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STUDENT DISABILITY SERVICES
WITHIN THE 28 FLORIDA COMMUNITY COLLEGES

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Educational Research, Technology, and Leadership
in the College of Education
at the University of Central Florida
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ABSTRACT

The purpose of this research study was to investigate perceptions and activities of disability support program administrators in Florida community colleges regarding program administration and evaluation. The study further sought to document if any relationships existed between selected organizational and staffing characteristics and the program's ability to follow an established set of standards for program administration and evaluation.

A total of 25 disability support administrators (89.3% response rate) completed a phone survey designed for this study. The study revealed that there were many inconsistencies among the higher education disability support programs in regard to programming, staffing and data collecting activities. The common denominator for determining the extent of data collection being performed within the responding community colleges appeared to be the Florida Department of Education, specifically the criteria requested annually by the Division of Community Colleges and Workforce Education. At all of the institutions surveyed, data collection activities were concentrated on numerical student data and did not consistently include program evaluation information. Finally, administrator training in program evaluation was positively associated with the responding disability support program's ability to participate in program evaluation activities. This study concluded with discussion of proposed recommendations for disability support administrators in the Florida community colleges.

To Jeff, Jason and Chelsey

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CHAPTER 1

THE PROBLEM AND ITS CLARIFYING COMPONENTS

Introduction

Equity and opportunity are valued sentiments within the United States.

Throughout the development of the nation, and most recently in the latter half of the 20th century, laws have been enacted to open doors of opportunity for all citizens and to promote equality in the public domain. Opportunity has often been viewed in terms of the ability to be productive and procure gainful employment. The path toward employment has often begun with the development of appropriate knowledge, skills, and attitudes which generally translate to education and job training (Stodden, Conway, & Chang, 2003).

Individuals with disabilities have historically experienced extraordinary challenges in their pursuit of education and job training opportunities. Fortunately, beginning in the 1970s, changes have occurred to enhance and enable students and workers with disabilities. Section 504 of the Rehabilitation Act of 1973, the Education of All Handicapped Children Act, and the Individuals with Disabilities Act were three significant legislative acts that profoundly and positively affected the educational arena for disabled students. Particularly affected were those in the kindergarten through twelfth grade public school system (Shaw, Scott & McGuire, 2001). The Americans with Disabilities Act (ADA) was enacted in 1990. It served as a pervasive civil rights act that sought to eliminate discrimination against individuals having disabilities in the workplace, in educational settings, and in most public access areas. Postsecondary

educational entities were significantly affected by the ADA and were required to facilitate access within their respective institutions (Abram, 1999).

Changes in secondary education and technology advances, coupled with the ADA mandates have created a steady increase in the number of students with disabilities seeking higher education (Henderson, 2001). Economic demands have also placed a higher premium upon education as noted by Stodden et al. (2003) who stated that “changes in the labor market have increased the importance of possessing a postsecondary degree” (p. 29). Many of these students have been served at the community college because of the college’s open access mission, wide range of student support services, and flexible delivery models (Hawk, 2004; Prentice, 2002). Although the ADA has been in place since the early 1990s, many postsecondary institutions have continued to struggle to fully understand their role and to develop workable policies and procedures (Abram, 1999).

Disability support service departments have been established at many postsecondary institutions for the purpose of coordinating services for students with disabilities (McGuire, 2000). These departments have refined their services in order to meet legislative requirements and ensure educational equality for this expanding student cohort group; however, the implementation of these services has varied from one institution to the next (Shaw, 2002; Tutton, 2001). Additionally, the array of disability types and unique needs of each individual have created ongoing challenges for disability support service departments. Disability service providers and their respective institutions have “been left to develop programming for their students based on little or no empirical

evidence” (Shaw, 2002). Many institutions have collected data regarding the numbers of students requesting disability support; however there has not been any standardization to date as to the purpose of the data or as to how it might be used to improve programming or outcomes (Shaw). Stodden et al. (2003) found that the educational outcomes of the disabled student population in their study were significantly behind their non-disabled counterparts in completion, graduation, and job placement. There is also minimal research available regarding the planning, organization and evaluation of disability support services (Shaw; Shaw & Dukes, 2001).

The growth in utilization of postsecondary disability services coupled with accountability demands and budget cuts have created a need for improved program efficiency, professionalism and quantifiable outcome data. (Dukes & Shaw, 1998; Parker, Shaw & McGuire, 2003). Several researchers have suggested the development of a more standardized approach toward the provision of disability support services as well as the adoption of routine program evaluation (Izzo, Hertzfeld, Simmons-Reed & Aaron, 2001; Parker et al.; Shaw, 2002; Shaw & Dukes, 2001).

Purpose of the Study

A successful community college disability support program can offer disabled students an improved chance to complete their academic and career goals. The purpose of this study was to investigate the degree to which the disability support programs in the 28 community colleges in Florida adhered to a pre-established set of standards regarding program administration and evaluation. The standards that were utilized for the study

were from the program administration and evaluation subsection of the Association on Higher Education and Disability (AHEAD) Program Standards and Performance Indicators. Findings from the study served to provide an understanding of how community colleges in Florida were administering and evaluating their disability support programs and to propose recommendations for improving program effectiveness.

Statement of the Problem

Individuals with disabilities have been seeking postsecondary educational opportunities at an increasing rate. A large majority of those individuals have also been attending community colleges in the hopes of reaching their educational goals. Most community colleges have had the ADA mandated admission and support mechanisms in place to support the students with disabilities at their institutions. However, outcome data have been scant (Shaw, 2002; Shaw & Dukes, 2001). Available findings have indicated a highly disproportionate rate of attrition and incompleteness of academic and career objectives within the disabled group of students (Stodden, Conway & Chang, 2003; Izzo, Hertzfeld, Simmons-Reed, & Aaron, 2001). At the time of the present study, there was no regulatory agency that mandated the administrative and evaluation activities of community college disability support programs.

As pressures for accountability and outcome data have increased for all aspects of higher education, disability support services have also come under increasing scrutiny in regard to program efficiency and effectiveness. By investigating the degree to which the community colleges in Florida were compliant with pre-established standards regarding

disability support program administration and evaluation, administrators and disability service coordinators could gain insight into a potential framework for program evaluation and improved student outcomes.

Research Questions

The following research questions guided this study:

1. What are the organizational and staffing characteristics of the disability support programs in the 28 Florida community colleges: (a) Number, gender, disability status, and educational background of staff; (b) age of the program; (c) budgetary support; and (d) membership in the Association on Higher Education and Disability?
2. What are the self-reported enrollments of students with disabilities in the 28 Florida community colleges?
3. What similarities are there among the disability support programs in the 28 Florida community colleges in regard to program administration and evaluation when compared to the Association on Higher Education and Disability standards?
4. What types of outcome data and program assessment activities are performed by the disability support programs in the 28 Florida community colleges?
5. What is the relationship between selected institutional characteristics within the disability support programs in the 28 Florida community colleges (number of staff, number of students, prior experience with program evaluation,

membership in AHEAD, and having one or more staff members with disabilities) and the program's ability to implement and adhere to pre-established standards from the Association on Higher Education and Disability?

Definition of Terms

The following are definitions of terms used in this study:

American with Disabilities Act (ADA): A civil rights law enacted in 1990 to prohibit discrimination against individuals with disabilities.

Assistive Technology: Any piece of equipment, software, hardware, or product that can be utilized to increase the functional abilities of an individual with a disability

Association on Higher Education and Disability (AHEAD): “A professional organization for individuals involved in the development of policy and in the provision of quality support services to serve the needs of persons with disabilities involved in all areas of higher education” (Retrieved from <http://www.ahead.org> on March 15, 2006).

Auxiliary aid: A particular device that assists students with disabilities in carrying out and successfully completing their educational activities.

Disability: “Any restriction or lack of ability to perform an activity in the manner or within the range considered normal for a human being” (International Classification of Impairments, Disabilities and Handicaps, World Health Organization, Geneva, 1980).

Disability Service Coordinator: The individual at an educational institution that is charged with ensuring that students with disabilities receive equitable education services.

Education of All Handicapped Children Act (Public Law 94-142): Legislative act that ensured a free and appropriate public education to all handicapped children (Gordon & Keiser, 2000).

Impairment: “Any loss of abnormality of psychological, physiological, or anatomical structure or function” (International Classification of Impairments, Disabilities and Handicaps, World Health Organization, Geneva, 1980).

Individuals with Disabilities Education Act (IDEA): Legislation that was renamed from the original Public Law 94-142. It laid out a specific framework of service provisions, fiscal responsibility, and accountability.

Reasonable accommodation: An assistive device or adaptation that serves to ease the impact of a particular disability (Gordon & Keiser, 2000).

Section 504 of the Rehabilitation Act of 1973: An act that prohibited programs that received federal financial assistance from excluding individuals based on any mental or physical disabilities from participation in their programs (Levy, 2001; U.S. Department of Labor, Section 504).

Methodology

This research study combined qualitative and quantitative methodologies to investigate perceptions of disability service coordinators at the 28 community colleges in Florida. A non-intervention research design was utilized via a phone survey designed to address the research questions. The survey information was collected during a pre-scheduled phone interview. Information on the survey identified organizational and

staffing characteristics, student enrollments, degree of compliance with administration and program evaluation standards, and data collection measures currently utilized for students with disabilities at each institution. Descriptive statistics were used to identify commonalities and trends. Spearman rho statistical tests of association were conducted to examine potential relationships between disability support program staffing characteristics and ability to adhere to program administration and evaluation standards.

Study Population

The population for this study was the disability support departments of the 28 public community colleges within the Florida community college system. A list of the 28 public community colleges in Florida is presented in Appendix A. Names and contact information for each of the community college's disability support administrators were obtained by accessing the Florida Department of Education Disability Support Services web site. A telephone call was made to each listed administrator to confirm the contact information and discuss the parameters of the research.

Instrumentation

Data for this study were collected using an instrument developed by the researcher. The instrument, Community College Disability Support Program Administration and Evaluation Survey appears in Appendix B. Survey items addressed the following aspects of disability support services within postsecondary educational institutions: (a) staffing characteristics of the disability support programs, (b) enrollment

data for the institution and for self identified students with disabilities, (c) data collection procedures, and (d) compliance with Association on Higher Education and Disability administration and program evaluation standards. The survey also included open-ended questions regarding program specific outcome data, and explanations of how certain program operations were accomplished.

Prior to study, the survey instrument was piloted to further refine the items and provide content validity. The participants in the pilot study represented five community colleges in the states of Georgia and Alabama (Appendix C) and were chosen based on their listing in the American Association of Community Colleges' Directory of Disability Support Services. Feedback from the pilot participants concerning the proposed survey instrument and the phone survey process was utilized to improve the communication process, clarify directions and refine question content.

Data Collection and Analysis

The initial contact with each disability service coordinator was a phone call to establish a communication base, enlist his or her participation and provide an orientation to the purpose and timelines of the research. Following the phone call, each disability service coordinator was sent an envelope containing two copies of the informed consent letter (Appendix D), a stamped and addressed envelope for return of one of the informed consent letters, and a copy of the survey questions. Respondents were given two weeks to return the informed consent letters. If after two weeks the consent letters were not

returned, a follow-up phone call or e-mail was made to encourage completion of the form.

Once the informed consent letters were returned, a phone call or e-mail was made to each disability service coordinator to schedule the interview. Following the scheduling of the interview, a follow-up appointment letter (Appendix E) was mailed or e-mailed in order to confirm the interview time. E-mail notifications were sent along with regular mail notification to ensure that each recipient received timely information. If a planned phone survey was not able to be completed, a follow-up call was made to reschedule followed by an additional reminder e-mail.

Dillman's (2000) tailored design method of survey research was used as a guide for the implementation process including multiple contacts, personalization of the survey experience, and overall communication with the survey respondents. Each potential survey respondent was contacted several times by phone, mail, and e-mail to facilitate a higher rate of participation. The tailored design method is designed to facilitate respondent trust and compliance with the survey process.

Descriptive statistics were calculated for all of the interview responses to determine patterns, commonalities, and trends regarding program administration and evaluation activities. Correlations were performed to investigate whether or not any statistically significant relationships existed between specific institutional characteristics and compliance with program evaluation standards. Open ended survey questions were synthesized and organized to bring forth contextual categories and themes.

Delimitations

1. Only the 28 community colleges in Florida were included in the study. The scope of the survey was limited to the disability support service representatives in the 28 community colleges in Florida willing to participate.
2. The study relied solely on the data obtained from the survey to determine research findings.
3. It was assumed that survey participants would be knowledgeable about the questions asked and would respond with accuracy and honesty.

Limitations

1. The results of the study were only applicable to community colleges in Florida. No attempt was made to generalize findings to any other population.
2. Accuracy of the data from the survey instrument was based on the knowledge, contexts, and perceptions of the respondents at the college.
3. Data were gathered during the 2005-2006 academic year. Only data gathered during that time period were included in data analysis. A longitudinal study may have provided different findings.

Significance of the Study

In order to serve the growing numbers of disabled students who have become involved in pursuing higher education, institutions have been required to offer equal educational opportunities in the form of accessibility, accommodation, and support

services (McGuire, 2000). These services have been created and implemented as mandated but not systematically planned, organized, or routinely evaluated (Parker et al., 2003). The literature reviewed supported the importance of disability support services in complying with national ADA mandates at higher education institutions. Data to determine if these programs have been effective and facilitate positive student outcomes have been limited. Limiting funding sources, an emphasis on program accountability, and increases in disabled student enrollment have facilitated the recommendation for program consistency, outcome research and standardized program evaluation (Parker et al.).

The study was performed to help determine the perceptions and activities of disability support program administrators in Florida community colleges regarding program evaluation. It was anticipated that information derived from the study would provide a framework for program evaluation using the Association on Higher Education and Disability standards and enable recommendations for improving quality of services and successful student outcomes.

Organization of the Dissertation

This chapter provided an introduction to the research topic, the purpose of the study, and problem statement. Research questions, methods of data collection, and a description of the survey instrument were also presented. Lastly, limitations and significance of the research were outlined. The succeeding chapters provide a review of the relevant literature, methodology delineation, data analysis and synthesis, a summary of research findings and conclusions.

CHAPTER 2 REVIEW OF THE LITERATURE

Introduction

This review of the literature presents a general overview of the history and current status of students with disabilities within the higher education system. Demographic information is presented first to exemplify the numbers and attendance patterns of students with disabilities within the higher education system. A history of disability related legislation follows to illustrate the legal impact upon institutions of higher learning. The remaining body of the literature review focuses on how higher education institutions are dealing with their students with disabilities including who coordinates the services, what services are offered, how services are delivered, and lastly how effective the services are in achieving governmental and institutional objectives.

Background

More than half a million individuals who have been disabled have actively been seeking postsecondary education, and according to Hawke (2004), the community college has reportedly been serving 71% of those students. The open access mission of the community college has made the transition from high school to postsecondary education a more viable option for many adult students with disabilities. Technological advances, legislative mandates, and societal changes have also helped to create a more positive and success-oriented environment for these individuals (Tutton, 2001).

The U.S. Department of Education, National Center for Education Statistics (2000) reported a 6% disability rate among reporting undergraduates in 1996 based upon the National Postsecondary Student Aid Study. At that time, 29% of those students had a learning disability, 23 % had an orthopedic diagnosis, 16 % had a hearing and vision impairment, 3 % claimed speech impairments and 21% claimed an “other” health related category (U.S. Department of Education, National Center for Education Statistics, 2000).

In a study of college freshmen with disabilities, Henderson (2001) reported that approximately 9% of entering freshmen in four-year institutions disclosed having a disability. The fastest growing disability category was a learning disability, “by 2000, two in five freshmen with disabilities (40%) reported having a learning disability” (Henderson, p. 27). Additional growing diagnostic categories included Attention Deficit Hyperactivity disorder and other psychiatric disorders such as anxiety (McGuire, 2000).

The concepts of access and equity for students with disabilities became an issue of national importance in the 1970s beginning with the passage of the Rehabilitation Act of 1973. Section 504 of the Rehabilitation of 1973 focused on programs that received federal financial assistance and prohibited those programs from excluding individuals based on any mental or physical disabilities from participation in their programs (U.S. Department of Labor, Section 504; Levy, 2001). All public postsecondary institutions were affected; however, the major impact was seen at the primary and secondary education levels. Prior to Section 504, most students who had disabilities were not granted access to higher education institutions. There were no arrangements made for

wheelchair accessibility, visual accommodations for the blind, or interpreters for deaf applicants (Paul, 2000).

Another law passed by Congress in 1975 was instrumental in the special education movement at the primary and secondary levels. Public Law 94-142 (Education of All Handicapped Children Act) ensured “a free, appropriate, public education in the least restrictive environment” (Gordon & Keiser, 2000, p. 24). This legislation was later revised in 1997 and renamed the Individuals with Disabilities Education Act (IDEA). The IDEA statute laid out a specific framework of service provision, fiscal responsibility, and school district accountability. Documentation for the special needs students was also prescribed by the IDEA ranging from identification, to assessment, to the development of the student's own individual education plan (IEP). Provisions and guidelines mandated by IDEA did not apply to higher education institutions; however, they did serve to eventually create a more knowledgeable and empowered student/parent base (Simon, 2000; Stodden et al., 2003).

Small numbers of postsecondary students utilized the legislative protection afforded to them by the Rehabilitation Act of 1973. The focus was largely on the primary and secondary education levels; however, postsecondary student numbers have shown a significant increase since the passage of the Americans with Disabilities Act in 1990. The Americans with Disabilities Act (ADA) was “designed to protect individuals from discrimination in employment, housing, public accommodations, education, transportation, communication, recreation, institutionalization, health services, voting and access to public service” (Levy, 2001, p. 86).

According to Hawke (2004), ADA's passage and subsequent influence further magnified the repercussions and effects upon higher education facilities that had begun with the passage of section 504. Title II of the ADA "prohibits public entities, including colleges, from denying qualified individuals with disabilities participation in or benefits from the program, services, or activities they provide or from discriminating against individuals based on their disabilities" (p. 18). Private colleges have been covered under Title III of the ADA which essentially carries the same mandates as Title II (Hawke).

The ADA was a civil rights act, whose primary goal was to provide an unquestionable mandate for the elimination of discrimination against individuals with disabilities. Gordon and Keiser (2000) outlined some of the major principles of the ADA in the following manner:

1. It is to be distinguished from an entitlement program.
2. An individual must meet the criteria for a disability in order to qualify for protection and services.
3. Current and legitimate documentation must be provided to qualify as being disabled.
4. Educational organizations are mandated to provide accommodations to those qualifying individuals to facilitate their ability to meet the core purposes of their educational programs.
5. Accommodations are recommended for specific tasks to enhance the individual's ability to be successful on a particular activity.

Section 504 and the ADA, as described by Simon (2000), defined “an individual with a disability as one who (a) has a physical or mental impairment that substantially limits a major life activity, (b) has a record of having such an impairment, or (c) is regarded as having such an impairment” (p. 70). A major life activity is considered a normal basic activity of daily living which under normal circumstances is completed independently or with very little assistance. Comparison of an individual with a disability against what an average or “normal” individual can accomplish is frequently utilized as the generic litmus test for whether or not the impairment significantly limits the life task (Gordon & Kaiser, 2000; Levy, 2001).

Deciding what degree of impairment “substantially limits” a major life task is somewhat daunting considering the myriad of diagnoses and levels of physical and mental impairment that are potentially protected under the ADA. Interpretations by the Supreme Court, the Office of Civil Rights, and the Equal Employment Opportunity Commission contended that an individual was substantially limited if that person was still restricted in their ability to perform a function following reasonable accommodation measures (Gordon & Kaiser, 2000; Levy, 2001; Simon, 2000). If, for example, an individual had a significant visual impairment, but with corrective eye glasses his or her acuity increased to an average range, that person would not be considered disabled. However, if a person was classified as legally blind and had significant limitations in visual acuity even with corrective lenses, he or she would be considered disabled and substantially impaired in major life activities requiring visual skills (Gordon & Kaiser, 2000).

An additional term as outlined by the ADA is reasonable accommodations. This term has been described by Gordon and Keiser (2000) as “assistive devices or adaptations that serve to ease the impact of the particular disability” (p. 16). This could include structural changes to facilities to make them more accessible to individuals with a disability or “job restructuring, part-time or modified work schedules, reassignment to a vacant position, acquisition or modification of equipment or devices, appropriate adjustment or modification of examinations, training materials or policies, the provision for qualified readers or interpreters, and other similar accommodations” (U.S. Department of Labor, ADA, p. 6).

Disability Service Coordinators in Higher Education

One of the positive outgrowths from the increased utilization of disability related services was the creation of coordination offices at colleges and universities to assist students with disabilities. Disability service administrators or coordinators are charged with the goal of ensuring equitable educational services to students with disabilities at their institutions. At large institutions, staff might consist of administrator, staff and technological experts. Smaller institutions might only have one designated coordinator or disability specialist. According to McGuire (2000), a disability service administrator's primary functions included ascertaining a student's eligibility under the ADA mandates, investigating disability documentation to assess appropriateness and legitimacy, deciding on the type of reasonable accommodation, and developing departmental and institution-wide procedures. Primary roles of a disability service staff member consisted of student

intake, scheduling student assessments, counseling and advising, faculty and student support services, and equipment procurement and upkeep (McGuire).

Although the IDEA outlined a prescribed set of duties, roles, and functions at the primary and secondary levels, ADA mandates have been much less clear and have been open to interpretation at the postsecondary level (Stodden et al., 2003). Because of the uncertainties, controversy has existed at various levels, and the disability service offices often would bear the brunt of dealing with those controversies. Many people perceived disability as a form of entitlement, though that was not the intent of the ADA. Frequently, students and their parents submitted a list of demands needed for their educational program, many of which would have nothing to do with their disability, their level of impairment, or the recommended accommodation for that particular individual. According to McGuire (2000), the ADA has ensured "protection from discrimination on the basis of a disability", but it does not "require colleges or universities to identify disabilities or provide remedial or tutorial services" (p. 24).

Once an institution's disability service administrator has established that a student has the appropriate documentation to support an eligible disability, the next challenge would be to recommend a reasonable accommodation based on that student's abilities and the essential demands of his or her particular class or educational program. At the time of the study, there was "no standard set of accommodations that make sense for any given disability" (McGuire, 2000, p. 28); therefore, the disability service administrator often based his or her recommendations on past experience, common practice guidelines and previous student records when appropriate. Scott (1990), as reported in McGuire, offered

three general categories of accommodations. These categories included offering alternative methods of instruction, differing methods of evaluation, and auxiliary aids.

Alternative Methods of Instruction

Alternative methods of instruction include the provision of overhead transparencies or lecture handouts, using a variety of instructional methods rather than just an auditory format, and encouraging an open and diversity-friendly environment (McGuire, 2000). Shaw et al. (2001) have outlined an instructional strategy that takes on the concepts of universal design that is used in the field of architecture. This "universal design for instruction" (p. 2) strives to automatically consolidate accessibility characteristics into a classroom rather than offering piecemeal changes in method or accommodations when a need arises. The framework for this type of universal design for instruction contains nine general principles that facilitate open and accessible instruction for a wide variety of student learning styles and abilities.

1. Equitable-useful and accessible by people with diverse abilities
2. Flexibility in use-designed to accommodate a wide range of individual abilities
3. Simple and intuitive instruction-designed in a straightforward and predictable manner
4. Perceptible information-necessary information is communicated effectively
5. Tolerance for error-instruction anticipates variation in individual student learning pace and requisite skills
6. Low physical effort-minimize nonessential physical effort in order to allow maximum attention to learning
7. Size and space for approach and use
8. A community of learners-promotes interaction and communication among students and between students and faculty
9. Instructional climate-designed to be welcoming and inclusive (Shaw et al., 2001, p. 2)

Alternative Methods of Evaluation

Alternative methods of evaluation have provided other forms of accommodation that have frequently been offered to assist individuals with disabilities. The particular accommodation has been dependent on the diagnosis, the student's needs, and the test objectives. Some examples would include: extra time for test taking, offering an alternate place to take tests such as a testing center or a quiet room, and allowing a student to take a test orally rather than in written format. For students with fine motor limitations, the assistance of a note-taker in the classroom environment and in completing test answer sheets might be appropriate. Large print examinations, audiotaped or read examinations would be likely accommodations for a student with a visual impairment (Keiser, 2000).

Auxiliary Aids

It has been the responsibility of the postsecondary institution to provide auxiliary aids to students with disabilities to ensure their ability to participate in all educational activities as outlined in Title II of the ADA. Students at postsecondary institutions are responsible for notifying the appropriate resource person in order to request the use of an aid. The college or university also has the right to request supportive documentation or, in some cases, a prescription for the auxiliary aid. Auxiliary aids can be in the form of assistive technology equipment such as talking or Braille calculators, customized keyboards, television enlargers, telecommunication devices for deaf persons, closed caption decoders, reaching devices, or specialized gym equipment. They can also be in the form of a person to assist with a particular skill or offer a particular service. Examples

of this form of assistance would be interpreters, note-takers, and readers. Postsecondary institutions are not required to provide personal aids and services. Disabled students who require an attendant to assist them with toileting, feeding, or other self-care tasks are responsible for providing that assistance for themselves (Keiser, 2000; U.S. Department of Education, 1998).

The ADA addresses two types of accessibility issues for students with disabilities. The first issue focuses on the removal of physical barriers, and the second issue is centered on "denial of full and equal services based on disability" (Frierson, 2000, p. 84). General guidelines to assure ADA compliance within educational institutions include ensuring the accessibility of all goods and services through the promotion of a barrier free environment. This would include telephone, communication and transportation changes, fair and non-discriminative employment practices, and the availability of assistive technology for learning endeavors. The primary responsibility for higher education facilities planning departments involves the physical accessibility aspect of the ADA (Shepard, Duston, Russell & Kerr, 1992).

Constructing a higher education facility that is ADA compliant involves following a long list of specific planning, designing, and implementation guidelines. From parking lots to curb cuts and bathroom stalls to elevator signage, accessibility is the priority. For individuals with alternative mobility methods such as wheelchairs or scooter; curb cuts, ramps, wider entrances, sufficient turning space, and accessible counter heights are just some of the many considerations for a facilities department. Sensory related deficits such as deafness or blindness require the installation of special Braille signage, visual fire

alarm signals, and text telephones. Evacuation plans and rescue assistance procedures must also be considered (ADA Accessibility Guidelines for Buildings and Facilities, 2002). Additionally, technological advances and improvements have helped to create a virtual plethora of assistive devices that can be used by individuals with and without disabilities to access information and participate more fully in the learning experiences. Technology requires specialized space, wiring, and maintenance that also come under the domain of the facilities department (Goddard, 2004).

Service and Support Models in Higher Education

A number of different service models have been utilized to address the specific needs of students with certain types of disabilities, particularly intellectual disabilities. Several demonstration projects have been sponsored by the U.S. Department of Education to determine what type of service model worked best in developing "independent living and employment preparation on community college campuses" (Stodden & Whelley, 2004, p. 7). The majority of programs were focused on students with intellectual or psychiatric disabilities; however, the information gained about the most effective models and services from this population offer beneficial lessons for postsecondary disability programs in general (Collins & Mowbray, 2005).

Stodden and Whelley (2004) detailed three specific models that were investigated by the Department of Education. Included in this investigation were the substantially separate model, the mixed program model, and the individualized support model. A substantially separate model is a freestanding program with a non-academic focus.

Curriculum is aimed toward the development of community living skills and supported employment. Substantially separate models have staff members who have special education backgrounds or developmental disability specialists; there is minimal interaction with postsecondary institutions. Mixed program models involve a combination of academic college courses and community living skills. Students in this type of program have a chance to interact with typical college students and may be employed in select on-campus positions. The postsecondary institution and other educational or public service entities often share funds for mixed program models. Similar to the typical college disability services office, the individualized support model offers student tailored services, classroom and testing accommodations, assistive technology and external supports like coaches and mentors. This model is highly integrated into the academic structure, often being funded by the college, local business and industry, and school districts (Collins & Mowbray, 2005; Stodden & Whelley).

The transition from graduation to the world of work has been an added challenge faced by students with disabilities as they graduate from colleges and universities. The ADA and EEOC mandates have opened many doors for this group of potential employees; however, employment barriers have persisted. Individuals with disabilities have continued to be underrepresented in most workplaces. There has been an apparent lack of support for competitive employment and very few positive role models. Though technological innovations have been increasingly available and most recommended work accommodations have been reasonably priced, the majority of employers have not

appeared to be motivated to examine the benefits and possible accommodations of hiring a worker who is disabled (University of Washington, 2005).

Colleges and universities have traditionally assisted in job skill development and school to work connections through the use of internships, cooperative and experiential education activities, and service learning projects. These experiences have been just as beneficial for students who are disabled as for those students who are not disabled. By providing businesses and potential employers with information about working with individuals with disabilities and accommodation guidelines, the social acceptance, groundwork and benefits of hiring workers who are disabled are already established (University of Washington, 2005).

Technological advances have made life easier for every individual in the United States with or without disabilities. Elevators, garage door openers, microwaves and microcomputers are just a few of the high tech assistive devices that most Americans take for granted. For individuals with disabilities, technology has opened doors, increased access and opportunity, and allowed productivity and independence (Cowan & O'Sullivan, 2005). Many of the auxiliary aids used for accommodating the specific needs of students with disabilities are considered technology products or assistive technology.

Goddard (2004) discussed the impact of technology within university libraries for individuals with disabilities. Libraries have come to be viewed as clearinghouses of information and have generally strived to ensure access to all of their users. Access to information includes being able to utilize hardcopy books, journals, and videos and having use of personal computers for the Internet and web based books and journals.

Although a survey from the U.S. Department of Commerce indicated the percentage of individuals with disabilities using personal computers was significantly lower than people without disabilities; many libraries have specifically tried to create access to personal computers via specialized workstations for those that are disabled.

Libraries have routinely faced changes regarding physical accessibility issues such as ramps and automatic doors in following the mandates of the ADA; however, the more challenging task has been access to the libraries' goods and services. Hardware and software options wired into adjustable-height workstations have provided a viable answer to the computer access challenge. Software options included screen enlargement, voice output capacities, and touch command as well as hands-free computer use. Hardware connections included variable keyboards, trackballs, adjustable monitor arms, and adaptive pointers. Noise levels for other users and network security issues posed a few hardships for these specialized computer systems within the library. Some institutions have addressed this issue by placing stand-alone stations away from the high usage areas (Goddard, 2004). In some instances, it has been more convenient for the majority of specialized computers and assistive technology to be housed in the student disability services offices (McGuire, 2000).

Faculty Attitudes Regarding Students with Disabilities

ADA mandates have been an integral part of opening up higher education opportunities and eliminating many of the physical barriers for students with disabilities. Social and cultural barriers, however, have not been eradicated and have often surfaced in

the form of continued prejudice and discrimination by students, staff and some faculty. Numerous projects have examined student and faculty attitudes toward students with disabilities via surveys and campus climate studies.

Junco and Salter (2004) investigated potential attitudinal changes of faculty and staff members that worked with students with disabilities following their participation in an online training program. Participants in the online training program included 113 faculty and student affairs staff in a Northeastern U.S. Masters College. The sample included 75 faculty members, 26 staff members, and 10 administrators. The sample included 52 men and 59 women. The primary measurement instrument used was the Attitudes Toward Disabled Persons Scale (ATDP) which examines attitudes toward individuals with disabilities. Eight questions from an additional tool, the Contact with Disabled Persons Scale (CDP), were included in the questionnaire process to account for any preexisting attitudes from prior exposure to individuals with disabilities. All contacts and study parameters were performed online. Participants were randomly assigned to two groups. One group took the ATDP prior to participating in the online program and the other group took the ATDP after the online training. An analysis of covariance (ANCOVA) was used to analyze the effects of the online training on attitudes of the participants as quantified by the ATDP. Study implications supported the premise that training and information were essential components in changing attitudes. Additional findings of the study indicated “that an online training program appeared effective in changing the attitudes of the faculty and staff in this sample” (Junco & Salter, p. 267).

Rao (2004) examined higher education faculty attitudes in a review of the literature. Faculty attitudes were found to be an essential element in the success of students with disabilities who were enrolled in higher education. Those members of the faculty having access to information about students with disabilities consistently indicated more support and acceptance of the students. Faculty members that displayed negative attitudes tended to inhibit students with disabilities from using their own assertiveness and advocacy skills.

The primary instrument utilized in the measurement of attitudes toward people with disabilities has been the ATDP. The scale was developed by Yuker, Block, and Campbell in the late 1950s. It has continued to be the industry standard for approximately four decades.

Major Disability Areas

In order to qualify for protection and accommodation under the ADA, the postsecondary student must have an official diagnosis that is covered under the mandate. The diagnosis must be made following a medical and/or psychological evaluation by a certified professional qualified to make the determination. Accommodations have depended upon the particular diagnosis and severity of disability exhibited by the student. Although diagnoses are helpful, each individual student will have unique skills and abilities that must be taken into account by the student disabilities office and the faculty and staff who assist that student (Keiser, 2000). Another important factor to keep in mind is found in the Equal Employment Opportunity Commission (EEOC) Regulations, Sec.

902.2 as stated by Lorry (2000) “a diagnosis is relevant to determining whether a[n individual] has an impairment. It is important to remember that “a diagnosis may be insufficient to determine if the [individual] has a disability” (p. 131).

The criteria that have been utilized for making a determination of disability for mental disorders is the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)*. In the United States, the *DSM-IV-TR* provides the standard of empirically based data regarding the description, etiology, prevalence, and functional diagnostic criteria for what is considered the vast range of mental disorders (American Psychiatric Association, 2000; Gordon & Murphy, 2000). Learning disabilities, attention deficit/hyperactivity disorder, psychiatric disorders and intellectual disabilities are all discussed in the *DSM IV-TR* and would be under the assessment expertise of a clinical psychologist or psychiatrist. Physical disabilities would fall under the clinical expertise of medical physicians and specialists (Wainapel, 2000).

Learning Disabilities

According to Henderson (2001), the fastest growing disability in the educational arena is a learning disability (LD). The National Joint Commission on Learning Disabilities, as outlined in Lorry (2000), defined learning disabilities as "a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical skills" (p. 32). Proper assessment and documentation are important factors

in the process of accommodating such critical areas that are generally considered prerequisites for academic success.

According to Lorry (2000), LD related symptoms most frequently reported in the postsecondary education have been reading difficulties (avoidance, decreased speed, limited comprehension) and cognitive difficulties (limited concentration and recall). The root of the reading difficulty must be defined carefully to rule out poor study habits and unfamiliarity of the academic subject. Classroom accommodations may include additional handouts, increased visual and tactile-kinesthetic activities and extended time for reading assignments. Testing accommodations might include separate testing areas, audiotaped examinations, or a reader (Lorry).

Attention-Deficit Hyperactivity Disorder

A diagnostic label that has been frequently cited in pediatric and adult literature during the past decade is that of attention-deficit/hyperactivity disorder (ADHD). Definitive statistics are difficult to obtain, however, many institutions have reported a huge increase in the number of students seeking ADA accommodations based on a disability of ADHD. Further complicating matters regarding diagnosis and accommodation are the "skepticism and controversy" (Gordon & Murphy, 2000, p. 98) of the general public which has been fueled by the rise in number of ADHD diagnoses and the increased use of ADHD medications.

ADHD has been inherently difficult to diagnose because its primary symptoms of inattention, impulsiveness and increased activity levels are intrinsically found in most

human beings during some part of their life. As is common with most mental disorders, it is the degree and severity of the symptoms that set a diagnosis apart from the norm of the population. In an effort to rule out what is considered normal behavior from ADHD, the DSM IV-TR has delineated specific requirements for diagnosis regarding the "number of symptoms exhibited by the patient and documentation that he or she meets criteria for early onset, impairment, and pervasiveness" (Gordon & Murphy, 2000, p. 100).

Accommodating a student with ADHD is difficult and case specific. The very nature of the disorder (inattention, impulsivity, and distractibility) sets up a series of challenges for all that come into contact with the student. Rather than utilizing specific accommodations such as sitting up front in the classroom and having a non-distracting test environment, a recommended approach is that of teaching student based self-management skills. In other words, a method is recommended in which an instructor or disability services coordinator would work with students to help them develop individual strategies that would facilitate their organization, studying and testing taking abilities (Gordon & Murphy, 2000).

Psychiatric Disorders

Wylonis & Schweizer (2000) have suggested that psychiatric disorders represent a wide array of mental and emotional conditions that frequently go undetected and unsupported in the postsecondary education system. The general public may tend to discount the legitimacy of psychiatric disorders as most people experience emotional imbalances throughout their life and are able to deal with them without assistance or

intervention. On the mental health continuum, the individuals found at the polar ends have been the people that require support and assistance. Chronic mental illnesses can be just as debilitating and limiting as chronic medical diseases (Wylonis & Schweizer).

Employment rates have tended to be lower in adults having psychiatric disorders; and according to a 2005 report of Collins and Mowbray, this can be linked to lower overall education levels. It was also reported that the highest prevalence rates associated with mental illness tended to be during the late teen and young adult years which coincided with choices concerning college admission and career options. One reported relevant statistic was an 86% dropout rate among college students who had psychiatric disorders (Collins & Mowbray).

Students who have psychiatric disorders frequently have had difficulty with motivation, concentration and social interactions. Barriers within the college environment have included social stigmatization, feelings of isolation, lack of understanding from the faculty, and a lack of support services for mental health issues on the campus (Collins & Mowbray, 2005). Depending on the severity of the illness, supportive instruction such as the substantially separate model or the mixed program model may be the optimal program choice for successful outcomes (Stodden & Whelley, 2004).

According to Wylonis and Schweizer (2000), the most common type of disorders within the realm of mental illness, besides substance abuse, have been mood and anxiety disorders. As with any disorder determination, the benchmark indication of impairment and subsequent ADA accommodation is the degree of substantial limitation the diagnosis has caused in comparison to those without the diagnosis. Accommodations for students

with mood and anxiety disorders have frequently centered on the manipulation of the testing parameters and environment. No matter what the disability, "accommodations are not generally acceptable unless they are targeted toward remedying the illness-caused-functional impairment" (Wylonis & Schweizer, p. 168).

Physical Disabilities

The category of physical disabilities encompasses a vast array of medical and surgical circumstances that can involve any part of the body. Depending upon the severity, any "medical problem could cause impairment sufficient to justify accommodations" (Wainapel, 2000, p. 170). The classification system of the World Health Organization (WHO) has been widely used as the framework from which to categorize and define the following terms: impairment, disability, and handicap. Impairment refers to dysfunction at the organ level and implies a state of disease. Disability refers to the difficulty in performing daily life tasks, which is the direct result of impairment. Handicap refers to the social barriers that are faced as a result of an impairment (Wainapel).

Physical disabilities are frequently categorized into five separate groups relating to the affected area of the body. Wainapel (2000) categorized these areas as "neurological, musculoskeletal, visual, auditory, and miscellaneous medical" (p. 172). Neurological disabilities consisted of spinal cord injury, head injury, cardiovascular accidents, cerebral palsy, multiple sclerosis and peripheral nerve injury. Diagnoses of arthritis, systemic lupus erythematosus, lower back pain, extremity amputation, or major

bone fractures made up some of the disabilities in the musculoskeletal category. Visual disorders included blindness, diabetic retinopathy, macular degeneration, strabismus and other related visual impairments. Deafness, sensory-neural hearing impairment, congenital hearing loss and otosclerosis made up the auditory category. Diseases and disorders that were classified in the miscellaneous medical area would be diabetes mellitus, chronic renal failure, cardiac and pulmonary diseases and gastrointestinal disorders (Wainapel).

Accommodation strategies for postsecondary students with physical disabilities are dependent on how the disorder impacts a student's level of academic functioning. Most frequently cited accommodations used for students who have neurological or musculoskeletal disorders have involved enhancing the student's degree of mobility (physical access into and out of campus areas) and adapting tasks that require manual dexterity such as writing and fine motor manipulation. Students who have visual or auditory impairments often have demonstrated deficits in information retrieval and communication modes. Auxiliary aids and technologically advanced computers offer an assortment of devices to assist with obtaining information and expressing verbal and written needs, i.e., magnifiers, synthetic speech software, Braille devices, assistive listening devices. Interpreters and written teaching materials have been the most widely accepted accommodations for deaf students. In the area of miscellaneous medical disorders, the most commonly cited challenge has been not having the endurance to make it from one place on campus to the next or the need for rest periods during class or test

times. Accommodations related to endurance issues might be mobility assistance with wheelchairs or scooters and flexibility with class and test schedules (Wainapel, 2000).

Transitions and Trends in Higher Education

According to Levy (2001), the number of students who have asserted the need for accommodations under the ADA umbrella significantly increased during the last decade of the 20th century. Thomas (2000) attributed part of this greater demand for disability related services to the number of students who received educational support and assistance at the primary and secondary levels as part of the IDEA mandates. The need for postsecondary education has also been steadily increasing in importance in order for potential workers to be and remain competitive in the job market. This fact is just as important for students with disabilities. Individuals with disabilities can succeed in postsecondary education with the right preparation and support.

The findings from a five-year research project conducted by the University of Hawaii were examined to ascertain the importance of access to postsecondary education for students with disabilities (Stodden et al., 2003). One notable finding from the study was the persistence of a variety of accessibility related challenges for individuals with disabilities. The transition from secondary to postsecondary educational environments posed several barriers for these individuals. There were discrepancies in the coordination of services from secondary to postsecondary; there were variances in the legal and documentation requirements from secondary to postsecondary; and there were differences in the amount of responsibility the student needed to assume. It was found

that a student with a disability must take the initiative to disclose his or her disability to the appropriate representative at the postsecondary level. Additionally there was no mandate for parental involvement within the college system; therefore, the student needed to become his or her own primary advocate (Simon, 2000; Stodden et al.).

Stodden et al. (2003) stated "access to postsecondary education and training is a major factor in the transition from high school to successful adult life" (p. 30). There have been similarities in demographic characteristics such as level of parent education, high school completion, and income levels between those with and those without disabilities who participate in higher education programs. The major difference, however, has been one of access and opportunity.

Significant trends have been noted concerning the participation of individuals with disabilities in higher education and in the labor market. The sources for these trends as reported in Stodden et al. (2003) come from the HEATH Resource Center, 2001; National Center for Education Statistics, 2000; and the National Organization on Disabilities & Harris Interactive, 2002.

Some of the more important positive trends noted included the steady increase in the number of students with disabilities who graduated from high school and the decrease in the number of students with disabilities who dropped out. Interestingly, the number of reported freshmen in college with a disability had tripled in the last twenty years. In 1998, that percentage was over 9%. Two-year higher education institutions were more likely to be sought after by student with disabilities than four-year institutions, and half of those enrolling students were degree or credential seeking. The most common types of

disabilities reported in post secondary education were learning disabilities. Employment rates for those individuals with disabilities who were able to work had increased over the past 14 years. (Stodden et al., 2003).

Although steady progress was noted during the 1990s, according to Stodden et al., (2003), challenges and gaps persisted for those students with disabilities who pursued postsecondary education. One of the enduring challenges included the higher attrition rates of students who have disabilities as compared with students without disabilities during secondary and postsecondary schooling. Additionally, individuals who had a disability and were attending postsecondary education took longer to complete their degree than their peers. This in turn adversely affected their financial aid and availability for employment. Most of the students with disabilities (more than 80%) required assistance and/or accommodations to successfully complete their postsecondary academic goals. Lastly, employees with disabilities routinely earned a lower wage than their non-disabled counterparts.

In a study by Hartman-Hall and Haaga (2002), 86 students with learning disabilities were surveyed to examine their self -esteem and self-perceptions regarding their disabilities. The students were also asked to rate their willingness to seek out assistance from academic support staff as a response to two different experimental conditions. Vignettes and radio ads were used, both mediums with two different facets. Scenario One for the vignette involved a student seeking assistance from a professor or a peer and getting a positive reaction about the interaction. Scenario Two was the same situation; however, the reaction was negative instead of positive. The marketing ads were

advertising the academic services located on a college campus. One ad emphasized learning goals and the other emphasized performance goals.

Results of the study emphasized the power of peer and professor attitudes as evidenced by the students reporting that they were much more likely to seek help after reading about a positive reaction than a negative reaction. Outcomes from the perception and self esteem instrument indicated that the students who felt stigmatized and somewhat controlled by their disability tended to have lower self esteem and seek assistance less frequently. The students viewed the ads more favorably when hearing about performance goals (like grade improvement) rather than learning goals (Hartman-Hall & Haaga, 2002).

The literature reviewed for the learning disability study indicated that although the number of LD students at higher education institutions had increased through the 1990s, only a small portion of those students routinely self disclosed to faculty or staff and often did not seek out help from academic services. Studies reviewed also routinely linked the dissemination of services with improved academic performance but very few produced significant outcome data. Hartman-Hall and Haaga (2002) found a positive correlation between the responsiveness of faculty and staff and the frequency with which LD students sought academic assistance. This further supported the need for increased training concerning students with disabilities and accommodations. An additional contributing factor was students' perception of their LD as pervasive and stigmatizing.

Program Evaluation of Disability Services

Program evaluation is a necessary and comprehensive process that assures individuals, organizations, and communities that a process or service is necessary, effective, and successful in its intended outcomes. With the intensified emphasis on accountability, cost management, and service accessibility; competent program evaluation has never been more important (Posavac & Carey, 2003). Managers of both private and public sectors have been increasingly pressured to justify, support, and evaluate their programs in an expanded fashion. McLaughlin and Jordan (1998) stated "the emphasis on accountability and managing for results is found in state and local governments as well as in public service organizations such as United Way of America and the American Red Cross" (p. 2). This phenomenon has created a challenge for the traditional manager and has necessitated a more flexible and responsive approach in documenting outcomes. Furthermore, continuous quality improvement has become an added area of focus for most contemporary managers (McLaughlin & Jordan, 1998).

Since the 1990s, the postsecondary educational system has been held increasingly accountable for demonstrating program outcomes. Outcome data at the postsecondary level for students with disabilities has been nominal (Parker et al., 2003). It has consisted largely of cursory reports completed by student disability coordinators and financial data reports submitted as required for state accounting procedures; however, as indicated by Stodden et al. (2003), "postsecondary institutions often are not held accountable for the achievement of specific goals or the provisions of specific services unless through litigation under the ADA" (p. 33). At the secondary level, there has been some measure

of accountability through a student's Individual Educational Plan (IEP). The IEP has been utilized as a goal based treatment plan that spans from one school year to the next, documenting goal attainment and the need for continued services. The purpose has generally been focused on short term objectives to meet long term goals; however, the path or outcome for the individual has not always been considered from primary to secondary grade levels or from secondary to postsecondary education or work. Consideration needs to be given as to the specific prior preparation as well as the future objectives so that appropriate assistance can be provided to assist students with disabilities to meet their long term goals (Stodden et al.).

Program evaluation serves many purposes including increasing the quality of program services, securing continued funding, and providing objective data for research. Parker et al. (2003), expressed the belief that reform initiatives were underway that would require postsecondary institutions to perform routine program evaluation, develop benchmarks, and document successes regarding their services to students with disabilities. Izzo, Hertzfeld, Simmons-Reed & Aaron (2001) had earlier indicated that "Numerous researchers have challenged institutions of higher education to improve the quality of postsecondary services and supports provided to students with disabilities" (p. 2). They stressed the importance of both quantitative and qualitative research in order to accurately assess trends, student and faculty needs, and service delivery models for postsecondary students with disabilities.

As Shaw and Dukes (2001) have noted, "The promulgation of Program Standards for disability services in higher education provides a research-based direction for

postsecondary institutions, consumers and government agencies with respect to the services necessary to provide equal access for college students with disabilities" (p. 81).

The Association on Higher Education and Disability (AHEAD), an international professional organization for higher education disability support specialists, proposed 27 Program Standards in 1999. These standards covered nine basic categories including consultation/collaboration/awareness, information dissemination, faculty/staff awareness, academic adjustments, instructional interventions, counseling and advocacy, policies and procedures, program development and evaluation, and professional development (Shaw, 2002; Shaw & Dukes, 2001). AHEAD members approved the standards in June of 1999. Although the Program Standards provided "essential expectations" (Shaw, p. 7) for postsecondary support services, there was a great deal of flexibility for implementation and delivery by each individual institution (Shaw; Shaw & Dukes).

Disability support departments within higher education have become progressively more structured and organized, and the development of a set of recommended program standards has served to emphasize the level of growth within the field (Dukes & Shaw, 1998). Izzo et al. (2001) described best practices for improving the quality of disability support services within higher education. They emphasized the need to assess the climate of the institution, the importance of providing broad-based professional development and the benefit of implementing a data driven quality improvement plan.

Although the supports for students with disabilities within higher education have continued to expand, Dukes and Shaw (2004) have noted that these supports have not

always been well planned. One area of concern is the educational and professional training of the staff who administer the offices for students with disabilities. Disability personnel come from a diverse professional background ranging from areas like exceptional education, counseling, or human resources. Rarely are these individual trained in working with adults students with disabilities. This diversity in disability personnel background has the potential to create inconsistent service delivery and a lack of focus on the unique needs of adult learners with disabilities (Dukes & Shaw, 2004).

A three-part plan was proposed by Parker et al. (2003) to be utilized for program evaluation by disability service providers. Phase one of the plan involved clarifying the purpose of the program evaluation which may include one or more of the following: regulatory compliance, self-justification, improving quality of services, securing funding, basic data collection, etc. Phase two involved deciding on a model or framework for the program evaluation. This phase would include the determination of a theoretical framework as well as using existing program standards such as the AHEAD Program Standards. Recommendations for the third phase entailed examining the types of data that should be collected and synthesized (Parker et al.).

Shaw and Dukes (2001) stated, "The Program Standards are a research-based vehicle for professionals when helping their institutions provide all the necessary elements to effectively meet the need of college students with disabilities" (p. 87). Additionally, the authors encouraged continual assessment and revision of the standards in order to monitor changes within the field and empirically based research. As the field of postsecondary disability support services matures, having specific expectations and

outcome measures will serve to enhance and further legitimize services (Lyman & Shaw, 1998; Shaw, 2002).

Summary

The "single largest minority group in the United States," according to Prentice (2002) is "people with disabilities" (p.1). There has been a significant increase in those individuals with disabilities seeking out postsecondary educational opportunities. The perception of a disabled person being older, poorer, and less educated is no longer accurate. Individuals with disabilities have come to be viewed as having the right and the potential to seek higher levels of education and competitive employment. Legislative mandates such as the Rehabilitation Act of 1973 and the ADA have served to level the playing field and facilitate access in multiple venues including higher education. Compliance with regulation, codes and accessibility standards has not only been mandated by law, but has been considered as essential for providing "equal educational opportunity" (Hawke, 2004, p. 25) to students with disabilities.

Significant improvements in accessibility and services for students who are disabled have been noted beginning in the 1970s. Increased numbers of students with disabilities have attended college and graduated with degrees (Prentice, 2002). At the time of this study, departments within postsecondary institutions were offering disability support services for eligible students. These departments have served as advocates for the students by providing information, academic support, instructional intervention, faculty training, and counseling (McGuire, 2000).

Institutions' disability support departments have been organized and administered using a variety of structures to meet the unique needs of the students served. There have been, thus far, no proven recommendations for determining the most beneficial staff size, location within the institution, data collection activities, budgeting process or most effective student services (Shaw, 2002; Shaw & Dukes, 2001). Research regarding program evaluation, outcomes, service delivery methodologies of postsecondary disability support service departments has been limited. Many higher education establishments have continued to struggle with how best to meet the needs of the growing numbers of disabled students attending their institutions (Izzo et al., 2001). AHEAD Program Standards have provided a flexible platform from which postsecondary disability support providers can compare and monitor their services (Shaw & Dukes). As the body of knowledge regarding postsecondary educational services and outcomes for students having disabilities continues to grow, the effectiveness and legitimacy of these services should also expand and ultimately better serve their students (Dukes & Shaw, 1998).

CHAPTER 3 METHODOLOGY

Introduction

Chapter 3 describes the methodologies and procedures used to determine the extent to which program evaluation standards have been implemented within the 28 Florida community colleges. This chapter includes (a) the purpose of the study, (b) research questions, (c) research design, (d) a description of the study population, (e) instrument development and pilot testing, (f) a description of the survey instrument, (g) data collection and analysis procedures, and (h) a summary.

Purpose of the Study

The purpose of this study of disability support program administrators was to document their perceptions and activities regarding program evaluation in Florida community colleges. Additionally, the study explored the diversity in organizational and staffing characteristics of disability support programs within the Florida community college system in order to better understand service delivery practices.

Research Questions

The following five research questions guided the study:

1. What are the organizational and staffing characteristics of the disability support programs in the 28 Florida community colleges: (a) number, gender, disability status, and educational background of staff; (b) age of the program;

- (c) budgetary support; and (d) membership in the Association on Higher Education and Disability?
2. What are the self-reported enrollments of students with disabilities in the 28 Florida community colleges?
 3. What similarities are there among the disability support programs in the 28 Florida community colleges in regard to program administration and evaluation when compared to the Association on Higher Education and Disability standards?
 4. What types of outcome data and program assessment activities are performed by the disability support programs in the 28 Florida community colleges?
 5. What is the relationship between selected institutional characteristics within the disability support programs in the 28 Florida community colleges (number of staff, number of students, prior experience with program evaluation, membership in AHEAD, and having one or more staff members with disabilities) and the program's ability to implement and adhere to pre-established standards from the Association on Higher Education and Disability?

Research Design

This study utilized a mixed method research design to investigate the perceptions and activities of disability support program administrators in Florida community colleges regarding administration and program evaluation activities. Information was obtained via

a structured phone survey which was developed by the researcher. Closed -ended survey responses were coded as categorical variables and entered into the Statistical Package for the Social Sciences (SPSS) for analysis. Open-ended narrative survey responses were examined for repeated ideas, themes, and patterns. Major themes and patterns were organized in table format and then analyzed for frequency of related responses, common observations, and potential deviation from common trends.

Study Population

The population for this study consisted of all of the 28 public community colleges within the Florida community college system. Appendix A contains a list of the 28 colleges. Contact information for each community college's disability support administrator was acquired by a review of the Florida Department of Education Disability Support Services website. This information was cross-checked by accessing each college's disability services department website for accuracy. A telephone call was made to each listed disability support office to confirm the contact information, identify the responsible department administrator, and discuss the research study.

Instrument Development and Pilot Testing

A survey instrument was developed by the researcher based on a review of the literature and an examination of the existing program evaluation guidelines for community college disability support departments. The Association on Higher Education and Disability (AHEAD) developed a set of recommended program standards for

postsecondary disability support services in 1999. Developed for the purpose of guiding quality and consistency among disability support providers, the standards were meant to be flexible guidelines for service delivery and internal program assessment. The AHEAD standards subsection relating to program administration and evaluation was utilized and integrated into the survey instrument. Additional survey questions sought information regarding staffing and student patterns, data collection activities and budgetary support.

A pilot study was performed on the initial survey instrument with the assistance of five community colleges in Georgia and Alabama. These states were selected because their accreditation standards were identical to those of Florida. The five institutions were selected based on their listing in the American Association of Community Colleges' Directory of Disability Support Services. The decision to use out-of-state institutions in the pilot study was determined to be appropriate, since all postsecondary colleges and universities within the United States have been required to follow the mandated rules as outlined in the Rehabilitation Act and the American with Disabilities Act. The pilot process consisted of a structured telephone survey during which all responses were recorded. Following the response, each participant was asked to describe the survey experience and to offer feedback regarding the questions and their range of responses.

The pilot process provided useful feedback and recommendations concerning the survey. Respondents indicated that having the survey instrument prior to the phone conversation was very helpful. Additionally, they favored the telephone format over a traditional paper survey. In regard to the items, a few of the items were redundant and were subsequently deleted from the final instrument. The piloted survey contained 45

questions which were reduced to 42 items for the final instrument. Four of five respondents expressed concern for the item regarding political support, citing the ease with which it could be misinterpreted. This resulted in a decision to delete that item from the survey. Pilot participants also felt that the survey question requesting a specific annual budget amount was ineffectual as each department had a variety of budget codes and a variety of financial supports. Respondents stated that their annual financial needs fluctuated throughout the year based on differing student needs (i.e., students with hearing impairments requiring interpreter services which are quite expensive). This feedback resulted in revisions of the budget related questions with more focus on administrative support and areas of need. All pilot testing participants felt that the exercise of participating in the survey and assessing their own program evaluation activities served to highlight and illustrate areas of strength and areas of improvement for their departments. When queried as to whether the survey instrument adequately addressed program evaluation, all respondents replied that they felt that it did.

Feedback regarding the initial survey instrument from dissertation committee members and from pilot test participants was used in further refining the instrument prior to distribution to the 28 Florida community colleges' disability support departments. In addition to providing feedback about the survey instrument itself, the pilot process served as a practice run for the final process. The data collection procedures were tried out during the pilot process with the survey being sent ahead of time in electronic and hard copy format. It was found that e-mail correspondence regarding the set up of phone survey appointments was often more expedient than a telephone call. Information

regarding how long the pilot surveys took to complete was also instrumental in planning final survey process.

Survey Instrument

The final survey instrument contained 42 items addressing the following components of disability support services within Florida's 28 community colleges: (a) staffing characteristics, (b) enrollment data (total student population and those students self-identified with disabilities), (c) data collection procedures, and (d) compliance with the AHEAD administration and program evaluation standards. The survey contained both closed-ended and open-ended questions allowing elaboration and explanation by each respondent regarding their data collection and program evaluation activities. Table 1 displays the linkage between the research questions and survey items.

In regard to Research Question 1 as to organizational and staffing characteristics in the disability and support programs in the 28 Florida community colleges, survey items 1-6, 11-13 and 20-21 were used to collect information. This information was used to compare programs and examine differences in departmental size, experience, financial support and awareness of the Association on Higher Education and Disability standards.

Research Question 2 concerned the self-reported enrollments of students with disabilities in the 28 Florida community colleges. Survey items 7-10 were used to gather information about student enrollments and disability categories.

Table 1
 Relationship of Research Questions to Phone Survey Items

Research Questions	Phone Survey Items
1. What are the organizational and staffing characteristics in the disability and support programs in the 28 Florida community colleges? <ul style="list-style-type: none"> a. number, gender, disability status, and educational background of staff; b. age of the program; c. budgetary support; and d. membership in the Association on Higher Education and Disability in the disability support programs in the 28 Florida community colleges? 	1-6, 11-13, 20-21
2. What are the self-reported enrollments of students with Disabilities in the 28 Florida community colleges?	7-10
3. What degree of consistency is there among the disability support programs in the 28 Florida community colleges in regards to program administration and evaluation when compared to the Association on Higher Education and Disability standards?	22-24
4. What types of outcome data and program assessment activities are performed by the disability support programs in the 28 Florida community colleges?	14-19
5. What is the relationship between selected institutional characteristics within the disability support programs in the 28 Florida community colleges (staff organization and level of experience, number of students, types of disabilities, and financial support) and the program's ability to implement and adhere to pre-established standards from the Association on Higher Education and Disability?	1-42

Research Question 3 was focused on exploring any similarities among the disability support programs in the 28 Florida community colleges in regard to program administration and evaluation when compared to the Association on Higher Education and Disability standards. Survey items 22-42 provided data for analysis regarding each disability support program's participation in outlined aspects of the Association on Higher Education and Disability's standards for program administration and evaluation. Some of the particular items addressed in the standards included full-time staffing, measuring satisfaction of services, data collection methodology, program evaluation, fiscal management and collaboration.

To answer Research Question 4 as to the types of outcome data and program assessment activities that were performed by the disability support programs in the 28 Florida community colleges, responses to survey items 14-19 were examined to determine program specific data collection activities, the reasons for data collection, constraints on data collection, and examples of institutional response toward data collection.

Research Question 5 was used to investigate the relationship between selected institutional characteristics within the disability support programs in the 28 Florida community colleges (number of staff, number of students, prior experience with program evaluation, membership in AHEAD, and having one or more staff members with disabilities) and programs' ability to implement and adhere to pre-established standards from the Association on Higher Education and Disability. Survey items 1-42 supplied information for analysis of the disability support program characteristics, enrollments,

data collection patterns, and implementation of various program administration and evaluation standards.

Data Collection Procedures

Initial contact information on each of the Florida community colleges' disability support programs was achieved by accessing the Florida Department of Education Disability Support Services website. This contact information was further validated by accessing each college's website and examining the institution's particular disability support service information. A telephone call was made to each disability service coordinator to establish a base of communication and explain the purpose of the research. After successful telephone contact, each coordinator was sent a confirmation e-mail with an attachment of the survey (Appendix B). Additionally, an envelope containing two copies of the informed consent document (Appendix C) and a hard copy of the survey were mailed to each coordinator. The envelope also contained a stamped and addressed envelope for the respondent to return a signed copy of the informed consent.

Respondents were given two weeks to return the informed consent letters. If the consent letters were not returned after two weeks, a follow-up phone call was made to encourage the return of the form. Once the consent forms were received by the researcher, a phone call was made to the disability service coordinator to schedule the telephone survey. Once the phone survey was scheduled, a follow-up appointment letter (Appendix D) was e-mailed to the respondent. If time permitted, the follow-up appointment letter was also mailed to the respondent. The phone contacts, follow-up e-

mails, and postal service mailings were purposefully performed to facilitate a high participation rate. The strategy was based on Dillman's (2000) research regarding the yielding of high response rates in survey research. If a planned telephone survey appointment was missed or cancelled, an additional call was made to the respondent for rescheduling followed by a confirming e-mail regarding the new appointment.

Each telephone conversation required between 30 and 45 minutes to complete the survey. To better standardize the telephone survey process, respondents were encouraged to have their hard copies of the survey in front of them. The researcher was careful to ask each question exactly as it was written on the survey. Probing was used if needed to elicit more complete answers (Fowler, 2002). Responses to closed-ended questions were recorded as the respondent answered, and responses to open-ended questions were recorded verbatim.

Data Analysis Procedures

Data analysis for this study was completed using SPSS software. A majority of the responses from the closed ended questions yielded categorical data. These responses were coded and subsequently analyzed using descriptive statistics and nonparametric tests. Descriptive statistics were used to summarize the organizational and staffing characteristics among the disability support programs, the student enrollments, and the consistency of compliance with AHEAD program administration and evaluation standards. Cross tabulations were performed to examine responses for specified survey questions and to compare and contrast the responses of the survey participants.

Originally, the researcher had planned to run chi-square tests of significance to determine whether there was a statistically significant relationship among selected institutional characteristics within the community college's disability support programs and their compliance with the AHEAD standards for program administration and evaluation. Since expected cell counts of less than 5 violated the assumptions of the chi square test, Spearman's rho correlations were run on the selected variables. The Spearman rho tests yielded a correlation coefficient which measured association by direction and by strength of the relationship. A significance level was also generated for each correlation coefficient indicating the relative statistical significance of the relationship between the two variables.

Responses from open-ended questions regarding types of outcome data and program assessment activities were initially recorded verbatim and then coded based on focused repeated ideas and central themes. Common themes were organized and presented in table format to summarize results and highlight conceptual relationships.

Summary

The purpose of this study and the research questions have been presented in this chapter. The design of the research, the study population, the development of the instrument and the data collection and analysis procedures were also discussed. Results of the data analysis results are presented in Chapter 4.

CHAPTER 4 ANALYSIS OF THE DATA

Introduction

This study sought to investigate the perceptions and activities of disability support program administrators in Florida community colleges regarding program evaluation. A set of pre-established standards related to program administration and evaluation were utilized to ascertain the various data collection methodologies at each of the respondent community colleges. This chapter presents the results of the study, including demographic characteristics of the responding disability support programs, data analysis organized to answer the five research questions, and synthesis of the narrative responses regarding program evaluation activities.

Description of the Population

The population was comprised of the disability support coordinators at each of the 28 Florida community colleges. A total of 89% of the targeted respondents participated in the survey (n=25). Except for two, all of the survey respondents worked in a specific department designated to serve student with disabilities. The majority of the phone surveys were completed during July and August of 2006.

Table 2 presents a description of the organizational placement of disability support departments within their respective institutions and the administrative titles of the survey respondents. The majority of disability support departments resided in the Student Services Division of the college (84%). Human Resources and Education Services each

administered their disability support departments in 8% of the cases. The respondents' titles reflected: 6 (24%) Directors, 14 (25%) Coordinators, 1(4%) Human Resource Specialist, and 4 (16%) Counselors.

Table 2
Organizational Placement and Administrative Titles of Respondents

Descriptors	n	%
Organizational Placement		
Student Services	21	84.0
Human Resources	2	8.0
Education Services	2	8.0
Total	25	100.0
Administrative Titles		
Director	6	24.0
Coordinator	14	56.0
Human Resource Specialist	1	4.0
Counselor	4	16.0
Total	25	100.0

Institutional size as represented by the total number of annual unduplicated student headcount enrollment for the year 2004-2005 is presented in Table 3. Many of the survey respondents were unsure of their institution's actual student headcount; therefore, the researcher gathered the enrollment from the Department of Education's Report for the Florida Community College System (Department of Education, 2006). Three institutional size categories were defined based on three divisions in the enrollment numbers. Small institutions were those consisting of student enrollments from 1,000 to 10,000. Medium institutions were designated as having student enrollments of 10,001 to 30,000 and large

institutions were those having more than 30,000. A total of 24% of the survey respondents were from small institutions; 48% were from medium institutions and 28% of survey respondents were from large institutions.

Table 3
Size of Community Colleges Surveyed

Institutional Size	n	%
Small (1,000-10,000)	6	24.0
Medium (10,001-30,000)	12	48.0
Large (over 30,000)	7	28.0
Total	25	100.0

Note. Institutional size is based on 2004-2005 student enrollment

Research Question 1

What are the organizational and staffing characteristics of the disability support programs in the 28 Florida community colleges: (a) Number, gender, disability status, and educational background of staff; (b) age of the program; (c) budgetary support; and (d) membership in the Association on Higher Education and Disability?

The range of the total number of staff for each of the disability support departments surveyed was from 1-22, with a mean of 5.76. This number included full-time, part-time, and administrative staff. Highest frequency of response was two staff members which represented 28% of the respondents. Table 4 reflects a summary of the frequencies of the total staffing numbers as associated with the responding institutions.

Table 4
 Disability Support Staff Employed at Surveyed Community Colleges

Staff Employed	Frequencies and Percentages of Surveyed Institutions		
n	n	%	
1	1	4.0	
2	7	28.0	
3	3	12.0	
4	2	8.0	
5	2	8.0	
7	3	12.0	
8	1	4.0	
9	2	8.0	
10	1	4.0	
11	1	4.0	
12	1	4.0	
22	1	4.0	
Total	25	100.0	

Table 5 displays the total number of staff for each of the disability support departments by gender. Figures 1 and 2 provide graphic representations of these data regarding males and females respectively at the responding institutions. The mean of the number of females at each responding institution was 4.72 with the mean of the number of males being 1.04. Of the responding institutions, 4% had no females, 16% had one female, 20% had two females, 16% had three females, 12% had five females, 8% had six females, 8% had eight females, 4% had 9 females, 4% had 10 females, 4% had 11 females and 4% had 19 females. Of the responding institutions, 28% indicated having no males on staff; 44% had one male; 24% had two males; and 4% had three males on staff.

Table 5
Summary of Surveyed Disability Support Staff by Gender

Number of Support Staff	Frequencies and Percentages of Surveyed Institutions	
	n	%
Males		
0	7	28.0
1	11	44.0
2	6	24.0
3	1	4.0
Total	25	100.0
Females		
0	1	4.0
1	4	16.0
2	5	20.0
3	4	16.0
5	3	12.0
6	2	8.0
8	2	8.0
9	1	4.0
10	1	4.0
11	1	4.0
19	1	4.0
Total	25	100.0

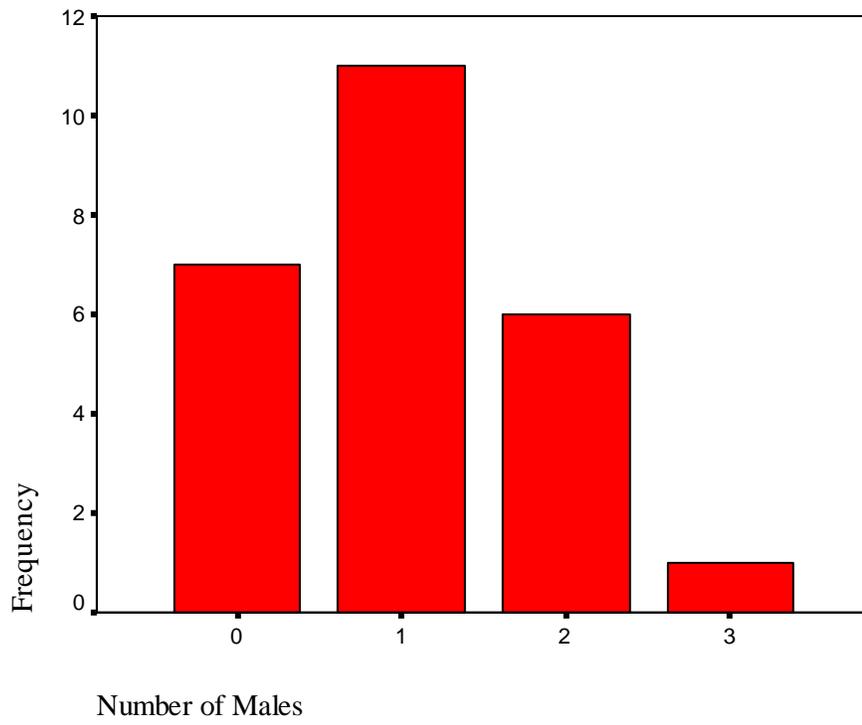


Figure 1: Frequency of Males at Responding Institutions

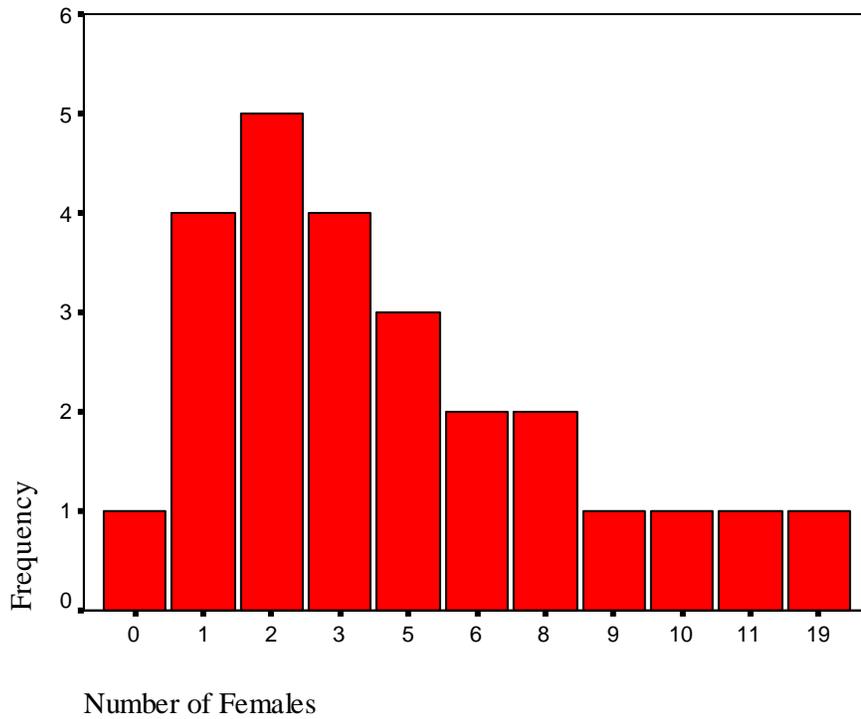


Figure 2: Frequency of Females at Responding Institutions

Survey item 4 asked the respondents if any of the staff members in the disability support department had a disability. Almost half (48%) of the respondents replied yes, affirming that one or more of the staff members within their department had a disability. The survey also inquired further into the type of disability for these employees. Types of disabilities listed in response to the question included physical disabilities, visual impairments, hearing impairments, and psychological impairments.

Table 6 provides a summary of frequencies regarding the educational background of the respondents. The range of respondents' backgrounds and relative percentage of responses in each category was as follows: Human Resources (20%), Learning

Disabilities (12%), Counseling (32%), Student Services (12%), Vocational Rehabilitation (8%), Public Administration (8%), Psychology (4%), and Communications (4%).

Table 6
Summary of Educational Background of Respondents

Primary Educational Background	n	%
Human Resources	5	10.0
Counseling	8	32.0
Student Services	3	12.0
Vocational Rehabilitation	2	8.0
Public Administration	2	8.0
Exceptional Education	3	12.0
Psychology	1	4.0
Communication	1	4.0
Total	25	100.0

Survey respondents were also asked the age of their respective departments. The literature indicated that the majority of disability support services in higher education began in the early 1980s in response to legislative mandates. Available time frames for respondents to choose from ranged from less than one year to over 20 years. The majority of respondents (52%) reported to have been in existence for over 20 years with the remaining responses (48%) reporting to have been existence for 11-20 years. Several respondents noted that their present day organization and staffing structure was larger and more organized than their original disability support departments. These respondents reported that improvements in technology, (i.e., computer access, sophisticated software, and assistive technology) were the primary catalyst agents for the growth of their departments.

AHEAD is the Association on Higher Education & Disability which serves as a professional organization for individuals who work in disability support programs within the higher education system. The standards that were utilized as part of the survey in this research study were taken from the program standards promulgated from AHEAD as a guide for disability support programs (Shaw & Dukes, 2001). Survey respondents were asked if their institutions were members of AHEAD. Over half (56%) of respondents' institutions were members, 40% were not members, and 4% were unaware of AHEAD's existence. Table 7 provides a summary of frequencies for institutional membership in AHEAD.

Table 7
Summary of Frequencies of Institutional Membership in AHEAD

AHEAD Membership Status	n	%
Yes	14	56.0
No	10	40.0
Unaware of organization	1	4.0
Total	25	100.0

An additional question asked of the respondents was whether or not they had any formal experience in program evaluation. Results indicated that 15 of the 25 (60%) stated they did have some form of training in the area of program evaluation with the remaining 40% reported no experience in this area.

Research Question 2

What are the self-reported enrollments of students with disabilities in the 28 Florida community colleges?

The respondents were asked to report the total numbers of students registered for their institution's disability support services. They were then asked to report the breakdown of these numbers by disability category. Several of the survey participants were unsure of the accuracy of their numbers; therefore, the researcher collected the data from the Department of Education Division of Community Colleges' Final Report of Documented Disabilities for 2004-2005. The range of total numbers of students who reported disabilities at the responding institutions was from 20 to 1,581 with a mean of 425.44 students. Table 8 presents a summary of frequencies for enrollments of student with disabilities at the responding institutions.

Table 8
Institutional Enrollment of Students with Disabilities

Student Enrollment	n	%
0-200	9	36.0
201-400	6	24.0
401-600	2	8.0
601-800	5	20.0
801-1000	2	8.0
Over 1000	1	4.0
Total	25	100.0

Table 9 presents a summary of documented disabilities by category for all of the responding institutions including the total number of reported disabilities within each category and the mean of each disability category. The disability categories included hearing impairment, specific learning disability, mental/psychological disorder, physical impairment, speech impairment, visual impairment and other. The most frequently

reported disability category was specific learning disability with a mean of 191.04; next was mental/psychological disorder with a mean of 126.52. The least reported disability category was speech impairment with a mean of 2.32. The majority of responding institutions (88%) reported learning disabilities and mental/psychological disorders as the most frequently reported disability categories. The respondents supported the findings reported in the literature that the fastest growing disability category was learning disability (Henderson, 2001).

Table 9
Students with Disabilities by Category for Responding Institutions in Florida

Disability Category	Enrollment Totals	Ranges
Hearing Impairment	469	0-78
Specific Learning Disability	4,776	14-890
Mental/Psychological Disorder	3,163	0-332
Physical Impairment	1,934	3-230
Speech Impairment	58	0-10
Visual Impairment	422	0-66
Other	374	0-157
Total	11,196	

Research Question 3

What similarities are there among the disability support programs in the 28 Florida community colleges in regard to program administration and evaluation when compared to the Association on Higher Education and Disability standards?

Questions 22-42 from the survey asked the respondents to indicate whether they did or did not follow suggested program administration and evaluation standards as set forth by the Association on Higher Education and Disability (AHEAD). Each of the seven general standards were categorized using quantifiable activities relating to the

standard as suggested by AHEAD. Standard 7.1 addressed the provision of services that were aligned with the institution’s mission or service philosophy. The quantifiable components involved the disability support department having a mission statement and philosophy compatible with that of the institution and having a mechanism to provide departmental information to the college community. The responses displayed in Table 10 indicate that 88% of the units responded affirmatively regarding the compatibility of their departmental mission statement with their institutional mission statement, and that 92% responded affirmatively regarding the provision of departmental information to the college community concerning mission and services. Departmental information was reported as being available to the college community through institutional catalogs, websites, brochures, in-services, faculty orientations, classroom presentations and community events.

Table 10
Mission Compatibility and Dissemination of Disability Support Services Information

Alignment of Services	n	%
Mission Compatibility		
Yes	22	88.0
No	3	12.0
Total	25	100.0
Dissemination of Disability Support Services Information		
Yes	23	92.0
No	2	8.0
Total	25	100.0

Note. AHEAD Standard 7.1. Provide services that are aligned with the institution’s mission or services philosophy.

Standard 7.2, the second standard addressed in the survey, queried respondents as to the existence of a full-time professional to coordinate the services for students with disabilities at each institution. A total of 20 (80%) of the institutions indicated they had a full-time disability support professional. The 5 (20%) institutions that did not have full-time disability support professionals utilized one or two specialized part-time staff within their human resource or counseling/advising departments. Table 11 provides the summary of responses that addressed this particular standard.

Table 11
Coordination of Student Service by Full-time Professionals

Full-time Professionals	n	%
Yes	20	80.0
No	5	20.0
Total	25	100.0

Note. AHEAD Standard 7.2. Coordinate services for students with disabilities through a full-time professional.

The collection of student feedback to measure satisfaction with disability services was the focus of Standard 7.3. To address this standard, respondents were asked if they assessed the effectiveness of accommodations and access provided to their students with disabilities and if the respective departments included student satisfaction data in the evaluation of their services. Table 12 provides a summary of frequencies for the collection of student satisfaction data.

Table 12
Collection of Student Satisfaction Data

Student Satisfaction Data	n	%
Assessment of services provided to students		
Yes	20	80.0
No	5	20.0
Total	25	100.0
Student satisfaction data used in evaluation of services		
Yes	17	68.0
No	8	32.0
Total	25	100.0

Note. AHEAD Standard 7.3. Collect student feedback to measure satisfaction with disability services.

The fourth AHEAD program administration and evaluation standard (7.4) addressed the collection of data for monitoring the use of disability services within an institution. To evaluate this standard, respondents were asked to assess their data collection activities in four areas: data collection from physical plant services, data collection from a variety of institutional constituency groups, the collection of program improvement data, and the collection of data to project growth and justify funding increases.

In regard to the data collection from physical plant services, 100% of the respondents indicated that they interacted and assessed their respective institution's physical accessibility in collaboration with their physical plant department. These interactions were both formal through safety and facilities committees and informal through phone calls and visits.

An additional survey question related to the fourth standard asked respondents if their department collected data from various institutional constituency groups. These groups included administration, faculty, student activities, counseling, registration, financial aid, auxiliary services (e.g., bookstore or cafeteria) and any other sources. Table 13 displays the frequencies and percentages of positive and negative responses regarding data collection from these groups. Data were collected to a varying degree from all of the listed groups with data from faculty (68%) and counseling (68%) having the highest percentages. Two of the respondents stated that they did collect utilization and effectiveness data from other sources. When asked to identify those sources, respondents cited the athletic department and community agencies such as the Division of Blind Services.

Table 13
Data Collection from Institutional Constituency Groups

Institutional Department	Collection of Data to Monitor Services			
	Yes	% Yes	No	% No
Administration	12	48.0	13	52.0
Faculty	17	68.0	8	32.0
Student Activities	13	52.0	12	48.0
Counseling	17	68.0	8	32.0
Registration	15	60.0	10	40.0
Financial Aid	14	56.0	11	44.0
Auxiliary Services	9	36.0	16	64.0
Other	2	8.0	23	92.0

Note. AHEAD Standard 7.4. Collect data to monitor the use of disability services.

The final two survey questions related to the fourth standard addressed whether or not the disability support programs collected data for the purpose of program

improvement and growth projections. Table 14 provides the summary of frequencies for these data collection activities. Of the respondents, 80% indicated that they did collect data for program improvement, and 72% collected data to assist with program growth projections and justification for funding increases.

Table 14
Data Collection for Program Improvement and Growth Projections

Data Collection Activities	n	%
Program Improvement		
Yes	20	80.0
No	5	20.0
Total	25	100.0
Growth Projection		
Yes	18	72.0
No	7	28.0
Total	25	100.0

Note. AHEAD Standard 7.5. Report program evaluation data to administrators.

The reporting of disability support program evaluation data to administrators was the issue reflected in AHEAD’s fifth standard. Survey participants were initially asked to indicate whether or not they developed an annual program evaluation report. If respondents indicated that they did generate an annual report, they were asked to specify to whom the report was sent. Table 15 indicates that 64% of the respondents generated an annual program evaluation report. When the respondents indicated that an annual evaluation report was generated, the two organizational entities receiving the report were the institution’s administrative staff (64%) and the state department of education (56%). All (100%) of the respondents confirmed that they generated annual data reports and that

these reports were automatically sent to the State; however, they stated that these reports consisted primarily of student numbers, disability category information and course substitution data and did not contain specific program evaluation data.

Table 15
Generation and Dissemination of Annual Program Evaluation Reports

Annual Evaluation Reports	Yes	% Yes	No	% No
Report generated	16	64.0	9	36.0
Report sent to:				
General Institution	2	8.0		
Institution Administration	16	64.0		
Local Community	1	4.0		
Local Governmental Agencies	0	0.0		
State Governmental Agencies	14	56.0		
National Governmental Agencies	0	0.0		

The sixth administrative and program evaluation standard asserted by AHEAD addressed fiscal management of disability support programs. The summary of respondents' involvement in the fiscal management of their programs is provided in Table 16.

Table 16
Participation in Fiscal Management of Disability Support Programs

Role in Fiscal Management	n	%
Development of program budget		
Yes	20	80.0
No	5	20.0
Total	25	100.0
Active in additional funding procurement		
Yes	22	88.0
No	3	12.0
Total	25	100.0

Note. AHEAD Standard 7.6. Provide fiscal management of the office that serves students with disabilities.

Respondents were asked if they developed their own program budgets and if they were responsible for seeking additional funding. A majority of responding disability support programs indicated involvement in the development of their program budgets (80%) and in the procurement of additional program funding (88%).

The seventh and final AHEAD standard that was addressed on the survey instrument focused on the disability support program's use of assistive technology in the delivery of their services. Assistive technology was operationally defined by the researcher as any item, piece of equipment, software or hardware system that could be utilized to increase the functional abilities of individuals with disabilities. Respondents were asked to confirm their department's participation in the following activities: assisting with the determination of needs for assistive technology for students, advising other departments regarding the use of assistive technology and arranging assistance for students to use assistive technology. Additionally, respondents indicated whether or not they had an equipment laboratory within their departments and whether or not they had equipment that could be loaned to their students with disabilities.

All of the survey participants (100%) responded that they did participate in determination of assistive technology needs for their students. Equipment laboratories were available at 60% of the responding institutions. The remaining institutions (40%) that did not have departmental laboratories had some form of computer based assistive technology available in designated testing labs, academic support centers, and the library. Low technology adaptive equipment (i.e. assistive listening devices, talking calculators, etc.) was available for loan to students at 96% of the responding institutions. A majority

of the participants advised other departments within their institution regarding the procurement and use of assistive technology (96%), and a large percentage of respondents (92%) also reported that they provided assistance to students to operate assistive technology. Table 17 presents a summary of frequencies and percentages for the delivery of assistive technology services at each responding institution.

Table 17
Delivery of Assistive Technology Services

Service Delivery Activities	Yes	% Yes	No	% No
Determining needs of students	25	100.0	0	0.0
Advising other departments	24	96.0	1	4.0
Assisting students to procure and operate assistive technology	23	92.0	2	8.0
Equipment lab in disability support department	15	60.0	10	40.0
Equipment available for loan	24	96.0	1	4.0

Note. AHEAD Standard 7.7. Collaborate in establishing procedures for purchasing adaptive equipment needed to assure equal success.

Research Question 4

What types of outcome data and program assessment activities are performed by the disability support programs in the 28 Florida community colleges?

Respondents were asked to describe their data and program assessment activities. These survey questions were posed in open-ended format. The specific questions regarding these activities focused on: (a) How the department collected and reported data, (b) the determining factors in terms of type and quantity of data collected, (c) primary reasons for collecting data, and (d) primary constraints on data collection. Lastly, survey

participants were given the opportunity to share both a positive and negative example of their institution’s response toward their collected data reports and assessments.

Table 18 presents information regarding the collection and reporting of data along with the types of data each disability support program collected. All of the participants (100%) reported using some form of computer database for data input once the intake process was completed on each student. While the Florida State Department of Education (FLDOE) provides a database framework for the community colleges, it was not within the scope of the survey to investigate the differences among the databases.

Table 18
Data Collection and Reporting of Florida Community Colleges

Themes	n	%
How are data collected		
Banner software system	7	28.0
Internal institutional student database	16	64.0
FLDOE disability database	2	8.0
Total	25	100.0
Types of data collected		
*Total students (registered with Disability Support Services)	25	100.0
*Types of accommodations	25	100.0
*Course substitutions	25	100.0
*Course waivers	25	100.0
*Completion rates (registered with Disability Support Services)	10	40.0
Graduation rates (registered with Disability Support Services)	10	40.0

Note: * implies data required by the Florida Department of Education

The variations in responses were centered on the types of data management systems utilized. Information consistently collected and entered into the database systems as reported by all respondents (100%) included total number of students, disability

categories and types of accommodations, course substitutions, and class waivers.

Additional information collected and reported included completion and graduation rates of students.

Survey participants were asked to list the departments and/or organizations that determined the type and amount of data collection within their departments. The most frequently mentioned organization was the Florida Department of Education followed by the respondent's administration, disability support department, grants accounting and marketing departments. Table 19 provides a frequency table of responses for each listed department or organization. It should be noted that respondents were allowed to provide more than one reply to this question so the percentages will not add up to 100 %.

Table 19
Determinants of Program Data

Department/Organization	n	%
Florida Department of Education	25	100.0
Administration	12	48.0
Disability Support Department	7	28.0
Grants Accounting	4	16.0
Marketing	4	16.0

Note. Respondents provided multiple responses.

Respondents were also asked to express what the primary reasons were for the collection of disability support program data within their institutions. Once again, the Florida Department of Education was the most frequently listed entity as the Division of Community Colleges & Workforce Education had annual reporting requirements that were documented in a state student data base. Other reasons for data collection included program predictions, student retention and tracking, program improvement, legal reasons

and budget justification. Table 20 presents the complete list of responses and the percentages of each regarding the primary reasons to collect data.

Table 20
Primary Reasons for Data Collection

Themes	n	%
State requirements	20	80.0
Student retention and tracking	7	28.0
Institutional effectiveness	4	16.0
Budget justification	4	16.0
Program improvement	4	16.0
Program predictions	2	8.0
Program evaluation	2	8.0
Student recruitment	2	8.0
Legal reasons	1	4.0

Note. Respondents provided multiple responses.

When respondents were queried as to the primary constraints on their program data collection, replies were focused on four main areas (themes). These areas were lack of time, lack of staff, insufficiency of the databases, and the confidential nature of the data. The issue of confidentiality had two overarching conditions that affected data collection activities regarding students with disabilities. The first condition was that students with disabilities did not have to self-disclose information about their disability to the institution or to the instructor. The second condition was that once a student did disclose this information, it was required to be treated as “sensitive personal data” as mandated in the ADA which limited follow-ups and tracking.

Database insufficiency was cited by 48% of those responding as the primary constraint on their ability to effectively collect program data. The major insufficiency of

the databases was related to limited flexibility in being able to respond to specific disability support departmental needs. Additional database problems had to do with the inability to track the students with disabilities from class to class and from semester to semester. Three of the respondents stated that the data reflected in the Florida State Department of Education’s database did not match the data reflected in their own department records. Two of the respondents (8%) felt that there were no constraints at their institution on program data collection activities. Table 21 presents details of the specific responses under the four primary themes and the percentages for each response.

Table 21
Primary Constraints on Program Data Collection as perceived by Respondents

Focused Theme	n	%
Database insufficiencies	12	48.0
Not customized to needs	4	
Limited file entry	2	
Limited ability to track specific disabilities other than general categories	2	
Limited ability to track completers, transfer and attrition rates	1	
Discrepancies between institutional and state counts	3	
Lack of time to perform comprehensive data collection	8	32.0
Lack of staff	5	20.0
Confidential nature of data	2	8.0
Limited self-disclosure by students needing service	1	
Limited access to data for studies due to confidentiality	1	

Note. Respondents provided multiple responses.

Each respondent was asked to describe a positive and negative example of institutional response toward data collection outcomes. Three respondents (12%) offered

no positive or negative examples. An additional 10 (40%) of the respondents had no negative examples but did share positive instances. The positive institutional responses toward disability support program data included increased institutional budgets and donations, increased staff and space, increased visibility, marketing, and campus signage, increased recruitment of students and overall increased support from administration and faculty. Negative examples consisted of budget cuts in the face of rising student numbers, persisting low staff numbers, data discrepancies between state and institutional numbers, continued limited space and supplies, inability to proactively plan as funds were given on an as needed basis rather than at the start of the budget year, and a continued need for faculty training and support.

Following are specific representative quotes from survey respondents regarding positive and negative institutional reactions toward data collection outcomes:

Representative Positive Quotes:

The college has always been sensitive to student needs and the data that supports that need.

We have never been denied funding if it was justified by the data. We have received donations and marketing support.

Our budget has periodically increased; we now have a full-time interpreter and more space.

Representative Negative Quotes:

Budget cuts have happened even though our student numbers have steadily increased. We still need more staff, space, and supplies.

We have to constantly readjust our funding midyear; data does not seem to make a difference.

Data collection numbers are not accurately represented by our data collection system.

Additional qualitative data collected by the researcher during the survey interview sessions included the respondents sharing highlights and successes of their particular disability support programs. The respondents felt that these accomplishments served to improve the quality of their programs and ensure continued growth and development of student disability services. A listing of these disability support program highlights and successes shared by respondents follows:

1. Money accrued for student testing on site at the institution.
2. Close connection with area high schools to aid in the student transition process.
3. Universal design concepts being implemented within the institution assisting all diverse learners not just students with disabilities.
4. Faculty being trained to work with students with disabilities as part of the tenure track process.
5. Grant procured for increasing faculty awareness.
6. Certificates of appreciation for faculty working with students with disabilities to promote cooperation and collaboration.

7. Student government association clubs on campus for students with disabilities.
8. Community programs highlighting the institutions' students with disabilities.
9. Institutional approach (campus wide) toward being access oriented rather than automatically channeling students to the disability support department.

Research Question 5

What is the relationship between selected institutional characteristics within the disability support programs in the 28 Florida community colleges (number of staff, number of students, prior experience with program evaluation, membership in AHEAD, and having one or more staff members with disabilities) and the program's ability to implement and adhere to pre-established standards from the Association on Higher Education and Disability?

In order to ascertain whether or not any relationships existed between specific institutional characteristics and the programs' ability to follow AHEAD's recommended administration and program evaluation standards, cross tabulations were performed on selected variables. Originally, the researcher had planned to run chi square tests of significance on each of the selected variables following cross tabulation; however, a majority of the cross tabulation cells for each variable set had an expected cell count of less than 5 which violated the assumptions of the chi square tests. Instead of using chi square, Spearman's rho correlations were run on the selected variables. The Spearman rho tests yielded a correlation coefficient which measured association by direction (positive or negative) and by strength of the relationship (weak, moderate or strong). A significance level was also generated for each correlation coefficient which indicated the relative statistical significance of the relationship between the two variables.

Each of the following institutional variables was examined in regard to whether or not there was a statistically significant relationship between that variable and the institution's ability to abide by AHEAD's recommended program evaluation standards: (a) Total number of staff; (b) total number of students with disabilities; (c) prior experience with program evaluation; (d) membership in AHEAD; and (e) having one or more staff members with disabilities. An aggregated compliance percentage was calculated for all of the survey participants based on their response of "yes" or "no" on the primary activities related to each standard. The range of compliance percentages was from 36% to 96% with a mean of 72.32 (standard deviation of 15.61). Table 22 provides the summary of frequencies for the aggregated compliance percentages for each responding institution.

Table 22
Compliance Percentages on AHEAD Standards

Compliance Percentages	n	%
36	1	4.0
52	2	8.0
56	2	8.0
60	3	12.0
64	1	4.0
68	1	4.0
72	2	8.0
76	3	12.0
80	3	12.0
84	2	8.0
88	1	4.0
92	2	8.0
96	2	8.0
Total	25	100.0

The compliance percentages were coded into three groups labeled as high compliance, medium compliance and low compliance. High compliance percentages consisted of those ranging from 100-80%. Medium percentages ranged from 79-60%, and low percentages were those that were below 60%. These grouped compliance percentages were used as the dependent variable in each of the Spearman rho tests. High compliance percentages were calculated for 40% of the respondents; medium compliance percentages were found for 40%; and low compliance percentages were calculated for 10% of the respondents. Table 23 provides a summary of frequencies for the grouped compliance percentages.

Table 23
Grouped Compliance Percentages on AHEAD Standards

Grouped Compliance Percentages	n	%
High Compliance (80-100)	10	40
Medium Compliance (60-79)	10	40
Low Compliance (below 60)	5	20
Total	25	100

A cross tabulation between the variable of total number of staff within the disability support department and the variable of grouped compliance percentages was performed followed by the Spearman's rho statistical test. The result of Spearman's test was a correlation coefficient of -.213 and a significance level of .308, indicating a negative relationship of minimal strength and a low significance level. This suggested

that there was a minimal relationship between the number of staff in the disability support department and the disability support program's ability to comply with the AHEAD program evaluation standards.

The next set of variables that were cross tabulated and analyzed with Spearman's test was the total number of registered students with disabilities within each responding institution and the grouped compliance percentages. Spearman's rho yielded a correlation coefficient of $-.274$ and a significance level of $.185$, indicating a negative relationship of minimal strength and a low significance level. These results suggested that the number of students with disabilities at an institution was not statistically significant as to whether or not that disability support program was able to follow the standards.

Spearman's rho test using the variables of experience in program evaluation and the grouped compliance percentages produced a correlation coefficient of $.517$ and a significance level of $.008$. These results indicated a fairly strong positive relationship among the two variables with a high level of significance. These findings suggest that having experience in program evaluation had a statistically significant positive impact upon the disability support program's ability to follow the standards.

The next set of variables that were analyzed using cross tabulations and Spearman's rho were the program's membership in the Association on Higher Education & Disability (AHEAD) and the grouped compliance percentages. Outcomes included a correlation coefficient of $.188$ and a significance level of $.367$. These results indicated a weak relationship and a low significance level suggesting that the membership in

AHEAD did not have a statistically significant impact on the program's ability to follow the standards.

The final set of variables examined using cross tabulation and Spearman's rho test was the existence of one or more staff members having a disability in the disability support program and the grouped compliance percentages. Results indicated a weak relationship specified by a correlation coefficient of .179 and a low level of significance (.392). These outcomes suggest that having a staff member with a disability in the disability support department did not have a statistically significant relationship with the department's ability to comply with the standards.

Summary

An analysis of the data collected through the survey instrument, Community College Disability Support Services Program Administration and Evaluation Survey, has been presented in this chapter. According to the survey results, a variety of data collection and program evaluation activities were being performed at some level within the 25 Florida community colleges represented in this study. Chapter 5 presents the summary, discussion and implications of the findings. Conclusions and recommendations for future research are also offered.

CHAPTER 5 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents a review of the purpose of the study and research design including study population, instrumentation, data collection procedures and analysis of the data. Organization of the chapter includes a summary of the findings for each of the five research questions, followed by conclusions and implications for practice. Recommendations for future research will conclude the chapter.

Purpose of the Study

This study was conducted to investigate perceptions and activities of disability support program administrators in Florida community colleges regarding program administration and evaluation. Additionally, the study examined various organizational and staffing characteristics of the Florida community colleges' disability support programs and analyzed program evaluation activities that corresponded with pre-established standards as advised by the Association on Higher Education and Disability (AHEAD). The study further sought to determine if any relationships existed between selected organizational and staffing characteristics and the program's ability to comply with the recommended standards.

Study Population

The population consisted of the disability support program coordinators at each of the 28 Florida community colleges (Appendix A contains a list of the Florida community

colleges). A total of 89% of the targeted respondents participated in the survey (n=25). All but two of the survey respondents worked in a specific department with the primary purpose of serving students with disabilities within their institution. A large percentage of these departments (84%) were housed within the college's Student Services Division. The administrative titles used most often to reflect the individual in charge of the responding disability support programs were Coordinator (56%) and Director (24%). Information regarding the size of each responding institutions was based on that institution's annual unduplicated student enrollment. These student numbers were divided into three categories which defined the institutional size. The three categories and their numeric descriptions consisted of small (1,000 to 10,000 students), medium (10,001 to 30,000 students) and large (over 30,000 students). Almost half (48%) of the respondents were from medium sized institutions with the remaining respondents being from small (24%) or large (28%) institutions.

Instrumentation

In order to collect the necessary data for this survey, the researcher developed a survey instrument based on literature review and examination of a set of existing program evaluation standards for community college disability support departments. The proposed survey instrument was presented to and reviewed by members of the researcher's dissertation committee. Committee suggestions and recommendations were incorporated into the survey. A pilot test of the instrument was also conducted with five community

colleges from the states of Alabama and Georgia. Feedback and suggestions gleaned from the pilot process were also utilized to refine the final survey instrument.

The survey instrument in its final form consisted of 42 items that addressed administrative and program evaluation components and services within disability support programs. Focus areas within the survey included closed-ended and open-ended questions regarding staffing characteristics, enrollment data, data collection activities, and compliance with the recommended AHEAD program evaluation standards.

Data Collection Procedures

In order to facilitate high response rates, Dillman's (2000) tailored design method of survey research was utilized. Implementing this methodology involved using multiple points of contact with the survey participants (telephone calls, written letters, and e-mails) and personalizing the survey experience (survey was conducted over the phone at the convenience of the respondents). All of the participating survey respondents voiced interest in the survey subject matter and requested copies of the completed aggregated data results. A qualification telephone call was made to each disability support program coordinator to establish initial rapport and explain the purpose of the research. Following the telephone contact, each coordinator was sent an e-mail with an attachment of the survey instrument (Appendix B). A hard copy of the survey instrument and two copies of the informed consent letter (Appendix C) were also mailed to the coordinator. Once the informed consent letters were returned, telephone calls were made to schedule the telephone surveys. These phone calls were followed by an e-mail which contained a

follow-up appointment letter (Appendix D). This letter was also mailed to the respondent if time permitted. If a scheduled telephone survey appointment was missed or cancelled, the respondent was re-contacted by phone or e-mail to reschedule.

The majority of the telephone surveys were conducted during July and August with the last one occurring on September 21, 2005. Each telephone survey ranged from 30 to 45 minutes in length. Quantitative data were collected and entered into a Word table. Qualitative data were initially recorded verbatim on a coded survey form and then transcribed into a Word document. These responses were examined for repeated ideas, common themes and unanticipated information which was then summarized into a Word table.

Analysis of the Data

Descriptive statistics were used to summarize the organizational and staffing characteristics of the responding disability support programs, the student enrollments, and the responses regarding compliance with the recommended AHEAD program and evaluation standards. Nonparametric statistical tests including cross tabulations and Spearman's rho were conducted to examine potential relationships between selected organizational and staffing characteristics and degree of compliance with the recommended standards. Responses to the open-ended questions were organized and classified into categories and themes and presented in table and text format. The following section contains a summary and discussion of the findings as based on each of the guiding research questions.

Summary and Discussion of the Findings

Research Question 1

What are the organizational and staffing characteristics of the disability support programs in the 28 Florida community colleges: (a) number, gender, disability status, and educational background of staff; (b) age of the program; (c) budgetary support; and (d) membership in the Association on Higher Education and Disability?

Descriptive statistics were utilized to analyze the organizational and staffing characteristics of each of the responding Florida community college disability support programs. In regard to the number of staff within each disability support program, responses varied significantly among institutions. The average number of staff among all of the responding institutions was six people. It should also be noted that many of the respondents reported having contract staff (most often interpreters, note takers and readers) which were not counted in reported staff numbers. These positions were often not predictable or stable over time as they depended on the number of students and their particular needs.

When the staff numbers were further categorized by full-time, part-time and administrative positions, the data became more stratified. Eight of the respondents reported having no full-time staff members within their disability support program. Three of the respondents had no administrators. Of those three respondents with no administrators, one had three part-time staff members to serve the needs of their students with disabilities. In regard to the other two respondents with no administrator, one of them had one full-time staff member as their sole disability support specialist and the other had two full-time staff members making up their departments. The largest numbers

of staff members were found in those institutions belonging to the medium and large size category with the smaller institutions having the lower staff numbers.

The gender breakdown of the disability support programs within the responding institutions revealed a larger number of females. A total of 28% of the participants reported not having any males on staff, and only 4% of the participants reported not having any females. Respondents were also asked if any of the staff members within their departments had a disability. Staff members with disabilities were found in almost half (48%) of the participating programs.

Reported educational background among the disability support respondents was varied and diverse. It was unclear if any of the disability support personnel had specific training in the area of adult students with disabilities although those staff members with disabilities (48%) most likely had life experiences and insights that would enrich their professional backgrounds. The largest percentage (32%) had a counseling background. A smaller percentage (12%) had training in the area of exceptional education, and one respondent had a psychology background. This diversity in professional training of the disability support personnel is consistent with the literature as noted by Dukes and Shaw (2004).

When examining the age of the disability support programs at each of the responding institutions, all of the programs had been in existence for at least 11-20 years with the majority (52%) being in existence for over 20 years. These time frames were supported in the literature to reflect the timing of the legislative mandates requiring the provision of services for students with disabilities within the higher education system.

Respondents were asked in the survey if they felt that their budget was appropriate to meet the goals and objectives of their departments. The majority (68%) stated that the budget was appropriate and emphasized that if they demonstrated student needs in terms of mandated accommodations (such as an interpreter for a deaf student), they always received the needed fiscal support. Those respondents that felt that their budget was not appropriate (32%) stated the deficits were in the areas of low staffing numbers, limited equipment, and limited space.

The Association on Higher Education and Disability (AHEAD) was described in the literature as an international professional organization for higher education disability support specialists. The standards that were utilized for this study's survey were taken from AHEAD recommendations. These standards are published on the AHEAD website and have been documented in the literature. Membership in this organization is voluntary and fee based. Question 13 on the survey asked the respondents to state whether or not they were members of AHEAD. A majority (56%) of the survey participants responded that they were members of AHEAD. All but one (4%) of the respondents were aware of the organization.

Discussion and Conclusions for Research Question 1

A wide range of diversity concerning organizational and staffing characteristics was noted in the participating disability support programs. McGuire (2000) stated that the size of the disability support staff was often dependent upon the size of the institution. This trend was supported by the research findings. No research findings were noted

regarding gender or disability based staffing characteristics within community college disability support programs.

Dukes and Shaw (2004) noted concerns over disparities in the educational and professional training of higher education disability support personnel. Inconsistencies in service delivery and a lack of expertise in dealing with adult students with disabilities were primary areas of unease. There were a number of inconsistencies regarding administrative organization and educational background of the respondents. Based on Dukes and Shaw's concerns and McGuire's (2000) findings stating that most disability service providers base their recommendations on past experience and common practice guidelines, it would behoove higher education administrators to carefully consider the educational background of their disability support staff prior to hiring. Additionally, providing professional development opportunities regarding the unique needs of adult students with disabilities might be helpful for disability support personnel to have a common framework for meeting student needs.

Research Question 2

What are the self-reported enrollments of students with disabilities in the 28 Florida community colleges?

The literature suggested that there are increasing numbers of students with disabilities entering higher education institutions (Hawke, 2004; Henderson, 2001). Additionally, the literature purported that the fastest growing disability categories were specific learning disorders followed by psychological disorders which included attention deficit/hyperactivity disorder (Henderson, 2001; Stodden & Whelley, 2004). Results of

the analysis supported the literature findings. A large majority (88%) of the respondents indicated a history of steady increase in student numbers. The most frequently reported disability categories (88%) were learning disabilities and psychological disorders which also supported the literature findings.

Discussion and Conclusions for Research Question 2

Enrollment trends, as stated in the literature, appeared to be consistent with the enrollment findings by the responding Florida community colleges represented in the survey. Having an awareness of increasing student numbers and diverse learning needs can be helpful for higher education institutions to better plan and predict student needs, staffing needs, and professional development needs. Lorry (2000) suggested that the specific problems associated with learning disabilities are often the very skills that are critical to academic success and are frequently challenging to accommodate. Expertise in accommodating and teaching students with learning disabilities will be a critical component in retaining these students and facilitating their academic success.

Research Question 3

What similarities are there among the disability support programs in the 28 Florida community colleges in regard to program administration and evaluation when compared to the Association on Higher Education and Disability standards?

The Association on Higher Education and Disability (AHEAD) proposed a set of standards for higher education disability specialists in 1999 (Shaw, 2002). Seven of the standards had to do with program administration and evaluation. Those standards were used as part of the body of the researcher's survey instrument with participants being

asked to rate their compliance with each standard as based on a set of specific program administration and evaluation activities.

Half (50%) of the survey questions were related to institutional and/or departmental compliance with the program administration and evaluation activities for disability support services. Detailed frequency responses are described in Chapter 4 of this dissertation. AHEAD Standard 7.1 asked respondents their degree of compliance in providing services that were aligned with the institution's mission or services philosophy. The majority (88%) of survey participants indicated that they felt their departmental missions were compatible with that of their institutions. Examples of this compatibility were exemplified in similarity of phrasing, having general institution-wide goals and objectives that were reiterated in the mission statements and college accreditation standards mandating congruency of mission throughout an institution.

AHEAD Standard 7.2 looked at the disability support programs staffing patterns asking if there was a full-time professional for each department entrusted with the primary responsibility of disability services. A majority of respondents (80%) stated that they had a full-time disability support specialist. It has already been noted that these disability support specialists often came from diverse professional backgrounds and did not necessarily have expertise regarding adult students with disabilities.

The third AHEAD Standard (7.3) examined whether or not the disability support programs collected student feedback to measure satisfaction with their disability services. The majority of respondents (80%) affirmed that they did conduct some form of assessment regarding services provided to students. These assessments were either in the

form of a survey or informally via face to face meetings with students. Some of the institutions (20%) utilized a college wide survey that had specific questions related to disability services. Respondents also noted that response rates on surveys were usually low. When asked if student satisfaction data was used in the evaluation of disability services, 68% responded in the affirmative.

AHEAD Standard 7.4 examined data related to monitoring the use of disability services. The standard covered the areas of data collection from the institution's physical plant (facilities) department and from various institutional departments like administration, faculty, student activities, counseling, registration, etc. In addition, the standard looked at the collection of data for the use of projecting growth and justifying fiscal needs. All of the respondents interacted on a regular basis with their institution's physical plant/facilities departments. It should be noted that a part of the legal mandates involved with the Americans with Disabilities Act (ADA) has to do with ensuring the physical accessibility of goods and services for individuals with disabilities (Shepard, Duston, Russell & Kerr, 1992).

Data collection from institutional constituency groups for the purpose of monitoring disability services was performed by a majority of the respondents. The most frequently mentioned institutional groups were the faculty and counseling followed by registration and financial aid. It should be noted that the majority of disability support services (84%) resided in the division of student services which often includes the departments of registration, financial aid and counseling. This proximity would hopefully facilitate interaction and data collection. The faculty would also be an important entity

with whom to interact, as the literature suggested that positive and open faculty attitudes were essential for ensuring the success of students with disabilities in higher education (Rao, 2004).

The fifth AHEAD standard (7.5) investigated the reporting of program evaluation data to administrative groups. Respondents were first asked if they developed an annual program evaluation report. Disparity in responses came from the qualification of a program evaluation report as compared to an annual data report. All of the respondents generated annual data reports that contained quantitative information regarding student numbers and disability information; however, only 64% stated that they prepared an annual program evaluation report.

An additional survey question asked respondents to indicate to whom their annual evaluations were sent. The most frequently stated administrative entity to whom disability support program reports were sent were institutional administration (64%) and the State Department of Education (56%). It is interesting to note that the State Department of Education mandated the sending of annual data reports from all Florida community colleges (Florida Department of Education, 2005). Based on anecdotal survey responses, these reports were often uploaded automatically from the college's institutional research department or from the student services division.

AHEAD Standard 7.6 examined the disability support program's involvement in their budget process. Respondents were asked if they developed their own budgets and if they actively sought additional funding as needed. The majority of respondents were active in both phases of fiscal management. In the area of budget development, 80% of

respondents developed their program budget and in seeking additional funding, 88% reported active involvement.

The last program administration and evaluation AHEAD standard (7.7) addressed the area of assistive technology. Assistive technology, as operationally defined by the researcher in Chapter 1, was any item, piece of equipment, software or hardware system that could be utilized to increase the functional abilities of individuals with disabilities. The role and importance of assistive technology has been discussed throughout the literature as a part of the reasonable accommodations that must be provided to qualifying individuals with disabilities (Gordon & Keiser, 2000). Assistive technology is also found in the literature as part of the alternative methods of evaluation in the form of computer based large print evaluation and in the discussion of auxiliary aids. Auxiliary aids can be in the form of assistive technology devices such as Braille calculators, customized keyboards, and specialized software programs (Keiser, 2000; U.S. Department of Education, 1998).

All (100%) of the survey participants responded affirmatively that procuring and providing forms of assistive technology to their students was a part of their services. Respondents showed slight variations in responses concerning survey questions as to whether or not they advised other departments about assistive technology (96% responded affirmatively) and whether or not they assisted student in procuring and operating assistive technology (92% responded affirmatively). A majority of the responding participants (60%) stated that they had an equipment lab within their disability support department, and 96% indicated that they had some assistive technology

equipment for loan to their students. Literature findings appear to be well supported by the predominantly positive results from the survey questions concerning AHEAD standard 7.7 regarding the provision of assistive technology. Assistive technology procurement, provision and training appear to be prominent factors in disability support services.

Discussion and Conclusions for Research Question 3

The literature documented several sources of advocacy for increased standardization and consistency among higher educational disability support offices. Routine and comprehensive evaluation of disability support services was also encouraged to ensure effective and efficient service delivery to students. (Dukes & Shaw, 1998; Dukes & Shaw, 2004; Parker, Shaw, & McGuire, 2003; and Shaw & Dukes, 2001;). Program evaluation is a process that can assist in the assessment of an organization's effectiveness at achieving their goals and objectives (Posavac & Carey, 2003). Program evaluation is not a new concept within the auspices of higher education; however its use in the assessment of disability support services is relatively new. (Parker, Shaw & McGuire).

Survey results indicated that there was a moderate degree of consistency among the participants in program administration and data reporting activities. The coalescing factors appeared to be accountability requirements such as ADA mandates, college and university accreditation standards, and state data collection obligations. Discrepancies among the respondents concerning the standards were primarily based upon the assessment and evaluation of their services in the context of outcomes, student

satisfaction, and effectiveness. The findings of Parker, Shaw & McGuire (2003) support the premise that as accountability expectations and budget restrictions continue to rise within the higher education system, assessment and evaluation studies in order to justify services and budgets will most likely become more critical

Research Question 4

What types of outcome data and program assessment activities are performed by the disability support programs in the 28 Florida community colleges?

Results for this research question were gleaned from a collection of open-ended questions regarding data collection and program assessment activities within the participating disability support programs. The questions focused on the program's actual data collecting activities, the rationale for the data collection and primary constraints on the data collection. All of the respondents utilized a form of computer database for data input with the majority using an internal institutional data base. When asked about the types of data, all of the respondents collected data on the numbers of students utilizing their services, the types of accommodations provided, and the number and types of course substitutions and waivers. As supported by the survey responses, this collected information was fairly consistent among the Florida community colleges. It should also be noted that the data was collected and aggregated by the State Department of Education.

Outcome data which is a part of program evaluation was collected in 40% of the responding programs. Those respondents examined course completion and graduation rates of those students registered within their program's disability support services. The

top two determining influences on the type and amount of data generated within each disability support program were the State Department of Education and the institution's administration.

The prominent role of the State Department of Education was indicated again when 100% of the respondents listed the State as one of their primary reasons for collecting data. Other reasons for collecting program data included student retention and tracking, institutional effectiveness, budget justification and program improvement. Primary constraints on data collection focused on four major themes. These themes were problems with the database instrument (48%), lack of time (32%), lack of staff (20%), and confidential nature of the data (8%).

In examining the responses regarding data collection activities, it appears that state and institutional directives were the most significant influences upon the types and amounts of information collected. The focus appeared to be on the collection of quantitative (student numbers) rather than qualitative (program improvement) data. If outcome data were required as part of the state reporting requirements, then perhaps more outcome data would be collected. Additional concerns included the insufficiencies of the database systems and having the time and personnel to collect and manage the data.

The survey process undertaken by this researcher also yielded some unanticipated responses and themes about quality improvement efforts on behalf of the disability support programs. These responses were not directly related to data collection activities, but were related to improving student satisfaction, increasing general community and college awareness about students with disabilities and recruiting faculty advocates for

students. During each telephone survey, the respondents were invited to share any unique disability support program accomplishments and activities. Many times the respondents did not require any prompting to share these accomplishments; they automatically shared their successes (and frustrations) in such a way as to indicate to the researcher their deep sense of pride and commitment to their work and to the students. Some of the particular highlights noted by respondents included the appropriation of institutional funding for student testing for disabilities, developing strong connections with area high schools to focus on student transitions, faculty training and involvement through grant related activities and tenure track processes, students with disabilities clubs on campus and an institutional approach toward universal design and accessibility.

Discussion and Conclusions for Research Question 4

The fourth research question sought to examine data collection and program assessment activities from the personalized perspectives of the survey respondents. Questions were open ended to allow expanded comments as opposed to closed ended questions which traditionally limit response choices. As comments were recorded and organized, common themes arose which were categorized (Fink, 2003).

Surprisingly, many of the respondents' comments were congruent in the aspect of routinely collecting and reporting data. The Florida State Department of Education played a major role in this congruence because of its mandated reporting requirements. Thus, the data were collected primarily to meet the needs of the State. Data were not routinely collected among respondents to evaluate their services, although many respondents stated they were not disinterested in this information but rather did not have

the proper resources to gather it. Institutional research departments were mentioned by several respondents as being a potential institutional adjunct and resource in assisting with database problems, data collection and program evaluation studies.

Research Question 5

What is the relationship between selected institutional characteristics within the disability support programs in the 28 Florida community colleges (number of staff, number of students, prior experience with program evaluation, membership in AHEAD, and having one or more staff members with disabilities) and the program's ability to implement and adhere to pre-established standards from the Association on Higher Education and Disability?

In order to investigate the existence of any relationships between specific institutional characteristics and the responding program's ability to follow AHEAD's recommended administration and program evaluation standards, nonparametric statistical tests were performed. These tests consisted of cross tabulations and Spearman's rho correlations. The Spearman's rho test provided information regarding the direction of association and strength of relationship between each selected variable and the institution's ability to follow the recommended standards.

Prior to the completion of the nonparametric tests, descriptive statistics had been conducted for each of the institutional responses regarding the program and evaluation standards as part of the investigation of Research Question 3. These responses were grouped to develop an average compliance rating for each respondent. The ratings were further grouped into three categories which were described as high, medium and low compliance. High compliance ratings were found in 40% of the respondents; medium

compliance ratings were found in 40% of the respondents; and 20% had a low compliance rating.

Cross tabulations and Spearman rho statistical tests of correlation were conducted on the following independent variables: (a) Total number of staff, (b) total number of students with disabilities, (c) prior experience in program evaluation by the disability support personnel, (d) membership in AHEAD, and (e) having one or more disability support staff members with a disability. The dependent variable in each test was the compliance rating. A statistically significant relationship was not found between the total number of disability staff and the ability to comply with program standards nor between the total number of students with disabilities and the ability to follow the recommended standards. Membership in AHEAD was also not found to have a statistically significant relationship with a program's ability to comply with the AHEAD standards or with having a disability support program staff member with a disability. The one variable that did appear to have a strong positive relationship with a program's ability to adhere to the recommended program administration and evaluation standards was having experience in program evaluation.

Discussion and Conclusions for Research Question 5

Only one of the institutional characteristics studied in relation to the responding programs' ability to follow through on recommended program administration and evaluation standards showed a positive relationship. Experience in program evaluation was that institutional characteristic. These findings would suggest that those disability support program personnel with experience in program evaluation would be more likely

to implement and follow the AHEAD standards. These findings are supported in the literature regarding the need for specialized professional development training for higher education disability professionals (Dukes & Shaw, 2004; Parker, Shaw & McGuire, 2003). Knowing how to distinguish basic quantitative data collection from data collection for the purpose of program evaluation is integral to the program evaluation process (Posavac & Carey, 2003).

Conclusions and Implications for Practice

Disability support programs within higher education institutions were implemented for two major reasons. The primary impetus came from three federal legislative acts that attempted to remove barriers and promote equal educational opportunities for those individuals with disabilities. These significant legislative acts were Section 504 of the Rehabilitation Act of 1973, the Education for All Handicapped Children Act of 1975 which evolved into the Individuals with Disabilities Education Act, and the Americans with Disabilities Act of 1990 (Paul, 2000). This leveling of the educational playing field has led to an increased number of students heading toward postsecondary education. Disability support programs are charged with ensuring that their students with disabilities are provided with equitable educational services and that their institutions are compliant with mandated legal requirements (McGuire, 2000).

Most of the higher education disability support programs have been in existence for approximately 20 years and have consistently concentrated on meeting legislative requirements and ensuring education equality for their designated students (McGuire,

2000). However, inconsistencies abound concerning the organization of these programs, service delivery methods and data collection activities (Shaw, 2002). Minimal data were available to substantiate effective programming and planning regarding higher education disability support services. There was also minimal research available regarding educational outcomes for students with disabilities to ascertain if the disability support services are successful (Shaw & Dukes, 2001). Program evaluation is one method to ascertain whether or not a process or service is effective and successful in its intended outcomes (Posavac & Carey, 2003). The implementation of a consistent standard for program evaluation has been recommended by researchers in order to collect quantitative and qualitative data concerning the effectiveness of services for postsecondary students with disabilities (Izzo, Hertzfeld, Simmons-Reed & Aaron, 2001).

In this study, the researcher has attempted to determine the perceptions and activities of disability support program administrators in Florida community colleges regarding program evaluation. An additional goal of the study was to ascertain the extent to which program evaluation activities were being performed when compared to nationally recommended program evaluation standards.

From the perspective of organizational and staffing characteristics, the community college disability support programs in Florida shared many similarities and simultaneously displayed a wide array of diversity. Similarities included the majority of the respondents (92%) worked in a specific department designated to serve students with disabilities and the majority (84%) of these disability support departments were located within the college's student services division. Additional commonalities were found with

departmental administrative titles. The majority of respondents (56%) indicated that their administrative title was Coordinator with the next most frequent (24%) title being that of Director.

Other similarities included the age of the disability support programs within each of the responding institutions. All of the respondents stated that their departments had been in existence for at least 11 to 20 years with 52% of respondents stating that their department was over 20 years old. This is not surprising considering the timeframes for the disability related legislation affecting education.

Diversity was noted in responses regarding number of staff, disability status of staff, and the educational background of the disability support program administrators. The number of staff ranged from 1 to 22 members with the highest frequency of response being two staff members. Higher staff representation was frequently noted at the larger institutions, but one small institution reported 10 staff members and 2 large institutions had only 2 to 4 staff members. Almost half (48%) of the respondents indicated that there was at least one staff member within their department with a disability. Educational background of the disability support program administrators demonstrated a wide array of professional expertise. Counseling was the most common background representing 32% of the responses. Additional educational and professional backgrounds included human resources, student services, vocational rehabilitation, public administration, exceptional education, psychology and communication.

Survey findings regarding the enrollment of students with disabilities were consistent with existing research. The majority of respondents (88%) indicated increases

in student numbers. Additionally, the survey results supported the research data concerning the fastest growing disability categories being learning disabilities and mental/psychological disorders. It follows that community colleges should be cognizant of these trends and offer specialized professional development opportunities to more effectively work with adult students with learning disabilities and mental/psychological disorders.

The Association on Higher Education and Disability's (AHEAD) program administration and evaluation standards were utilized by the researcher as a benchmark to determine consistencies and inconsistencies in program evaluation activities among the respondents. A large majority (96%) of the survey participants was aware of AHEAD and the recommended standards with 56% of the participants being members of AHEAD. Surprisingly, despite a high awareness factor, there was still a great deal of inconsistency in compliance with the AHEAD standards among the respondents.

Compliance ranges for the standards ranged from 36% to 96%. The standards that received the largest majority of affirmative responses involved mission compatibility, information dissemination, quantitative (number based) data collection regarding student numbers, and the use of assistive technology. A diversification of responses was noted in the standards involving the collection and use of student satisfaction data, the development of an evaluation report, the collection of data from other departments regarding effectiveness of services, and the existence of an equipment lab. Survey results suggest that data collection is being performed at the institutions; however the focus appears to be on numbers of students and services.

The theme of quantitative data collection was further substantiated by the open-ended responses concerning data collection and program assessment activities. Data management systems were utilized by all of the respondents. Types of data collected included student numbers (those registered with disability support services), types of accommodations, number of course substitutions and number of course waivers. It should be noted that these data were required by the Florida Department of Education (FLDOE). Student completion and graduation rates were listed as a part of data collection in 40% of the responses. The determining factors for what data were collected and reported were the FLDOE (100% of responses) and the institutional administration (48% of responses).

Constraints on program data collection activities were primarily based on database insufficiencies, limited time, and limited staff. Anecdotal responses overwhelmingly emphasized that the priority concern of the department was to adequately serve the students and not on the collection of data.

Institutional characteristics did not appear to adequately give explanation for a program's ability to comply with the recommended AHEAD standards. The one characteristic that appeared to have a statistically significant relationship with a respondents' ability to follow program administration and evaluation standards was knowledge about program evaluation. During the interview process, several of the respondents asked for clarification regarding the term "program evaluation." In examining anecdotal comments of the respondents, the concept of program evaluation often appeared to be related to any type of data collection. The study results suggest that there is a need for education regarding the mechanics and benefits of program evaluation.

In summary, the results of this survey suggest several major points of interest. First, the survey results supported the existing research in that there were many inconsistencies among the higher education disability support programs in regard to programming, staffing, and data collecting activities. Most of the programs had been in place for over 20 years. Staffing varied greatly among the responding institutions; however the majority of programs had two or more staff members within their disability support departments. Educational backgrounds of the disability support administrators ranged across the areas of counseling, student services, human resources, exceptional education, and public administration. It was unclear if any of the responding administrators had specific training in working with adults students with disabilities.

Second, the numbers of students with disabilities entering into postsecondary education are increasing with the primary disability categories being learning disabilities and mental disorders. Data suggest that these disability categories present significant challenges to students at the postsecondary levels. Disability support administrators will be challenged to meet the unique academic needs of these students (Abram, 1999; Collins & Mowbray, 2005)

Third, the common denominator for determining the extent of data collection being performed within the responding community colleges appeared to be the Florida Department of Education. Additionally, standard data collection activities were concentrated on numerical student data and did not consistently include program evaluation information. Finally, training in program evaluation was positively associated with the responding disability support program's ability to participate in program

evaluation activities. Table 24 displays a summary of research questions, data sources and major findings of the study.

Table 24
Research Questions, Data Sources and Major Findings

Research Questions	Data Source	Major Findings
1. What are the organizational and staffing characteristics of the disability support programs in the 28 Florida community colleges: (a) number, gender, disability status, and educational background of staff; (b) age of the program; (c) budgetary support; and (d) membership in the Association on Higher Education and Disability?	Phone survey responses from disability support administrators	<p>There were a broad range of responses with most programs being in place for over 20 years.</p> <p>The majority of programs had two staff members within their departments.</p> <p>Counseling was the most frequently reported educational background of the disability support administrators.</p> <p>A little over half of the respondents were members in the Association on Higher Education and Disability.</p>
2. What are the self-reported enrollments of students with disabilities in the 28 Florida community colleges?	Department of Education Division of Community Colleges' Final Report of Documented Disabilities for 2004-2005	<p>Findings ranged from 20 to 1,581 students with disabilities at the responding institutions.</p> <p>The most frequently reported disability category was learning disability, followed by mental/psychological disorder.</p>

Research Questions	Data Source	Major Findings
3. What similarities are there among the disability support programs in the 28 Florida community colleges in regards to program administration and evaluation when compared to the Association on Higher Education and Disability standards?	Phone survey responses from disability support administrators	A high degree of similarity existed among the responding institutions in the areas of compatible departmental missions, having at least one full-time disability support staff member, general data collection activities, departmental involvement in the budget process, and the provision of assistive technology.
4. What types of outcome data and program assessment activities are performed by the disability support programs in the 28 Florida community colleges?	Phone survey responses from disability support administrators	All of the responding institutions collected data regarding total numbers of students with disabilities, types of accommodations, types of course substitutions and waivers, and completion rates. The Florida State Department of Education was consistently listed as the primary determinant of what data was collected.
5. What is the relationship between selected institutional characteristics within the disability support programs in the 28 Florida community colleges (staff, number of students, prior experience with program evaluation, membership in AHEAD, and having one for more staff members with disabilities) and the program's ability to implement and adhere to pre-established standards from the Association on Higher Education and Disability?	Nonparametric tests statistical tests (cross-tabulations and Spearman's rho)	The only institutional characteristic that showed a positive and statistically significant relationship on the program's ability to follow through on program administration and evaluation standards was the characteristic of having administrative experience in program evaluation.

Recommendations for Future Research

This study has attempted to determine the perceptions and activities of disability support program administrators in Florida community colleges regarding program evaluation. It had provided further support to previous researchers who cited the need for empirically based studies regarding the effectiveness of postsecondary disability support services. The rise in enrollments of students with disabilities in higher education combined with an emphasis on accountability and outcomes increases the need for further research in the area of higher education disability services. The following recommendations are proposed based on the results of this study:

Institution /Program Level:

1. Development of an improved data collection and input system to decrease the amount of time spent by personnel to enter data and to allow continual tracking of the students with disabilities from class to class and to the completion of their degree or transfer to another institution. These activities would successfully impact retention throughout the institution.
2. Development of standardized surveys regarding disability support services to be used throughout institutions and department or add relevant disability related questions to existing institutional surveys in order to encourage timely student and faculty feedback about disability support services.
3. Adoption of a program evaluation model that could be implemented throughout the institution with provisions for annual training.

4. Provision of funding for professional development training programs concerning teaching strategies for adult students with learning disabilities and other psychological disorders for community college faculty in order to better serve the increasing numbers of students with these disabilities.

State Level:

1. Investigate the present policies regarding data collection activities within the Florida Department of Education, Division of Community Colleges, regarding the current disabled student data base. Investigate trends and data management issues reported by Florida community colleges.
2. Institute data collection policies that outline the need for standardization across Florida community colleges regarding data collection, student tracking, and program outcomes of students with disabilities in order to better identify successful programs and strategies.
3. Appropriation of additional funding to investigate the most effective academic supports for students with learning disabilities in higher education to improve statewide retention and completion rates.

Follow-Up Study Recommendations:

1. A follow-up study could be conducted to examine successful tracking strategies for students with disabilities in the Florida community college system.

2. A qualitative study of students with disabilities in Florida community colleges could be conducted to examine student perspectives regarding disability support program effectiveness.
3. This study was limited to the 28 community colleges in Florida and cannot be generalized to a larger population. A similar study could be conducted on a national level to get a larger perspective on postsecondary disability support programs throughout the country.
4. A follow-up study regarding database programs could be conducted to determine which programs are the most effective for disability support program needs.

APPENDIX A
LIST OF FLORIDA COMMUNITY COLLEGES

List of Florida Community Colleges

1. Brevard Community College (Cocoa, Florida)
2. Broward Community College (Fort Lauderdale, Florida)
3. Central Florida Community College (Ocala, Florida)
4. Chipola College (Marianna, Florida)
5. Daytona Beach Community College (Daytona Beach, Florida)
6. Edison Community College (Fort Myers, Florida)
7. Florida Community College at Jacksonville (Jacksonville, Florida)
8. Florida Keys Community College (Key West, Florida)
9. Gulf Coast Community College (Panama City, Florida)
10. Hillsborough Community College (Tampa, Florida)
11. Indian River Community College (Fort Pierce, Florida)
12. Lake City Community College (Lake City, Florida)
13. Lake-Sumter Community College (Leesburg, Florida)
14. Manatee Community College (W. Bradenton, Florida)
15. Miami-Dade College (Miami, Florida)
16. North Florida Community College (Madison, Florida)
17. Okaloosa-Walton Community College (Niceville, Florida)
18. Palm Beach Community College (Lake Worth, Florida)
19. Pasco-Hernando Community College (New Port Richey, Florida)
20. Pensacola Junior College (Pensacola, Florida)
21. Polk Community College (NE Winter Haven, Florida)

22. Santa Fe Community College (Gainesville, Florida)
23. Seminole Community College (Sanford, Florida)
24. South Florida Community College (Avon Park, Florida)
25. St. Johns River Community College (Palatka, Florida)
26. St. Petersburg College (St. Petersburg, Florida)
27. Tallahassee Community College (Tallahassee, Florida)
28. Valencia Community College (Orlando, Florida)

APPENDIX B
COMMUNITY COLLEGE DISABILITY SUPPORT SERVICES PROGRAM
ADMINISTRATION AND EVALUATION SURVEY INSTRUMENT

**COMMUNITY COLLEGE DISABILITY SUPPORT SERVICES
PROGRAM ADMINISTRATION AND EVALUATION SURVEY**

Thank you for your participation in this important research regarding program improvement activities for community college disability support services. Please answer the following questions regarding disability support services at your

Institutional Code: _____(To be filled in by the researcher) _____

This is your copy of the interview survey questions, responses will be taken by the researcher during a prescheduled phone interview. It may be helpful to collect some of the data ahead of time.

DEPARTMENTAL INFORMATION:

1. Is there a specific department within your institution designated to serve students with disabilities?

Yes _____ No _____ (If no, what department is disability support services located in?) _____

2. How many staff members make up the Disability Support Services Department (include all full-time, part-time, and administrative positions)?

Number of full-time staff members _____
Number of part-time staff members _____
Number of administrators _____

3. What is the gender make up of the staff members of the Disability Support Services Department?

Number of males _____
Number of females _____

4. Do any of the staff members in your Disability Support Services Department have a disability?

Yes _____
No _____

If yes, what type of disability: _____

5. List the various job titles held by each person in your Disability Support Services Department and the number of years experience held by each.

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

6. How many years has your Disability Support Services Department existed?

- Less than one year _____
- 1 – 5 years _____
- 6 – 10 years _____
- 11-20 years _____
- Over 20 years _____

7. Since the inception of your Disability Support Services Department, how has the number of students seen in your department changed? (based on annual number of students served)

- Student numbers have increased _____
- Student numbers have decreased _____
- Student numbers have stayed the same _____

Please base your answers for questions 8-10 for Fall 2005 and Spring 2006 enrollment.

8. Total number of students enrolled at your institution:

- _____ (part-time and full-time)
- _____ (total FTE)

9. Total number of students registered for Disability Support Services _____

10. Total numbers of students registered for Disability Support Services by category –if students should fall into more than one category give numbers for primary category only.

- a. Hearing impairment (i.e., deaf or hard of hearing)..... _____
- b. Blind or visual impairment that can not be corrected by wearing glasses..... _____
- c. Speech or language impairment..... _____
- d. Mobility/orthopedic impairment..... _____
- e. Specific learning disabilities, including attention deficit disorder..... _____
- f. Health impairment/problem..... _____
- g. Mental illness/emotional disturbance..... _____
- h. Other (specify) _____

11. How is the current annual budget for the Disability Support Services Department within your institution determined?

12. Is the current budget appropriate to meet the goals and objectives of your department?

- Yes _____
- No _____

If no, what are the areas that require further funding: _____

13. Is the Disability Support Services Department a member in the Association on Higher Education and Disability?

- Yes _____
- No _____
- Unaware of this organization _____

14. How does your Disability Support Services Department a) collect data and b) report data within your institution?

15. Who or what determines the type and amount of data collection (administration, outside entity, regulatory agencies, etc.) within your department?

16. What are your organization's primary reasons for the collection of program data?

17. What are the primary constraints on program data collection (based on what you have experienced)?

18. Describe a positive example of your institution's response toward the data collected within your Disability Support Services Department:

19. Describe a negative example of your institution's response toward the data collected within your Disability Support Services Department:

20. Do any staff members within the Disability Support Services Department have experience in program evaluation?

- Yes _____
- No _____

21. Are staff and professional development training opportunities regarding program evaluation available for your department?

- Yes _____
- If yes, what type of training _____
- No _____

PROGRAM ADMINISTRATION AND EVALUATION

The following items refer to the program administration and evaluation standards (7.1 -7.7) developed by the Association on Higher Education and Disability

Standard 7.1 Provide services that are aligned with the institution’s mission or services philosophy.

22. Our department has a program mission statement and philosophy that is compatible with the mission of our institution:

Yes _____
No _____

How is this assessed in your department? _____

23. Our department provides information to the college community regarding its mission, responsibilities and services:

Yes _____
No _____

How is this accomplished, please provide an example? _____.

Standard 7.2 Coordinate services for students with disability through a full-time professional.

24. Our department has at least one full-time professional who is responsible for disability services as his or her primary role:

Yes _____
No _____

Standard 7.3 Collect student feedback to measure satisfaction with disability services.

25. Our department assesses the effectiveness of accommodations and access provided to students with disabilities.

Yes _____
No _____

a) How often is this accomplished? _____

b) Please provide an example of how effectiveness is assessed:

26. Our department includes student satisfaction data in the evaluation of our disability services.

Yes _____
No _____

How is this accomplished, please provide an example? _____

27. What has been the overall student satisfaction percentage during the past two years? _____

28. How are unmet student needs or incidences of student dissatisfaction handled? _____

Standard 7.4 Collect data to monitor use of disability services.

29. Our department provides feedback to physical plant regarding physical access for students with disabilities.

Yes _____
No _____

How is this accomplished, please provide an example? _____

30. Data is collected from all of the following constituencies regarding utilization and effectiveness of services (please check all that apply):

- a. Administration _____
- b. Faculty _____
- c. Student Activities _____
- d. Counseling/Advising _____
- e. Registration/Admissions _____
- f. Financial Aid _____
- g. Auxiliary Services _____
(bookstore, cafeteria, etc.)
- h. Other _____

31. Our department collects data to identify ways the program can be improved:

Yes _____
No _____

How is this accomplished, please provide an example? _____

32. Our department collects data to project program growth and needed funding increases.

Yes _____
No _____

How is this accomplished, please provide an example? _____

Standard 7.5 Report program evaluation data to administrators.

33. Our department develops an annual evaluation report on the program using qualitative and quantitative data.

Yes _____
No _____

34. If an evaluation report is completed, this report is sent to: (check all that apply)

a. College population _____
b. Administration _____
c. Community _____
d. Local agencies _____
e. State agencies _____
f. National agencies _____
g. Other _____

Standard 7.6 Provide fiscal management of the office that serves students with disabilities.

35. Our department develops a program budget.

Yes _____
No _____

36. Our department seeks additional funding as needed.

Yes _____
No _____

How is this accomplished, please provide an example? _____

Standard 7.7 Collaborate in establishing procedures for purchasing adaptive equipment needed to assure equal access

37. Our department assists with the determination of needs for assistive technology and adaptive equipment for students within the institution.

Yes _____
No _____

How is this accomplished, please provide an example? _____

38. Our department has an equipment lab that students with disabilities can use:

Yes _____
No _____

39. Our department has adaptive equipment that can be loaned to students with disabilities:

Yes _____
No _____

40. Part of the departmental budget is dedicated toward assistive technology upgrades and purchases:

Yes _____
No _____

41. Our department advises other departments regarding the procurement and use of needed assistive technology and adaptive equipment.

Yes _____
No _____

How is this accomplished, please provide an example? _____

42. Our department provides or arranges for assistance to students to operate assistive technology and adaptive equipment.

Yes _____
No _____

How is this accomplished, please provide an example? _____

Thank you for contributing your time and expertise in this telephone based survey. Your responses will help to provide valuable information regarding administration and program evaluation activities of disability support programs within the Florida Community College System.

THIS IS YOUR COPY OF THE SURVEY QUESTIONS.

**ALL RESPONSES WILL BE RECORDED DURING
A PRE-SCHEDULED PHONE SURVEY.**

APPENDIX C
COMMUNITY COLLEGES USED IN PILOT STUDY

List of Community Colleges used in Pilot Study

1. Calhoun Community College
ALA
2. Coastal Georgia Community College
GA
3. Jefferson State Community College
ALA
4. Middle Georgia College
GA
5. Shelton State Community
ALA

APPENDIX D
INFORMED CONSENT LETTER

Date

Name
Address Line
Address Line

Dear Community College Practitioner:

I am a doctoral student at the University of Central Florida. As part of my research, I am conducting a telephone-based survey, the purpose of which is to learn about the staffing, administration, and program evaluation components of disability support programs within the 28 Florida community colleges. I am asking you to participate in this survey because you have been identified as a community college practitioner who works with your institution's student disability office. Respondents will be asked to participate in a pre-scheduled phone survey that will last approximately 45 minutes. The schedule of survey questions is enclosed with this letter. All respondents must be at least 18 years of age to participate in the study. You have the right to not answer any question that you do not wish to answer. Your survey will be conducted by phone after I have received a copy of this signed consent form from you by U.S. mail. Once the consent form is received, you will be called to set up the telephone-based survey appointment. Once the appointment is set up, you will be sent a confirmation letter with an additional copy of the survey questions. Your identity will be kept confidential and will not be revealed in the final manuscript.

There are no anticipated risks, compensation, or other direct benefits to you as a participant in this survey. You are free to withdraw your consent to participate and may discontinue your participation in the telephone-based survey at any time without consequence.

If you have any questions about this research project, please contact me at (386) 506-3751. My faculty supervisor, Dr. Rose Taylor, may be contacted at (407) 823-1474 or by e-mail at rtaylor@mail.ucf.edu. Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participants' rights may be directed to the Institutional Review Board Office, IRB Coordinator, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The telephone number is (407) 823-2901.

Please sign and return this copy of the letter in the enclosed envelope. A second copy is provided for your records. By signing this letter, you give me permission to report your responses anonymously in the final manuscript to be submitted to my faculty supervisor as part of my dissertation research.

Name

_____ I have read the procedure described above for the Community College Disability Support Services Program Administration and Evaluation Survey.

_____ I voluntarily agree to participate in the interview

_____/_____
Participant Date

_____/_____
Principal Investigator Date

APPENDIX E
FOLLOW-UP AND APPOINTMENT LETTER

TELEPHONE BASED SURVEY CONFIRMATION LETTER

Date

Name

Thank you for agreeing to participate in a study about the administration and program evaluation components of disability support programs within the 28 Florida community colleges. Your telephone-based survey is scheduled for _____.

I am contacting the Florida Community Colleges' offices for students with disabilities to ascertain information about administration and program evaluation activities in relation to a group of standards set forth by the Association on Higher Education and Disability. Information regarding outcome studies, budgetary support, and program successes and concerns will also be collected.

Results from the survey can offer a framework for program evaluation using the Association on Higher Education and Disability standards and offer recommendations for improving quality of services and successful student outcomes.

Your answers are completely confidential and will be released only as aggregated data in which no individual answers can be identified. When you complete the survey, your name will be deleted from the mailing list and never connected to your answers in any way. This survey is voluntary. However, we greatly appreciate your willingness to share time and expertise regarding students with disabilities at your institution.

If you have any questions or comments about this study, I would be happy to talk with you. My telephone number is (386) 506-3751.

Again, thank you very much for agreeing to help with this important study.

Sincerely,

Alice Godbey
Professor, Behavioral & Social Sciences
Daytona Beach Community College

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