results are representative of supported employment implementation nationally through vocational rehabilitation as well as state mental health/developmental disability programs.

Instrument Utilized

The key data elements for the presentation of these data were collected using several forms of a basic survey initially developed and field tested in 1988 (e.g., West, Revell, & Wehman, 1992). Data collection for FY 1995 was the sixth survey conducted using this format, and the aggregate survey results constitute a longitudinal data base on supported employment implementation now covering the period from FY 1986 through FY 1995. The survey instrument and process were reviewed and approved by the Research Committee of CSAVR. The current survey elements were as follows:

* The number of employed persons receiving supported employment services. Participation was categorized by time-limited services, extended services, or other participants in instances where data were not maintained using the time-limited/extended services categories. Participants were counted in only one category to avoid duplication. For example, in instances where an individual moved from time-limited to extended supported employment services in FY 95,

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participation was counted only under time-limited services.

- * The number of persons in supported employment utilizing individual or group models.
- * The number of persons in supported employment across primary disability classifications and across levels of mental retardation for those persons with a primary disability classification of mental retardation.
- * Hourly and weekly wages of persons in supported employment and their hours of weekly employment.
- * Funding sources used to pay for supported employment services.
- * The number of authorized providers of supported employment services and their strategies for providing services (i.e., conversion to supported employment, expansion of services to include supported employment, no prior vocational service history, and others).
- * Types of rate structures used by state VR agencies to purchase supported employment services and rates paid for these services.

Procedure

The survey was mailed to the administrative office of each state VR agency. An initial phone contact was made with each state VR agency to verify receipt of the survey, to identify the primary state contact person and other key sources of data within the state system, and to develop a state specific plan for collecting the data from VR, mental health (MH), mental retardation/developmental disabilities (MR/DD), and any other state level agency/program funding supported employment services. Some states submitted a single response to the survey incorporating available information. For most states, the VR agency supplied data on time-limited services and additional data were gathered by phone on extended services from multiple state contact persons within the MH and MR/DD agencies.

Data was requested for federal fiscal year 1995 (October 1, 1994--September 30, 1995). However, respondents were given the opportunity to supply data for a state fiscal year, usually July 1, 1994, to June 30, 1995, if information requested in the survey was more readily available for that time period. In all cases, information was supplied for a 12-month period recognized by the reporting state as FY 1995. The majority of states supplied information for the federal FY 1995 time period. Only verifiable data were accepted; estimates were not accepted. The interagency nature of supported employment services and funding resulted in data being drawn from both a federally driven VR reporting system and state driven systems for mental health/developmental disabilities. Substantial time was spent with state contact persons to assure that data for the survey response were reported consistently and without duplication.

Upon completion of data collection, the data for each state were aggregated into a single state profile, and this profile was reviewed with the state representative(s) for verification. State profiles were verified and clarified through verbal and written dialogue with primary and secondary respondents. State specific data collection and data verification were dependent on the information provided by state agency supported employment representatives, and there was not a secondary/alternative data source to reverify the state reports. However, the data collected through this study were consistent with other supported employment information, such as wages, hours of employment, disability profiles, and expenditures reported on supported employment closures through vocational rehabilitation (RSA, 1996). Confidence in the integrity of data reported through this study was achieved based on the interagency participation at the state level in the verification process, the longitudinal nature of the data base for this study where inconsistencies with established patterns could be identified and investigated, and the consistency of the study results with other national supported employment information.

Data collection and verification for FY 1995 were completed in December 1996. Verified state profile data were aggregated and analyzed using database software, culminating in a longitudinal data base on national supported employment implementation beginning with FY 1986. In instances such as hourly or weekly wages where a national mean was calculated, weighted means were used to adjust for the number of persons within each state.

Supported Employment Participants

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The national growth in supported employment participation from FY 1986 through 1995 is presented in Figure 1. Participation in supported employment has risen from approximately 10,000 persons in FY 1986 to over 139,000 in FY 1995. The 139,812 participants for FY 1995 represent a 16 percent annual growth rate from the participant total reported for FY 1993 (Wehman & Revell, 1996). The 16 percent annual growth from FY 1993 to FY 1995 is considerably slower than 43 percent annual growth rate from FY 1989 to 1990, but it is an increase from the 8.3 percent annual growth rate experienced from FY 1991 to FY 1993. Although the annual supported employment growth rate has slowed since it peaked in FY 1988, overall annual growth reaccelerated during 1993-1995 to a rate almost double that which occurred during the 1991-1993 period. This reacceleration during 1993-1995 occurred consistent with the initial implementation of the Rehabilitation Act Amendments of 1992.

[Figure 1 ILLUSTRATION OMITTED]

The 139,812 participants identified for FY 1995 should be considered a minimum count because the supported employment information systems of seven of the reporting states did not maintain information on extended services and no extended services participation data were reported for these states. In addition, other states acknowledged that reported data did not include a small number of people placed in employment in earlier years prior to the development of formal data systems and who presently were not being tracked by either the VR or extended services agencies. Of the 139,812 supported employment participants for FY 1995 reported by representatives of the 51 state/territorial systems responding to the Virginia Commonwealth University Rehabilitation Research and Training Center (VCU RRTC) survey, a total 45,326 (32.4 percent) were receiving time-limited services and 87,409 (62.5 percent) were receiving extended services. The remaining 7,077 (5.1 percent) were listed as other participants. These were identified supported employees for whom data systems could not state with confidence whether they were in time-limited or extended service.

Based on reported data, the 10 states with the highest per capita rates of persons in supported employment in FY 1995 were as follows: Minnesota, Connecticut, Wyoming, South Dakota, Vermont, Washington, Alaska, Colorado, Wisconsin, and Montana. Per capita rates were determined by using 1990 state census total population data and the reported supported employment participation level identified through this study. Per capita participation in supported employment was calculated per 100,000 in total state population. These placement rates reflect positively on the capabilities of the supported employment service systems for these 10 states.

Primary Disability Classification of Supported Employment Participants

The primary disability classification for supported employment participants in FY 1995 varied from the general range that has held fairly constant since FY 1988, the first year for which nationally representative disability data were available. For FY 1995, primary disability information was available for 44 of the 51 systems reporting. Persons with a primary disability classification of mental retardation accounted for 61.5 percent of participants for whom disability information was reported as compared to 70.3 percent in FY 1993. Participation by persons with mental illness increased to 26.0 percent in FY 1995, continuing a primary longitudinal trend for a disability group that accounted for 16.7 percent of the persons in supported employment in FY 1988. Persons with a primary physical disability accounted for 9.7 percent of the persons in supported employment in FY 95. Table 1 shows the relative percentages within primary disability groups of participants for fiscal years 1988, 1991, 1993, and 1995.

Table 1 Primary Disability Classification of Supported Employment Participants

Disability Classification	FY 1988	FY 1991
Mental Retardation	70.5%	62.8%
Mental Illness	16.7%	22.2%
Sensory Impairment	2.5%	3.0%
Cerebral Palsy or other	1.8%	1.6%
Orthopedic/Paralysis		
Traumatic Brain Injury	n/a(*)	2.10%
Other Physical Disability	n/a(*)	n/a(*)
Other Disability	8.5%	8.3%
Disability Classification	FY 1993	FY 1995

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Mental Retardation	70.3%	61.5%
Mental Illness	19.3%	26.0%
Sensory Impairment	2.6%	2.1%
Cerebral Palsy or other	2.0%	3.3%
Orthopedic/Paralysis		
Traumatic Brain Injury	1.5%	1.7%
Other Physical Disability	1.3%	2.6%
Other Disability	3.0%	3.1%

(*) Information not available

Persons with mental retardation continued in FY 1995 to be the dominant population served in supported employment, although the percent of total participants decreased in FY 1995 compared to FY 1993 for this disability group. Some movement occurred in the relative percentages in individual disability groups for persons with physical disabilities. However, the overall relative participation level remained consistent with earlier studies for persons with a primary disability of a sensory impairment, traumatic brain injury, or other physical disabilities.

Participation in Supported Employment by Persons with Severe or Profound Mental Retardation

The mental retardation disability classification provides one potential indication of the extent to which supported employment services reach those individuals with the most severe disabilities. Table 2 presents data for fiscal years 1988, 1991, 1993, and 1995 on relative participation in supported employment by persons with different levels of mental retardation. Persons with mild mental retardation made up over half (51.9 percent) of the individuals with a primary disability of mental retardation in supported employment in FY 1995, an increase from the corresponding 47 percent figure for FY 1993. The percentage of participation by persons at the moderate level of mental retardation has edged slightly downward from FY 1993 to 37.7 percent in FY 1995. Participation by persons at the severe/profound level of mental retardation was at 10.3 percent for FY 1995, which is within the same general range reported between FY 1988 and FY 1993.

Table 2 Levels of Mental Retardation for Participants with Mental Retardation as a Primary Disability

Levels of Mental Retardation	FY 1988	FY 1991	FY 1993	FY 1995
Mild	49.6%	60.9%	47.0%	51.9%
Moderate	37.7%	30.4%	40.1%	37.7%
Severe/Profound	12.7%	8.7%	12.9%	10.3%

Of the 35 states reporting information on level of mental retardation for FY 1995, 6--Oregon, Oklahoma, Missouri, Utah, Connecticut, and Illinois--and the District of Columbia reported providing supported employment services to persons with a primary disability of mental retardation in the severe/profound MR category at a level above the national norm of 10.6 percent. Factors influencing the higher levels of participation in these states included specific state policies and goals, adopted on an interagency basis, emphasizing community integrated services compared to center-based services and also court monitored deinstitutionalization orders.

Supported Employment Model Utilization

Information on the specific supported employment model utilized indicated that the individual placement model was the dominant supported employment option utilized (77.4%) in FY 1995. The remaining supported employment participants (22.6%) for whom a model was specified were in some type of group model. It is important to note that group models were used by just 8.7 percent of persons reported in time-limited services. This result indicated a strong preference by vocational rehabilitation agencies for funding placement of participants in individual competitive level jobs as compared to group oriented opportunities. The FY 1995 data showed a continued predominance in the use of individual placements and represented a substantial longitudinal change from FY 1988, the first year for which comparative data are available. In FY 1988, 52.1 percent of participants utilized the individual placement model, 28.1 percent utilized a group model of either an enclave or a mobile crew, and 19.8 percent utilized other models, such as small business enterprise.

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Hourly and Weekly Earnings and Hours of Employment

Calculations of state specific supported employment mean average hourly earnings, weekly earnings, and hours worked were weighted by the number of participants. Weighted means were used in order to adjust for the numbers of persons within each state who contributed to their respective state mean, thus giving more precise estimates of national averages. Mean hourly wages for supported employment participants have steadily increased during the reporting period. For FY 1995, 40 states reported a weighted mean hourly wage of \$4.70. Comparable wage data was \$3.38 for FY 1988, \$3.87 for FY 1990, \$4.45 for FY 1991, and \$4.53 for FY 1993. It is important to note that the national minimum hourly wage increased from \$3.35 to \$3.80 on April 1, 1990, to \$4.25 on March 31, 1991. For FY 1995, eight states reported a mean hourly wage below the minimum wage at that time of \$4.25. Also in FY 1995, 12 state VR agencies for the visually impaired reported a mean hourly wage of \$5.33 for persons with a primary visual disability. Table 3 identifies the 10 states/systems that reported the highest mean hourly wage among the states reporting wage data for FY 1995. It is interesting to note that Utah and the District of Columbia were the only states/systems identified as serving a percentage of persons with severe/profound mental retardation above the national norm that also appear in Table 3 for higher hourly wages. Supported employment participants in Massachusetts earned the highest reported mean hourly wage (\$7.05).

Table 3 States with the Highest Mean Hourly Supported Employment Participants FY 1995

Ranking@	Name of State	Mean Hourly Wage
1.	Massachusetts	\$7.05
2.	Hawaii	\$6.20
3.	District of Columbia	\$6.00
4.	Washington	\$5.58
5.	Vermont	\$5.43
6.	Utah	\$5.37
7.	Maine	\$5.35
8.	Delaware	\$5.18
9.	New York	\$5.10
10.	North Carolina	\$5.00

Forty-two states reported FY 1995 weekly wage data for supported employment participants. The weighted mean weekly wage was \$114.43. In comparison, the corresponding figures were \$107.00 for FY 1993 and \$102.34 for FY 1990. Massachusetts reported the highest mean weekly wage for FY 1995 (\$157.28). Also for FY 1995, 39 states reported a mean of 23.8 hours of weekly employment, an increase from 22.5 reported for FY 1993. Utah reported the highest mean hours of weekly employment (34). Using the reported total participant level of 139,812 for FY 1995, the national average weekly earnings of \$114.43, and a 48-week work year, persons in supported employment earned an estimated \$768 million in annual wages during FY 1995.

Vocational Rehabilitation Expenditures on Supported Employment

The overall supported employment expenditures for the national vocational rehabilitation program from FY 1986 to FY 1995 is presented in Figure 2. These expenditures grew markedly from a reported \$1.3 million in FY 1986 to \$136.6 million for FY 1995. The annualized rate of increase from FY 1993 to FY 1995 was approximately 31 percent. In FY 1995, \$103.3 million were expended on supported employment from Title I federal and state match funds and other state vocational rehabilitation funds. Funds from Title I of the Rehabilitation Act are the general case service dollars available for the purchase of the full array of vocational rehabilitation services. Because of the flexibility allowed in the use of Title I funds, their use for supported employment services is viewed as a key measure of the real growth of supported employment commitments within the VR system.

Funding by Other State Agencies or Programs

Funding of supported employment services by nonvocational rehabilitation agencies grew from approximately \$18 million for FY 1986 to \$366 million for FY 1995. The predominantly time-limited expenditure of \$136 million in FY 1995 funds through the vocational rehabilitation system helped leverage the \$366 million in non-VR funds used in supported employment. Table 4 identifies the predominant non-VR funding sources and the amount reported for each source. Mental retardation/developmental disabilities agencies reported expending over \$313 million for supported employment

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services, almost twice the \$158 million reported by the same funding source for FY 1993.

Table 4 Source of Non-VR Funding for Supported Employment Services: FY 1995

Sources of Funds	Total \$(millions)	% of Total
MR/DD Agency	\$313.3	\$82.6
Mental Health	\$40.4	\$10.6
Other(**)	\$25.5	\$6.8

(**) The Other category includes but is not limited to funding sources as the Home and Community-Based Medicaid Waiver. Department of Education, Job Training Partnership Act and Developmental Disabilities Planning Councils.

Number of Supported Employment Provider Agencies and Converting Resources from Center-Based to Supported Employment

The number of supported employment provider agencies grew steadily for a number of years from an initial count of 324 for FY 1986. A surge in national capacity to provide supported employment services occurred in FY 1988, when the number of provider agencies grew to 1,877. This growth occurred when there were 27 supported employment state systems development grants in place nationally funded through Title III of the Rehabilitation Act. For FY 1995, the number of supported employment provider agencies reported by 48 systems was 3,690, a total consistent with the 3,739 reported for FY 1993. Growth no longer appears to be occurring in the total number of programs/agencies providing supported employment services nationally. However, states such as South Dakota are diversifying and expanding their provider capacity by initiating formalized systems to contract directly with individuals as employment specialists. This arrangement helps bring supported employment to rural, sparsely populated areas where it is frequently difficult for agencies to operate a cost effective service resource.

For FY 1995, states were asked to classify the organizational structure used by supported employment provider agencies, and respondents classified 40.5 percent of the 3,690 provider agencies reported. The percentage of agencies identified as downsizing or terminating other day services to convert resources to provide supported employment services was only 15 percent as compared to the 50.5 percent that had expanded service options to include supported employment without initiating notable reductions in prior levels of alternative day services. A total of 27.7 percent of the agencies provided supported employment services only while 6.8 percent reported other forms of organizational structure. These FY 1995 percentages as compared to FY 1993 differ mainly in a growth from 18.6 percent to 27.7 percent in the relative participation by agencies that provide supported employment services only and a decrease from 58.3 percent to 50.5 percent in those providers that expanded options to include supported employment. Growth is not occurring in the relative percent of provider agencies classified as converting resources to supported employment services. States with the higher relative percentages of converting supported employment provider agencies in FY 1995 included Maine, Michigan, Minnesota, Wisconsin, and Wyoming.

Funding Methods Utilized to Purchase Supported Employment Services

Respondents were asked to identify the type of funding methods used to purchase supported employment services from local programs. Table 5 summarizes the different funding methods surveyed and the response rate for each. A detailed description of the various funding methods presented in Table 5 is contained in Revell, West, and Cheng (1997).

Table 5 Funding Methods Utilized for the Purchase of Supported Employment Services

Type of funding methods used	# Of YES Responses	Additional information
Fixed hourly rates	19	a) Used predominantly for Individual Placement b) 19 state mean average rate: \$25.47
Negotiated hourly rate	26	a) Used predominantly for Individual Placement

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		b) 22 State mean average rate: \$31.63
		c) Some states (Virginia) negotiate rates based on centrally monitored formula. Other states (Michigan) give local offices flexibility to set "fair market" rates.
Daily fees	12	a) Daily fees are used predominantly for group options such as enclaves or mobile crews.
		b) Many states funding multiple options have a fee schedule that mixes daily rates for group options & individual placement hourly rates.
Yearly contracts	29	c) Some history of use with both individual and group options through slot or outcome-based service units.
Performance-based contracts	20	a) Used with the individual placement model. Specifies points of payment to provider based on successful completion of key service steps such as assessment, job placement, stabilization, and successful closure.
		b) Example states include Oklahoma, Tennessee, and Rhode Island.
Other funding methods	17	Example other methods include direct hiring of employment specialists by funding agency as full-time employees, special rates for specialists with sign language, start-up grant funding, & capped negotiated fees.

A variety of methods were used to purchase supported employment services in FY 1995. Many funding agencies used multiple methods to purchase different supported employment models or to acquire specialized services, such as employment specialists with sign language capability. Negotiated hourly rates and yearly contracts were the most frequently used funding methods. The mean negotiated hourly rate was \$31.63, based on 22 different state mean negotiated rates. The mean fixed hourly rate was \$25.47, based on 19 different fixed rates. Responses indicated an increasing use of performance/outcome-based funding methods. States such as Tennessee, Arkansas, and Oklahoma have switched or are in the process of switching to a performance-based system after initial use of contract or hourly fee-based funding systems. One excellent example of conversion to a performance-based funding method can be found in Oklahoma. This state's Milestone Payment System is the outcome of a cooperative effort by the state vocational rehabilitation agency and its supported employment provider network. The Milestone System is an effective purchase of service system based on sound costing principles and incentives to truly target services to persons with the most significant disabilities within a framework of defined service outcomes.

Discussion

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The Rehabilitation Act Amendments of 1992 (P.L. 102-569) establish a set of guiding principles for the provision of employment services for persons with disabilities. These principles focus on the presumed capability of persons with even the most significant disabilities, if they have access to needed services and supports, to pursue meaningful careers by securing gainful employment in integrated settings. Vocational rehabilitation and other employment service funding agencies need effective alternatives to respond to the challenge contained in the 1992 Rehabilitation Act Amendments. The results of the study described above strongly indicate that supported employment services are a primary national resource for assisting persons with disabilities to successfully secure gainful employment in integrated settings.

Key findings from the results of the VCU RRTC FY 1995 supported employment national implementation survey summarized above include:

1. The 16 percent annual growth rate for participation in supported employment from FY 1993 to FY 1995 is approximately double the rate of growth from FY 1991 to FY 1993. Vocational rehabilitation agencies and other funding agencies are turning to supported employment with increasing frequency as a preferred employment service option.
2. The use of supported employment is expanding among persons with long-term mental illness, reflecting both a recognition of the viability of this employment resource across disabilities and also the evolution of extended services funding and/or support options to help supported employees maintain employment.
3. Wage outcomes for persons in supported employment are predominantly above minimum wage, and state mean wages range up to \$7.00 per hour. The 139,812 persons reported to be in supported employment in FY 1995 had estimated earnings of over \$750 million. Although overall supported employment opportunities continue to reflect entry level wage earnings, there are clear indications that progress is being made in a number of states in securing wage opportunities substantially above minimum wage.
4. Approximately 30 percent of the persons closed in supported employment in FY 1994 by VR agencies were earning less than minimum wage at closure as compared to 20.5 percent of the nonsupported employment closures (RSA, 1996). As noted above in this study, eight states reported a mean state wage in supported employment below the \$4.25 per hour national minimum wage in 1995. On February 11, 1997, the Department of Education announced a regulatory change that redefines competitive employment to require wage payment at or above minimum wage. Supported employment continues to be defined in the federal regulations as competitive employment, and persons in supported employment must be earning at least minimum wage at the time of transition from time-limited to extended services (Federal Register, February 11, 1997). This minimum wage requirement for persons in supported employment indicates a need for improvements in job selection and the provision of training and supports geared specifically to skill acquisition and productivity.
5. Reported funding for supported employment in FY 1995 totals over \$500 million. For state VR agencies, expenditures for supported employment from federal Title I funds and state VR funds are over 3 times greater than expenditures of federal Title VI Part C supported employment formula grant funds. VR expenditure levels and patterns indicate that persons with disabilities are choosing supported employment with increasing frequency. Rapidly expanding expenditure levels through MR/DD and MH systems demonstrate the interagency commitment to supported employment.
6. State funding agencies are securing supported employment services from provider agencies through a variety of funding methods. Increased attention is being given to focusing on specified positive employment outcomes within a funding design that makes a good faith effort to cover true costs while emphasizing service access for persons with the most significant disabilities.

In addition, these survey results reflect the continuing demands facing supported employment systems to both expand access for persons who truly are the most significantly challenged in securing competitive employment and to convert resources away from center-based use to community integrated competitive employment. There are several predominant state examples of progress and achievement in both these areas, such as Oregon, Oklahoma, Missouri, and Utah, on participation of persons with severe mental retardation and Maine, Michigan, Minnesota, and Wisconsin for conversion to community integrated services. There is concrete evidence that supported employment can be implemented to achieve valued employment outcomes for an array of persons with disabilities through equitable and effective funding designs.

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Utilization of Supported Employment Services as Compared to Sheltered Employment

The indications of accelerated use of supported employment found in the results of this study are corroborated by other data. Within the state VR agencies there is a noticeable multiyear pattern of increased use of supported employment and decreased use of sheltered employment. For example, sheltered employment closures (Status 26) by state VR agencies decreased by 27.5 percent between FY 1990 and FY 1995. During the same period, supported employment closures increased by 70.4 percent. Supported employment closures by state vocational rehabilitation agencies in FY 1995 exceeded sheltered employment closures by more than 9,600 individuals (RSA, 1991; RSA, 1997). The basis for this shift towards supported employment and away from sheltered employment can be found in cost and outcome data. The mean cost of VR services per sheltered employment closure in FY 1995 was \$3,361 as compared to \$4,691 for supported employment. However, the mean weekly earnings of persons in supported employment (\$114) were twice those achieved in sheltered employment (\$58) (RSA, 1997). Within the VR system, the return on public expenditures for supported employment services for persons with disabilities is substantially greater than those achieved through sheltered employment. Efforts to implement the Rehabilitation Act Amendments of 1992 are characterized by consumers of VR services increasing their participation in supported employment services while decreasing use of sheltered employment services.

Growth Patterns in Supported Employment: Strategies to Enhance Program Expansion

The heart and soul of supported employment lies in meaningful employment outcomes. Competitive employment earnings (Thompson, Powers, & Houchard, 1992), enhanced fringe benefits (West, Kregel, & Banks, 1990), full inclusion into the business work force (Parent, Kregel, Metzler, & Twardzik, 1992), and improved employment retention (Kregel, Parent, & West, 1994) are among the major outcomes for which quality supported employment programs and consumers with disabilities strive. A major promise of supported employment is to help individuals with severe disabilities increase upward mobility into long-term careers with access to high quality jobs.

There are only a limited number of programs nationally that have accomplished these goals well. For example, King County, Washington, near Seattle, recently showed how 55 people with severe developmental disabilities were able to average earned income of over \$13,000 per year (Mank et al., in press). In this program, staff worked effectively with local government officials, as well as with consumers and their families, to design the supports necessary. As a result, participants earned wages that far exceeded most people in supported employment, where the national wage level is \$4.75 per hour.

Another demonstration of excellence, this one focusing more on integration, studied a series of community programs and businesses to assess the level of inclusion experienced by persons with disabilities (Mank, Cioffi, & Yovanoff, 1977). Integration into competitive employment is one of the major elements of the definition of supported employment, yet it has been achieved with only varying levels of success. Mank and his colleagues studied a number of businesses to determine the degree of integration for persons with disabilities in terms of hiring, training, supervision, and other factors. The resulting database of over 500 supported workers in many companies allowed the researchers to identify different types of business environments, some of which led to greatly enhanced inclusion as well as increased wages and benefits. From this study of different businesses, a concept of "typicality" emerged, that is, a finding that the more an individual with a disability was viewed as a typical worker (not a worker with a disability), the better the work outcomes. This typicality was available in some businesses but absent in others. These efforts to show greatly increased wages and improved inclusion outcomes are in the minority, yet provide reason for encouragement. More study is required and we need to use these results to help other programs. In order to extend the findings of these programs we must ask: "What is occurring in these programs that has facilitated such positive outcomes? Why are they working and what can we learn by doing indepth studies of these programs?" "Why have many other supported employment programs fallen short of these outcomes?" and "How can we best provide technical assistance to other programs and states about successful models like this one?"

In this era of fiscal austerity and increased scrutiny of publicly funded programs in education and rehabilitation, supported employment has emerged as a program able to document successful employment outcomes. There are few programs in the employment area that can match supported employment's dramatic sustained growth in the number of participants with significant disabilities assisted into competitive employment positions. The supported employment growth rates over the last decade in wages and participation by those with different disabilities are testimony to the wisdom of this federal investment. There are signs that the number of persons participating in supported employment are beginning to

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reaccelerate again from the initial growth spurt in the mid-1980's. The question no longer is, "Does supported employment work?" but instead, "What will it take to expand the number and range of individuals with significant disabilities participating in this program?"

There has been much research published in recent years about the efficacy of supported employment. Yet despite its successes, this program continues to be very limited in its overall impact on the unemployment rate of people with disabilities. There are, however, a number of possible strategies that would substantially leverage the use of supported employment to ensure better competitive level work outcomes for those individuals still waiting for employment assistance.

Community Mobilization

Mobilizing communities to understand better the value of an effective supported employment program is a necessary and major systems change strategy. We now know more than ever how to assist people with quite significant disabilities to enter the workforce and stay employed successfully through the use of job coaches and coworker supports. Yet, regardless of how successful we may be on individual cases, the fact remains that most local community programs (e.g., public schools, day programs, sheltered workshops) are not emphasizing supported employment or related activities that culminate directly in competitive employment. The overwhelming emphasis of most of these local systems continues to be in the area of center-based readiness training, evaluation, and other process activities that do not usually maximize the competitive employment potential of the persons with significant disabilities.

Dissemination of Information

Widespread dissemination of information about the effectiveness of supported employment through newspapers, television, and radio, as well as community presentations with retail merchants, Kiwanis clubs, church groups, and school boards, is an excellent strategy to communicate the vocational potential of individuals with significant disabilities. A strategic approach would be to work with parents who are fully committed to improving services for their adult children with mental retardation or other developmental disabilities by targeting those families for competitive employment opportunities. Often, families who are initially reluctant or uncertain about the long-term outcome of competitive employment can be the most supportive and influential if they are shown how successful such a program can be. In the end, the most successful way to change local systems is to show how supported employment can work with those individuals that others have considered totally unemployable or "too severely handicapped." As more and more of these success stories occur, local and state programs must then begin to look harder at changing their procedures and policies, most of which do not favor supported employment but instead promote maintenance of status quo center-based programming.

Expand Participation

The data presented in Tables 1 and 2 show participation that continues to emphasize only those labeled with mental retardation and mental illness. A continued focus remains on primarily serving those with mild and moderate levels of disabilities as opposed to the most severe disabilities. When the participation level is segmented like this, the overall program then suffers. The strength of supported employment programs rests on the ability to include all of those individuals with the most severe disabilities. The concept of "zero reject" has been applied in special education (Brown & York, 1974) to include all children with severe disabilities into public school. The same concept needs to be applied as supported employment programs are implemented. The dream of supported employment rests upon serving those with the most severe disabilities and not to simply create large numbers of placements without consumer satisfaction, a career path, and long-term retention. To settle for less is to compromise the validity of a supported employment approach.

Clearly, supported employment participation has only been expanded marginally across all of the disability categories. While it is encouraging to see some progress, many more of the funds now directed to segregated day program activities must be redirected to competitive employment efforts. And those individuals who do not currently have access to any type of long-term funds (e.g., people with brain injuries, physical disabilities, and other groups) must be included in the long-range funding plans of states.

Conclusion

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This paper chronicles the successful impact of supported employment over the past decade. Supported employment is a program that works effectively when in the hands of a committed organization with well-trained employment specialists who work closely with businesses and families. Its strength rests in targeting those persons with severe disabilities who face the greatest employment challenges.

Tremendous progress has been made in the relatively short time of a decade. If one would apply the recent 16 percent annual growth rate in supported employment participation for another 10 years, we would see that over 600,000 persons would be in competitive employment. We need to marshal the collective will to change systems at the local level by high profile demonstration, publicity, and, above all, successful supported employment practices that are defined by long-term consumer satisfaction with the job and family and employer acceptance.

Competitive employment is a positive and often therapeutic activity that directly influences self-esteem, personal value, and how persons with a significant disability see themselves. Going to a real job, getting paid, having coworkers, and getting into a normal daily work routine are critical aspects of life. Too many people with significant disabilities are needlessly left out of this experience. Supported employment is an approach with the demonstrated ability to definitively reverse this unnecessary lack of employment. Community rehabilitation programs and individuals with disabilities face a challenge as the century ends.., will they close the gap and join the business labor force?

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