Horticulture Hiring People with Disabilities

Steven H. Davis¹ and Mary S. De Riso²

Summary. Since 1982, the American Horticultural Therapy Assn. (AHTA) has devoted a significant portion of its organizational energies to promoting the employment of people with disabilities in the horticultural industry. Since then, the AHTA has administered five federal grants, resulting in the employment of 2269 people with disabilities. This paper summarizes the data generated through these activities and presents program findings.

The AHTA is a not-for-profit 501(c)(3) membership organization concerned with using plants and plant-related activities to improve the psychological, social, educational, vocational, and physical functioning of people with disabilities and others with special needs. Incorporated in 1973 as a national professional organization (originally as the National Council for Therapy and Rehabilitation through Horticulture), its membership is composed of horticultural therapy practitioners, organizations conducting horticultural therapy programs, volunteers, commercial concerns, and horticulture trade associations and groups. The purpose of the association is to advance the practice of horticulture as therapy for improving human well-being.

In Oct. 1982, AHTA became involved in a national, industry-based project intended to promote opportunities for competitive employment of individuals with disabilities in the horticultural industry. This initial grant, entitled Horticulture Hiring the Disabled (HHD), was a Projects with Industry (PWI) award from the Rehabilitation Services Administration of the U.S. Dept. of Education.

The underlying rationale of the HHD program (and those programs that followed it) is based on the following premises:

- The horticultural industry includes significant and varied job opportunities for workers with disabilities (De Rise, 1989; Relf, 1981; Relf and DeHart-Bennett, 1990; Richman, 1986)
- Many rehabilitation facilities involved in vocational preparation provide training in horticulture (Dept. of Health and Human Services and the Dept. of Education, 1985), and therefore offer a source of qualified job candidates with disabilities
- There is an established, voluntary network of more than 300 human service agencies cooperating in a National Referral Network, through which employers wishing to hire qualified job candidates with disabilities can be linked with appropriate agencies (Davis, 1989)
- The placement of workers with disabilities can be enhanced with the guidance and assistance of the horticultural industry, through the PWI model (Perlman, 1986).

Horticultural Industry Growth

The horticultural industry offers many skilled and unskilled job opportunities for people with disabilities. As well, this industry has been the fastest-growing segment of agribusiness in the past several decades, especially in the services area. United States Census Bureau figures indicate that some aspects of the industry are realizing an annual growth increase close to 10%, and that residential lawn maintenance and landscaping services are experiencing annual increases as high as 12%. Over the past 10 years this trend has been led by the lawn care industry, which has grown from a \$1 million business in 1976 to a \$2.75 billion business in 1986. The retail flower business has increased from \$2.4 billion in 1977 to \$8.2 billion in 1987 (Cook, 1990).

***“T**he horticultural industry offers many skilled and unskilled job opportunities for people with disabilities.”*

American Horticultural Therapy Assn. 362A Christopher Ave., Gaithersburg, MD 20879.

¹Executive Director.

²Deputy Director.

“A majority of people with disabilities who are not working indicate that they want to work

From 1970 to 1980, overall industry employment showed a 40% increase, and from 1980 to 1990 there was a 20% increase. Key segments of the industry have consistently encountered labor shortages. The landscaping industry considers the lack of qualified personnel and employee turnover the greatest problems facing landscape professionals (De Moss, 1983). Professional plant growers overwhelmingly consider the recruitment of reliable labor, employee turnover, and the shortage of labor as their major business problems. In 1989, 36% of all those responding to an industry survey noted these labor problems, an increase from 29% in 1987 and 1988 (Professional Plant Growers News, 1990). The landscape industry reports that one in four hourly employees of a landscape maintenance firm leaves each year (Lawn Care Industry, 1985). Job orders brought to AHTA through its employment programs underscore this high level of employee turnover within the industry, especially in entry level and seasonal positions.

Workers with Disabilities

The unemployment and underemployment of people with disabilities is a major problem in our society. Recent U.S. Census Bureau data report that 13.4 million Americans with a disability are working. This represents 8.6% of working age adults (16 to 64 years old). Although this represents a slight drop from 9.0% in 1981, the proportion of people with severe disabilities who are working has remained virtually constant at 4.8% (7.5 million people in 1987). The labor participation rate for 13.4 million workers with a disability is 31.6% (number of working people with disabilities divided by the total number of people with disabilities). This contrasts dramatically with the 142.2 million Americans of working age who do not have a disability, where the labor force participation rate is 78.9%. (Current Population Survey, Bureau of the Census, March Income Supplement, 1989.)

Many people with disabilities are underemployed or work less than full time, year-round. Only 18.2% (2.4 million) of the 13.4 million people who work and who have a disability are employed full time. This compares with 60.6% of people of working age without a work disability who are employed full time.

Despite low levels of labor market participation and high unemployment levels, a majority of people with disabilities who are not working indicate that they want to work. The Louis Harris Poll of 1986, which surveyed people with disabilities, indicated that two-thirds said they would like to find work. The

report notes, “This finding—that most non-working people who have a disability want to work—is one of the most important and challenging findings in the survey. The challenge is how society can effect policies and programs that will bring these people into the working mainstream.” When asked about barriers to employment, respondents mentioned employer attitudes, lack of appropriate jobs, insufficient education and training, lack of accessible transportation, and lack of necessary equipment or devices (Int. Ctr. for Disabled, 1986).

In response to these barriers, AHTA’s employment programs have been designed to include components through which employers and human service placement personnel can be helped to realize (through articles in trade and professional organization publications, presentations in industry and human service training programs, and regional and national AHTA educational programming) the value of hiring people with disabilities, the wide range of appropriate jobs within the industry, and the availability of federal assistance and tax incentives to employers who hire people with disabilities.

A second Harris Poll, conducted in 1987, provided a more in-depth analysis of employment by focusing on employer perceptions of employees with disabilities. Through this poll many employers indicated that people with disabilities were a major untapped resource. However, some employers stated they were already doing enough to employ people with disabilities, and that hiring people who are minorities or elderly has a higher priority. Employers also indicated they did not know how to locate qualified **job** candidates who are disabled. The study indicated government, business, and voluntary organizations could increase the employment of people with disabilities by increasing job training programs, making available widespread information on qualified applicants, creating programs to make employers aware of agencies that have applicants with disabilities, and encouraging people with disabilities to apply for job openings (Int. Ctr. for Disabled, 1987).

Program Description

The AHTA employment programs target a client population generally defined as “any person with single or multiple disabilities,” as defined under the U.S. Rehabilitation Act of 1973 (as amended). These programs ensure equal service and employment opportunities to all people, regardless of the severity of disability. In addition to serving people with a wide range of disabling conditions, several of these AHTA programs have targeted specific populations, including

individuals who have developmental disabilities, youth with disabilities who are in transition from school to work, Social Security Disability Insurance beneficiaries, and, most recently, people with disabilities who live in rural locations.

The AHTA employment programs focus on providing education and support specifically to the horticultural industry. This concept of developing a program around a single industry is a thoroughly tested approach, through the U.S. Dept. of Education's PWI program. PWI has been successfully organized and supported under the auspices of the National Restaurant Assn., the Electronic Industries Foundation, IBM Corp., Control Data Corp., the Menninger Foundation, the AFL/CIO, and other trade, business, or employer groups, who, like the horticultural industry, recognize the need for a stable and dependable work force. The key element that makes PWI work, as compared with other less-successful government job programs, is the prominent role of business in running the program. The PWI philosophy assumes that employing qualified workers with disabilities makes good business and financial sense, and that employers (not the government) are in the best position to know their own recruitment needs and labor requirements. This creative outreach approach to industry provides direct access to large numbers of employers.

A key element of the PWI model is the establishment of an advisory group representative of the target industry. In 1983, the AHTA developed the National Horticulture Industry Council (NHIC), composed of 23 leaders in the horticultural industry, for the purpose of providing this guidance and policy assistance (AAN, 1988). Members of the NHIC are selected to represent a broad cross section of the industry, including trade associations and professional groups, such as the American Assn. of Nurserymen, the Associated Landscape Contractors of America, Florists' Transworld Delivery Assn., the Interior Plantscape Assn., the Professional Grounds Management Society, the Society of American Florists, and the U.S. Dept. of Agriculture Extension Service. The NHIC meets quarterly with the AHTA staff to review project activities and develop approaches to improving program effectiveness.

One of the initial charges to the NHIC was to assist in the selection of specific geographic areas with major concentrations of horticultural employers, where the HHD program could be productive. Six states were initially selected-Alabama, California, Florida, Maryland, Ohio, and Pennsylvania-and an area office was established in each.

The participation of human service agencies in each location was solicited through

a Request for Proposals approach. One agency was subsequently selected in each location to serve as a subcontractor for placing people with disabilities into employment in the horticultural industry in their specific locations. In recent years, these six area office locations have been reduced to three-Ohio, Florida, and northern California-which represented the areas with the most successful placements. Each area office developed its own Regional Horticulture Industry Council (RHIC), patterned after the NHIC, for the purpose of stimulating the involvement of the local horticultural community.

Other regions of the country have been served through a National Referral Network. This network was developed to provide candidate-search and referral services to horticultural industry employers through a telecommunications marketing strategy. The AHTA Network currently links employers seeking to hire people with disabilities with 300 human service agencies in 48 states and the District of Columbia.

Through this network, AHTA responds to horticultural employers' written, telephone, and in-person requests for qualified job candidates. Horticultural employers learn about the network through information and direct-mail flyers that are distributed by the NHIC organizations to their memberships. They then contact AHTA through a toll-free telephone number to request additional information or place a job order.

Once a job order is received, it is transmitted by phone and then by mail to a network agency in the same geographic region as the employer. The agency then initiates direct contact with the employer, and when a qualified candidate for the position is identified, the process proceeds to an interview and potentially to a hiring.

Results

Since Oct. 1982, AHTA has successfully completed five employment projects, resulting in the placement of 2269 people with disabilities. A placement is considered to be completion of 8 weeks of employment. Project results are summarized below:

- Horticulture Hiring the Disabled (sponsored by the U.S. Dept. of Education, Rehabilitation Services Administration), established as a job development program for the horticultural industry and including use of a National Referral Network, was conducted from 1 Oct. 1982-30 Sept. 1991. Total placements: 521.
- Project HIRE (sponsored by the

“The key element that makes PWI work. . . is the prominent role of business”

“One of the significant problems . . . has been the lack of awareness and understanding of the industry by the rehabilitation field.”

U.S. Dept. of Education, Rehabilitation Services Administration), established to employ workers with disabilities in horticulture through a marketing/planning approach with three area offices, was conducted from 1 Oct. 1983-30 Sept. 1991. Total placements: 933.

- Project Plantwork (sponsored by the U.S. Dept. of Health and Human Services, Administration on Developmental Disabilities), established to demonstrate the use of employer wage subsidies and personnel assistance in facilitating employment, was conducted from 10 Oct. 1984-30 June 1986. Total placements: 70.
- Project HHD-Transitions (sponsored by the U.S. Dept. of Health and Human Services, Administration on Developmental Disabilities, and the U.S. Dept. of Labor, Employment and Training Administration), established to demonstrate the use of a PWI model to assist young adults with developmental disabilities to prepare for employment, was conducted from 30 Sept. 1985-31 Jan. 1989. Total students serviced: 240. Total students placed: 66.
- Project Access (sponsored by the U.S. Dept. of Health and Human Services, Social Security Administration), established to employ Social Security Disability Insurance beneficiaries within the horticultural industry by using an industry-based matching and screening process, was conducted from 1 Oct. 1990-31 Dec. 1991. Project not terminated-40 placements anticipated.

Projects Plantwork, HHD, and Access were not continued beyond their termination dates because the AHTA staff evaluated these projects as not adequately successful to warrant continuation. Project Plantwork required too much staff time and travel; HHD-Transitions demonstrated that many schools involved in the program could not continue support during the important summer months, when school was not in session; Project Access was designed to work solely with SSDI recipients, which proved too narrow a client pool. Although the data included in the following tables represent only projects HHD and HIRE, the information is consistent with the data collected in the Plantwork,

HHD-Transitions, and Access projects.

Data collected from these projects give direction for future employment projects. Table 1 illustrates the percentage of placements in the HHD and HIRE projects (for which appropriate data exist) hired into horticultural and nonhorticultural positions. One of the significant problems faced in placing individuals with disabilities in the horticultural industry has been the lack of awareness and understanding of the industry by the rehabilitation field. Much more emphasis needs to be placed on the education of placement personnel regarding the wide range of positions available within the horticultural industry and the appropriateness of this industry for the employment of people with disabilities.

From Table 2, it is evident that the primary disability categories served by both HHD and HIRE were mental retardation and learning disabilities. This is consistent with the experiences of the rehabilitation community, as individuals with these disabilities are served more frequently by horticultural training programs (Perlman, 1986; Relf and DeHart-Bennett, 1990; Richman, 1986).

Further, the majority of job orders received through these projects, as previously reported, were for laborer positions. These positions often included physical responsibilities that narrowed the range of disability categories employers were willing to accept; hence, the low placement percentages in Table 2 for such categories as visual and orthopedic impairments. Similarly, potentially hazardous equipment (mowers, weed eaters, tractors, and chain saws) was often present in the workplace, adding the categories of hearing impairment and substance/alcohol abuse to those that employers did not wish to include as candidate employees.

HIRE served a significantly larger percentage of individuals with severe disabilities than HHD (Table 3). HIRE area office reports point to the close and trusting relationship developed between area office staff and the local horticultural industry as an important reason for this occurrence. Further, the higher average weekly earnings following placement for people served through HIRE (\$47.31 higher than for HHD placements) are also a potential product of the ongoing relationship developed between employers and placement personnel through the area office model.

From data collected on the National Referral Network (Table 4), it is clear that jobs in the landscape and nursery industries are predominately perceived as appropriate for individuals with disabilities. This is consistent with a study documenting the employment of people who have disabilities by different segments of the horticultural industry (Relf and DeHart-Bennett, 1990).

Table 1. *Percentage of horticultural and nonhorticultural placements or individuals with disabilities through projects HHD and HIRE.*

Project	Total placements responding	Horticultural placements		Nonhorticultural placements	
		NO.	%	NO.	%
HIRE	898	563	63	335	37
HHD	341	213	62	128	38

Table 2. *Data represent 1326 participants placed by projects HIRE and HHD showing the percentage of individuals with primary disabilities.*

Primary disability of participant	HHD (%)	HIRE (%)
Mental retardation	73.8	17.2
Learning disability	11.6	20.9
Mental illness	5.5	11.4
Hearing impairment	2.6	8.5
Orthopedic impairment	2.3	14.8
Other	2.3	14.1
Visual impairment	0.9	3.4
Not reported	0.7	1.2
Substance abuse	0.3	8.5

Table 3. *Data represent 1326 participants placed by projects HIRE and HHD showing the percentage of individuals with severe disabilities and average weekly earning before and after placement.*

Severity of disability	HHD (%)	HIRE (%)
Not severe	63.4	46.5
Severe	36.3	51.8
Not reported	0.3	1.7
Avg weekly earnings		
Before placement	\$17.43	\$21.42
After placement	\$131.72	\$179.03

Table 4. *National Referral Network listing of jobs indicates the category of employment that members of the horticultural industry perceive as most suitable for potential employees with disabilities.*

Employer categories	Employer contacts (no.)	Total jobs listed (no.)
Landscape maintenance (residential)	39	226
Interior landscape	39	78
Nursery	37	126
Exterior landscape installation	24	122
Arborist	21	50
Florist	20	70
Garden center	16	90
Lawn maintenance	9	18
Tree farm	6	95
Turf farm	4	17
Professional trade assn.	4	4
Landscape maintenance (parks)	3	4
Landscape maintenance (commercial)	2	3
Resort	1	1
Public garden	1	1
Total	226	905

"Opportunities for the employment of people with disabilities in the horticultural industry are many and diverse."

Conclusion

AHTA's 9 years of involvement with employment initiatives within the horticultural industry have clearly demonstrated several key points:

- That the horticultural industry offers many semiskilled and skilled job opportunities for people with disabilities. The industry is vast, growing, and contains many individual components (retail nurseries and florists, interior and exterior landscapers and maintenance operations, and growers as diverse as sod producers, orchards, and Christmas tree farms), and together those components include jobs as wide-ranging as laborer, equipment repair, delivery, grower, propagator, sales, telephone sales, arranger, foreman, secretary, accountant, supervisor, and owner. The opportunities for the employment of people with disabilities in the horticultural industry are many and diverse.
- That the horticultural employer is largely receptive to the concept of hiring people with disabilities. This industry concerns itself largely with growing and caring for living things-plants-which quite possibly provides a caregiver's influence to some employers when they are considering hiring people with disabilities. Regardless, the vast majority of the employer calls taken by the authors through the National Referral Network were from employers who openly expressed their desire to help people with disabilities.
- That the PWI approach of focusing employment initiatives for people with disabilities within an individual industry is appropriate for the horticultural industry. This industry, although vast and diverse, is cohesive. Its leaders collaborate directly through organizations such as the Council of Horticultural Association Executives, promote joint educational and training programs, develop joint ventures, and promote the hiring of people with disabilities through their very active participation in AHTA's

National Horticulture Industry Advisory Council.

- That the virtually untapped labor pool of people with disabilities is an important answer to horticultural employers' on-going problem of finding qualified employees who wish to work.

AHTA is expanding its efforts to educate the horticultural employer about the value of hiring people with disabilities and continues its efforts to educate service placement personnel about the value of pursuing client training in horticulture and placement in the horticultural industry. These pursuits are integral components of AHTA's two new projects.

Horticulture Hiring People with Disabilities (sponsored by the U.S. Dept. of Education, Rehabilitation Services Administration) was established to provide training, placement, and other supportive assistance to people with disabilities to prepare them for competitive employment within the horticultural industry through a national industry based PWI approach (combines and replaces two previous projects, Horticulture Hiring the Disabled and HIRE): to be conducted from 1 Oct. 1991-30 Sept. 1996.

Rural Horticulture Employment Initiative (sponsored by the U.S. Dept. of Education, Rehabilitation Services Administration) was established to provide training, placement, and other supportive assistance to people with disabilities in rural areas to prepare them for competitive employment within the horticultural industry through a national industry-based PWI approach: to be conducted from 1 Oct. 1991-30 Sept. 1996.

These two new projects have benefited from the experiences and findings of the AHTA employment projects that preceded them. Three key improvements are being incorporated into these new initiatives: 1) the education of the employer and placement personnel now carries significant emphasis; 2) client training in horticulture will be promoted to placement agencies and be supported by AHTA through the provision of training materials (currently in preparation); and 3) AHTA follow-up activities and continued service (afterplacement) to employers, placement personnel, and people placed will be more strongly emphasized.

AHTA will continue its efforts to improve its vocational programs-to the benefit of the horticultural employer, the person with disabilities who seeks employment in the horticultural industry, and the agencies involved in the training and placement of clients. These past 9 years of activity have proven the concept of "horticulture hiring people with disabilities," and have shown this approach to

be an effective and productive way in which the needs of horticultural employers and people with disabilities can be met.

Literature Cited

AAN. 1988. Recruiting disabled horticulture employees. Allied Landscape Ind., Amer. Assn. Nurserymen 15(1):6-8.

Cook, A. 1990. Digging for dollars. Amer. Demographics. 12:90-91.

Davis, S. 1989. Horticulture hiring people with disabilities. Professional Lawn Care Assn. Amer. Presentation no. 1989, Las Vegas, Nev.

DeMoss, V. 1983. Survey: Western Landscaping News. 23(11):25-28.

Department of Health and Human Services/Department of Education. National directory training and employment programs for Americans with disabilities. Washington, D.C.

De Rise, M. 1989. Hiring people with disabilities. American Nurseryman, Dec. 1:75-79.

International Center for the Disabled. 1986. The ICD survey of disabled Americans: Bringing dis-

abled Americans into the mainstream. Louis Harris & Assocs., Washington D.C.

International Center for the Disabled. 1987. The ICD survey II: Employing disabled Americans. Louis Harris & Assocs., Washington D.C.

Kraus, L. 1989. Disability and work. Worklife, Fall 1989.

Perlman, L. (ed.) 1986. Project plantwork: a horticulture employment initiative for workers with developmental disabilities. Ntl. Council for Therapy and Rehabilitation through Horticulture, Gaithersburg, Md.

Relf, D. 1981. Dynamics of horticultural therapy. Rehabilitation Literature 42(5-6):147-150.

Relf D. and M. DeHart-Bennett. 1990. Characteristics of horticultural businesses hiring persons with mental retardation. J. Therapeutic Hort. V:1015.

Richman, C. 1986. Transition to work and independence for youth with disabilities. 10th Mary E. Switzer Memorial Seminar. Rpt., May 1986, Natl. Rehabilitation Assn., Alexandria, Va.

Table 1. *Percentage of horticultural and nonhorticultural placements or individuals with disabilities through projects HHD and HIRE.*

Project	Total placements responding	Horticultural placements		Nonhorticultural placements	
		NO.	%	NO.	%
HIRE	898	563	63	335	37
HHD	341	213	62	128	38

Table 2. *Data represent 1326 participants placed by projects HIRE and HHD showing the percentage of individuals with primary disabilities.*

Primary disability of participant	HHD (%)	HIRE (%)
Mental retardation	73.8	17.2
Learning disability	11.6	20.9
Mental illness	5.5	11.4
Hearing impairment	2.6	8.5
Orthopedic impairment	2.3	14.8
Other	2.3	14.1
Visual impairment	0.9	3.4
Not reported	0.7	1.2
Substance abuse	0.3	8.5

Table 3. *Data represent 1326 participants placed by projects HIRE and HHD showing the percentage of individuals with severe disabilities and average weekly earning before and after placement.*

Severity of disability	HHD (%)	HIRE (%)
Not severe	63.4	46.5
Severe	36.3	51.8
Not reported	0.3	1.7
Avg weekly earnings		
Before placement	\$17.43	\$21.42
After placement	\$131.72	\$179.03

Table 4. *National Referral Network listing of jobs indicates the category of employment that members of the horticultural industry perceive as most suitable for potential employees with disabilities.*

Employer categories	Employer contacts (no.)	Total jobs listed (no.)
Landscape maintenance (residential)	39	226
Interior landscape	39	78
Nursery	37	126
Exterior landscape installation	24	122
Arborist	21	50
Florist	20	70
Garden center	16	90
Lawn maintenance	9	18
Tree farm	6	95
Turf farm	4	17
Professional trade assn.	4	4
Landscape maintenance (parks)	3	4
Landscape maintenance (commercial)	2	3
Resort	1	1
Public garden	1	1
Total	226	905