IDENTIFICATION AND VALIDATION OF COMPETENCIES NEEDED

BY PRACTITIONERS WORKING IN THE FIELD OF

REHABILITATION EMPLOYMENT SERVICES

Except where reference is made to the work of others, the work described in this dissertation is my own or was done in collaboration with my advisory committee. This dissertation does not included proprietary or classified information.

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IDENTIFICATION AND VALIDATION OF COMPETENCIES NEEDED BY PRACTITIONERS WORKING IN THE FIELD OF REHABILITATION EMPLOYMENT SERVICES

Suzanne Tew-Washburn

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REHABILITATION EMPLOYMENT SERVICES

Suzanne Tew-Washburn

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VITA

Suzanne Tew-Washburn, daughter of James Rhodes Tew and Dorothy Baker Tew (deceased), was born January 23, 1956 in Columbus, Georgia. She and her husband, Wayde, live in LaGrange, Georgia. Her daughter, Jessica, attends Auburn University where she is completing a graduate degree in Hispanic Studies. Dr. Tew-Washburn earned a Bachelor of Arts degree in Sociology in 1980 from Columbus College (Georgia), a Master of Science degree in Personnel Management from Troy State University in 1982, certification as a Senior Professional in Human Resources (SPHR) in 1993, and the Certified Rehabilitation Counselor (CRC) credential in 1994. She has served as a non-tenure track faculty member in the Department of Rehabilitation and Special Education at Auburn University for thirteen years. Dr. Tew-Washburn directed the Community Rehabilitation Personnel Training Project (1993-1999), the Academic Certificate Program in Community Employment Services (1999-2004), and is currently Co-Director of the Rehabilitation Counseling Distance Education Program. Prior to her employment at the university, she worked at a community rehabilitation program in Georgia as the Director of Rehabilitation Services (1983-1993). A recipient of the Auburn University Graduate Dean's Award of Excellence in 2000, Dr. Tew-Washburn was recently presented the 2005 Commissioner's Award by the Rehabilitation Services Administration in Washington, DC.

DISSERTATION ABSTRACT

IDENTIFICATION AND VALIDATION OF COMPETENCIES NEEDED BY PRACTITIONERS WORKING IN THE FIELD OF REHABILITATION EMPLOYMENT SERVICES

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Doctor of Philosophy, May 11, 2006
(M.S., Troy State University, 1982)
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The purpose of this research was to identify and validate the competencies needed by individuals working in the field of rehabilitation employment services to perform their jobs effectively. Through an on-line survey, specialists (practitioners and educators) determined which aspects of performance were essential (or at least important) to the vocation of rehabilitation employment services.

The results indicated five competency domains (History and Legislation; Employer Development and the Work Environment; Job Matching and Placement; Employment Supports; and Other) were perceived as important or very important in the

field of rehabilitation employment services. The two highest rated competency domains (Job Matching and Placement, and Employer Development and the Work Environment) suggest the value of a two-client model in which direct services are provided to both rehabilitation consumers and employers (Bissonnette, 1994; Fabian, Leucking, & Tilson, 1995; Marrone, Gandolpho, Gold, & Hoff, 1998).

Employment position (practitioner or educator) was found to have no significant effect on the perceptions of competency in rehabilitation employment services. This finding implies the integration of theory with actual best practices in the field; however, additional research is warranted to determine if the essential competencies validated by this study are ordinarily included in rehabilitation curriculum.

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Many thanks are due Dr. Clarence Brown for his guidance and patience throughout my program of study. I especially appreciate Dr. Brown for remaining as my committee chair. Despite his retirement and a busy personal schedule, Dr. Brown continues to be the kind of educator who exemplifies a "student first" philosophy. I am grateful to Dr. Vivian Larkin, not only for her counsel as a committee member, but also for giving endless hours of encouragement when I needed it most (including late nights and weekends). Recognition is also given Dr. Randy McDaniel for his contributions as a committee member. Ms. Dawn Browning is appreciated for the many hours of technical assistance she provided, and even more importantly for her gracious gifts of unyielding support and warm friendship. Finally, I am thankful for the love and understanding of my husband, daughter, and father.

This dissertation is dedicated to the memory of my sister, Rebecca Tew Campbell (1951-1997). Born to be the school teacher she actually became as an adult, Becky was determined I would learn to read (whether I wanted to or not). As her first student in our backyard schoolhouse when she was eight or nine and I was four, Becky shared with me her love of books and taught me to value the special kind of freedom that comes from reading and learning. These early life lessons from my first teacher are always with me.

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TABLE OF CONTENTS

LIST OF TABLES

I. INTRODUCTION

Purpose of the Study

Federal initiatives such as the 1998 Workforce Investment Act, the Ticket to Work and Work Incentives Act of 1999, and the Americans with Disabilities Act of 1990 seem to demonstrate public support for people with disabilities (Blanck et al., 2002); however, a large number of citizens with disabilities, especially those with the most significant disabilities remain underemployed or unemployed. Although eight of every ten persons with disabilities want to work (Harris, 1986,1994), the number of persons employed in the general population approached 82 percent toward the end of the 20th century while the employment rate for persons with disabilities was only 29 percent (Harris, 1998). Additional testimony is offered by Rusch, Chadsey-Rusch, and Szymanski (1992) who estimate that only 35 percent of our nation's youth and young adults with disabilities will ever obtain full-time employment. Even when they are included in the workforce, adults with disabilities are employed as part-time or temporary employees at more than twice the rate of Americans without disabilities (Schur, 2002); therefore, it is not surprising to find that poverty rates are 60 percent higher among individuals with disabilities (Schartz & Blanck, 2002). As noted by Schur (2002), people with disabilities, even when employed on a full-time basis, often work in positions in which they receive low pay and few benefits. Unfortunately, most individuals with disabilities continue to be excluded from the workforce. In fact, employment rates of persons with disabilities have actually decreased since the

implementation of the Americans with Disabilities Act from 33 percent in 1986 to 31 percent in 1994 to 29 percent in 1998 (Harris, 1986, 1994, 1998).

The magnitude of the national problem of unemployment of people with disabilities calls for an increase in the skills of personnel in the rehabilitation employment field. Successful employment outcomes for people with disabilities are directly related to the skills of employment services practitioners. Employment services personnel (i.e., job coaches, employment specialists, job developers, rehabilitation counselors) are in a unique position to connect with all of the partners needed to enhance employment opportunities for people with disabilities (Tew-Washburn, 1998, 2003). They maintain daily, face-to-face contact with consumers to teach them job-seeking skills and to place them in work positions. Employment services staff communicate with family members of consumers to help plan the supports needed in getting and keeping jobs. Employers and co-workers of people with disabilities may get their orientation to disability, as well as lasting impressions of the vocational rehabilitation system, from their consultative relationships with employment services staff. Also, employment services personnel have a tremendous impact as a function of working in teams with other rehabilitation personnel (i.e., administrators, program managers) to improve the quality of the employment service programs.

Unfortunately, employment services staff, the key personnel responsible for facilitating employment outcomes for people with disabilities, may lack the competence to provide the services needed. Clearly, one critical way the unemployment crisis of people with disabilities must be addressed is through the provision and assessment of competency-based training for rehabilitation employment personnel. Education and training based on

competencies is particularly relevant now that state vocational rehabilitation agencies are contending with the stringent personnel standards for "qualified practitioners" required by the 1998 Amended Rehabilitation Act and the resultant Comprehensive System of Personnel Development (CSPD) plans (Tew-Washburn, 2003).

The unemployment crisis of people with disabilities is also effected by a severe shortage of qualified rehabilitation professionals existing in the state vocational rehabilitation agencies and their affiliated programs. According to personal communication from J. Denise Murray (2005), Coordinator for Staff Development and Training of the Alabama Department of Rehabilitation Services, "Alabama's Department of Rehabilitation Services stands to lose one third of our field staff within the next three years through retirements." It is anticipated that this unfortunate trend will continue throughout the United States due to the expected retirement of a significant number of rehabilitation personnel and the inability of training programs to produce a sufficient number of graduates to meet the public sector's replacement needs. Current personnel problems facing state vocational rehabilitation systems include an inability to recruit and retain high-quality rehabilitation practitioners due to a shortage of qualified applicants and rising minimum standards for rehabilitation personnel mandated by the CSPD. In a position paper on rehabilitation training needs, the National Council on Rehabilitation Education (NCRE, 2003) noted a national average turnover rate of rehabilitation personnel of approximately 16 percent per year. Additionally, NCRE stated the expected retirement rate over a five year period (2003-2008) will exceed 50 percent of all currently employed rehabilitation professionals. State vocational rehabilitation agencies in the Southeastern United States were surveyed to gather

data relating to this staffing crisis (Tew-Washburn & McDaniel, 2003). Without exception, all of the twelve state vocational rehabilitation agencies examined predicted severe shortages of qualified rehabilitation professionals over the same five year period. For example,:

> The Alabama Department of Rehabilitation Services reported that 96 of its 188 counselors (51 percent) would be eligible for retirement within the next 3-5 years (G. Jackson, personal communication, 2/2003).
>
> The Mississippi Department of Rehabilitation Services reported 30 percent of their administrative/rehabilitation counseling staff eligible for retirement in this time period (R. Anderson, personal communication, 2/2003).
>
> The North Carolina Division of Vocational Rehabilitation Services estimated that by 2009 (the North Carolina CSPD plan deadline), more than 60 percent of their field staff will either fail to meet educational standards or they will have exited due to retirement (S. Mehl, personal communication, 2/2003).
>
> The South Carolina Vocational Rehabilitation Department reported a need for 250 staff over the next five years (B. Langton, personal communication, 2/2003.)

Follow-up data (Tew-Washburn, 2005) also reveal a profound need for increased numbers of rehabilitation staff. For example,:

> Approximately 13 percent of current counselors and 57 percent of supervisory and management staff within the Mississippi Department of Rehabilitation Services will be eligible for retirement within five years (H. S. McMillan, personal communication, 3/2005).

The South Carolina Vocational Rehabilitation Department anticipates needing 110 counselors during the next five years (L. Bryant, personal communication, 3/2005). One-third of the field staff of the Alabama Department of Rehabilitation Services is predicted to retire during the next three years (D. Murray, personal communication, 3/2005).

The North Carolina Division of Vocational Rehabilitation Services expects to be "desperately lacking" in the year 2009 when the state plan will require all counseling staff to have master's degrees in order to keep their jobs (L. Robb, personal communication, 3/2005).

The Tennessee Division of Rehabilitation Services will need over 100 employees trained. Only 25 percent of these current rehabilitation practitioners have a master's degree (C. Phillips, personal communication, 3/2005).

The personnel crisis concerning rehabilitation staff was the major topic at the October, 2003 National Training Conference on Rehabilitation Education, (RSA/NCRE/CSAVR), in Washington, DC. As reported by the Principal Research Analyst of the American Institute for Research (Chan, 2003), in FY 2001-2002, over one half (53 percent) of the newly hired rehabilitation counselors in our nation did not meet CSPD requirements. Although 10,418 counselor positions were authorized, only 9,649 positions were actually occupied resulting in a 28 percent replacement need. In other words, the fill rate (ratio of number of vacancies filled to total vacancies) was only 72 percent for rehabilitation counselors. The situation in the future is even more alarming. Although a need

for 3,776 new counselors is projected, only an estimated 1,697 personnel will be available and qualified for employment (45 percent replacement need).

Successful employment outcomes for individuals with disabilities in which there is meaningful choice, inclusion, and career development are directly related to the skills of rehabilitation professionals. Studies indicate that rehabilitation practitioners with education in rehabilitation facilitate better employment outcomes for individuals with disabilities (Szymanski, 1991; Szymanski & Danek, 1992; Szymanski & Parker, 1989). A 1992 study, for example, found that vocational rehabilitation personnel with a master's degree in rehabilitation not only had higher rates of competitive employment outcomes for individuals with severe disabilities, but they were also more cost efficient than personnel with unrelated degrees (Szymanski & Danek, 1992). Increasing educational opportunities for counselor assistants, job placement personnel, and other rehabilitation team members will undoubtably improve service delivery to individuals with disabilities (Tew-Washburn, 2005).

Because of the escalating demand for qualified rehabilitation personnel, it is clear that university rehabilitation preparation programs must seek creative and innovative ways to address this critical need. People with disabilities, despite progressive legislation, have insufficient opportunities for inclusion in community employment. Successful work experiences are dependent, to a large degree, on the skill levels of rehabilitation employment services personnel. The frequently cited studies regarding effectiveness of rehabilitation outcomes (i.e., Cook & Bolton, 1992; Szymanski & Danek, 1992; Szymanski & Parker, 1989) point to the need for the establishment of minimum curriculum standards that are directly related to the actual provision of rehabilitation services. Helping students learn about

essential job development and placement strategies, and other best practices in rehabilitation employment services is mandatory.

Research Questions

The purpose of this research was to identify and validate the competencies needed by individuals working in the field of rehabilitation employment services to perform their jobs more effectively. The perceptions of experienced persons in the field were surveyed and the study was guided by the following research questions:

1. What, if any, differences exist between practitioners' and educators' perceptions of competency importance?
2. What, if any, differences exist between the perceptions of competency importance of individuals employed in the rehabilitation field for 20 years or less and those employed greater than 20 years?
3. What, if any, differences exist between men and women's perceptions of competency importance?
4. What, if any, differences exist between the perceptions of competency importance of individuals 40 years old or younger and those older than 40?
5. What, if any, differences exist between minorities' and non-minorities' perceptions of competency importance?

Significance of the Study

A continuing history of exclusion from the workforce represents a crisis for people with disabilities. In fact, the employment rate of people with disabilities was estimated to be 28% in 1998 (Harris, 1998). Although research illustrates that personnel with education in

rehabilitation achieve better employment outcomes for people with disabilities (Szymanski & Danek, 1992), insufficient numbers of individuals are being properly trained to assist people with disabilities find and maintain jobs. Few studies have addressed the skill needs of rehabilitation practitioners who specialize in job development and placement for individuals with disabilities. An important outcome of this study is the establishment of competencies in the field of rehabilitation employment services. A particularly significant outcome of the results of this research is the recommendations formulated regarding the creation and refinement of job development and placement curriculum.

Limitations of the Study

In order to promote accurate representation of the two professions, large nationwide samples of practitioners and educators were chosen for use in this study; however, generalizability is nonetheless limited by the use of these sampling frames. Although professional membership lists provide convenient access to a large number of subjects, it is questionable as to whether they truly represent all practitioners and educators within the rehabilitation discipline. Also, the fundamental issue of competency attainment has not been adequately addressed and is not within the scope of this research. Measuring the attainment of rehabilitation employment competencies, in addition to determining which competencies are most important for effective performance, is crucial for determining the core education and training needed for practice in the field.

Definition of Terms

Competency. Competency is defined as the attainment of skills and knowledge, as well as "the ability to transfer and apply skills and knowledge in new situations and environments..."(Forster, 1996, p.25).

Job development. Job development refers to the provision of services to both job seekers and employers (Bissonnette, 1994; Hagner, 1989; Michaels, 1989) in order to secure and maintain employment opportunities for individuals with disabilities.

Job placement. Job placement is the goal of rehabilitation (Vandergoot, 1984). The skills and interests of an individual with a disability are matched with the requirements of a specific job resulting in the securement of employment. Job placement may also be seen as the positive result of job development.

Rehabilitation counselor. A rehabilitation counselor is the primary practitioner in the state-federal vocational rehabilitation system. He or she renders and/or oversees the rehabilitation services provided for an individual with a disability.

Rehabilitation employment personnel. Rehabilitation employment personnel are practitioners such as employment specialists, job developers, job coaches, etc. (Tew-Washburn, 2003) whose primary responsibilities involve job development and placement activites to facilitate employment opportunities for people with disabilities.

Rehabilitation employment services. Rehabilitation employment services refers to a specialty concentration within the vocational rehabilitation field which focuses on job development and placement activities.

Supported employment. Supported employment is "paid employment in which appropriate services are provided to employees with severe disabilities" (Twelfth IRI, 1985, p.23).

Additional discussion of these terms is provided in Chapter 2.

II. REVIEW OF THE LITERATURE

This chapter summarizes research and literature in the area of rehabilitation services, with an emphasis on employment of persons with disabilities. Topical areas addressed in this review are: history and legislation; staff education and training; personnel roles, functions, and satisfaction; job placement methods and models; and, employer and job development. Finally, an analysis of competency identification, validation, and attainment related to rehabilitation employment services is provided.

History, Legislation, and the Future

Progress in rehabilitation employment services is due, in large part, to a history of landmark legislation and the growth of community awareness of disability work issues. This section addresses significant trends and events of the past decades, with particular emphasis on the laws and social reforms related to vocational rehabilitation and employment services. Finally, some predictions are made about the future of rehabilitation services.

Prior to 1920

England's 18th century work-oriented, rehabilitation facilities were originally designed to provide jobs for people with disabilities and/or to provide vocational skills training (Couch, 1994). When it was discovered that skill training was not sufficient, early service providers added instruction of work habits to their programs. Workshops for people with disabilities emerged in the late 1800s and early 1900s in the United States which provided education, sheltered employment, and vocational skill training. While many of the

initial programs concentrated on the needs of individuals with sensory impairments, programs also began to develop for individuals with other physical disabilities. According to Couch, the Vocational Guidance and Rehabilitation Service Center was founded in 1889, followed by initiation of work-related programs by Goodwill Industries, the Salvation Army, the Institute for Crippled and Disabled, and Milwaukee's Curative Workshop. Modern community rehabilitation programs owe much of their foundations to these early pioneers.

Although the rehabilitation system in the United States evolved over centuries, a clear approach to dealing with disability began during World War I (Chubon, 1992), when it was determined that there would be a need for a system of services to enable war-injured military personnel to re-enter mainstream society. By the close of the war, there were a number of individuals who had become knowledgeable about disabilities, and with their expertise, physical reconstruction centers were implemented. This initial programming led to the term "rehabilitation" being applied to the civilian work-injured population, as well.

Some advances were also made in developing a state-federal rehabilitation program for the civilian population. In fact, legislation passed prior to 1920 influenced the formation of the first Rehabilitation Act. The Federal Employees Worker's Compensation Act in 1908 provided an alternative to suing for work related injuries (Weed, Abrams, & Wilkins, 1991). In 1914, the War-Risk Act (P.L. 65-90) provided limited rehabilitation and vocational training. The Smith-Hughes Act (P.L. 64-347) in 1917 promoted vocational education, and the Smith-Sears (or Soldier Rehabilitation) Act in 1918 authorized the Federal Board for Vocational Education to organize and offer programs of vocational rehabilitation for veterans with disabilities.

1920s

Beginning with the passage of the Smith-Fess Act of 1920 (P.L. 66-236), which extended services to civilians with physical disabilities, the state-federal rehabilitation program experienced decades of progressive support. Impressed by the power and longevity of this legislation, Maliken and Rusalem (1969) identified the Vocational Rehabilitation (Smith-Fess) Act (P.L. 66-236) as the single most important piece of legislation of the first fifty years of rehabilitation in the United States. Even though this first Act was renewed after expiring in three years, many persons continued to think of rehabilitation as a temporary program. As noted by Warren (1955), as late as 1930 rehabilitation counselors were resigning in order to seek out more permanent career opportunities.

The National Rehabilitation Association (NRA) has a long and honorable history of service to people with disabilities and the professionals who work with them. Organized in 1925 in response to the need for a forum for rehabilitation issues, it was the first organization pertaining to the general field of rehabilitation (Warren, 1955). In the beginning, NRA's membership was almost entirely limited to those who served in state-federal rehabilitation.

1930s

An early and comprehensive study of the prevalence of selected illnesses and disabilities was the National Health Survey of 1935-36 (Whitten, 1957). This research, based upon 312,000 persons surveyed, estimated that of a total population of 160 million people, nearly three million individuals had disabilities.

The Social Security Act was signed into law on August 14, 1935. Upon signing the law, President Roosevelt stated: "We can never insure one hundred percent of the population

against one hundred percent of the hazards and vicissitudes of life, but we have tried to frame a law which will give some measure of protection to the average citizen and to his family against the loss of a job and against poverty-ridden old age" (Social Security Administration, 1999, p. 8). In addition to several provisions for general welfare, the new Act created a social insurance program designed to pay workers an income after retirement.

Two important legislative advancements were also made in the field of vocational rehabilitation in 1935. The vocational rehabilitation program became a permanent part of the Social Security Act (Weed, Abrams, & Wilkins, 1991), and through this inclusion, the rehabilitation community was provided assurance of a strong foundation and stability (Lee, 1955). Also, in 1935, priority for blind persons in the location and operation of vending machines on federal property was mandated by the Randolph Shepherd Act (Weed, Abrams, & Wilkins, 1991).

In response to a post World War I examination of employee abuses in the workplace, the Fair Labor Standards Act of 1938 initiated minimum standards for both wages and overtime entitlement, and spelled out administrative procedures by which covered work time should be compensated (U.S. Office of Personnel Management, 1999). Included in the Act were provisions related to child labor and equal pay.

1940s

In 1942, the National Council on Rehabilitation held a symposium for the purpose of adopting a definition of rehabilitation (Burdett, 1960). Rehabilitation, according to the National Council, meant "restoration of the handicapped to the fullest physical, mental, social, vocational, and economic usefulness of which they are capable" (p. 9).

The broadened definition of the term "disabled," combined with the enactment of the Barden-LaFollette Act (P.L.78-113) in 1943, established the means for providing services for new classes of people with disabilities (Marra, Moore, & Young, 1957). Up to that time, persons with mental illness and mental retardation had been ineligible for vocational rehabilitation services (Weed, Abrams, & Wilkins, 1991). Funding was also significantly increased for physical restoration, whereas, prior to 1943 Act, these authorizations had been extremely meager (Lee, 1955).

Rehabilitation services for veterans also continued to expand during the 1940s. For example, at the end of World War II, the Veteran's Administration hospitals provided occupational therapy, in addition to offering other therapeutic activities for veterans with disabilities to explore new careers and adjust to life outside the military (Couch, 1994).

1950s

In September 1950 the Office of Vocational Rehabilitation and the Bureau of Public Assistance, in cooperation with the Census Bureau, initiated a study of the prevalence of disability in the United States (Whitten, 1957). The findings indicated 3.6 million persons between ages 14 and 64 were in the "disabled category." The study also indicated that only persons with orthopedic disabilities were being rehabilitated by the state-federal rehabilitation program in sizable numbers. Although 20 percent of all the disabled population were deemed to have cardiac conditions, only about three percent of those rehabilitated by the state-federal program were in that category. Furthermore, although about 20 percent were considered to have mental disabilities, less than three percent of that group were actually rehabilitated.

In 1954, a group of rehabilitation leaders emphasized the importance of modern rehabilitation facilities as a way to expand the national rehabilitation program (Editorial, 1956). Following these recommendations, Congress amended both the Vocational Rehabilitation Act and the Hospital Survey and Construction Act (Hill-Burton, P.L. 83-565) to provide federal financial assistance for establishing rehabilitation facilities. During fiscal years 1955 and 1956, the Office of Vocational Rehabilitation granted more than a million dollars for the establishment or expansion of rehabilitation facilities and workshops. The Hill-Burton Act required centers established under the law to include meaningful vocational services along with medical, social, and psychological services. Szymanski, Handley-Maxwell, Hansen, and Myers (1988) credited the emergence of work adjustment training to the rehabilitation facility movement stimulated by the Hill-Burton Act. According to Whitten (1957), community services were developed and agencies were built "largely without blueprints"(p. 5) as the organizations were hurriedly created to meet demands.

Amendments to the Social Security Act during the 1950s had a powerful influence on the disability community. The 1950 Social Security Act Amendments established a program of aid to individuals who were indigent and who were permanently and totally disabled, followed by a disability "freeze" in the 1954 Social Security Amendments intended to prevent the erosion of disabled workers' benefits (Social Security Administration, 1999). In 1956, the Social Security Act was amended to provide monthly benefits to "permanently and totally disabled workers aged 50-64 and for adult children of deceased or retired workers, if disabled before age 18" (p.13).

1960s

The 1960s were a time of great social reform evidenced by President Lyndon Johnson's Great Society (Couch, 1994) and the Civil Rights Act of 1964's (P.L. 88-352) protection of constitutional rights in public services and prohibition of discrimination in federally assisted programs (Civil Rights Act, 1999). The spirit of the times resulted in many rehabilitation service changes as well. The Rehabilitation Act Amendments of 1965 (P.L. 89-333) and of 1968 (P.L. 93-112) expanded opportunities by authorizing construction of rehabilitation facilities, designating services for "disadvantaged persons," and requiring follow-up to employment (Weed, Abrams, & Wilkins, 1991).

Mary Switzer, former Commissioner of the Rehabilitation Services Administration and a prominent figure in the rehabilitation movement, saw the society of the 1960s as one moving toward acceptance of rehabilitation on moral grounds (Weed, Abrams, & Wilkins, 1991). Allan (1960) predicted the rehabilitation movement of the 1960s would be one of community responsibility requiring integrated effort by many kinds of agencies, and involving both professional and lay personnel. Indeed, reports from committees and conferences during the 1960s emphasized the need to expand and improve rehabilitation, as well as to decentralize services (Rehabilitation Services Administration, 1970). Carney (1990), in her review of 70 years of progress in vocational rehabilitation programs, noted systemization, individualization, and flexibility as the three principles that prevailed among programs during the 1960s.

A key development during the 1960s particularly significant to the field of rehabilitation employment services was the formation of The National Rehabilitation

Association of Job Placement and Development (JPD) (Strong, 1995). JPD was conceived by a group of rehabilitation professionals who saw a need for a division of the National Rehabilitation Association to address the specialty issues regarding people with disabilities and employment. Through a professional journal, training sessions, and advocacy efforts, JPD began to build on the body of knowledge of job placement services for people with disabilities.

1970s

Maliken and Rusalem (1969) predicted dramatic changes in the 1970s' rehabilitation structure involving the development of alternative residence programs, "techniques for helping non-motivated clients" (p.3), and community-based services. Milestone legislation and litigation of the 1970s' deinstitutionalization movement influenced services for all persons with disabilities, particularly those with the most significant disabilities. Deinstitutionalization decrees mandated the immediate creation of residential and vocational services for persons with severe disabilities (Szymanski, Handley-Maxwell, Hansen, & Myers, 1988). Concurrently, the Rehabilitation Act of 1973 laid the foundation for the development of services targeted to individuals with severe disabilities (Palmer, Hernandez, Mulroy, & Williamson, 1995) and incorporated provisions upholding the civil rights of persons with disabilities (Civil Rights Act, 1999).

The Rehabilitation Act of 1973 (P.L. 93-112) defined the term "individual with severe handicaps" as "a person who has a severe physical or mental disability which seriously limits one or more functional capacities in terms of employability; whose vocational rehabilitation potential can be expected to require multiple vocational

rehabilitation services over an extended period of time; and who has one or more physical or mental disabilities" (Palmer, Hernandez, Mulroy, & Williamson, 1995, p. 15). Section 503 of the Rehabilitation Act of 1973 required most employers doing business with the federal government to take affirmative action to employ (and to advance in employment) qualified individuals with disabilities, and Section 504 required non-discrimination in federal contracts (U.S. Department of Labor, 1999).

The Rehabilitation Act of 1973 is one of the most extensive, well-written, and equitable pieces of legislation in the field of human services (Wright, 1980). The state-federal program of rehabilitation services, authorized by this critical legislation, serves as the cornerstone of efforts at the federal, state, and local levels. Comprehensive provisions were included for: (1) an individually tailored program of rehabilitation services to eligible physically and mentally disabled persons; (2) a training program to fully prepare rehabilitation personnel; (3) a research program to conduct problem studies and to develop new and better techniques in providing services; (4) a special projects program to target services to specific populations; and (5) other special discretionary programs.

Many other benefits for both children and adults with disabilities were realized through the legislative efforts of the 1970s. For example, in 1974 Supplemental Security Income went into operation as a result of the Social Security Amendments of 1972 (Social Security Administration, 1999). The Education for All Handicapped Children's Act of 1975 (P.L. 94-142) required participating states to furnish all children with disabilities a free and appropriate public education in the least restrictive setting (House of Representatives Committee on Education and Labor, 1986; Szymanski, Handley-Maxwell, Hansen, & Myers,

1988). The Developmental Disabilities Assistance and Bill of Rights Act of 1976 (P.L. 94-103) emphasized increasing the provision of services to people with developmental disabilities because "general service agencies and agencies providing specialized services to disabled persons tended to overlook or exclude persons with developmental disabilities in their planning and delivery of services" (Palmer, Hernandez, Mulroy, & Williamson, 1995, p.16). The Rehabilitation Comprehensive Services and Developmental Disabilities Amendments of 1978 (P.L. 95-602) further emphasized the need for providing services to individuals with developmental disabilities (and other individuals with severe disabilities) by creating the National Institute of Handicapped Research, the National Council on the Handicapped, and independent living services (Palmer, et al., 1995).

1980s

Most notable in the 1980s was the introduction of employment priorities for individuals with severe disabilities. The supported employment movement, a natural consequence of the deinstitutionalization movement of the 1970s, came of age with large scale funding for demonstration projects provided by the Office of Special Education and Rehabilitative Services (OSERS) in 1984 (Botterbusch, 1989). The catalyst for funding was based on several years of promising research of competitive employment experiences of persons with severe disabilities. A transitional employment model introduced by the Commissioner of OSERS, Madeline Will promoted place-train programs and provided the groundwork for the Rehabilitation Act Amendments of 1986. In a request for proposals published in the Federal Register, the Rehabilitation Services Administration defined supported employment as:

> Paid work in a variety of integrated settings, particularly regular work sites, especially designed for serving handicapped individuals irrespective of: (1) for whom competitive employment at or above the minimum wage is unlikely, and (2) who because of their disabilities need intensive ongoing post-employment support to perform in a work setting (Federal Register, RSA, 1984).

The Developmental Disabilities Act of 1984 established four criteria for supported employment: (1) The worker must be engaged in employment; (2) this employment must be located in regular and integrated work settings; (3) there must be ongoing support and this support must be essential for maintaining employment; and (4) the worker must be so severely disabled that ongoing support is necessary to maintain employment (Federal Register, 1984).

The Rehabilitation Act Amendments of 1986 (P.L. 99-506) reflected an important change in rehabilitation policy (Szymanski, Handley-Maxwell, Hansen, & Myers, 1988) by establishing a formula-based program for persons with severe disabilities to have access to real employment opportunities (Sale, Revell, West, & Kregel, 1992). The amendments (and resultant regulations) provided a clear opportunity for states to move from segregated programs to integrated vocational services for people with severe disabilities who had historically been underserved. The Rehabilitation Act Amendments of 1986 defined supported employment as:

> . . . competitive work in integrated work settings—(a) for individuals with severe handicaps for whom competitive employment has not traditionally

occurred, or (b) for individuals for whom competitive employment has been interrupted or intermittent as a result of several disabilities, and who, because of their handicap, need on-going disability support services to perform such work" (Rehabilitation Act Amendments, 1986).

Support for assistive technology and rehabilitation engineering services was also provided by the 1986 Rehabilitation Act Amendments (Giordano & D'Alonzo, 1995). Additional funding for technology became available through the Technology-Related Assistance for Individuals with Disabilities Act of 1988 (P.L. 100-407), as well as from Social Security, Medicaid, and Medicare. Other milestone events of the 1980s included advances in vocational education services and the administration of Social Security. The target population of the Carl D. Perkins Act of 1984 (P.L. 98-524), which emphasized vocational education and transitional services for school-aged individuals, included persons with disabilities as well as those considered "disadvantaged" (House of Representatives Committee on Education and Labor, 1991). The 1980 Amendments to the Social Security Act provided greater work incentives for beneficiaries with disabilities (Social Security Administration, 1999).

1990s

The 1990s may well go down in history (with the 1960s) as a decade of great accomplishment and compromise in civil rights. Legislation during the era impacted persons from nearly every walk of life, and resulted in significant changes for people who are disadvantaged as well as individuals with disabilities.

According to Giordano and D'Alonzo (1995), legislation which will have the longevity of the Rehabilitation Act is the Americans with Disabilities Act of 1990 (ADA). The first civil rights legislation for people with disabilities, the ADA established enforceable standards to redress discrimination against individuals with disabilities in the public and private sectors. Many of ADA's provisions parallel those in the Rehabilitation Act; however, whereas the Rehabilitation Act of 1973 applies to employees of businesses receiving federal assistance, the ADA applies to all individuals with disabilities (U.S. Department of Labor, 1999).

Similar to the language defining disability in the Rehabilitation Act, the ADA defines a person with a disability as one who: (1) has a physical or mental impairment that substantially limits one or more major life activities; or, (2) has a record of such impairment; or, (3) is regarded as having such an impairment (Job Accommodation Network, 1999). However, the ADA goes a step further and offers protection from discrimination to those who have an association with an individual with a disability (i.e., family members, advocates), as well as others who may be are coerced or retaliated against for assisting people with disabilities in exerting their rights.

The ADA is divided into five titles: (a) Title I - Employment; (b) Title II - Public Services, including state and local governments; (c) Title III - Public Accommodations, including transportation systems; (d) Title IV - Telecommunications; and (e) Title V - Miscellaneous, including retaliation provisions (U.S. Department of Justice, 1999). Title I's employment protections for people with disabilities are closely aligned with the protections

provided on the basis of sex, race, religion, and national origin by the Civil Rights Acts of 1964 and 1991 (P.L. 102-166) (Civil Rights Act, 1999).

In the employment title, not only does the ADA provide safeguards against non-equitable salaries and unfair discharges from jobs, it also details protection in such areas as job application, hiring, advancement, training, and qualification for employment benefits. Title I applies to private employers, state and local governments, employment agencies, and labor unions with 15 or more employees and prohibits employment discrimination against qualified individuals with disabilities (those who meet the skill, experience, and educational requirements of an employment position and who can perform the essential functions of the position with or without reasonable accommodation) (U.S. Department of Justice, 1999).

In November 1990, Congress passed the Individuals with Disabilities Education Act of 1990 (P.L. 101-476), a reauthorization of the Education for all Handicapped Children's Act of 1975(Weymeyer, 1992). This legislation mandated outcome-oriented transition services for youth with disabilities and defined transition services as "a coordinated set of activities for a student designed with an outcome-oriented process (p. 4)." Goals 2000 in 1992, the School-to-Work Act of 1994, and the Carl D. Perkins Act of 1998 also influenced programs for students with disabilities by facilitating the development of occupational and academic standards, systemic reform, and coordination of school-to-work plans.

The Amendments to the Rehabilitation Act of 1992 (P.L. 102-569) re-emphasized the foundation laid by the 1973 Rehabilitation Act by extending vocational rehabilitation services to individuals with the most severe disabilities (Giordano and D'Alonzo, 1995). The 1992 Amendments also accentuated the rights of individuals receiving services to participate

in the planning of their own programs, identified the need for assistive teams to involve a diverse group of professionals, provided for the development of interagency programs, and mandated that priority of services be given to individuals from minority groups and members of other populations which had traditionally been underserved.

During the 1980s and early 1990s, special emphasis had been placed on advancing the principle of community integration for all individuals with disabilities through expanded and improved community-based services, supported employment, service coordination, and family supports (National Transition Network Policy Update, 1994). Critical to this national movement was the passage of the Developmental Disabilities Assistance and Bill of Rights Act Amendments of 1994 (P.L. 103-230) which emphasized improvement in service delivery systems for persons with developmental disabilities and their families.

Years 1996 and 1997 were comprised of numerous changes in eligibility of government beneficiaries (Social Security Administration, 1999). In 1996, President Clinton signed the Contract With America Advancement Act (P.L. 104-121), which ended disability benefits for drug addicts and alcoholics. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 terminated Supplemental Security Income (SSI) eligibility for most non-citizens, made it more difficult for children to qualify as disabled for SSI purposes, and ended the federal entitlement to Aid to Families with Dependent Children, which had been guaranteed by the original 1935 Social Security Act. The Balanced Budget Act of 1997 (H.R. 2015) restored SSI eligibility to some non-citizens for whom eligibility had been terminated under the welfare reform of 1996.

Interagency cooperation in human services, particularly in regard to employment training services, has been the topic of discussion for many years. For example, Whitten (1957) addressed the need to collaborate in an early issue of the Journal of Rehabilitation:

> Why for instance, could not the state employment service, the division of vocational rehabilitation, the crippled children's service, the public assistance division, and the rest, actually plan and carry out a joint attack upon the problem of disability in any given community? Is it going to be necessary, as some have said, for all the present generation of professional workers to die out and their jobs be taken over by younger people or by people with different sort of training before real coordinated effort can be made to solve the problems of dependency, maladjustment, and disability (p. 17)?

On August 7, 1998, President Clinton signed into law The Rehabilitation Act Amendments of 1998 as a part of the Workforce Investment Act of 1998 (P.L. 105-220), thus both amending and extending for five years the authorization of the Rehabilitation Act of 1973 (National Organization on Disability, 1999). The Workforce Investment Act consolidated a variety of federally-funded job training programs, including the Job Training Partnership Act, into the following three block grants: adult employment and training; disadvantaged youth employment and training; and adult education and family literacy programs. The Carl D. Perkins Vocational and Technical Education Act of 1998, which provides vocational education services for many populations, including students with disabilities, remained separate from the comprehensive Act. The Workforce Investment Act also established individual training accounts for individuals seeking employment training

services. This new voucher-type system was intended to give individuals more control over their choice of employment providers.

Title IV of the Workforce Investment Act contains the 1998 Amendments to the Rehabilitation Act of 1973. Following are the key provisions in the 1998 Amendments (Thomas, Library of Congress, 1999): (1) establishes linkages throughout the new law to the Rehabilitation Act so that individuals with disabilities can access services provided by the generic workforce programs; (2) establishes one-stop delivery systems (no wrong door) which must make services available to individuals with disabilities and must coordinate with programs provided under the Rehabilitation Act, the Department of Housing and Urban Development, the Social Security Act and other laws providing employment training; (3) allows individuals a greater role in shaping their individual plans for employment (gives an option of writing all or part of their own plan with or without the assistance of a qualified rehabilitation counselor) and renames the Individual Written Rehabilitation Plan (IWRP) the Individual Plan for Employment (IPE); (4) increases language emphasizing informed choice; (5) supports self-employment and telecommuting as appropriate employment outcomes; (5) modifies the definitions of employment outcome and supported employment to allow individuals working in supported employment below the minimum wage to continue to receive services as long as they are working toward competitive work: (6) streamlines eligibility requirements by presuming eligibility of SSI/DI recipients, since people receiving SSI/DI have already met a much stricter standard as to whether they have a disability; (7) strengthens the presumption that a person can benefit from services by requiring the vocational rehabilitation agency to provide clear and convincing evidence (i.e., exploring

the individuals' abilities, capabilities, and capacity to perform in work situations through the use of trial work experiences) that an individual is incapable of benefitting in terms of an employment outcome from services due to the severity of the disability; (8) requires that a state under an order of selection provide information and referral services (i.e., to the generic workforce investment system or other information source) to all eligible individuals who do not meet the order of selection criteria; (9) allows transition planning to be provided in an Individual Education Plan (IEP) without having to develop a separate IPE and encourages vocational rehabilitation agencies to work directly with schools in identifying transition services in the IEP; (10) establishes procedures for voluntary mediation to resolve disputes between individuals and the state vocational rehabilitation agency using language similar to the mediation provision in the 1997 Amendments to the Individuals with Disabilities Education Act (IDEA); (11) streamlines the administration of the vocational rehabilitation program by reducing the state plan requirements; (12) requires the Rehabilitation Services Administration (RSA) Commissioner to study and analyze best practices (i.e., informed choice, consumer satisfaction, job placement and retention, assistive technology, and integrated employment) in vocational rehabilitation; (13) strengthens the requirement for a comprehensive system of personnel development to ensure that individuals with disabilities receive assistance from qualified rehabilitation counselors; and (14) encourages state vocational rehabilitation agencies to enter into agreements with other public entities, including institutions of higher education, to ensure cooperation and to avoid duplication of services.

Beyond 2000

The Ticket to Work and Work Incentives Improvement Act (TWWIIA), signed into law in 1999 and fully implemented in 2001, created new options for individuals with disabilities who receive Social Security Disability Insurance (SSDI) or Supplemental Security Income (SSI). Designed for both those who are approaching work for the first time and those who are preparing to return to work, it is customized to give individuals a choice of service providers for rehabilitation, case management, job development, and job placement services (Ticket to Work Regulations, 2001, p. 3). A major purpose of TWWIIA is to provide expanded health care options and placement services to individuals with disabilities. Other important objectives of this legislation are to address the numerous barriers encountered by individuals returning to work and to help reduce or eliminate disincentives to employment experienced by SSDI and SSI recipients.

The Olmstead Decision in 1999 provided the framework to enable individuals with disabilities to live in the most integrated setting appropriate to his or her needs (28 CFR 35.130d). The Medicaid Community-based Attendant Services and Supports Act (MiCASSA) of 2001 expanded opportunities for individuals to live and work in their preferred locales by providing community-based attendant services and supports (ADAPT summary, 2001, p. 1). In addition to allowing individuals to choose among various service delivery models and providers, MiCASSA provides for advocacy training to assist consumers in making informed choices regarding the selection of attendant services.

The Future of Employment for People With Disabilities

There is a renewed national focus on the problems of unemployment and underemployment of people with disabilities (Tew-Washburn, 1998). The Americans with Disabilities Act of 1990 (ADA) represents the first civil rights legislation for this population. Title I of this Act specifically addresses employment rights and work issues related to disability. The Rehabilitation Act Amendments of 1992 further defined and explored work needs of people with disabilities. These amendments provided a major transformation in terminology and action -- a move from discussing employability to the actualization of employment outcomes. The Rehabilitation Act Amendments of 1998, as a part of the Workforce Investment Act, further emphasized the focus on employment (National Organization on Disability, 1999). In other words, people with disabilities must now have real opportunities for jobs and career advancements.

People with disabilities are continuously challenging the accessibility of the social and physical environment, are becoming part of the leadership, and are increasingly involved with service providers in shaping their own futures (Seelman & Sweeney, 1995). The empowerment of individuals with disabilities, the emergence of community inclusion, and the introduction of new service populations are a few of the examples of dramatic changes in rehabilitation cited by Giordano and D'Alonzo (1995). By reviewing these innovations, as well as a shift in rehabilitation issues, some forecasts can be made about rehabilitation's direction in the future.

The expansion of community-based services in the least restrictive environment will surely continue. As a result, rehabilitation specialists of the future will undoubtably seek new

settings in their communities (i.e., hospitals, mental health centers, medical rehabilitation centers, work hardening centers, private homes, business and industry) in which to provide services (Couch, 1994).

In addition to providing services in new settings, personnel will need to be cognizant of other available services, and open to collaboration among other individuals and agencies. The important role collaboration plays in meeting the vast needs of people with disabilities is not a new concept, as documented in Stiles' (1960) early rehabilitation article:

> We need first of all the complete coordination and integration of every possible facility that exists within a community or within a state. This would help to avoid duplication of effort or expenditure, and would effect important savings because even the great number of facilities available in some of our states fail to meet the entire range of needs of disabled persons (p. 9).

In the future, many individuals who were historically ineligible for services or underserved may be targeted for rehabilitation employment services. Targeting underserved groups will involve expanding the scope of medical disability services to accommodate individuals with cancer, brain injuries, and Acquired Immunity Disorder (Couch, 1994), as well as older individuals. According to Giordano and D'Alonzo (1995), older persons will constitute approximately 25 percent of the United States population by 2020. Increased life expectancy also adds new segments to the traditional disabled population in that people with disabilities acquired in childhood are living to experience secondary conditions of their disabilities (Seelman & Sweeney, 1995).

Greater emphasis may also be placed on the role of rehabilitation professionals to work collaboratively with special educators and students on transition-from-school-to-work teams. Rehabilitation services for youth are further warranted by the recent increase in the number of young people on Supplemental Security Income (SSI) and Social Security Disability Income (SSDI) (Social Security Act, 1999). Between 1990 and 1995, federal expenditure for SSI and SSDI increased from $35.2 billion to $65.4 billion.

Rehabilitation programs will also be needed for young offenders (with and without disabilities) to "concentrate on developing competency and accessing the community" (Bazemore, 1997, p.14). Butts (1994) reported almost 1.5 million delinquency cases were handled in 1992, a 26 percent increase over the 1988 caseload. In 1994, 2.7 million juveniles were arrested by our nation's law enforcement agencies (Reno, 1996). Without dramatic intervention, former Attorney General Janet Reno warned that the number of juveniles arrested may reach as high as 3.5 million by the year 2010. Recidivism is also of critical concern. With regard to young offenders with documented disabilities, McDaniel (1992) estimated that the recidivism rate may be as high as 65 percent. A study by Minor, Hartmann, and Terry (1997) revealed that of the juveniles referred to the courts for a second time, nearly one-half experienced a third referral. The prevalence of juvenile offenders with disabilities has often been overlooked, although the population is significant (Tew-Washburn & Richardson, 1998). A nationwide survey of juvenile corrections institutions concluded that more than 42 percent of incarcerated youth are educationally disabled (Maddox, Webb, Allen, Faust, Abrams, & Lynch, 1984). Platt, Wienke, and Tunik (1982) identified 32 percent of adjudicated juveniles as having learning disabilities. Brown and Robbins (1981)

suggested that, with respect to the diagnostic criteria for "seriously emotionally disturbed," all juvenile offenders could conceivably be labeled as having disabilities. Fifty-eight percent of youth with behavior disorders and emotional disturbances such as conduct disorders or oppositional defiant disorders (American Psychiatric Association, 1994) are likely to be arrested within five years of leaving school, as opposed to 30 percent of all other students with disabilities (Chesapeake Institute, 1994).

Successful juvenile offender programs, much like innovative transition programs for students with disabilities, will prioritize competitive employment and community living (Tew-Washburn & Richardson, 1998). Both juvenile offender and school-to-work transition programs will require an understanding of community, as well as initiation of cooperative relationships among special education, vocational education, vocational rehabilitation, parents, employers, and other community representatives (West, 1988).

In 1955, steps were taken in the state of Washington to reduce dependency on public assistance by providing rehabilitation employment services for recipients without disabilities (Oliver & Elder, 1956). Fifty years later rehabilitation personnel are key players in the welfare-to-work movement due to 1990's legislation such as the Workforce Investment Act and the Personal Responsibility and Work Opportunity Reconciliation Act (National Organization on Disability, 1999; Social Security Administration, 1999). Also, many persons from minority backgrounds have disproportionately high rates of disability and unemployment, and must have preference in selection for rehabilitation services in response to the 1992 Rehabilitation Act Amendments (Giordano & D'Alonzo, 1995; Tew-Washburn, 1998).

Technology will have a tremendous effect on the rehabilitation services provided in the future. Assistive devices, designed to improve mobility, communications, health maintenance, cognition, vision, social activities, recreational activities, and daily living, are readily available (Giordano & D'Alonzo, 1995) and are incorporated to include universal design. McLaughlin (1984) noted that a computer revolution was well under way in the early 1980s. Computers began to be used more extensively at that time because personal computers became affordable. Since that time, the power and data capacity of personal computers has substantially increased, while costs have decreased. As computer technology continues to redesign and restructure jobs, "the delivery of rehabilitation services will be inevitably affected" (Wesolek & McFarlane, 1992, p. 52).

Technology will certainly drive the manner in which job placement services are provided and accessed in the future. Dowler (1993) praised the effectiveness and value of Project Enable, a bulletin board system designed specifically for rehabilitation employment personnel. Disability-related computer bulletin boards were assessed by Fullmer and Wall (1994) who found that usage is great and increasing as information technology is becoming more commonplace. Hundreds of disability-related sites are now available on the Internet.

The World Wide Web provides countless resources for both rehabilitation personnel and the people with disabilities they serve. According to R.S. McDaniel, Beadles, and N.B. McDaniel (1996), "the open nature of the Internet makes it a great equalizer in terms of information power" (p.4). Numerous job-finding resources can be accessed for use by rehabilitation professionals and consumers. These services include classified job ads, career magazines, job banks, as well as help wanted access for employers and job seekers.

The success of computer-based services in job placement will be realized by concentrating on technological skill development and familiarization with the numerous resources available to assist consumers, rehabilitation practitioners, and employers. Technology may well be a decisive factor in meeting goals of full inclusion in employment for people with disabilities.

Staff Education and Training

> In rehabilitation, we have clung unyieldingly to the belief that our clients have an unlimited capacity for growth, change, and productive, effective living. Unfortunately, we have not always applied this philosophy in our own organizations. If we are to help create and manage developmental philosophies and environments in rehabilitation organizations, we need to act upon our basic premise (Stephens & Kneipp, 1981, p. 103).

Prior to the 1950s, rehabilitation education was essentially nonexistent because rehabilitation was not recognized as a discipline in need of specialized education preparation (Wainwright & Sanders, 1988), and federal support was not available. Following the passage of the Rehabilitation Act Amendments of 1954, colleges and universities throughout the United States established rehabilitation counselor education programs at the master's degree level (Obermann, 1960) with federal funding provided by the new law (Thomas, Library of Congress, 1990). In 1999, interest in providing graduate rehabilitation training was revitalized in order to help state vocational rehabilitation agencies meet their personnel standards for qualified rehabilitation counselors under the Comprehensive System of

Personnel Development (CSPD), Section 101(a)(7) of the 1998 Amended Rehabilitation Act (Tew-Washburn & McDaniel, 2003; National Organization on Disability, 1999).

Need for Qualified Rehabilitation Personnel

Effective rehabilitation services depend upon adequate and well-trained professional rehabilitation workers (Whitten, 1957). The need for qualified rehabilitation personnel can be found at the national, regional, and state levels. At the national level, for example, Nell Carney, former Rehabilitation Services Administration Commissioner, stated that the vocational rehabilitation field was facing a crisis concerning the shortage of qualified practitioners (Rehabilitation Services Administration, 1990). Evidence of this crisis was reported in a national study of state vocational rehabilitation personnel. It was found that "employee turnover causes great concern among public managers in the state-federal system" (Cohen, Conley, Pelavin, & McInerney, 1993, p. ii). In this study conducted for the Rehabilitation Services Administration (RSA) by Pelavin and Associates (1987), state vocational rehabilitation agency directors indicated "a concentrated need for training of both new and tenured staff" (p. 10), and they also identified "in-service training and continuing education as the most effective methods of maintaining competent employees" (Stephens & Emener, 1988, p. 12).

The state vocational rehabilitation agencies' need for a qualified supply of employment personnel has significantly increased due to the large numbers of consumers participating in public and private community rehabilitation programs. The 1990 Annual RSA Report to the President and Congress stated that at least 33 percent of state vocational rehabilitation budgets was spent in rehabilitation facilities. Further, Pelavin Research

Institute and Walker and Associates (1996) noted in their draft report, "Evaluation of the Impact of Vocational Rehabilitation Funding on Purchased Services," that state vocational rehabilitation agencies used over one-third of their case services expenditures to obtain vocational services from public and private rehabilitation programs. In some states, the majority of employment services for clients with severe disabilities are purchased through the utilization of state vocational rehabilitation case service budgets. The importance of developing qualified staff to work in affiliated programs is further demonstrated by an Assistant Commissioner of the Alabama Department of Rehabilitation Services: "In Alabama during the last fiscal year, of the 7,157 individuals closed in employment, 49 percent received one or more services from a community rehabilitation program" (Tew-Washburn, 1998, p. 4).

Giordano and D'Alonzo (1995), in their review of the past twenty-five years and a preview of the future, predicted a critical demand for qualified employment services personnel. In the summary and recommendations section of the Pelavin, Walker and Associates Report (1996), patterns in the service and personnel needs of vocational rehabilitation agencies and community rehabilitation programs were identified. Three of these trends included (a) the increased emphasis on serving people with severe and special needs; (b) the increased emphasis on integrated employment; and (c) the increased use of community-based services.

Training Needs of Rehabilitation Counselors

Successful employment outcomes for individuals with disabilities involving meaningful choice, inclusion, and career development are directly related to the skills of

rehabilitation counseling professionals. Studies indicate that rehabilitation practitioners with a master's degree in rehabilitation counseling facilitate better employment outcomes for individuals with disabilities (Szymanski, 1991; Szymanski & Danek, 1992; Szymanski & Parker, 1989). A 1992 study, for example, found that vocational rehabilitation counselors with a master's degree in rehabilitation counseling had higher rates of competitive employment outcomes for individuals with severe disabilities and were more cost efficient than personnel with unrelated bachelor's or master's degrees (Szymanski & Danek, 1992). Unfortunately, as confirmed by Cohen et al. (1993), two-thirds of vocational rehabilitation field service personnel did not have master's degrees in rehabilitation.

Szymanski, Linkowski, Leahy, Diamond, and Thoreson (1993) investigated the human resource development needs of certified rehabilitation counselors (n = 1,535) and discovered significant differences in development needs across job settings and job titles. The results of their study suggested a particular need for vocational services training for counselors in state-federal settings. Riggar, Crimando, Bordieri, and Phillips (1988) also examined relevant graduate level education based on training needs, as well as role and function research. Future core training needs projected by Riggar et al. included marketing and employment.

Training Needs of Rehabilitation Employment Personnel

Couch and Pell (1993) found that many vocational rehabilitation clients failed to maintain employment due to poor job matching, inadequate job analysis, and inappropriate training strategies. In order to improve the skills of employment services personnel in performing these tasks, Giordano and D'Alonzo (1995) recommended nontraditional training

and certificate programs. LeRoy and Hartley-Malivuk (1991) also demonstrated the effectiveness of innovative, competency-based training for supported employment personnel.

There are few preservice training programs specifically designed to develop employment personnel (Grossi, Test, & Keul, 1991). Winking, Trach, Rusch, and Tines (1989), in an analysis of Illinois employment specialists, found that only 34 percent had a bachelor's degree in a related field; ten percent had a bachelor's degree in an unrelated field; nine percent had some college-level education; five percent had a master's degree; and 32 percent had only a high school diploma. In addition, a small percentage of the employment specialists had not earned high school diplomas. Research further suggests that as many as 65 percent of rehabilitation service workers not only have little formal education, but also receive minimal in-service training outside their organizations (Everson, 1991; Training and Research Institute for People with Disabilities, 1991). Bissonnette (1994) notes that most individuals given the responsibility of developing jobs for people with disabilities, learn "by the seat of their pants" (p. 5) because they receive little, if any, relevant education or training.

The personnel responsible for facilitating employment outcomes for people with disabilities recognize the need for specialized, practical instruction (Tew-Washburn, 1998). In an October 1995 Southeast regional study conducted by Auburn University--Community Rehabilitation Training with 139 rehabilitation personnel, job development and job placement were identified as priority training needs (Needs Assessment Study #1, 1995). A subsequent study of 129 rehabilitation staff revealed similar training needs, and initiated a request for competency-based certificate training to address skill deficits (Needs Assessment

Study #2, 1996). A third study (Needs Assessment Study #3, 1996) further confirmed the need for comprehensive training for employment personnel. Curtis'(1998) needs survey, conducted in the same geographical region determined that the preferred learning areas were in the areas of disability specific training, quality outcomes, and employers as partners.

A national survey conducted by Botterbusch (1988) to determine the specific training needs of employment personnel revealed the frequent selection of the content categories of placement, job coaching, transitional employment, vocational skills training, and supported work. Similarly, according to LeConte (1989; 1991) and Hanley-Maxwell and Whitney-Thomas (1995), the most critical training need is in regards to providing employment services for individuals with severe disabilities. Kelley (1993) suggested that providing services (i.e., community integration tasks, follow-along services, etc.) for individuals with the most significant disabilities called for both revision and expansion of pre-service education and in-service training.

Personnel Functions, Roles, and Job Satisfaction

> Rehabilitation itself is one of the evolving concepts and changing ideas of the twentieth century. Rehabilitation is a moving target. The professional identity of all those within it must continue to move with it, or move out from it (Hamilton, 1960, p. 6).

Functions

According to Wuenschel and Brady (1959), the basic functions of placement in 1950s' rehabilitation were to persuade the employer to be receptive to hiring people with

disabilities, to thoroughly know the qualifications of clients, and to be able to bring the worker and the employer together when suitable employment openings occurred. These basic functions continue to be important today.

Placement activities require personnel to wear many hats in serving both clients with disabilities and potential and current employers. For example, according to Flett, Biggs, and Alpass (1994), placement specialists must be concerned with the art of 'person/environment fit' by matching the client's knowledge, skills, and abilities to the vocational environment and the opportunities it provides. A central focus of the job placement specialist's activities is on preparing clients with disabilities for entering an increasingly aggressive labor market. A particularly difficult part of the job placement process involves identifying appropriate job opportunities for individuals with disabilities within the competitive business environment.

Roles

Controversy existed in the 1950s and continues today concerning who should be delegated the tasks of job placement. Lee (1955) believed that responsibility for placing the client in employment resided primarily with the rehabilitation counselor and should not be appointed to anyone else. The debate over placement specialization, as summarized by Decker and Stanojevich (1978), continues today: "The dilemma to use or not to use placement specialists is still an unanswered question" (p. 44). For example, Stevens, Boland, and Ranson (1992), in their project to promote the acceptance of placement specialists in the Florida Office of Vocational Rehabilitation, found that: (a) counselors did not know how to use specialists effectively; (b) negative biases existed concerning hiring specialists with

disabilities; and (c) that much groundwork needed to be done to assist with the acceptance of placement specialists.

Changing patterns in rehabilitation such as teamwork, the development of a professional self-concept, and the growing consciousness of the significance of work, led to the differentiation of specialist roles (Waldrop, 1959). Placement issues also grew more complex because of the changing population of individuals receiving rehabilitation services. Waldrop argued convincingly for a broader and more significant use of skills and competencies to meet the diverse needs of rehabilitation clients.

Caldwell (1959) recognized a difference in the essential functions of traditional rehabilitation counseling and job placement responsibilities; however, he did not see role definition as a serious problem facing workers in rehabilitation settings. According to Caldwell, all rehabilitation work represented goal-specific activities in which professional differences converged and profession-specific methods could be nourished and preserved. He suggested that most professional differences in rehabilitation efforts arose from legitimately different perceptions of the basic problem and from goal-oriented activities which were specific to the training of the individual, as well as to the objective of the rehabilitation program. Caldwell felt that a team approach in rehabilitation was appropriate to tackle these job placement role issues. Members of the rehabilitation team, regardless of their individual roles, all have a common goal—helping the person with a disability to achieve employment.

Because so many professional skills contribute to successful job placement, Obermann (1960) perceived rehabilitation as a complex process. Although he saw much

value in specialization, he also saw some difficulties arising from it. Obermann was concerned that specialized training needed to become competent in various professions, as well as the development of profession-specific vocabulary, literature, and associations, tended to alienate rehabilitation professionals from one another.

Specialty in rehabilitation involves much more than whether or not to designate placement specialist roles. Rehabilitation personnel may specialize according to the "agency focus, philosophy of treatment, special competence required, and/or particular type of disability" (Hamilton, 1960, p. 7). According to Goodwin (1992), the majority of rehabilitation counselors practicing in the late 1980s specialized by working with individuals with a particular type of disability, by concentrating on some specific aspect of the rehabilitation process (i.e., job placement), or by working in a specialized setting. Goodwin was concerned that rapid growth of specialization would result in the fragmentation of the rehabilitation counseling profession.

Hamilton (1960) believed the growing community role of the counselor posed a significant problem within rehabilitation and concluded: (1) the professional identity of rehabilitation is its "concern with people first, and with agency and professional prerogatives only secondarily" (p. 13); (2) rehabilitation can only be successful within an agency or program whose scope and philosophy accepts this approach; and (3) rehabilitation services should only be provided by personnel with sufficient professional training, insight, and skill.

Job Coaching Roles and Functions

The roles and functions of individuals providing rehabilitation employment services changed drastically with the advent of supported employment in the 1980s. As the supported

employment movement continues to grow, "a second generation of issues focusing on service roles are emerging" (Grossi, Test, & Keul, 1991, p. 18). Added to the profession of placement personnel during the 1980's was the job coach or employment specialist. Job coaching soon became the one placement function which could be clearly differentiated from the responsibilities of the rehabilitation counselor. However, the role of the job coach also continues to evolve and now includes the role of employment consultant and co-worker trainer, as well (Hanley-Maxwell & Whitney-Thomas, 1995). Like other job placement personnel and rehabilitation counselors, job coaches may serve as generalists or may specialize in the areas of work they do (Jackson, 1997).

Occupational Stress and Job Satisfaction

Occupational stress and job satisfaction have been the topics of both discussion and research in rehabilitation for some time (Bordieri & Riggar, 1989) in a variety of rehabilitation settings. For example, Smits (1972), Crawford (1977), Feindel (1980), and Phillips (1983) documented levels of worker satisfaction among counselors, supervisors, and directors of vocational rehabilitation agencies, respectively. Several studies also examined job satisfaction of rehabilitation workers in relation to staff turnover (Crimando, Riggar, & Hansen, 1986; George & Baumeister, 1981; Zaharia & Baumeister, 1979), staff burnout (Riggar, Godley, & Hafer, 1984), self esteem (Garske, 1996), pre-determinant traits (Matkin & Bauer, 1993), achievement (Bordieri, Reagle, & Coker, 1988; Emener & Stephens, 1982), and service quality and cost (Zaharia & Baumeister, 1979). Wright and Terrian (1987) surveyed the job satisfaction of 757 rehabilitation practitioners using a Rehabilitation Job Satisfaction Inventory (RJSI) designed specifically for rehabilitation professionals and found

a higher degree of intrinsic (i.e., satisfaction with the work itself) over extrinsic satisfaction (i.e., satisfaction with the work environment).

There has been a great deal of research in documenting relationships between aspects of the work environment and various physical and psychological outcomes (Flett, Biggs, & Alpass, 1994); however, one occupational group which has received very little research attention in this context is the job placement specialist. Despite the extensive research literature, one practical research question that has been neglected concerns the experience of placement workers and the subjective feelings of stress and satisfaction created by their work (Flett & Biggs, 1992). Flett and Biggs (1992) and Flett, Biggs, and Alpass (1994) believe such study is warranted due to the complex nature of the work inherent in securing employment for people with disabilities. For example, it seems reasonable to hypothesize that a significant source of stress for job placement specialists might stem from problems associated with identifying jobs and placing clients in those jobs in difficult economic times. Another problem identified by Flett and Biggs as a potential source of stress for job placement specialists is a high level of role conflict due to lack of clear expectations and variable and inconsistent reinforcement. In 1994, Flett, Biggs, and Alpass conducted an exploratory analysis to determine whether a professional training program for these rehabilitation practitioners that focused on core skills and competencies might have a beneficial effect on perceived levels of job related stress and tension. Results of the analysis indicated that training participants showed significant improvements in perceptions of job stress and tension, once they felt competent and more aware of role expectations.

> ..for placement is the pay-off, the mission accomplished, the heart and essence of rehabilitation (Lee, 1955, p. 4).

Placement practices have evolved both historically and conceptually. While some rehabilitation professionals have "envisioned placement as the goal of rehabilitation, others have described it as only part of the process" (Vandergoot, 1984, p. 26). The absence of conceptual agreement on placement's role in the rehabilitation process may have restricted the progress and accomplishments made in the employment services field.

Placement Defined

There is little agreement on whether placement is a service, an outcome, or even the "entire rehabilitation process" (Vandergoot, 1984, p. 26). Placement has been defined as "the final phase...the bridge by which the individual passes from...supportive services to the competitive work-life of the community" (Wuenschel & Brady, 1959, p. 16). Placement is an important phase in the total rehabilitation process which requires the entire community to become working partners (Odell,1955). Zadney and James (1976) referred to placement as "...the steps taken in preparation to secure satisfactory employment as rehabilitation comes to a close," and they acknowledged that "...placement is a continuing concern throughout the rehabilitation process, even though the type and level of related activities varies considerably at different points" (p. 9). Vandergoot and Worrall (1979) in an attempt to separate goal from process, defined placement as " ...the crucial event in the rehabilitation process; it indicates that a client has accepted a job offer...placement is the goal of rehabilitation, all other rehabilitation activities can be related to it" (p. 7). Dunn (1981) also

attempted to find a balance between process and outcome and depicted placement as "...the time period and activities that take place between two major decision points or events: the decision to actively search for employment in the labor market and the decision to accept a job offer" (p. 115).

Theories of Job Placement

While providing employment for people with disabilities has been the mission of vocational rehabilitation since the initiation of the first rehabilitation legislation, little has been done to accumulate knowledge of placement concepts and practice (Vandergoot, 1984). In a review of the literature on job placement, Dunn (1974) found most publications were monotonous, fragmented, and disassociated with theory. Similarly, Zadney and James (1976), in noting that many placement manuscripts were unsubstantiated and contradictory to practice, concluded that placement methods were often selected by practitioners on the basis of personal preference. Fraser (1978) suggested that the scope of research be expanded beyond client-oriented placement techniques and practices to include evaluating employer contact practices.

Although a conceptual framework is needed for research and practice, rehabilitation professionals have invested little energy in developing specific theories of job placement (Lustig, Lam, & Leahy, 1985). Theoretical approaches which have impacted the rehabilitation field are career development theories (e.g., Ginzberg, Ginzburg, Axelrod, & Herma, 1959; Holland, 1959; Roe, 1957; Super, 1953) and the Minnesota Theory of Work Adjustment (Lofquist & Dawis, 1968). Although career development theories are concerned with career choice processes, and the Minnesota Theory of Work Adjustment is concerned

with work satisfaction and satisfactoriness, none of these theories address how to actually achieve successful placement. Vandergoot (1984) noted that labor market studies from the fields of economics and sociology have been particularly useful in increasing placement knowledge and skill.

Placement in Practice

Principles and techniques in placement must be modified in accordance with the individual environment in which the placement service is operated. Factors such as the size of the community, the nature of its employment opportunities, the type of client served, and the agency structure in which the service is provided necessitate variances in practice.

For many years the literature in the field of rehabilitation placement presented the analysis of the worker as one thing and the analysis of the job as something quite different. Odell (1955) contended that in order for placement to be properly executed, practitioners must be concerned with the needs of the whole person, as well as with the demands and characteristics of the whole job. Odell's functional occupational classification system was based on the concept that every job is a job-worker situation in which talents, capacities, and needs of the individual must be accommodated with the physical and psychological demands of the job. The task of matching abilities with job demands becomes increasingly complex when multiple impairments are present, as well as "...lack of work experience, the absence of acquired work habits, failure to adjust to the disability, poor social adjustments, immaturity of interest, and lack of self-confidence" (Miller & Ketron, 1955, p. 11).

Lustig, Lam, and Leahy (1985) presented a conceptual approach to job placement which focused on systematic examination of a job position in relation to both its expressive

and receptive qualities, as well as the identified needs of the individual job seeker. Similar to the Minnesota Theory of Work Adjustment, Lustig, Lam, and Leahy hypothesized that rehabilitation clients would retain their jobs if the specific positions fulfilled their identified expressive and receptive needs. Their approach included a very strong emphasis on the nature of the position and on what the occupation returns to the person.

Marrone, Gandolfo, Gold, and Hoff (1998) pointed out that although an exact job fit is desirable, it is not the most crucial aspect of the job placement process. Particularly important for those with limited work experience is the interplay between planning and job search activity. Marrone et al. believed plans should be continuously modified based on information obtained throughout the course of the job search.

Olney and Salomone (1992) identified five barriers to successful client placement resulting from inappropriate practitioner intervention (pp. 42-43):

> (1)Professional overkill. The presence of a cadre of professionals in the lives of individuals with severe disabilities distinguishes them from others in our society.
>
> (2)Professional problem-solving. Human service practitioners, rather than individuals or their associated family members, are charged with remediating the individual's problems.
>
> (3)Lack of real choice. Rehabilitation professionals tend to take over when dealing with someone who has many limitations.

(4)Stereotypic views of rehabilitation practitioners. Some of the disadvantages experienced by persons with disabilities are unwittingly reinforced, even created, by professionals.

(5)Selective placement. This process of job matching places the rehabilitation professional in charge of procuring the job and then placing the individual into the job.

Facility-based Services

> A rehabilitation center is a facility in which there is a concentration of services, including at least one each from the medical, psychosocial, and vocational areas, which are furnished according to needs which are intensive and substantial in nature, and are integrated with each other and with other services in the community to provide a unified evaluation and rehabilitation service to disabled people (Redkey, 1954, p. 15).

Rehabilitation centers have played a major role in providing services for people with disabilities for many years, particularly since the passage of the 1954 Hill-Burton Act and the subsequent funding to build facilities (Editorial, 1956). The Hill-Burton law offered a special challenge to state vocational rehabilitation agencies by requiring centers established under the law to include "substantial vocational services" (Redkey, 1954, p. 15), in addition to medical, social, and psychological services. Community rehabilitation centers were usually privately organized within the communities they served. Realizing that facility staff could greatly assist in meeting the needs of their clients, the state vocational rehabilitation agencies became the largest purchasers of services from the rehabilitation centers.

Realizing that no one person could be competent in all disability areas, Redkey (1954) felt community rehabilitation centers were desperately needed to provide concentrated services for individuals with the most severe disabilities. Redkey also cited many other benefits to facility-based services. For example, rehabilitation centers offered multi-disciplinary services, were flexible in their operations, and encouraged citizen participation in the rehabilitation process. Marra, Moore, and Young (1957) believed the biggest benefits of facilities were the job training opportunities. Various jobs such as packaging, sealing, labeling, assembly, inspection, tracing, cutting, and sewing were available through facilities' sub-contracts with industry. Specific job habits and attitudes were emphasized, and the trainees earned paychecks for the work they completed.

Work adjustment training also evolved with the rehabilitation facility movement (Rubin & Roessler, 1987). According to Wright (1980), "work adjustment helps individuals develop self-confidence, self-control, work tolerances, skill at interpersonal relations, understanding of the work world and worker attitude . . ." (p. 282). The importance of social adjustment in the workplace was underscored by Lenard in 1960 in his description of a "supportive placement program" (p. 16). In many cases, Lenard found that the inability to maintain employment was not attributable to lack of work skill, but to poor social interaction with others. In the supportive placement program, two clients were placed in the same work environment in order to assure that each would have someone to relate with socially.

Research during the past several decades correlates time spent as a trainee in a facility with decreased probability of placement. Bellamy, Rhodes, Bourbeau, and Mank (1986) reported that of those rehabilitation facility clients who were placed, 75 percent

moved into competitive employment within the first three months. The same study reported that only three percent of those clients remaining in facilities for more than two years were eventually placed.

Community Integrated Services

In the 1980s, community integrated employment and training strategies emerged as an alternative to the traditional facility approach to placement (Szymanski, Handley-Maxwell, Hansen, & Myers, 1988). Whitehead (1987) reported as many as two-thirds of rehabilitation facilities were incorporating community integrated strategies into their programs. Community-based services in the least restrictive environment appeared as a solid value which would be long-lasting (Couch, 1994; Mank, Rhodes, & Bellamy, 1986; Rusch, 1986; Wehman, 1986). Community-based work adjustment, transitional employment, and supported employment services are three common applications of the community integrated service model.

Work adjustment services, which had typically been provided in facilities, expanded beyond the physical walls of facilities through enclaves within industry and job coaching in community work settings (Menchetti, 1992). Couch, May, Fadely, and Pell (1991) predicted that the future of work adjustment services would be on the job in community settings. In a comparison of work adjustment services and the supported employment model, Couch and Pell (1991) concluded that there was significant overlap in the processes and professional practices of these two employment training approaches.

Time-limited transitional employment training is a service which is similar in approach and service delivery to supported employment but does not include an on-going

support component (Szymanski, Handley-Maxwell, Hansen, & Myers, 1988). Clients are trained and placed in community work settings; however, job support is gradually withdrawn (faded) after work performance has been stabilized. This sort of training method is used with individuals with mild disabilities, as well as those whose disabilities are more significant.

Supported employment training emerged from the convergence of the normalization movement (Flynn & Nitsch, 1980), trends in special education (Bruininks & Lakin, 1985; Snell, 1987) and criticism of rehabilitation facilities for having segregated environments and limited outcomes (Whitehead, 1987).

The Rehabilitation Act Amendments of 1986 defined supported employment as:

> ...competitive work in integrated work settings—(a) for individuals with severe handicaps for whom competitive employment has not traditionally occurred, or (b) for individuals for whom competitive employment has been interrupted or intermittent as a result of several disability, and who, because of their handicap, need on-going disability support services to perform such work....(Rehabilitation Act Amendments, 1986).

The Twelfth Institute on Rehabilitation Issues (IRI) provided the following working definition of supported employment (Botterbusch, 1989):

> Supported Employment is paid employment in which appropriate ongoing services are provided to employees who are severely disabled in order for the individual to work productively. Specifically, employees (who are severely

> disabled) in a supported employment program must: (a) be engaged in part-time or full-time employment paid at a wage commensurate with the individual's production of goods or services; (b) need and be provided continuous, high-intensity or periodic, ongoing support services in order to maintain employment including support and assistance provided employers; and (c) be provided opportunities during the work day to be integrated with non-disabled individuals other than those providing direct support services to employers (Twelfth IRI, 1985, pp. 23-24).

The Developmental Disabilities Act of 1984 established four criteria for supported employment: (1) the worker must be engaged in employment; (2) this employment must be located in regular and integrated work settings; (3) there must be ongoing support and this support must be essential for maintaining employment; and (4) the worker must be severely disabled so that ongoing support is necessary to maintain employment (Federal Register, 1984). As interpreted by Wehman (1986), supported employment has the following characteristics: (a) paid jobs as the focus rather than job-preparation; (b) work in integrated business and industrial settings rather than in designated rehabilitation centers; (c) workers with severe disabilities; and (d) publicly funded ongoing support services throughout the client's employment. The four major components of supported employment are: (1) job placement, (2) job site training and advocacy, (3) ongoing assessment, (4) job retention and follow-up (Botterbusch, 1989; Federal Register, 1984).

Although there are many ways of providing supported employment services, all have the purpose of integrating people with disabilities into competitive employment. Botterbusch

(1989) described the specific models of supported employment as:

Job Coach Model. One worker is placed within competitive industry and the job coach individually trains the worker until performance criteria are met. The major advantage of the job coach model is the provision of concentrated individual services to one worker by one job coach. However, this model is almost completely dependent on the skills of the job coach; therefore, program effectiveness is often dependent on a few job coaches.

Employment Training Model. In this model several persons with disabilities receive group training for a specific job. Unlike many other training programs, this program is time-specific, meaning that workers complete it within a specified number of days or weeks.

Supported Jobs Model. In this model, a non-profit community agency is funded on the same basis as an adult day care work activity center. It has, however, no building and provides no prevocational training. All workers served by the agency work in regular community jobs, and program staff are responsible for job development, job site training, and providing ongoing support to maintain employment. The major advantage of this employment strategy is that is opens community employment to many workers denied employment because of low productivity.

Enclave Model. The enclave model offers many of the benefits of integrated employment while providing the support of a group setting. Within the enclave, payment for work performed is commensurate with pay to others

within the host company doing the same type and amount of work. Although proponents of this model do not like to admit it, an enclave often becomes a small sheltered workshop within the employer's business.

Mobile Work Crew Model. Mobile work crews operate as a business. Typically, the crews consist of one supervisor and five employees. In practice the mobile crew is a combination of a service and business. Working from a van instead of a building, the crew and supervisor spend the work day performing service jobs in community settings. Low integration occurs when crews work either in isolation or when no one else is at the job site.

Benchwork Model. This specialized model provides employment in assembling electronic and other small components. Operated as small, single-purpose companies, these organizations provide employment and other services to approximately fifteen persons who are severely and profoundly mentally retarded.

Entrepreneurial Model. This model takes advantage of local commercial opportunities to establish a business employing a small number of disabled persons as well as nondisabled persons. In effect, this model requires the establishment of a for-profit enterprise, operating under the same conditions as any other business. The only difference is that disabled persons are employed in large numbers.

A supported employment placement may not always lead to full inclusion in the workplace. Rusch, Johnson, and Hughes (1990) analyzed patterns of co-worker involvement

among 264 supported employees in relation to level of disability versus placement approach (i.e., individual job coach, enclaves, mobile work crews, etc.). Supported employees who were members of mobile work crews were found to experience far less co-worker involvement than their colleagues who were employed in individual placements. Therefore, Rusch, Johnson, and Hughes concluded that differences in degrees of inclusion (as well as co-worker association) related more to the type of supported employment placement than to the severity of individual disabilities.

Supported employment has been shown to be a viable and effective rehabilitation approach (Hanley-Maxwell & Whitney-Thomas, 1995; Shafer, 1990). In an eight-year, longitudinal benefit-cost analyses on supported employment services, Hill, Wehman, Kregel, Banks, and Metzler (1987) found a substantial savings to taxpayers, along with significant financial benefits to consumers. McCaughrin, Ellis, Rusch, and Heal (1993) assessed the monetary costs and benefits of supported employment, as well as the nonmonetary benefits (i.e., quality of life) as a result of supported employment. Supported employment was found to be beneficial from both a financial and quality of life perspective.

Train-Place or Place-Train

Staff of traditional facility and work adjustment programs usually trained individuals for a period of time and then tried to place them successfully in a community job. On the other hand, community-integrated services (i.e., supported employment) required practitioners to find the placement first, and then provide the training.

The traditional approach, often referred to as train-place, provides for the development of job ready skills and behaviors, followed by the location of suitable

employment (Szymanski, Handley-Maxwell, Hansen, & Myers, 1988). The train-place model is based on the assumption that all people with disabilities progress along a developmental continuum, requiring prerequisite skills (or job readiness) training (Botterbusch, 1989). Job readiness training is intended to prepare individuals to meet the general demands of work in areas such as attendance, punctuality, and quality of work (Wuenschel & Brady, 1959). The job readiness model is an educational model which requires the ability to generalize a whole host of job skills to a cluster of jobs (Szymanski, et al., 1988). Another assumption of the train-place model is that people with disabilities are better off in environments which separate (and protect them) from mainstream society. Numerous research and outcome studies have brought the train-place approach under scrutiny in education and rehabilitation (Bellamy, Rhodes, & Albin, 1986; Horner, Meyer, & Fredericks, 1986; Noble & Conley, 1987; Whitehead, 1987).

The place-train model, a community integration approach to placement, is often used as a synonym for supported employment. Although there are numerous variations of the place-train model, each model has four common features (Botterbusch, 1989):

(1) placement is in competitive employment;

(2) intensive training is on the job site;

(3) training is dependent on task analysis information, and the use of behavior analysis and behavior management techniques, with ongoing assessment integrated throughout the training process; and,

(4) follow-up services and advocacy are provided throughout the period of employment, rather than ending after a fixed follow-up period.

Selective and Client-centered Placement

Job placement activities may be directed solely by professional effort or they may be controlled by the individual seeking employment. These differing approaches include selective placement and client-centered placement.

Selective placement refers to the assessment of capabilities, needs, and characteristics of clients, and the subsequent matching to compatible jobs (Vandergoot, 1984). Geist and Calzaretta (1982) add, "selective placement involves matching the client with a job, while the placement practitioner acts as a resource person, agent, and advocate in obtaining the job leads, making the employer contacts, and even accompanying the client to the interview" (p. 14). Olney and Salomone (1992) designated selective placement as unsuccessful and resulting in poor job satisfaction due to the controlling role of the rehabilitation professional and the non-participatory role of the job seeker.

As a superior approach to selective placement, Salamone (1971) recommended client-centered placement, in which the client assumes responsibility, secures job leads, contacts employers, and makes placement decisions. Salomone believed that people with disabilities may be more inclined to leave their jobs when they have been uninvolved in the placement process. Marrone, Gandolfo, Gold, and Hoff (1998) also noted than an essential element of helping people keep good jobs is by having the job seeker direct his or her own job search.

Personal involvement on the part of the job seeker makes finding the job the individual's success and contributes to his or her self-esteem and confidence (Marrone, Gandolfo, Gold, & Hoff, 1998). Such involvement also develops the skills of the job seeker that will be needed to find other jobs and advance in careers.

A highly successful example of the client-centered approach is the Job Club model (Azrin & Philip, 1979). Job clubs work very effectively to provide support and information sharing. Job club activities include resume development, contacting employers, practicing advocacy, and role playing interviews (Azrin & Besalel, 1979). The components of a job club for people with disabilities offer effective marketing and accommodation strategies for all persons seeking employment.

Programmatic Experiences

Practitioners have developed and implemented numerous programs to enhance the employability of people with disabilities. The approaches taken include elements from the facility movement and community integration strategies, as well as selective and client-centered techniques. Often, practitioners have combined elements from several job placement models in the development of their unique programs.

Early pilot placement projects included Miller and Ketron's (1955) Work Exploratory Plan, as well as group vocational counseling programs (Rosenberg, 1956; Selkin & Meyer, 1960). In order to avoid prior judgment and the systematic screening out of clients needing assistance, Miller and Ketron developed a Work Exploratory Plan in cooperation with Vocational Rehabilitation and Goodwill Industries. Miller and Ketron's approach

proved to be successful in meeting the job seeking needs of individuals who had not been successfully rehabilitated by traditional rehabilitation techniques in place at the time.

Rosenberg (1956) offered a Group Vocational Counseling model for individuals to help with job orientation, job preparation, and associating with persons without disabilities. Rosenberg believed many rehabilitation clients had hidden anxieties concerning employment relationships, which could be handled effectively in a group counseling relationship. Similar to Miller and Ketron's (1955) project, the primary criterion for acceptance in group counseling was need. Rosenberg's first group of 13 varied in age from 17 to 51, with a mean age of 34. There were thirteen different disabilities represented with various physical limitations. Nine of the individuals were successfully employed as a result of the program. Rosenberg hypothesized that the diverse group experience was successful because it emphasized the importance of pooled experience among the members (Azrin, 1979).

Selkin and Meyer (1960) reported on Vocationally Oriented Group Therapy. Clients in this model were also seen as needing to share their fears and apprehensions about employment. Training in appropriate behaviors and attitudes was delivered primarily through group discussion and role playing. Additional support was offered by a professional therapist who led the group. Vocationally Oriented Group Therapy was found to be an effective method of providing placement services to people with severe disabilities.

Merz and Szymanski (1997) found that a vocational rehabilitation-based career workshop with 48 participants with a mean age of 37 was an effective means for soliciting active consumer involvement in the rehabilitation and career development process. Active

involvement enabled participants to not only make informed decisions, but also to have self-confidence about their choices. The structured setting of the workshop enabled placement counselors to provide comprehensive services in a time-efficient manner with the added benefit of peer support for the client.

Farley and Hinman (1988) used a two group, pre-test, post-test to evaluate the effectiveness of Getting Employment Through Interview Training (GET-IT), a small-group, behaviorally-oriented intervention. In role-played pretest interviews, a sample (n = 18) of vocational rehabilitation facility clients with severe disabilities demonstrated inadequate self-presentation skills. After training, GET-IT participants (n = 9) demonstrated significant improvement in both interview content and interview style behaviors, and were more likely to receive favorable hiring decisions as rated by judges. Means and Farley (1991) used similar methodology in their pilot demonstration of the effects of job application training.

Frey and Godfrey (1991) reported on a placement approach for persons with severe and persistent mental illness offered by the Program of Assertive Community Treatment (PACT) in Madison, Wisconsin. PACT is a comprehensive community-based program which integrates both clinical and rehabilitative services within the "continuous treatment team approach," also known as "training in community living." This model's desired outcomes include the prevention of recidivism and reduction of primary symptoms, increased life satisfaction, lower subjective stress, and improved social and vocational functioning. PACT's vocational services are based on a placement model which focuses on both person factors and factors of the job. The rationale of the PACT approach is that job

matches made in line with personal preferences provide for satisfied individuals with disabilities and the facilitation of job retention.

WIT Works (Whatever It Takes - Works) provides placement opportunities for individuals who have sustained a brain injury (Boelcke & Howell, 1994). WIT Works' services include vocational counseling, interest and aptitude testing, career exploration, and job shadowing. An important aspect of each individual's program is the development and involvement of the participant's circle of support. WIT Works allows individuals the chance to experiment and assess their abilities in a work environment. Depending on individual goals, placements may be fully or minimally supervised by a job coach. WIT Works assists the individual to be as independent in the job search process as possible and has been successful because its services are designed on a highly individual basis, concerns with performance are addressed immediately, and participants maintain primary control of their vocational decisions.

Job and Employer Development

> As professional people, we have an obligation to inform those around us concerning this social-centered field in which we work. It is one of the most important ways in which we can serve our community. In every way possible, we should try to make clear that disability is a normal part of our civilization (Obermann, 1960, p. 6).

Employer Perceptions of Hiring People with Disabilities

In the past, job developers for individuals with disabilities depended on the altruistic nature of employers to get their clients hired (Fabian, Luecking, & Tilson, 1995). Wuenschel and Brady (1959) believed that employers had to be enticed into hiring individuals with disabilities through the command of compelling language by placement specialists. Employers, according to Wuenschel and Brady, were naturally resistant to hiring individuals with disabilities because they had biases and misconceptions about disability. Obermann (1960), in realizing that handicaps were socially imposed, promoted the principle that it is ability rather than disability that measures the value of an individual. By presenting the value of the whole person, Michaels (1989) was certain that placement personnel could relieve employers' anxieties about working with employees with disabilities.

Employer perceptions and concerns about hiring people with disabilities are related to their overall personnel needs. A comparative analysis of public sector vocational and technical training practices and the private sector revealed the following employer preferences regarding new employees: (a) competence in basic skills; (b) potential for retraining; and (c) good attitudes over great aptitudes (Williams, 1990). In their survey of employers' issues, Gilbride, Stensrud, and Connolly (1992) found that employers were primarily concerned with job restructuring, reasonable accommodations, and establishing a good person-job fit.

In addition to finding that financial incentives do little to encourage employment of people with disabilities, Marrone, Gandolfo, Gold, and Hoff (1998) concluded that employers perceived true incentives as getting a good employee, getting good consultation

and support, and doing the right thing based on personal values. Nietupski, Hamre-Nietupski, VanderHart, and Fishback (1996) found employee dedication to be the supported employment benefit ranked highest by employers.

Approaches to Job and Employer Development

Although employers are growing increasingly receptive to working with diverse populations (Fabian, Luecking, & Tilson, 1995), there is still much work to be done in the area of disability employment. For example, a 1987 Harris survey of 921 companies found that only 43 percent employed a person with a disability, although top management, department heads, and equal employment officers rated their performance from good to excellent (Burkhalter & Curtis, 1989). To address this unemployment crisis of people with disabilities, it is imperative that employment professionals mobilize many community resources, as well as develop close relationships with other placement specialists and public and private employment agencies (Nietupski, Verstegen, & Petty, 1995; Wuenschel & Brady, 1959).

Some of the confusion in job development arises from disagreement concerning who should actually be called the customers of rehabilitation- clients, employers, or both. Marrone, Gandolfo, Gold, and Hoff (1998) defined the customer as: "the person whose needs must be satisfied as a goal of the process and whose needs take precedence over others in the process" (p. 37); therefore, they concluded that the primary customer served by the rehabilitation practitioner should be the client. However, Michaels (1989) suggested "...a two-pronged approach...in which the employer, as well as the individual with disabilities is targeted for direct intervention" (p. 69). Since effective job development involves effective

exchanges, providing services to both job seekers and employers is dictated (Bissonnette, 1994; Hagner, 1989). Employer-centered approaches to job development are dependent on acceptance of a two-client rehabilitation model.

There are basically two approaches to employer development: an applicant focus and an employer focus (Bissonnette, 1994). An applicant focus involves developing opportunities for each client on an individual basis. An employer focus, on the other hand, involves responding to businesses by matching their needs with the client's skills and abilities. Bissonnette notes that most job developers approach their work from a combination of these angles, both of which can result in employment for people with disabilities, as well as satisfied employers.

Dave Molinaro, a pioneer in marketing and job development during the 1980s, introduced the employer-service approach as an alternative to contacting employers solely on behalf of individual client placements. The employer-service approach is "a process by which a rehabilitation representative develops a sustained and reciprocal relationship with an employer" (Molinaro & Spitznagel, 1984, p. 9). Features of an employer-service (or business account) relationship include trust, mutual benefit, and personal service. Relationships are built based on providing services to employers, rather than approaching employers with a hat-in-hand approach (Bissonnette, 1994; Fabian, Luecking, & Tilson, 1994; Molinaro & Spitznagel, 1984).

Learning about the specific needs of employers is essential in the development of jobs and employer relationships. "Until we know more about the individual employer, we can not begin to respond to his or her needs. We can only guess each employer's questions,

speculate about his or her needs and the services relevant to each business. Trying to answer those questions before an employer assessment is like a doctor prescribing medical treatment before examining or diagnosing the problem" (Bissonnette, 1994, p. 151). The two-fold purpose of an employer assessment is to have a clearer understanding of what the placement practitioner can offer the employer, as well as what opportunities will be available from the employer's organization.

Cold call models and referral models are the two commonly used methods for arranging face-to-face contact with employers to assess their needs and offer employment services (Nietupski, Verstegen, & Petty, 1995). Cold calls refer to direct contacts to employers with whom the job developer has no prior connection. The cold call model is generally used when a job developer has few connections in a business targeted for contact. The cold call model allows for a high volume of business with minimal up-front effort. In the referral model, contacts to businesses are made through third-party advocates. The credibility added to the process by the advocates makes the referral model a highly respected and effective way of doing business.

Marrone, Gandolfo, Gold, and Hoff (1998) described needs, features, and benefits as the essential elements of an employer-centered approach to job development. A need is an issue, situation, or problem which requires a solution. A feature is what a product (or person) consists of and a benefit is what is gained as a result of that feature. Once an employer's needs are identified, a job developer can use client-specific features and benefits to address them. The features and benefits of the job developer's (and the agency's) services

should also be clearly understood. For example, a feature such as expertise in occupational training may translate into a benefit of reduced training costs for the employer.

As with any successful business venture, it is imperative that the job developer and his or her agency deal with employers with courtesy, responsiveness, and professionalism (Marrone, Gandolfo, Gold, & Hoff, 1998). In other words, a trusting relationship must be established with an employer that is viewed as mutually beneficial (Bissonnette, 1994). Trust, Bissonnette explains, is cultivated from long-standing relationships in which job developers: (a) provide information openly about their services; (b) encourage employers to talk with other employers with whom they have worked; (c) learn about and understand the employers' organizations; and, (d) are "absolutely clear and specific" (p. 213) about what is wanted and expected from the employer.

Through job analysis and individual assessment, rehabilitation professionals have been successful in placing individuals with disabilities in employment by either recommending a completely new position (job creation), or by combining existing tasks done partially by others into a new position (job carving) (Marrone, Gandolfo, Gold, & Hoff, 1998). Bissonnette (1994) suggested that in reality all non-traditional approaches to job development involve job creation. "The art of the job developer is to see connections between people and the opportunities they offer business for increased growth and prosperity" (Bissonnette, 1994, p. 43).

Serving as Employer Consultants

Gilbride, Stensrud, and Connolly (1992) proclaimed that the new challenge in facilitating jobs for people with disabilities would be for practitioners to provide

comprehensive, rehabilitation-related consultation services to employers. In order to integrate individuals with disabilities in the workforce successfully, employers need information on recruiting, hiring, accommodating, and supervising workers with disabilities (Michaels, 1989). One way offering consultation services can meet the human resource needs of employers is by introducing people with disabilities as a new labor market (Gilbride, Stensrud, & Connolly, 1992).

The Americans with Disabilities Act (ADA) of 1990, which stimulated employer interest in disabilities, also resulted in an increased need for consultation services from rehabilitation employment specialists. The actual impact of the ADA on hiring practices is unclear because most of the litigation has centered around the job retention and promotion issues of currently employed (or recently terminated) individuals (Marrone, Gandolfo, Gold, & Hoff, 1998). Although the purpose of the ADA is to promote employment of people with disabilities in the workplace, the interviewing restrictions imposed on employers may have limited the ways they learn about disabilities (Chima, 1998). Discrimination against people with disabilities will naturally decrease as employers gain knowledge through their work and consultation with rehabilitation professionals.

In addition to eliminating myths and stereotypes, the role of the ADA consultant involves serving as an accommodation resource (Satcher, 1992). According to Michaels (1989), the modifications employers need to make fall into three basic categories: (1) environmental; (2) equipment; and (3) procedural. Although employers may be somewhat familiar with removing architectural barriers and providing assistive devices, procedural

alterations such as task restructuring, call for expertise on the part of rehabilitation professionals. Examples of common procedural accommodations cited by Marrone, Gandolfo, Gold, and Hoff (1998) include providing specifications of tasks in writing, giving frequent feedback, and applying flexible schedules.

Competencies in Rehabilitation Employment Services

> Work is at once so commonplace that it is studied by few scholars and so familiar that practical men tend to believe that its problems can be handled by commonsense methods (Super, 1957, p. 1).

Competencies Defined

> Competencies are defined as behavior-oriented and relatively simple, observable behaviors which can be identified and measured by the frequency of occurrence (Johnson, 1977, p.1).

Olafson (1973) pointed out that competence has both negative and positive aspects. For example, seen negatively, competence implies passivity on the part of the learner, a capacity for mechanical or rote learning, and the performance of tasks without the ability to take problem-solving initiatives. In contrast, the positive dimension of the concept of competence stresses exposure on the part of the learner to liberal concepts such as autonomy and rationality.

Olafson incorporated these attributes into a working definition of competence:

> ...trained capacity or the ability to carry on some activity or perform some

> function more or less on one's own; and it must be understood that the 'activity' may be one that involves overt operations such as a surgical technique does, or symbolic operations in the way that reading a French text or solving an algebra problem does or, as is most often the case, some combination of both (1973, p. 177).

In developing a case for generic competencies, the Mayer (1992) report also went to considerable lengths to establish that competencies were not to be viewed simply as trained behaviors, but were to be seen as thoughtful capabilities. Using this positive view of competency, the report emphasized that competencies require the capacity to think about performance, as well as to perform:

> It goes beyond pure or abstract thinking to the skilled application of understanding. Because the competent performer has grasped the principles behind actions, the possibility of transferability to new contexts is heightened (p.7).

Forster (1996) pointed to the broad cognitive perspective of skills involved in the understanding of competency such as transferability of skills, application skills, contingency management skills, and job/role environment skills by saying:

> ...a competency . . . embodies the ability to transfer and apply skills and knowledge in new situations and environments and addresses all aspects of work performance (not only narrow task skills), including the requirement to manage a number of different tasks within the job (task management skills);

> the requirement to respond to irregularities and breakdowns in routine (contingency management skills); and the requirement to deal with the responsibilities and expectations of work environment (job and role environmental skills), including working with others (p.25).

In addition, Forster suggested competency standards should take workplace reform and the needs of industry into account in such a way that specified competencies include the application of skills *in* changing work situations.

Professional practice (i.e., counseling) is based on numerous dimensions, each of which is necessary for effective performance (Substance Abuse and Mental Health Services Administration, 1998). Success in carrying out a practice dimension depends on the ability to attain the competencies underlying that component. Each competency, in turn, depends on its own set of knowledge, skills, and attitudes. In order for a professional to be truly effective, he or she must possess the knowledge, skills, and attitudes of each dimension.

Competency Identification and Validation

Johnson (1977) described the identification of competencies as a relatively simple process that can be accomplished in a number of different ways. One is to call a conference of experts and have them, on the basis of their experience, develop an appropriate list. Another is to observe workers on the job and tabulate each of the many tasks and responsibilities which they demonstrate. A third method is to collect a number of job descriptions for the vocation, and analyze each description regarding the indicated competencies. Still another means is to bring experts working in the vocation of interest

together with experts who design instructional programs, so that they can jointly develop a list of essential performance competencies. The process of validated competencies for inclusion in an instructional program or as a requirement for acceptance into a vocation is considerably more complex.

Johnson's three models for validating competencies are referred to as expert consensus, product assessment, and logical analysis. Each model seeks to determine the extent to which some aspect of performance is essential (or at least important) to a particular vocation. All three models focus more on the performance aspect (i.e., what the worker actually does), than on the more abstract concepts of knowledge, experience, and attitudes.

In the expert consensus model, competencies are classified into groups having common elements and are validated by submitting questionnaires to specialists who determine which competencies are important to effective job performance. Negative values are usually omitted from the quantitative indicators on the questionnaire scale since all items included on the questionnaire were initially hypothesized to be positive. The sample of respondents must be representative of the population being investigated; therefore, some form of stratified sampling is normally used. Also, in order to be certain of the extent to which the sample is representative of the general population, confidence limits for the sample are maintained. Analysis of the data usually involves comparing mean scores, examining the distribution of scores, and arranging the competencies in rank order.

In the product assessment model, the frequency of specific, clearly observable behaviors is noted on checklists through the systematic observation of on-the-job workers. The product assessment model contains three major process elements: (a) developing

procedures for describing vocational performance in a quantitative manner; (b) studying the relationship between performance (competency) and quality of the product produced; and (c) performing experimental studies in which the competencies are tested in more controlled situations. The product assessment model, in an attempt to determine the extent to which competencies are important to a particular vocation, provides statistical comparisons as interpreted in terms of probability.

In the logical analysis model, competencies are assumed to be complex constructs rather than objective behaviors. The techniques used are analysis, inference, and judgment; therefore, conclusions are drawn from reasonable assumptions and are presented in a report.

Johnson concluded that each of the three models of competency validation have merit, provided they are used correctly. The expert consensus model is dependent on the careful selection of experts from the field of interest. If the experts are not well selected or they do not perform conscientiously, competencies may be validated on the basis of how the vocation is known to be, rather than how it should be. However, the expert consensus model, through its list of competencies developed by experts, is frequently accepted in professional circles, as well as the courts. The product analysis model is most valuable in providing data relative to the validation of the behavior oriented competencies. However, this model is ineffective in providing evidence relative to the effectiveness of competencies when there are a large variety of appropriate behaviors or when the competencies are value oriented. Due to the absence of popularity in graduate preparation programs, the logical analysis model is rarely used in social service and educational fields.

Studies in Rehabilitation Competency Identification, Validation, and Attainment

Harrison and Lee (1979)

The purpose of Harrison and Lee's (1979) study was to develop a curricular base for a master's degree program in rehabilitation counseling. Using the membership list of the National Rehabilitation Counseling Association (NRCA), 48 subjects, each with a minimum of one year's experience in rehabilitation counseling, were solicited to participate in curriculum planning. (The actual number of individuals who were contacted is not stated.) A task inventory technique was employed to elicit perceptions about proposed competencies. Similar to Johnson's (1977) expert consensus model, competency items (11 competency areas: (a) philosophy of rehabilitation; (b) human behavior; (c) community resources; (d) counseling process;(e) medical aspects of disability; (f) job analysis/placement/restructuring; (g) professional advocacy; (h) client assessment; (i) case management; (j) research utilization; and (k) management/supervision of vocational rehabilitation services, including 90 competency statements) were generated based on the rehabilitation experience of the authors, the planning committee, and the results of interviews with employed rehabilitation counselors, supervisors, and administrators.

Participants were asked to what extent each competency was a part of their job. Responses were measured on a Likert scale ranging from 1 (not a part of my job) to 8 (a most significant part of my job). Data were analyzed by descriptive and inferential techniques. Means and standard deviations were used to describe the assessment of the competencies. T-tests for significant difference between the demographic characteristics

were also utilized. Data analyses suggested that more than two-thirds (63 out of 90) of the competencies were required by rehabilitation counselors.

Competencies in the job analysis/ placement/ restructuring category with a mean rating of over 4 were:

(a) analyze the tasks of a job;

(b) analyze job training and requirements for skills in various jobs;

(c) assess job requirements and limitations of jobs;

(d) recommend restructuring jobs for varying disabilities of clients including elimination of architectural barriers;

(e) locate job openings; elicit the cooperation of employers and organized labor in hiring the handicapped;

(f) analyze potential difficulties dependent upon hiring the handicapped;

(g) use knowledge of labor market processes to assist clients in the tasks of locating, obtaining, and progressing in employment;

(h) orient the clients to the world of work and assist them in developing job seeking skills;

(i) identify, describe, and make available, when necessary, alternative work situations such as sheltered workshops; and

(j) identify educational and training requirements for specific occupations.

Porter, Rubin, and Sink (1979); Sink, Porter, Rubin, and Painter (1979)

The purpose of Porter, Rubin, and Sink's (1979) and Sink, Porter, Rubin, and Painter's (1979) studies was to identify rehabilitation counseling competencies. The subjects of the studies were counselors, evaluators, university rehabilitation educators, state agency staff development specialists, state agency administrators, facility specialists in attendance at a Southeastern regional conference. Participants were asked to rate potential competencies on a four-point scale as either : (1) essential; (2) important; (3) desirable; and (4) optional. Participants were also asked to suggest the best means/location for acquiring each competency (i.e., university, academic setting, in-service training, on-the-job training).

Over 200 competencies distributed among 13 categories were judged to be essential for rehabilitation counselors, with the great majority of the competencies in the areas of diagnosis, counseling, and placement. A representative group of the job development and placement related competencies were:

(a) demonstrate knowledge of sources of occupational information;

(b) name and utilize basic sources of occupational information in developing a comprehensive rehabilitation plan;

(c) generate, maintain, and use up-to-date occupational information using surveys, DOT, and related resource material;

(d) analyze specific community job information;

(e) analyze the tasks of a job;

(f) conduct job analyses to determine necessary job modification and restructuring;

(g) demonstrate knowledge of job modification and restructuring procedures;

(h) identify educational and training requirements for specific occupations;

(i) utilize occupational information to make recommendations for clients regarding training and placement;

(j) use experiential career exploration methods;

(k) list critical behaviors for retaining employment;

(l) identify methods to evaluate client effectiveness on the job;

(m) list major societal barriers to the job placement and employment maintenance for the handicapped;

(n) describe theories and principles concerning work and career development;

(o) use knowledge of labor market processes to assist a client in setting employment goals;

(p) activate the participation of employers and organized labor in hiring people who have disabilities;

(q) identify the most common employer objections to hiring the handicapped and can counter objections with appropriate information;

(r) demonstrate knowledge of affirmative action laws;

(s) teach and demonstrate effective job seeking skills to client at different functional levels;

(t) assist client in examining and evaluating information concerning training and career opportunities and in making appropriate choices;

(u) develop and maintain a placement file for client and professional use;

(v) design an appropriate job placement program; and

(w) conduct a follow-up interview with employers to assess the effectiveness of placement.

Danek, Wright, Leahy, and Shapson, (1987); Leahy, Shapson, and Wright (1987); Wright, Leahy, and Shapson (1987); Leahy, Shapson, and Wright (1987); Shapson, Wright, and Leahy (1987)

A general review of the literature on professional rehabilitation competency importance and practitioner attainment was provided by Danek, Wright, Leahy, and Shapson, (1987). Leahy, Shapson, and Wright (1987) provided a comprehensive description of the methodology utilized in a national study on the competencies of vocational rehabilitation practitioners in major specializations and employment settings. The relative importance to rehabilitation counselors of professional competencies, as measured by the Rehabilitation Skills Inventory (RSI) was reported by Wright, Leahy, and Shapson (1987). Subsequent research headed by Leahy, Shapson, and Wright (1987) focused on the self-reported importance and attainment of practitioner competencies among rehabilitation

counselors, vocational evaluators, and job placement specialists across three major employment settings. Finally, Shapson, Wright, and Leahy (1987) investigated the relative differences in the perceived attainment of professional competencies according to the educational and experiential backgrounds of rehabilitation counselors, vocational evaluators, and job placement specialists working in three major employment settings. The nationwide sample used in these series of studies consisted of practitioners who were functioning as rehabilitation counselors, vocational evaluators, or job placement specialists in either public rehabilitation, nonprofit facilities, or private for-profit sectors. Three separate random samples of practitioners (public, nonprofit, private for-profit), stratified by specialization (rehabilitation counselors, vocational evaluators, job placement specialists), were chosen for this study. All procedures used in the data collection phase of this study were pretested through extensive field trials and a pilot study ($\underline{n}$ = 586). The final versions of the Rehabilitation Skills Inventory (RSI) and demographic questionnaire were administered to 3,614 practitioners. Return rate was 37 percent. The RSI is a self-report instrument consisting of 114 competency items rated on 5-point Likert-type scale ranging from 0 to 4 (0 = none, 1 = little, 2 = moderate, 3 = high, and 4 = maximal) according to (a) the extent to which each competency was considered important in the participant's primary work role, and (b) the participant's perceived level of attainment. The RSI was developed by methodology involving expert judges (Johnson, 1977) and extensive field tryouts. The content validity of the RSI was based on the types of items selected from previous research efforts in which content validation was based on functional job analysis procedures. Content validity of the instrument was also presumed from the development methodology employed in the

construction, field trails, and pretesting of the instrument. Construction of the RSI, including collection, processing, selecting, and categorizing items as well as extensive pretesting, took over a year. Criteria for selecting RSI competency items included distinctiveness, used in meeting client service needs, amenability to training for professional performance, item clarity, and suitability for self-evaluation. Moreover, consideration was given to empirical data: (a) internal consistency and test-retest reliability (to identify faulty items), (b) inter-correlation of items (to eliminate duplication), and (c) factor analysis (to assist in placing items into appropriate categories).

As noted earlier, research initiated by Leahy, Shapson, and Wright (1987) focused on the self-reported importance and attainment of practitioner competencies among rehabilitation counselors, vocational evaluators, and job placement specialists across three major employment settings. Competencies that were generic or common to professional practice for the three specializations were identified, as well as unique competencies considered important for each specialty area. Differences in perceived competency importance and attainment among specializations as related to employment settings were also reported. Specifically, the following research questions were posed:

1. What are the patterns of competency importance for the three specializations of practitioners?

2. Do perceptions of competency importance and attainment differ according to practitioner specialization and employment setting?

A. Do perceptions differ according to specialization?

B. Do perceptions differ according to employment setting?

C. Do perceptions differ according to specializations in interaction with employment setting?

The results indicated that 50 percent of the competency areas (clusters) were considered important (moderate or higher) for all three specializations. These five important competency areas included: vocational counseling, assessment planning and interpretation, personal adjustment counseling, case management, and job analysis. Both rehabilitation counselors and job placement specialists perceived four other competency areas as at least moderately important: job placement, group and behavioral techniques, professional and community involvement, and consultation. In all, 90 percent of the competency areas were considered at least moderately important within both counseling and placement specializations. Vocational evaluators were the only specialization to uniquely rate a competency area as important, assigning at least moderate importance to competencies in assessment administration. In order to determine whether perceptions of competency importance differed according to practitioner specialization and employment setting, a series of 3 x 3 analyses of variance was performed. In these analyses, the dependent variables consisted of mean importance scores on individual item clusters, whereas the independent variables were type of practitioner specialization and employment setting, each at three levels. Overall, ten separate ANOVAs (GLM) were conducted to test for main effects (specialization, setting) and interaction effects (specialization x setting) in relation to competency importance.

In relation to differences among the specializations, a number of significant comparisons were noted. Counselors, for instance, attributed a significantly higher degree of importance to competencies related to vocational and personal adjustment counseling, case management, job placement, group and behavioral techniques, professional and community involvement, and consultation than did vocational evaluators; counselors also attributed a higher level of importance to personal adjustment competencies than did placement specialists. Evaluators perceived assessment competencies as significantly more important than did either counselors or placement specialists. Placement specialists rated case management, job placement, group and behavioral techniques, professional and community involvement, consultation, and job analysis significantly higher in importance than did evaluators.

Differences in perceptions of competency importance also emerged in relation to employment setting. Practitioners in the private for-profit sector rated competencies in the areas of vocational counseling, casement management, job placement, consultation, and job analysis as more important than did practitioners in the other two settings. Practitioners in nonprofit facilities emphasized higher levels of importance for competencies related to assessment and group and behavioral techniques than did practitioners in the other settings. These findings generally supported the concept that the different rehabilitation settings vary in the emphasis or on importance attributed to certain competency areas.

To determine whether practitioner specialization and employment setting were related to the perceived attainment of various professional competencies, an additional series of 3 x 3 analyses of variance (ANOVAs) was performed. The dependent variables used in

these analyses consisted of mean attainment scores on the ten RSI item clusters. The two independent variables were specialization and employment setting, each at three levels. In regard to specialization, significant main effects were obtained on all clusters except vocational counseling, which did not show significant differences according to specialization. Vocational evaluators perceived their levels of attainment to be significantly higher than those of rehabilitation counselors or job placement specialists on the two assessment (interpretation and administration) clusters, and significantly higher than those of counselors on job analysis items. Counselors and job placement specialists showed significantly higher levels of perceived attainment than vocational evaluators on clusters involving case management, job placement, behavioral methods and group techniques, professional and community involvement, and consultation. Placement specialists also had significantly higher means on job placement and job analysis clusters than counselors. In contrast, rehabilitation counselors were significantly higher than evaluators or job placement specialists in reported attainment of personal adjustment counseling skills.

These results suggest that rehabilitation counselors and job placement specialists are more similar than dissimilar in perceived patterns of competence, and they tend to differ in perceived expertise on competencies related to personal adjustment counseling, job placement, and job analysis. In addition, vocational evaluators seem to have a more restricted range of competence on the basis of their own self-reports and their competencies are directly related to vocational assessment (interpretation, administration) and job analysis.

In regard to setting differences, significant main effects were obtained on eight of the competency clusters, all except assessment interpretation and assessment administration.

Practitioners in the private for-profit sector reported significantly higher levels of attainment than practitioners from the public and non-profit sectors on six of the eight clusters. These clusters included vocational counseling, personal adjustment counseling, case management, job placement, consultation, and job analysis. In addition, mean scores of private for-profit practitioners were significantly higher than those of non-profit practitioners on competencies related to professional and community involvement, and significantly higher than those of non-profit practitioners on behavioral and group techniques. The only cluster on which practitioners in the non-profit sector reported significantly higher attainment than public practitioners was behavioral and group techniques. The public practitioners reported significantly higher attainment on consultation and job analysis skills than practitioners in the non-profit sector.

One particularly striking difference in setting was observed: practitioners in the for-profit sector had significantly higher means of reported attainment than practitioners in both the public and nonprofit sectors in six out of the eight clusters in which significant differences were found (vocational counseling, personal adjustment counseling, case management, job placement, job analysis, and consultation). In addition, for-profit practitioners were significantly higher than public practitioners on behavioral and group techniques, and higher than nonprofit practitioners on professional and community involvement. These results could be a function of the selection process that screens applicants in or out of this newly developed and highly competitive employment sector; or they may be more directly related to the fact that this sector had the highest percentage of practitioners trained at the master's degree level.

The results obtained in this study on competency importance and attainment warrant a number of conclusions. First, the data provide a descriptive basis that serves to clarify the similarities and distinctions among the three disciplines. The findings indicate that rehabilitation counselors, vocational evaluators, and job placement specialists share a common core of competencies to which they attribute at least moderate importance in their respective work roles (vocational counseling, assessment planning, interpretation, personal adjustment counseling, case management, and job analysis). Furthermore, rehabilitation counselors and job placement specialists did not differ significantly in their perceptions of the importance of six of the competency areas; these two groups also perceived nine of the areas as at least moderately important. These findings suggest that these two specializations are closely related both in competency areas considered important and in the level of importance attributed to the individual competency areas. Second, the results identify those competency areas considered most important by each discipline across settings, thus providing a description or pattern of the important competencies for each discipline.

Differences in the perception of competency importance also emerged in relation to the employment setting of practitioners. These findings serve to describe the varying degrees of emphasis in the three settings in relation to competency importance, as well as to indicate specific competencies emphasized in each setting. The results provide support for previous research indicating the influence of setting-based factors on the importance of practitioner competencies. In addition, the results obtained in relation to competency attainment not only provide a current description of perceived attainment levels, but also provide support for the

emerging pattern of similarities and differences in professional competencies in relation to practitioner specialization and employment setting.

The findings from this study seem to have several applications. Competency areas identified as the most important to each discipline, considered in conjunction with the varying emphasis found within settings regarding important competency areas, could serve as a guide for curriculum development at the preservice level to ensure that relevant knowledge and skill competencies are emphasized. Data regarding the similarities and differences in competency importance and attainment among the disciplines could be examined and utilized for future planning to unify professional training efforts for these specializations. Finally, the results could provide a basis for future considerations of the unification of professional activities, including such significant issues as professional identity and credentialing processes.

The final study in this series by Shapson, Wright, and Leahy (1987) investigated the relative differences in the perceived attainment of professional competencies according to the educational and experiential backgrounds of rehabilitation counselors, vocational evaluators, and job placement specialists working in three major employment settings. Other professional characteristics (e.g., certification status, membership in professional organizations) were examined in relation to the educational background of practitioners. Results suggest that the level and type of educational degree held by rehabilitation professionals are related to competency attainment and other professional characteristics. A fundamental aspect of this study was the identification and description of participants on the basis of their preservice educational background. Specifically, those practitioners with

bachelor's or master's degrees were partitioned into groups on the basis of their highest degree earned and major area of study. Participants were also asked to rate their satisfaction with their preservice and continuing education. Each type of education was rated according to a 5-point Likert-type scale (1 - unsatisfactory, 5 = completely satisfactory) on the basis of (a) its perceived relevance to current rehabilitation practice and (b) the amount of training already received. Results showed a significant relationship between practitioners' level of preservice education and competency attainment. Practitioners with master's degrees in rehabilitation counseling showed significantly higher mean perceived attainment than one or more other education groups on the five competency clusters related to vocational counseling, personal adjustment counseling, case management, job placement, and consultation. The relationship of experience to competency attainment was also found to be significant on seven of the item clusters.

Sigmon, Couch, and Halpin (1987); Coffey (1978); Sigmon (1982)

To validate two different approaches to investigating the relative importance of competencies for vocational evaluators, Sigmon, Couch, and Halpin (1987) compared the studies completed by Coffey (1978) and Sigmon (1982) in the Southeast. Coffey (1978) synthesized a list of 175 primary vocational evaluator competencies from over 2500 competency statements, and then, using a 5-point Likert scale, had groups of practitioners/students and rehabilitation facility educators rate the statements relative to importance. Of the 175 competency statements provided, 188 were rated by more than 50 percent of the respondents as essential skills or knowledge. Tentative factors identified included: (1) vocational evaluation administration; (2) client vocational evaluation process;

(3) client placement skill-job analysis; (4) psycho-social-cultural aspects of disability; (5) rehabilitation system; (6) work samples; (7) communication skills; and (8) program evaluation. Sigmon (1982) used Coffey's competency statements in studying the application of judgmental standards setting methods to competency statements.

Although both the Coffey (1978) and Sigmon (1982) studies utilized the same list of 175 competency statements defining the role of the vocational evaluator, each required raters to make decisions regarding the importance and relevancy of the competency statements in an entirely different manner. Coffey's sample was composed of three groups (practitioners, educators, and graduate students) while Sigmon used only two groups (field personnel and educators).

In Sigmon, Couch, and Halpin's study, students and practitioners from the Coffey sample were combined, and when the results from the Coffey and Sigmon studies were compared, the correlation coefficients ranged from .63 to .88. The results of Sigmon, Couch, and Halpin's comparisons suggested a consensus on the role and function of the vocational evaluator, and also demonstrated the applicability of judgmental standard setting methods to competency statements.

Leahy and Wright (1988)

Leahy and Wright (1988) presented findings on the competencies of vocational evaluators. As with previous studies (i.e., Wright, Leahy, & Shapson, 1987), they utilized the Rehabilitation Skills Inventory. Two hundred seventy (34 percent) of 803 evaluators responded to the instrument. Results indicated that evaluators perceived six areas (assessment planning and interpretation, vocational counseling, assessment administration,

job analysis, case management and personal adjustment counseling) of competencies to be moderately important within their primary work role.

Beardsley and Rubin (1988)

To identify job tasks and knowledge shared by six groups of rehabilitation service providers (rehabilitation counselors, vocational evaluators, work adjustment specialists, job development/placement specialists, rehabilitation nurses, and independent living service providers), Beardsley and Rubin (1988) developed the Rehabilitation Profession Job Task Inventory and the Rehabilitation Profession Knowledge Competency Inventory. The instruments were sent to 2,273 and 2,270 providers, respectively, and produced return rates of 78.5 percent and 79.6 percent.

The two research questions investigated were:

1. What are the job tasks and job functions (groups of interrelated job tasks) that are common to the major groups of rehabilitation service providers?

2. What are the knowledge areas and knowledge domains (groups of interrelated knowledge areas) that are common to the major groups of rehabilitation service providers?

The sample was composed of applicants for the Certified Rehabilitation Counselor and the Certified Insurance Rehabilitation Specialist examinations during one testing cycle; randomly drawn certified rehabilitation counselors, certified vocational evaluators, certified work adjustment specialists; randomly drawn members of the Job Placement Division of the

National Rehabilitation Association; and independent living service providers representing 100 independent living programs. Each of the sample groups were split into two groups, and were designated to receive either a job task inventory or a knowledge inventory.

Job task respondents were asked to rate the frequency with which they performed each of the 107 job tasks in their present job on a 6-point scale from (1) do not perform this task to (6) perform 6 or more times a month. Respondents of the knowledge inventory were asked to rate the frequency with which they utilized each of the 75 areas of knowledge in their present job on a 6-point scale from (1) do not utilize this knowledge to (6) utilize 6 or more times a month.

Twenty-nine of 107 job tasks and 28 of 75 areas of knowledge were identified as generic to the six groups surveyed. Through factor analysis, the 29 generic job tasks and the 28 generic knowledge areas were found to represent four job functions and four knowledge domains, respectively. A job task or knowledge area was considered generic to all six groups of service providers if it achieved a 3.00 or higher mean rating (performed or utilized at least once a month) by each group.

The results of this study generally support and extend the findings of research by Leahy, Shapson, and Wright (1987) which found that vocationally-related competencies were generally perceived as important by rehabilitation counselors, vocational evaluators, and job placement specialists. Implications of this study are relevant for rehabilitation credentialing practices and rehabilitation education core curricula. The results also suggest that the following subjects would be appropriately included in curricula: human service delivery systems and resources; basic medical terminology; medical services and treatments

(including medications and assistive devices); medical aspects of disabling conditions; personality theory; counseling theories and modalities; principles of behavior modification; and legal and ethical issues in rehabilitation.

Ebener, Berven, and Wright (1993)

Ebener, Berven, and Wright (1993) surveyed a nationwide sample of rehabilitation educators regarding their self-perceived abilities to teach competencies relevant to rehabilitation practice. As a group, the educators perceived their abilities to be highest in teaching vocational counseling, personal adjustment counseling, and professional development and community involvement. Educators who had completed graduate degrees with majors in rehabilitation perceived their abilities to be significantly higher than educators with other graduate majors in teaching the competencies of vocational counseling; case management; job placement; professional development and community involvement; and consultation, expert opinion, and marketing. No significant differences were found, however, in self-perceived abilities in relation to experience in rehabilitation education or experience in rehabilitation practice, supervision, and administration.

Browning, Brown, and Dunn (1993)

As part of a larger study of Alabama's transition services for students with disabilities, Browning, Brown, and Dunn (1993) reported findings regarding vocational preparation and interagency cooperation. The participants (special education coordinators and teachers) were randomly selected from both city and county schools in twelve statewide educational regions. The instruments used to survey the special education personnel were the Coordinator Survey Instrument (CSI) and the Teacher Survey Instrument (TSI), with the

coordinators and teachers, respectively. Participants were also provided a list of competencies and were asked to evaluate their strengths in the area of vocational preparation on a four-point scale, as well as the importance of the specific competencies regarding interagency cooperation.

Responses to the survey were analyzed from 79 coordinators (60 percent return rate) and 302 teachers (45 percent return rate). The results indicated concerns in both the areas of vocational preparation and interagency cooperation. For example, while over half of the teachers were not currently involved in the vocational preparation of their students, over 80 percent of them stated a need for personnel preparation in that area. Nearly all (96 percent) of the teachers reported that they did not coordinate work experiences for their students. Forty-five percent of the teachers and 39 percent of the coordinators also felt they needed additional training in order to work more effectively in community collaboration. Over three-quarters of the participants rated knowledge of adult service programs and the school-community coordination as important competencies.

Szymanski, Linkowski, Leahy, Diamond, and Thoreson (1993); Linkowski, Thoreson, Diamond, Leahy, Szymanski, and Witty (1993); Leahy, Szymanski, and Linkowski (1993); Szymanski, Leahy, and Linkowski (1993); Szymanski, Linkowski, Leahy, Diamond, and Thoreson (1993); Leahy and Szymanski (1993)

The primary purpose of this series of studies was to validate and update the knowledge standards for rehabilitation counseling accreditation and certification. The studies used descriptive, ex post facto, time-series designs, and three sampling frames, which are

related to the certification and accreditation processes. Participants in the studies were 1,025 counselors who renewed their certification in 1991.

In Szymanski, Linkowski, Leahy, Diamond, and Thoreson's (1993) initial study, the participants were certified rehabilitation counselors who practiced their profession across a variety of employment settings. Mean ratings for this sample indicated that 52 of the 55 knowledge areas represented in the Commission on Rehabilitation Counselor Certification (CRCC) and Council on Rehabilitation Education (CORE) standards were perceived as at least moderately important to practice in the specific settings in which the participants were employed. Additionally, 41 of the 55 knowledge areas were perceived as at least of moderately high importance. The items of (a) foundation knowledge; (b) service delivery specific knowledge; and (c) new or emerging applications were rated as considerably less important. The items of (a) job analysis, (b) job modification and restructuring techniques; (c) accommodation and rehabilitation engineering; (d) job placement strategies; (e) supported employment services and strategies; (f) employer practices that effect employment or return to work; (g) services to employer organizations; and (h) job and employer development had mean scores ranging from 2.63 (supported employment) to 3.23 (job placement strategies). Therefore, based on a scale of 0 (not important) to 4 (very highly important), the competencies in the area of employment services were viewed as being moderately to highly important.

Linkowski, Thoreson, Diamond, Leahy, Szymanski, and Witty (1993) developed an instrument which (a) represented the existing knowledge standards used in rehabilitation counseling certification and accreditation, and (b) allowed for identification of new and

emerging knowledge areas. Principle components analysis in which all items were loaded revealed the following knowledge domains: (a) vocational counseling and consultative services; (b) medical and psychosocial aspects of disability; (c) individual and group counseling; (d) program evaluation and research; (e) case management and service coordination; (f) family, gender, and multicultural issues; (g) foundations of rehabilitation; (h) workers' compensation; (i) environmental and attitudinal barriers; and (j) assessment. Cronbach's alpha coefficients of the resulting subscales of the instrument ranged from .72 to .95 indicating moderate to high internal consistency reliability with items within the vocational counseling and consultative services domain represented as follows: (a) job placement strategies (.87); (b) job and employer development (.86); (c) client job-seeking skills development (.85); (d) client job retention skills development (.80); (e) follow-up and post-employment services (.79); (f) job analysis (.75); (g) job modification and restructuring techniques (.73); (h) employer practices affecting return to work (.70); (i) occupational and labor market information (.70); (j) services to employer organizations (.68); (k) planning for rehabilitation services (.64); (l) accommodation and rehabilitation engineering (.58); (m) vocational implications of various disabilities (.57); (n) supported employment services and strategies (.52); (o) theories of career development and work adjustment (.52); (p) physical/functional capacities of individuals (.40); and (q) computer applications and technology (.34).

Leahy, Szymanski, and Linkowski (1993) examined the perceived importance of knowledge areas underlying rehabilitation counselor credentialing and found a common core of knowledge with differences across respondent characteristics. The analysis conducted to

detect differences among certified rehabilitation counselors in the level of importance attributed to various knowledge domains reveals a number of important findings. Grouping respondents according to employment setting and job title accounted for frequent differences in knowledge importance among all the variables examined. The differences related to the employment settings' underlying policy climate, philosophy, mission, goals, clientele served, and procedures used in the rehabilitation process.

The purposes of Szymanski, Leahy, and Linkowski's (1993) study were to investigate perceived preparedness and to assess differences in perceived preparedness across respondent characteristics. The instrument consisted of 58 rehabilitation counseling knowledge items which assessed both the perceived importance of the item and the respondent's preparedness in the knowledge area addressed by the item. A sample of 1,535 rehabilitation counselors who renewed their certification between March 1991 and October 1992 reported that they were at least moderately prepared in the following areas: (a) vocational services; (b) foundations of rehabilitation; (c) case management and services; (d) group and family counseling; (e) medical and psychosocial aspects; (f) workers' compensation, (g) employer services and technology; (h) individual counseling and development; (i) social, cultural, and environment issues; (j) research; and (k) assessment. The results of this study were generally consistent with similar research by Shapson, Wright, and Leahy, 1987; however, whereas the previous study addressed competency attainment, this study examined the extent of preparedness through education or training.

Szymanski, Linkowski, Leahy, Diamond, and Thoreson (1993) investigated the training needs of a sample of 1,535 certified rehabilitation (of a total of 2,478) counselors

who renewed their certifications between March 1991 and October 1992. The instrument used for this study consisted of 58 items, each rated on two 5-point Likert-type Scales. The research design for the study was descriptive and ex post facto. The descriptive portion of the study addressed the following research question: What are the components of human resource development needs of certified rehabilitation counselors? The ex post facto portion of the study addressed the following research hypotheses: Human resource development needs differ by gender, preservice education, job levels, job settings, job titles, and years of service.

The groups of variables were human resource development needs and respondent characteristics. For the descriptive design, needs were defined by the discrepancy scores (the difference between the importance and the preparedness ratings) on the 58 knowledge items of the instrument. Data for the respondent characteristic variables were obtained from a demographic form that was completed by respondents along with the study questionnaire.

Human resource development needs were reported to be primarily in the areas of (a)vocational services; (b) medical and psychosocial aspects; (c) case management; and (d) social, cultural, and environmental issues. The perceived learning needs were found to be significantly different across all job levels, settings, and titles.

DeFur and Taymans (1995)

DeFur and Taymans (1995) identified and validated competencies of transition specialists. Their national study included personnel from vocational education, special education, and vocational rehabilitation. Because it is recommended for studies in which competencies have not been previously validated, the steps of Johnson's (1977) expert

consensus model were followed: (1) identify the competencies through multiple sources; (2) categorize and organize the competencies; (3) develop an instrument that uses a Likert scale; (4) establish the sample of experts; (5) collect the data; and (6) analyze data in terms of the purpose for which the competencies will be used.

Initially, 636 competencies identified by Baker and Geiger (1988) were classified into 14 domains, and then 29 other competency areas were added as a result of a review of transition literature. Content analysis data-reduction methods were used to reduce the number of competencies to 135, and new domain headings were developed. Twelve experts knowledgeable in the field of transition provided feedback on the phraseology, clarity, and categorization of the 135 competencies and domains. This process resulted in a reduced list of 116 competencies within twelve categorical domains.

The survey included a section on demographic and descriptive data concerning the roles and training needs of the populations sampled, as well as a section on competency validation. Respondents were asked to respond to the following Likert scale regarding each competency item: (1) not essential to the role of transition specialist; (2) minimal importance to the role of transition specialist; (3) important skill for the transition specialist; (4) very important skill for the transition specialist; and, (5) absolutely critical to the role of transition specialist.

One hundred forty-nine completed surveys (78 percent response rate) were returned from transition specialists. The make-up of the respondents were as follows: 40 percent direct service providers, 34 percent administration and direct service, and 26 percent administrators with experience as direct service providers; and 27 percent vocational

rehabilitation, 38 percent vocational special needs education, and 34 percent special education. All participants held a minimum of a bachelor's degree, with 74 percent holding a master's degree and five percent a doctoral degree. Fifty percent of respondents had been in their current transition specialist position for three years or less, although more than 65 percent of respondents had been working in their respective fields for more than ten years.

Likert Scale ratings were used to calculate descriptive statistics for each of the 116 competencies and twelve domains. Individual competencies receiving a mean rating of 3.0 or higher were defined as meeting the criteria of an essential competency, and competencies falling below the cutoff of 3.0 were analyzed for scatter influences on ratings. Competencies were ranked within domains based on competency mean values, and competency domains were ranked based on group mean values. Essential competency areas were identified as those competency domains receiving group means above 3.0.

The results of this comprehensive study indicated that most of the competencies were either very important or critical in the role of transition specialist. Although the differences between domain means were slight, the top three ranked competency domains primarily reflected skills related to coordination, communication, and collaboration of transition services, rather than direct client services. Further examination of the highest-ranked competencies within these domains revealed that they parallel many of the skills cited in the literature as crucial: collaboration, ability to facilitate change, a working knowledge of other team member roles, knowledge of agency practices, and effective interpersonal communication skills.

Seven competency domains emerged as central to the role of transition specialists:

1. knowledge of agencies and systems change
2. development and management of individual transition plans
3. working with others in the transition process
4. vocational assessment and job development
5. professionalism, advocacy, and legal issues
6. job training and support
7. assessment (general)

Interestingly, the highest-rated direct service competencies were job development, assessment, placement, and support services, rather than direct instructional training. Although the results of the study provide a validated knowledge base for transition specialist practitioners, the actual acquisition of these competencies is not addressed.

Feldman and Gordon (1996)

Feldman and Gordon (1996) evaluated the importance of transition competencies of seventy-five teachers of students with emotional or behavior (E/BD) disorders. The following questions were generated:

1. Are there differences in participants' evaluations of the relative importance of transition knowledge competencies required by E/BD teachers?

2. Are there differences in participants' evaluations of the relative importance of transition skill competencies required by E/BD teachers?

The teachers rated process-oriented competencies (e.g., teaching daily living skills, teaching consumer skills) as significantly more important than outcome-oriented competencies (e.g., assessment and evaluation, principles of career/vocational evaluation).

Koch and Rumrill (1997)

Koch and Rumrill's (1997) primary thesis was that because the vast majority of rehabilitation counselors work in settings other than state-federal vocational rehabilitation (VR) agencies, career planning for those entering the profession should include consideration of non-traditional rehabilitation settings. They concluded that competencies specific to these specializations may be different than those competencies developed for state-agency personnel. The major knowledge domains previously identified as central to the role and functions of rehabilitation counselors are (a) vocational counseling and consultative services; (b) medical and psychosocial aspects of disability; (c) individual and group counseling; (d) program evaluation; (e) case management and services coordination; (f) family, gender, and multicultural issues; (g) foundations of rehabilitation; (h) Workers' Compensation; (i) environmental and attitudinal barriers; and (j) assessment.

Summary

The discipline of job placement has not been extensively studied relative to its professional competencies. Numerous discussions in the literature address the need for job placement specialists (e.g., Crimando, 1982; Usdane, 1974), but there is a lack of empirical research that describes this specialty area and the functions of its practitioners. Decker and Stanojevich (1978) conducted a national survey of placement specialists in state agencies, but for the most part the literature in this area is non-empirical and lacking in agreement. Most of the research-based knowledge in the placement area was conducted through rehabilitation counseling studies or through the examination of placement as a specific function of the rehabilitation counselor (e.g., Zadney & James, 1977).

III. METHODS

The purpose of this research was to identify and validate the competencies needed by individuals working in the field of rehabilitation employment services to perform their jobs effectively. This chapter restates the research questions and describes the methodology of the study. The research instrument, data collection procedures, participant characteristics, and statistical analysis procedures are discussed.

The research for this study was guided by the following questions:

- What, if any, differences exist between practitioners' and educators' perceptions of competency importance?
- What, if any, differences exist between the perceptions of competency importance of individuals employed in the rehabilitation field for 20 years or less and those employed greater than 20 years?
- What, if any, differences exist between men and women's perceptions of competency importance?
- What, if any, differences exist between the perceptions of competency importance of individuals 40 years old or younger and those older than 40?
- What, if any, differences exist between minorities' and non-minorities' perceptions of competency importance?

Research Methods and Design

Because it is recommended for studies in which competencies have not been previously validated, the steps of Johnson's (1977) expert consensus model were followed: (1) identify the competencies through multiple sources; (2) categorize and organize the competencies; (3) develop an instrument that uses a Likert Scale; (4) establish the sample of experts; (5) collect the data; and (6) analyze data in terms of the purpose for which the competencies will be used (Defur & Taymans, 1995).

Twenty-five competencies, identified by previous research and a review of the literature, were classified into the following five domains: History and Legislation; Employer Development and the Work Environment; Job Matching and Placement; Employment Supports; and Other. Three experts (individuals knowledgeable in the field of rehabilitation employment services) provided feedback on the phraseology, clarity, and categorization of the 25 competencies and five domains.

Research Instrument

Competencies included as survey items in this research were initially identified by practitioners/students in the course of evaluation of their training courses. Over one hundred practitioners enrolled as students in Auburn University's Academic Certificate Program in Community Services during 1999-2004 developed a list of 25 competencies based on their extensive field-based experiences , as well as their course work in rehabilitation employment services. The survey was then designed by the researcher to gather demographic information on the participants (educators and practitioners), and to identify their perceptions of the relative importance of 25 competency items. Section one solicited a detailed demographic

background of each participant. Inquiries were posed regarding current employment position, type of employer, geographic region, years employed in the rehabilitation field, gender, age, educational level, professional certification/licensure, and ethnic or racial affiliation. Section two consisted of 25 Likert Scale items to ascertain the respondents' perceptions concerning competencies in the field of rehabilitation employment services. To indicate the level of importance they assigned each of the 25 items, participants responded by selecting one of the following responses:

5 = absolutely critical

4 = very important

3 = important

2 = not very important

1 = not essential

Face validity was established by the instrument's appearance as applicable and logical in regard to its designated function (Ary, Jacobs, & Razavieh, 2002), and as a result of extensive literature review of competency studies in rehabilitation and related fields. Also contributing to the validity of this instrument was the credibility gained from the competencies being initially identified by practitioners/students in the course of evaluation of their training courses in rehabilitation employment services.

In order to test "the extent to which the measure would yield consistent results each time it is used" (Ary, Jacobs, and Razavieh, 2002, p. 227), the reliability (internal consistency) of the instrument was evaluated by using Cronbach's (1951) coefficient alpha. Cronbach's alpha is recommended for instruments using Likert Scales (2002).

Data Collection Procedures

Data collection was accomplished by employing an Internet-based survey instrument. (A copy of the instrument is in Appendix B.) In order to protect the privacy of responses, no attempt was made to identify the individual participants. The survey was designed on Microsoft FrontPage and all responses were returned to a secured server which blocked the return e-mail addresses and protected identifying information. Once the data collection was complete, the data were exported to the researcher's computer, saved as a Statistical Package for the Social Sciences (SPSS) program file, and then analyzed.

An electronic survey was selected for this research in order to provide easy access to the participants, to increase the numbers of respondents, and to defray costs. According to Dillman (2000), since most professionals have access to Web surveys, there is no other method...that offers so much potential for such little cost..."(p. 400). In addition to finding a significantly faster response time with electronic surveys, Shannon and Bradshaw (2002) noted that costs for "distribution of surveys and preparation of data for analysis were much lower..."(p. 179) than with traditional methods. Unfortunately, a high rate of undeliverable e-mails may be experienced when surveying electronically (2002). To avoid a large volume of returned e-mails in this research project, only individuals from updated membership e-mail lists of two professional organizations were contacted.

Participants

Subjects for this study were rehabilitation practitioners and educators accessed through the membership lists of the National Rehabilitation Association of Job Placement and Development Division (NRA-JPD) and the National Council on Rehabilitation

Education (NCRE). Information letters were sent to the participants via their e-mail addresses and an electronic link was provided to "connect" the participant with the survey. Once the survey was completed, the participant indicated "submit" and the data were sent to an electronic data base.

Statistical Analysis Procedures

The computer software program, Statistical Package for the Social Sciences (SPSS) (13.0), was used to analyze the data. Analysis of the data involved comparing mean scores, examining the distribution of scores, and arranging the competencies in rank order. Data analysis began with a tabulation of the demographic information collected in section one of the survey to provide a detailed description of the respondents. Frequency distributions and percentages were then calculated for each item.

Likert Scale ratings were used to calculate descriptive statistics for each of the 25 competencies and five domains. The competency ratings given in section two of the survey served as the dependent variables. In order to assess internal consistency among items, reliability analysis was conducted for each domain. Statistical tests conducted included (a) one-way multivariate analysis of variance (MANOVA), (b) Box's Test of Equality of Covariance, and (c) one-way univariate analysis of variance within subjects (ANOVA).

Detailed discussions of the results are provided in Chapters 4 and 5.

IV. RESULTS

Twenty-five competencies among five domains were validated using the Expert Consensus Model (Johnson, 1977). Through an on-line survey, specialists (practitioners and educators) determined which aspects of performance were essential (or at least important) to the vocation of rehabilitation employment services. Of the 701 individuals solicited for participation in this study, 143 (20.4%) submitted a survey. Due to missing data cases, the original sample size was reduced to 141 (20.1%).

Demographic Information

Based on their current employment position, the participants were categorized as practitioners (72, 51.1%) and educators (69, 48.9%). Sixteen participants (11.3%) identified their current employment positions as job development/placement practitioners, 22 (15.6%) as rehabilitation counselors, 5 (3.5%) as vocational evaluators, 24 (17%) as rehabilitation administrators, 5 (3.5%) as rehabilitation practitioners, 10 (7.1%) as college or university instructors, 20 (14.2%) as assistant professors, 19 (13.5%) as associate professors, 7 (5%) as professors, 4 (2.8%) as college or university administrators, and 9 (6.4%) as other educators. (See Table 1.)

Table 1: Current Employment Position	*n*	%
Practitioners	72	51.1
Job Development/Placement Practitioner	16	11.3
Rehabilitation Counselor	22	15.6
Vocational Evaluator	5	3.5
Rehabilitation Administrator	24	17.0
Other Rehabilitation Practitioner	5	3.5
Educators	69	48.9
College or University Instructor	10	7.1
Assistant Professor	20	14.2
Associate Professor	19	13.5
Professor	7	5.0
University Administrator	4	2.8
Other Educator	9	6.4

Seventy-four participants (52.5 %) were employed in the rehabilitation field for 20 years or less, and 67 (47.5%) were employed more than 20 years. Only two individuals (1.4%) reported being employed for less than one year, 34 (24.1%) were employed for 1-10 years, 38 (27.0%) for 11-20 years, 46 (32.6%) for 21-30 years, and 21 (14.9%) for over 30 years. (See Table 2.)

Table 2: Years Employed, Rehabilitation	*n*	%
20 Years or Less	74	52.5
Less Than One Year	2	1.4
1-10 Years	34	24.1
11-20 Years	38	27.0
More Than 20 Years	67	47.5
21-30 Years	46	32.6
Over 30 Years	21	14.9

With the exception of two participants (1.4%), one holding a high school diploma and the other an associates degree, all participants were graduates of higher learning. Eighteen (12.8%) held bachelor's degrees, 58 (41.1%) held master's degrees and 63 (44.7%) held doctoral degrees. With regard to professional certification and licensure, participants were able to select one or more categories, as applicable. Twenty-seven individuals (19.1%) indicated they were not credentialed in any professional area. Of those holding only one credential, 41 (29.1%) reported being a Certified Rehabilitation Counselor (CRC), 2 (1.4%) reported being a Licensed Professional Counselor (LPC), and 11 (7.8%) reported having a credential not listed as a choice on the survey. Individuals having multiple credentials were represented as: CRC and LPC (12, 8.5%); CRC and Other (27, 19.1%); CRC, LPC, and Other (9, 6.4%); CRC and Certified Vocational Evaluator (CVE) (4, 2.8%); CRC, CVE, and LPC (2, 1.4%); and CRC, CVE, and Other (1, .7%). (See Table 3.)

Table 3: Education and Professional Credentials		
Highest Level of Education	*n*	%
Less Than Bachelor's Degree	2	1.4
Bachelor's Degree	18	12.8
Master's Degree	58	41.1
Doctoral Degree	63	44.7
Professional Certifications and Licenses Held	*n*	%
Single Credential	54	38.3
Certified Rehabilitation Counselor (CRC)	41	29.1
Licensed Professional Counselor (LPC)	2	1.4
Other	11	7.8
Multiple Credentials	55	38.9
CRC, LPC	12	8.5
CRC, Other	27	19.1
CRC, LPC, Other	9	6.4
CRC, Certified Vocational Evaluator (CVE)	4	2.8
CRC, CVE, LPC	2	1.4
CRC, CVE, Other	1	.7

Ninety participants (63.8%) were employed by public institutions, 35 (24.8%) were employed by private non-profit institutions, and 15 (10.6%) were employed by private for-profit institutions. Thirty-nine (27.7%) were employed in the Southeast region, 34 (24.1%) in the Great Lakes region, 27 (19.1%) in the Plains region, 16 (11.3%) in the Mideast region, 10 (7.1%) in the New England region, 6 (4.3%) in the Far West region, 5 (3.5%) in the Southwest region, and 4 (2.8%) in the Rocky Mountains region. (See Table 4.)

Table 4: Type of Employer and Region		
Type of Employer	*n*	%
Public	90	63.8
Private, Non-Profit	35	24.8
Private, For-Profit	15	10.6
Geographic Region of Employer	*n*	%
Southeast	39	27.7
Great Lakes	34	24.1
Plains	27	19.1
Mideast	16	11.3
New England	10	7.1
Far West	6	4.3
Southwest	5	3.5
Rocky Mountains	4	2.8

There was only one participant (.7 %) within the age range of 25 years old or younger, 7 (5%) between 26-30, 6 (4.3%) between 31-35, 18 (12.8%) between 36-40, 11 (7.8%) between 41-45, 26 (18.4%) between 46-50, 36 (25.5%) between 51-55, 20 (14.2%) between 56-60, 10 (7.1%) between 61-65, and only one (.7%) between 66-70 years old. Thirty-two participants (22.7%) made up those 40 years old or younger, whereas 104 participants (73.8%) made up those older than 40 years old. (See Table 5.)

Table 5: Age	*n*	%
Forty Years Old or Younger	32	22.7
25 Years Old or Younger	1	.7
26-30 Years Old	7	5.0
31-35 Years Old	6	4.3
36-40 Years Old	18	12.8
Over 40 Years Old	104	73.8
41-45 Years Old	11	7.8
46-50 Years Old	26	18.4
51-55 Years Old	36	25.5
56-60 Years Old	20	14.2
61-65 Years Old	10	7.1
66 Years Old or Older	1	.7

Fifty-six of the respondents (39.7%) were male, 82 (58.2 %) were female, and three participants did not indicate their gender. Six participants identified as African American (4.3%), 3 as Africanesian (2.1%), 4 as Alaskan (2.8%), 118 as Caucasian (83.7%), 1 as a Hispanic-American (.7%), 2 as Hispanic-Puerto Rican (1.4%), 1 as Other Hispanic (.7%), and 6 as Other (4.3%). Overall, only 23 (16.3%) individuals reported having a racial or ethnic affiliation other than Caucasian. (See Tables 6 and 7.)

Table 6: Gender	*n*	%
Male	56	39.7
Female	82	58.2
Not Reported	3	2.1

Table 7: Ethnic or Racial Affiliation	*n*	%
African American (not of Hispanic origin)	6	4.3
Africanesian (African, Indian, and Caucasian)	3	2.1
Alaskan Native	4	2.8
Caucasian (not of Hispanic origin)	118	83.7
Hispanic-American	1	.7
Hispanic-Puerto Rican	2	1.4
Other Hispanic	1	.7
Other	6	4.3

Further discussion of the participant demographics is included in Chapter 5.

Results of Data Analysis

Results

To assess internal consistency among items, reliability analysis was conducted for each domain in the competency survey. The item in each scale was scored on a 5-point Likert Scale ranging from 1 to 5 (1 = not essential and 5 = absolutely critical). The results were examined in five different domains of perceptions of competency consisting of: History and Legislation; Employer Development and the Work Environment; Job Matching and Placement; Employment and Supports; and Other. The Cronbach's alpha coefficients ranged from .578 to .746, indicating acceptable internal consistency for three of the domains defined as competency in Employer Development and Work Environment, Job Matching and Placement, and Employment Supports. The reliability analysis for competency in History and Legislation and Other yielded a lower alpha coefficient than accepted.

Table 8 displays the alpha coefficients for each domain of the competency survey and the item-total correlation coefficients of the survey are presented in Table 9.

Table 8: *Alpha Coefficients for Each Domain*

Item	á
History and Legislation	.598
Employer and Development and Work Environment	.746
Job Matching and Placement	.658
Employment Supports	.716
Other	.578

Table 9: *Item-Total Correlation Coefficients*

Domain	Item-total Correlation
History and Legislation	
Item 1	.445
Item 2	.378
Item 3	.432
Item 22	.270
Employer Development and Work Environment	
Item 5	.402
Item 9	.596
Item 10	.452
Item 11	.528
Item 12	.318
Item 20	.471
Item 24	.521
Job Matching and Placement	
Item 4	.319
Item 8	.407
Item 18	.437
Item 19	.334
Item 23	.401
Item 25	.449
Employment Supports	
Item 7	.402
Item 14	.556
Item 15	.484
Item 16	.505
Item 17	.435
Other	
Item 6	.344
Item 13	.378
Item 21	.446

To investigate differences in terms of employment position (practitioner versus educator), years of employment, gender, age, and minority status in five domains of perceptions of competency identified as competency in history and legislation (H & L); employer development and work environment (ED&WE); job matching and placement (JM&P); employment supports (ES); and other, a series of five one-way multivariate analysis of variance (MANOVA) were conducted upon the statistically significant correlations ($p < .05$) among the dependent variables. The correlation coefficients among these measures are presented in Table 10.

Table 10:

Correlation Coefficients for Relations Among Five Measures of Perceptions of Competency

Measure	EDWE	JM&P	ES	Other
H & L	.529***	.565***	.364***	.380***
ED&WE		.606***	.610***	.462**
JM&P			.557***	.460***
ES				.436***

***p <.001

To analyze the difference between practitioners and educators, the multivariate homogeneity of variance assumption was tested using Box's Test of Equality of Covariance Matrices with no violation being reported ($p > .001$). MANOVA yielded no statistically significant difference among practitioners and educators in any of the domains of competency, Wilks' $\lambda = .953$, $\underline{F}(5, 134) = 1.329$, $p > .05$. The multivariate ε^2 based on

Wilks' λ was .047. An observed power of .459 was reported. The analysis indicated that the practitioners and educators did not differ significantly in their perceptions of competency in rehabilitation employment services. Table 11 displays the mean and standard deviation for each of five measures of competency perceptions of practitioners and educators.

Table 11:

Mean and Standard Deviation for Each of Five Measures of Competency Perceptions of Practitioners and Educators

Measure	Practitioners		Educators	
	M	SD	M	SD
H & L	15.30	2.571	16.14	2.067
ED&WE	29.52	3.496	30.03	3.413
JM&P	25.76	2.643	26.46	2.790
ES	19.68	3.329	20.54	2.621
Other	12.06	2.083	12.48	1.659

To analyze the effect of years of employment on the perceptions of competency, the multivariate homogeneity of variance assumption was tested using Box's Test of Equality of Covariance Matrices with no violation being reported ($p > .001$). MANOVA yielded no statistically significant effect of years of employment in any domain of the perceptions of competency, Wilks' $\lambda = .965$, $\underline{F}(5, 134) = .981$, $p > .05$. The multivariate ε^2 based on Wilks' λ was .035. An observed power of .342 was reported. The analysis indicated that the years of employment in the field had no effect on the perceptions of competency. Table 12

displays the mean and standard deviation for each of five measures of competency perceptions of participants working in the field for 20 years or less and more than 20 years.

Table 12:

Mean and Standard Deviation for Each of Five Measures of Competency Perceptions of Participants Working in the Field for 20 Years or Less and More than 20 Years

Measure	20 years or less		More than 20 years	
	M	SD	M	SD
H & L	15.58	2.327	15.87	2.418
ED&WE	30.05	3.403	29.46	3.505
JM&P	26.08	2.871	26.13	2.587
ES	20.12	3.210	20.07	2.825
Other	12.42	1.878	12.09	1.905

To examine the effect of gender on the perceptions of competency, the multivariate homogeneity of variance assumption was tested using Box's Test of Equality of Covariance Matrices with no violation being reported ($p > .001$). MANOVA yielded no statistically significant effect of years of employment in any subscale of the perceptions of competency, Wilks' $\lambda = .947$, $F(5, 134) = 1.478$, $p > .05$. The multivariate ε^2 based on Wilks' λ was .053. An observed power of .506 was reported. The analysis indicated that there was no difference between male and female employees in terms of their perceptions of competency. Table 13 displays the mean and standard deviation for each of five measures of competency perceptions of male and female participants.

Table 13:

Mean and Standard Deviation for Each of Five Measures of Competency Perceptions of Male and Female Participants

Measure	Male		Female	
	M	SD	M	SD
H & L	15.23	2.479	16.04	2.272
ED&WE	29.05	3.758	30.25	3.105
JM&P	25.63	2.902	26.44	2.530
ES	19.48	3.443	20.53	2.679
Other	12.20	2.031	12.28	1.811

To investigate effect of age on the perceptions of competency, the multivariate homogeneity of variance assumption was tested using Box's Test of Equality of Covariance Matrices with no violation being reported ($p > .001$). MANOVA yielded no statistically significant effect of years of employment in any subscale of the perceptions of competency, Wilks' $\lambda = .934$, $F(5, 134) = 1.831$, $p > .05$. The multivariate ε^2 based on Wilks' λ was .066. An observed power of .611 was reported. The analysis indicated that there was no difference between employees of 40 years old or younger and those that are older than 40 in terms of their perceptions of competency. Table 14 displays the mean and standard deviation for each of five measures of competency perceptions of participants who are 40 years old or younger and those older than 40 years old.

Table 14:

Mean and Standard Deviation for Each of Five Measures of Competency Perceptions of Participants Who Are 40 Years Old or Younger and Those Older than 40 Years Old

Measure	40 or younger		Older than 40	
	M	SD	M	SD
H & L	15.19	2.389	15.94	2.372
ED&WE	30.41	2.601	29.73	3.595
JM&P	25.88	3.013	26.28	2.636
ES	20.44	2.488	20.02	3.236
Other	12.59	1.542	12.27	1.961

Finally, to analyze the differences among minorities and non-minorities in terms of their perceptions of competency, the multivariate homogeneity of variance assumption was tested using Box's Test of Equality of Covariance Matrices with no violation being reported ($p > .001$). MANOVA yielded no statistically significant effect of years of employment in any subscale of the perceptions of competency, Wilks' $\lambda = .951$, $\underline{F}(5, 134) = 1.392$, $p > .05$. The multivariate ε^2 based on Wilks' λ was .049. An observed power of .479 was reported. The analysis indicated that there was no difference between minority and non-minority groups in terms of their perceptions of competency. Table 15 displays the mean and standard deviation for each of five measures of competency perceptions of minority and non-minority groups.

Table 15:

Mean and Standard Deviation for Each of Five Measures of Competency Perceptions of Minority and Non-Minority Groups

Measure	Minority		Nonminority	
	M	SD	M	SD
H & L	15.65	2.288	15.73	2.391
ED&WE	28.48	4.795	30.03	3.086
JM&P	25.35	3.171	26.26	2.623
ES	18.87	3.733	20.34	2.817
Other	12.00	1.931	12.32	1.888

To examine rank-order across the five domains of competency among all participants, one-way univariate analysis of variance within subjects (ANOVA) was conducted. The results indicated that participants perceived Employer Development and Work Environment (ED&WE) and Job Matching and Placement (JM&P) as the most essential competencies as compared to History and Legislation (H & L); Employment Supports (ES); and Other $F(4, 136) = 39.519, p > .05$. Table 16 depicts mean and standard deviation across five measures of competency perceptions of all participants.

Table 16:

Mean and Standard Deviation Across Five Measures of Competency Perceptions of All Participants

Measures	Mean	Standard Deviation
H & L	3.93	.59
ED&WE	4.25	.49
JM&P	4.35	.46
ES	4.02	.60
Other	4.09	.63

A detailed description of the results follows in Chapter 5.

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Twenty-five competencies and five domains were validated using the Expert Consensus Model (Johnson, 1977). Through an on-line survey, specialists (practitioners and educators) determined which aspects of performance were essential (or at least important) to the vocation of rehabilitation employment services.

Results and Discussion of Findings

Numerous e-mails were returned as undeliverable and the initial responses to the competency survey were less than 12%. Once the incorrect e-mail addresses were removed from the membership lists provided by the associations, a second request sent to individuals of the Job Development and Placement Association (JPD) and the National Council on Rehabilitation Education (NCRE) resulting in a final return rate of 141 of 701 surveys (20.1%). Although the actual number of surveys collected from the practitioners and the educators was roughly equivalent (72 and 69 respectively), it is interesting to note that the practitioners in this study responded at a much higher rate than the educators. Seventy-two of the 168 surveys (42.8%) solicited from JPD were returned, whereas, only 69 of the NCRE's 533 members (12.9%) responded. There are several plausible explanations for this discrepancy based on the occupations of the practitioners and the educators, as well as the nature of the associations to which they each belong. The practitioners may have naturally been more attracted to and concerned with the topic of the survey due to their contemporary,

hands-on responsibilities in rehabilitation employment services. Also, joining (and paying dues to) an association such as JPD implies a considerable degree of inquisitiveness about the research subject. On the other hand, most NCRE representatives are not presently involved with the direct provision of job development and placement services. Additionally, as members of a large educators' association, NCRE members are likely inundated with requests for their participation in research, therefore, making it necessary to participate only in select studies of professional interest.

Further review of the participant characteristics revealed that based on their levels of experience, education, and professional credentials, the respondents were well qualified for the task of evaluating competencies in the field of rehabilitation. While nearly three-quarters of the participants (105, 74.5%) reported working in the profession for over 10 years, 67 of them (47.5%) had been employed for more than 20 years, and 21 (14.9%) had over 30 years experience. With regard to education, only eighteen of the respondents (1.3%) held bachelor's degrees, while 121 of the respondents (85.8%) were educated at the graduate level, 58 (41.1%) with master's degrees and 63 (44.7%) with doctoral degrees, respectively. Numerous participants also held professional certification and licensure credentials in addition to their degrees of higher learning. Only 27 individuals (19.1%) indicated they were not credentialed in any professional area. Licensed Professional Counselors (LPCs) were well represented (25, 17.7%). Only 7 individuals (5.7%) reported being Certified Vocational Evaluators (CVEs); however, 96 respondents (79.3%) demonstrated their expertise in rehabilitation by becoming Certified Rehabilitation Counselors (CRCs). The large number of CRCs represented in this research is particularly important to the credibility of this study.

For example, achievement of the CRC status is accepted as evidence that an individual meets the standards set for a qualified rehabilitation counselor under the Comprehensive System of Personnel Development (CSPD), and the 1998 Amendments to the Rehabilitation Act (Tew-Washburn, 2005; Thomas, Library of Congress, 1999).

Five domains of perceptions of competency consisting of History and Legislation; Employer Development and the Work Environment; Job Matching and Placement; Employment Supports; and Other, were examined. Twenty-five items in each of the five domains were scored on a 5-point Likert Scale ranging from 1 to 5 (1 = not essential and 5 = absolutely critical). The individual survey items and their placement within the respective domains were:

History and Legislation

1. Understand the significance of vocational rehabilitation history and legislation relating to employment services and outcomes.
2. Demonstrate a working knowledge of Title I of the Americans with Disabilities Act (ADA).
3. Discuss the joint missions of Vocational Rehabilitation and other agencies included in the Workforce Investment Act (WIA).

22. Understand the effects of income on Social Security benefits.

Employer Development and the Work Environment

5. Understand models of job development and placement and their situational application.

9. Identify marketing strategies based on personal style and budget constraints.

10. Develop marketing materials and evaluate their effectiveness.

11. Understand effective ways of consulting with employers and building partnerships with business.

12. Demonstrate methods of accessing and using job information on the Internet.

20. Describe effective ways of consulting with employers.

24. Assess job culture.

Job Matching and Placement

4. Define basic disability and cultural terminology.

8. Understand occupational information and appropriate application.

18. Conduct job analysis.

19. Understand appropriate job matching.

23. Identify strategies to fully include nontraditional consumers in employment planning.

25. Make recommendations regarding reasonable accommodations.

Employment Supports

7. Demonstrate community-based assessment and accommodation strategies.

14. Demonstrate job coaching techniques and various work supports.

15. Describe person-centered planning, supported living, and family issues relating to job retention.

16. Design ways to effectively use interventions and natural supports.

17. Identify principles of systematic instruction.

Other

6. Improve skills in motivating others in employment.

13. Identify ways to improve project planning and implementation.

21. Work effectively within teams.

Reliability analysis was conducted for each of the five domains to assess internal consistency among items. Cronbach's (1951) coefficient alpha was selected as an appropriate measure due to its recommended usage with Likert Scales (Shannon & Bradshaw, 2002). Nunnaly (1978) indicated 0.7 to be the minimum acceptable reliability coefficient, however, lower thresholds are frequently cited as appropriate in the literature. In this analysis of reliability, the Cronbach's alpha coefficients ranged from .578 to .746, indicating acceptable internal consistency for three of the domains defined as Competency in Employer Development and Work Environment, Job Matching and Placement, and Employment Supports. The reliability analysis for the remaining two domains of competency in History and Legislation and Other, yielded a lower alpha coefficient than accepted. Content analysis of these two domains indicated that the items within the domains may have not measured the same constructs, possibly as a result of lack of clarity and redundancy in the phraseology of the items. In reviewing the Item-Total Correlation Coefficients (Table 3, p. 114), it is noted that Item 22 in the History and Legislation domain has the lowest item-total correlation value

(.270). This indicates that Item 22 is not measuring the same construct as the rest of the items in the scale are measuring. Removal of this item (and other items with low item-total correlations) from the survey would make the construct more reliable for use as a predictor variable.

To investigate differences in terms of employment position (practitioner versus educator), years of employment, gender, age, and minority status in the five domains of perceptions of competency, a series of five one-way multivariate analysis of variance (MANOVA) were conducted upon the statistically significant correlations ($p < .05$) among the dependent variables. MANOVA yielded no statistically significant effect in any of the domains. In other words, years of employment, gender, age, and minority status of participants were found to have no significant effect on their perceptions of competency in rehabilitation employment services.

To examine rank-order across the five competency domains among all participants, a one-way univariate analysis of variance within subjects (ANOVA) was conducted. The results indicated that participants perceived all of the competency domains to be important, and in most cases, they were considered to be very important in the provision of rehabilitation employment services. The mean scores of all of the competency domains exceeded 4.0 (very important) with the exception of a mean score of 3.93 for the domain of History and Legislation. Although knowledge in this domain was recognized as important, it was not perceived to be as critical in the practice of job development and placement as were direct skills in performing job analysis, job matching, and employer development.

Limitations and Recommendations

The overall number of participants responding to the competency survey was less than predicted. Although attempts were made to avoid a large volume of returned e-mails in this research project by using the membership e-mail lists of professional organizations, a high rate of undeliverable e-mails resulted (Shannon & Bradshaw, 2002).

Although a nationwide sample of practitioners and educators were surveyed, generalizability is limited in this study. Obtaining a sample from professional membership lists raises the issue of whether the members truly represent all practitioners and educators in the field of rehabilitation. If participants chosen are not truly representative of experts in the field, competencies may be decided based on how the vocation typically operates, rather than according to what competencies are really needed (Johnson, 1977).

There are further limitations in this research because competency attainment was not addressed. In addition to determining what competencies are important, measuring the actual attainment of rehabilitation employment competencies is critical in determining the specific components of training and education needed for practice. Further, according to some competency-based theorists (Defur & Taymans, 1995; Lilly, 1979; Shores, Cegalka, & Nelson, 1973), outcome-based research is needed to establish that the acquired competencies, if put into practice, would actually result in improved employment outcomes for people with disabilities.

The competency domains identified by this study provide a beginning opportunity to address the curriculum provided in higher education. Additional research is warranted to determine if the essential competencies validated by this study are being taught in the

college classroom. Content analysis research of pre-service job development and placement syllabi would be a logical first step in determining which topics are given priority by educators as they prepare students to effectively impact the unemployment crisis of people with disabilities.

Summary

The results of this comprehensive study indicate that five competency domains (History and Legislation; Employer Development and the Work Environment; Job Matching and Placement; Employment Supports; and Other) were perceived as important or very important in the field of rehabilitation employment services. The two highest rated competency domains (Job Matching and Placement, and Employer Development and the Work Environment) incorporate a two client model (Bissonnette, 1994; Hagner, 1989; Michaels, 1989; Molinaro & Spitznagal,1984) based on providing direct services to both rehabilitation consumers (i.e., job matching) and employers (i.e., consultation). The competencies needed to work effectively with both rehabilitation consumers and employers are substantiated in the literature (Bissonnette, 1994; Fabian, Leucking, & Tilson, 1995; Marrone, Gandolpho, Gold, & Hoff, 1998) and are recognized as critical components in improving the employment lives of people with disabilities.

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APPENDICES

A. Information Letter

B. Questionnaire: Identification and Validation of Competencies Needed by Practitioners Working in the Field of Rehabilitation Employment Services

A: INFORMATION LETTER
"Identification and Validation of Competencies Needed by Practitioners Working in the Field of Rehabilitation Employment Services"

You are invited to participate in a research study to identify and validate the competencies needed by individuals to effectively facilitate employment of people with disabilities. This study is being conducted by Suzanne Tew-Washburn, Project Director in the Department of Rehabilitation and Special Education at Auburn University under the supervision of Dr. Clarence Brown. We hope to learn which aspects of performance are essential (or at least important) to the vocation of rehabilitation employment services. You were selected as a possible participant because of your membership in one of these two associations: the National Rehabilitation Association (NRA)- Job Placement Division (JPD) or the National Council on Rehabilitation Education (NCRE). Your e-mail address was obtained from your respective organization.

If you decide to participate, we will ask you to complete a short electronic survey. To access the survey, click on the link at the bottom of this message and mark your responses as indicated. When completed, you will click on the "submit" button. It is estimated that no more than ten minutes will be required of your time to completely finish the survey. Precautions have been taken to secure the transfer of electronic information. In order to protect the privacy of responses, data will be kept confidential and no attempt will be made to identify the participants. The survey was designed on a secured web page and all responses to the survey will be returned to a secured server. This server will block all return e-mail addresses; therefore, no identifying information will be received by the researchers. There are no known risks or discomforts associated with participation in this research study. Any information obtained in connection with this study will remain anonymous. Information collected may be used in aggregate form in the principal investigator's dissertation, in refereed publications, and in professional presentations. You may withdraw from participation at any time without penalty; however, once you have submitted anonymous information, you will be unable to withdraw your information since there will be no way to identify individual information. Your decision whether or not to participate will not jeopardize your future relations with Auburn University, the National Rehabilitation Association (NRA)- Job Placement Division (JPD) or the National Council on Rehabilitation Education (NCRE).

If you have any questions, we invite you to ask them now. If you have questions later, Ms. Tew-Washburn will be happy to answer them. She can be reached at 334-844-3553 or tewwasu@auburn.edu. For more information regarding your rights as a research participant you may contact the Office of Human Subjects Research by phone or e-mail. The people to contact there are Executive Director E.N. "Chip" Burson (334) 844-5966 (bursoen@auburn.edu) or IRB Chair Dr. Peter Grandjean at (334) 844-1462 (grandpw@auburn.edu). Having read the information provided, you must decide whether to participate in this research project. If you decide to participate, the data you provide will serve as your agreement to do so. To continue, please click on the link below.

Investigator's Signature Date	Co-Investigator's Signature Date

B: Identification and Validation of Competencies Needed by Practitioners Working in the Field of Rehabilitation Employment Services

Part 1: Demographic Information

Current Employment Position:

Job Development/Placement Practitioner

Rehabilitation Counselor

Vocational Evaluator

Rehabilitation Administrator

Rehabilitation Practitioner (other)

Retired Rehabilitation Practitioner

College or University Instructor

Assistant Professor

Associate Professor

Professor

College or University Administrator

Educator (other)

Retired Educator

Type of Employer:

Public

Private, Non-Profit

Private, For-Profit

Geographic Region of Employer:

New England (CT, ME, MA, NH, RI, VT)

Mid East (DE, DC, MD, NY, NJ, PA)

Great Lakes (IL, IN, MI, OH, WI)

Plains (IA, KS, MN, MO, NE, ND, SD)

Southeast (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV)

Southwest (AZ, NM, OK, TX)

Rocky Mountains (CO, ID, MT, UT, WY)

Far West (AK, CA, HI, NV, OR, WA)

Outlying Areas (AS, FM, GU, MH, MP, PR, PW, PI)

Other

Years Employed in the Rehabilitation Field:

less than 1 year

1-5 years

6-10 years

11-15 years

16-20 years

21-25 years

26-30 years

31-35 years

36-40 years

41-45 years

46-50 years

more than 50 years

Gender:

Male

Female

Age:

25 years old or younger

26-30 years old

31-35 years old

36-40 years old

41-45 years old

46-50 years old

51-55 years old

56-60 years old

61-65 years old

66-70 years old

71-75 years old

76 years old or older

Highest Level of Education:

Less than High School

High School

Associates Degree

Bachelors

Masters

Doctorate

Professional Certification and Licenses held at this time (check all that apply):

Certified Rehabilitation Counselor (CRC)

Certified Vocational Evaluator (CVE)

Licensed Professional Counselor (LPC)

Other

None

Ethnic or Racial Affiliation:

African American (not of Hispanic origin)

Africanesian (African, Indian, and Caucasian)

Alaskan Native

American Indian

Asian or Pacific Islander

Caucasian (not of Hispanic origin)

Hispanic-American

Hispanic-Cuban

Hispanic-Puerto Rican

Mexican-American

Other Hispanic

Other

Part 2:

In order to effectively facilitate employment opportunities for people with disabilities, it is _____ that a rehabilitation employment specialist meet the following objectives regarding knowledge, skills, and/or attitudes:

1. Understand the significance of vocational rehabilitation history and legislation relating to employment services and outcomes.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

2. Demonstrate a working knowledge of Title I of the Americans with Disabilities Act (ADA).

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

3. Discuss the joint missions of Vocational Rehabilitation and other agencies included in the Workforce Investment Act (WIA).

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

4. Define basic disability and cultural terminology.

5=absolutely critical
4=very important
3=important
2=not very important

1=not essential

5. Understand models of job development and placement and their situational application.

   5=absolutely critical
   4=very important
   3=important
   2=not very important
   1=not essential

6. Improve skills in motivating others in employment.

   5=absolutely critical
   4=very important
   3=important
   2=not very important
   1=not essential

7. Demonstrate community-based assessment and accommodation strategies.

   5=absolutely critical
   4=very important
   3=important
   2=not very important
   1=not essential

8. Understand occupational information and appropriate application.

   5=absolutely critical
   4=very important
   3=important
   2=not very important
   1=not essential

9. Identify marketing strategies based on personal style and budget constraints.

   5=absolutely critical
   4=very important
   3=important
   2=not very important
   1=not essential

10. Develop marketing materials and evaluate their effectiveness.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

11. Understand effective ways of consulting with employers and building partnerships with business.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

12. Demonstrate methods of accessing and using job information on the Internet.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

13. Identify ways to improve project planning and implementation.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

14. Demonstrate job coaching techniques and various work supports.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

15. Describe person-centered planning, supported living, and family issues relating to job retention.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

16. Design ways to effectively use interventions and natural supports.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

17. Identify principles of systematic instruction.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

18. Conduct job analysis.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

19. Understand appropriate job matching.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

20. Describe effective ways of consulting with employers.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

21. Work effectively within teams.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

22. Understand the effects of income on Social Security benefits.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

23. Identify strategies to fully include nontraditional consumers in employment planning.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

24. Assess job culture.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential

25. Make recommendations regarding reasonable accommodations.

5=absolutely critical
4=very important
3=important
2=not very important
1=not essential