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### College Students with Disabilities: What Factors Influence Successful Degree Completion? A Case Study

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*The challenges students with disabilities (SWDs) face on college campuses have been examined widely, but little is known about the experiences of SWDs who have successfully completed college. To level the playing field for people with disabilities by encouraging college education and completion, it is essential to inquire which factors are supporting degree completion.*

*Much of the information that is known about college success and completion is linked to outcome measures for programs that are linked to specific programmatic funding. This report examines the viewpoints of successful SWD completers and the staff from five colleges and universities in New Jersey without regard to particular program and funding initiatives. This approach yielded a variety of observations about SWDs and promising practices and challenges of the colleges they attended, as well as uncovered areas for further study and development of supports for students, staff, and faculty. Noteworthy was the perspective of both students and college professionals that on-campus services and supports were most critical to college completion.*

#### Introduction

Because of the paucity of literature on why some SWDs succeed in college and others do not, this project was developed as an exploratory study to develop hypotheses for why some SWDs succeed in college. Current research indicates that people with disabilities have a lower employment rate and, therefore, higher rate of poverty and dependence on public social services support (U.S. Department of Education, 2011; U.S. Department of Labor, Office of Disability Employment Policy, n.d.). People with disabilities complete college at a statistically significant lower rate than people without disabilities and those who do complete college have a persistently lower rate of employment irrespective of the level of degree attainment (associate's, bachelor's, and higher) (Bureau of Labor Statistics, 2012; National Collaborative on Workforce & Disability for Youth and Workforce Strategy Center, 2009). Despite the passage of the Americans with Disabilities Act in 1990, people with disabilities continue to have significant challenges in employment, employment earnings, and educational attainment, and have more limited access to housing, transportation, technology, and health care (National Collaborative on Workforce & Disability for Youth and Workforce Strategy Center, 2009). As a result, people with disabilities more frequently live in poverty than those without disabilities (O'Day & Stapleton, 2009). The current economic climate has also disproportionately contributed to people with disabilities' difficulty in accessing employment opportunities (National Council on Disability, 2011).

Despite these challenges, individuals with a wide range of disabilities have significantly increased their enrollment in postsecondary educational institutions, with an increase of more than 20% from 2003 to 2009 (National Council on Disability, 2011; Raue & Lewis, 2011). The disparity is striking because recent data have shown that "the employment rate for college graduates without disabilities is 89.9% and for college graduates with disabilities, the rate is 50.6%"

(Nicholas, Kauder, Krepcio, & Baker, 2011). However, a report from the National Council on Disability (2011) highlights concerns about SWDs' employment outcomes as it appears that although enrollment of SWDs is increasing, the ability to secure employment at a level matching their educational attainment is often limited.

The literature abounds with studies of why students of all types are not completing college, but it appears that little is written about why certain SWDs succeed at completion (Madaus, 2006). A comprehensive review of the literature by Karp (2011) has isolated mechanisms that encourage student success at community colleges, but does not specifically examine the unique experience of SWDs. The existing literature on student success seems to be inextricably tied to measuring outcomes from different program initiatives funded by grants.

Some researchers suggest that people with disabilities experience success not as the result of one type of funded program, but the combined efforts of several (Nicholas, Kauder, Krepcio, & Baker, 2011). Barnett and Dendron (2009) "emphasized the crucial need for partnerships within the community, especially with high schools, rehabilitation centers, and vocational education institutions." Therefore, funding streams were studied to further understand how "braiding," or bringing together funding streams and programs, would lead to positive student outcomes as the literature would suggest (Nicholas, Kauder, Krepcio, & Baker, 2011).

The focus of this study was to explore what was working and why, both from the student's and the college professional staff's points of view, regarding successful college completion for SWDs. The intent of this preliminary research is to share a perspective on the factors that may contribute to SWDs' college completion and to illuminate areas that perhaps warrant further research and study. The case study approach taken provided a close-up, personal perspective so as to create a more textured understanding of the people and institutions that generously donated their time to heartfelt discussions so that the opportunity to succeed could be better understood.

## Study Methodology

Since the purpose of this study was to document the factors that are associated with student success and to generate hypotheses that might be tested using samples of successful and unsuccessful SWDs, colleges were asked to intentionally select only successful SWD completers for this study.

Twenty SWD college completers were interviewed from three community colleges and two universities in New Jersey. These colleges were Burlington County College, Mercer County Community College, Raritan Valley Community College, New Jersey City University, and Rutgers University. These colleges were selected to represent the state's diversity in terms of income, geography, and academic competitiveness.

To study the characteristics and programs that are associated with success, an expedient sampling technique was used to recruit students and program staff for qualitative interviews. Colleges were asked to select for interviews only SWDs who had successfully completed a degree or were about to complete a degree at the end of the current semester. Disability Services professional staff identified SWD completers who received accommodations while they were enrolled at their college. Participants were not selected based on their specific disability and all were recent completers (within the past four years). Successful student completers were asked to identify key factors that helped them complete college. The study participants were enthusiastic that sharing their experiences could help others with disabilities successfully complete college. Each participant took part in a one-hour, in-person interview with the project's principal investigator. This sample is not statistically representative of college SWDs, but rather comprised of information-rich cases that provide a detailed and nuanced understanding of what is important to students and how they experienced their postsecondary education.

A "Student Attitudes and Satisfaction Interview" was conducted with students who completed degree and/or certificate requirements. An interview guide was used for the semi-structured interviews and gathered the opinions and points of view of the students whose services and funding streams had been recorded by the professional staff at the colleges they attended. Data collected on students' perspectives were aggregated and compared alongside information on other usages of college offerings and program supports both internal and external to the college. (See Appendix A for the interview guide.)

The colleges provided financial and service information on all SWD completers who participated in the interviews. The perspectives of key college professionals at the Office of Disability/Special Services who have responsibilities related to SWDs' education and other supportive services and programs were elicited through site visits, phone conversations, and a roundtable discussion.

Each college's Office of Disability/Special Services was asked to complete a survey on all of the SWD completers who were interviewed to determine the different resources and funding streams that supported the student completers' services while they were enrolled. Key personnel in the Office of Disability/Special Services were asked to provide financial and service information on all study participants, information on college services to these SWDs, and services provided by community partners. A data collection tool, in the form of a Microsoft Excel spreadsheet, was provided to the colleges and included the following program elements: case management services, pre-college training, remedial coursework, financial aid, motivational support, mental health services, campus services such as Offices of Disability and/or Career Services, social services/entitlement programs, and emergency supports, and, if known, their costs (see Appendix B).

Each college was invited to participate in a roundtable discussion that was designed to provide the professional staff from the Office of Disability/Special Services at participating colleges an opportunity to share promising practices, challenges, and ideas on how to effect positive changes for SWDs on college campuses. The discussion was facilitated by the principal investigator. The agenda included an overview of the project, challenges of record keeping and identification of subjects for the study, discussion of initial impressions from interviews with student exiters, discussion of promising practices, and exploration of ideas for further research, study, and implementation of best practices.

## SWD Participant Profiles

The 20 SWD study participants who were interviewed completed their course of study between May 2008 and May 2012 (see Table 1). Nine participants encountered interruptions in schooling prior to completion of their degrees, including: medical problems, family tragedy, personal and family problems, accident, work, and failure to successfully complete the course of study the first time. Twelve completed an AS/AA degree and five transferred to a four-year college. Nine participants completed a BA/BS degree. Nine participants worked while attending college and ten worked while in high school. At the time of the interviews, three participants were working full time and nine were working part time. Seventeen of the study participants planned to return to school for additional education and ten were currently enrolled at another postsecondary institution to continue their education. All of the participants thought their personal and financial investments in their education were "life changing" and worthwhile.

The study participants' self-described disabilities included a wide range of physical, emotional, and cognitive disabilities as well as dual diagnoses. Physical disabilities included: traumatic brain injury, multiple childhood disabilities, cancer, and orthopedic disability. Emotional disabilities included: post-traumatic stress disorder, bipolar disorder, depression and anxiety disorder. Cognitive disabilities included: attention deficit hyperactivity disorder, learning disability, slow processing, dyslexia, and reading disorders.

**Table 1. SWD Study Participant Profiles: Education and Work Status**

	# of Students	Percent
<b>Education</b>		
Plan to return to school for additional education	17	85%
Transferred to a four-year college	5	25%
Completed an AS/AA degree	12	60%
Completed a BA/BS degree	9	45%
Interruptions in schooling prior to completion of degree	9	45%
Currently enrolled to continue education at another postsecondary institution	10	50%
<b>Work</b>		
Currently working full time	3	15%
Currently working part time	9	45%
Worked while attending college	9	45%
Worked while attending high school	10	50%

*Source: SWD participant profiles, 2012*

The study participants reported learning about accommodations from many different sources. On-campus sources cited were: a classmate, college academic advisors, college Dean, trial and error, during enrollment at college, at community college before transferring to a four-year college, and faculty members. Outside the college community, study participants indicated that they learned of accommodations from parents, high school special education classes, medical professionals, outpatient rehabilitation provider, Traumatic Brain Injury Fund, high school counselor, a friend who is a learning disability teacher consultant, and the Division of Vocational and Rehabilitation Services.

Some participants reported that high school teachers did not think they were “college material,” but that once they got to college they found the services and support needed to successfully complete their education. The types of accommodations the student completers reported using included: test taking and classroom accommodations, technology support, and specialized campus resources such as: quiet room, laptop computer, tape recorder, calculator, handicapped parking, extra test time, testing room at test center, tutoring, counseling, scribe/note taker, academic support center, and a reader for tests

## Findings

**Finding #1. Although the braiding and blending of efforts and funds did occur in the participant study sample, it happened much less frequently than expected and was attributed far less importance than other factors by both the students and the key support professionals at the colleges.** The findings on what were the most important factors contributing to college completion for the SWD completers in this study differed from initial expectations. It was originally thought that a coordinated and combined effort of community- and college-based services would have been identified as more important in the participants’ completion of their college education. Use of services and resources external to the colleges was reported as minimal by both the SWDs and the college professional staff. Overall, the SWD completers reported mainly using services on campus and overwhelmingly attributed their successful completion to a significant relationship with either a

professional staff member at the Office of Disability/Special Services or a faculty member. Study participants also attributed their success to family members and services on campus such as the testing and tutoring centers, accommodations, as well as personal motivation and intrinsic drive to succeed.

*One study participant attributed his ability to persevere, despite tremendous personal and learning obstacles, to his relationship with his mentor at the Office of Special Services. He said, "The positive social environment at the Office of Special Services made me feel comfortable." This study participant reported that he was willing and able to learn to adapt and finish his remedial courses despite the fact that he was not diagnosed with a learning disability in high school.*

*A young man with multiple disabilities, who was the first in his family to complete college, remarked that he "found the help of the disability services coordinator to be very helpful and encouraging." He was transferring to a four-year college, but recounts that in the beginning he was "ho hum" about school, but then developed "other ways of looking at things." His recommendation to other SWDs was "to know yourself and stand up for yourself and not be afraid to share your thoughts."*

*A young man with attention deficit hyperactivity disorder was enrolled in a four-year college after successfully completing community college while working full time. He did not have any special services in high school yet attributed his completion of community college to the accommodations he received while at college. His advice was to "stick with it" and that the support staff can help you "get to where you want to go."*

*A woman who returned to school as an adult possessed outstanding social skills. She reported that although she was easily distracted, had much anxiety, and feared failure, she persisted and successfully completed community college. She attributed her success to the genuinely supportive staff at the Office of Special Services. She had two job offers upon completion of her degree. Her advice to other students was, "You are not alone and there is help available. There are so many of us — people with disabilities. Don't listen to ridicule and negativity and remember that your ears are not a 'garbage can.'"*

*Two young men who participated in this study had traumatic brain injury resulting from car accidents while enrolled at college. Both attributed a "go to guy" at the Office of Disability Services as a key factor in their ability to complete their education.*

These involvements of the SWD completers in this study are consistent with the theme of "involvement matters," which runs through much of the literature. Tinto (1997) and others found that the more academically and socially involved individuals are — that is, the more they interact with other students and faculty — the more likely they are to persist (Astin, 1984; Mallette & Cabrera, 1991; Nora, 1987; Pascarella & Terenzini, 1980; Terenzini & Pascarella, 1977).

**Finding #2. The study participants had observable personal qualities (i.e., self-awareness, perseverance, focus, and interpersonal skills) that allowed them to pursue, develop, and maintain positive, long-term relationships with mentors, either on campus or within their natural social circle (such as family, friends, and professionals).** All of the study participants viewed these relationships as critical to their successful completion of their college education.

Study participants' insight about their disabilities and their ability to self-advocate was universally high. It was the opinion of the SWD participants that encouragement of self-advocacy and self-understanding of SWDs could improve academic and work outcomes for other students. The staff at the colleges' Offices of Disability/Special Services agreed and considered these issues particularly critical at transition times — for example, the first year of college and the transition to work or post-graduate study. As a group, the participants' experiences

in this study were similar to the findings of other researchers who found that exposure to work experience, career exploration, and paid work experience while in school was related to better postsecondary and employment outcomes (National Council on Disability, 2011).

A common thread amongst the successful SWDs in this study was an ability to understand their disability and advocate for the accommodations they needed to successfully engage in their education. This finding is aligned with the literature, which cites lack of self-understanding as a dominant characteristic among learning disabled adults who were not successfully employed (Adelman & Vogel, 1990; Blalock, 1981, 1982; Hoffmann et al., 1987).

*One of the young men with traumatic brain injury who attended graduate school shared, "You have to hunger to be successful. It was unacceptable that I would remain disabled. I just wanted to prove that my cognitive difficulties would not stop me." The other young man with traumatic brain injury said that SWDs need to "know they have to request services and help." He added, "I don't want to be left out. You need to find out what is available and self-advocate."*

*Another participant felt he was sidelined in special education while in the second grade in a poor urban school district. When asked what he considered to be the most important factors contributing to his completion of college, he remarked, "Believing in myself and convincing others to believe in me; personal drive and networking." He spent years becoming "college ready" while at a community college and later at a four-year college. He plans to attend graduate school despite not being considered "college material" at any time during his elementary and secondary education. He intends to get his Master's degree in educational psychology and it is highly likely that he will be an inspiration to others through his leadership and creative use of his experience.*

*Another young man, diagnosed with bipolar disorder, identified specific people in the Office of Disability Services, counseling, and a tremendous drive to move forward despite a former drug abuse problem as key factors in his ability to complete an associate's degree and stay enrolled in and graduate from a four-year college. He will be attending graduate school in the fall. He advises other students, "Don't let the disability totally encompass you. Have it only be one part of you." He recommends that colleges add and strengthen substance abuse programs and education to help students with mental health issues.*

**Finding #3. Although learning about accommodations on campus was not a given or smooth process, access to accommodations was not a major issue for the successful completers.** For the most part, participants were able to self-advocate or successfully seek out the assistance of the Office of Disability/Special Services. However, according to these SWD completers, the stigma of going to the Office of Disability/Special Services was identified as an obstacle for many other SWDs and had not been adequately addressed by the colleges. College staff acknowledged that self-disclosure was a problem that is difficult to measure in its scope and influence on student outcomes.

*Another study participant who was planning to transfer to a four-year college advised SWDs, "Don't let your problems get to you. Stay calm and use the resources available on campus. Talk to your professors and ask for advice and help." This young man observed that some students may not be getting accommodations due to the stigma associated with seeking and getting help. He felt that professors can do more to help.*

**Finding #4. The participating colleges were significantly challenged in accessing information on students with disabilities.** The colleges had great difficulty in identifying SWD completers for participation in this study. Most of the colleges were not able to access complete information on which services the SWD completers used during their tenure at their institutions. Services used by SWDs were not effectively tracked by the colleges or reported by the SWD participants. Historical information on SWDs was not easily available or not available at

all. Recordkeeping systems, even those that were new, were not designed to collect information on the service history and/or outcomes of SWDs at the colleges. Students and college staff were not fully aware of which funding stream(s) supported particular services or programs.

As shown in Table 2, the colleges' completed questionnaires on student services and outcomes found that of the 20 students who were interviewed, all used the Office of Disability/Special Services, 13 did remedial coursework, 12 received financial aid, 6 used mental health services, 6 participated in extracurricular activities, 4 used the college's Office of Career Services, and 3 used external social services (i.e., State Vocational and Rehabilitation Services, Commission for the Blind and Visually Impaired, or other social service organizations).

**Finding #5. Offices of Disability/Special Services are often underfunded, high-volume operations.** High caseloads often have student counselors juggling many functions in providing assistance to students. The student counselors' persistence in supporting many students despite numerous obstacles is remarkable in itself.

**Finding #6. SWDs and staff identified faculty training on their role in providing accommodations and in understanding how disabilities affect learning in the college classroom as in need of additional support and resources.** College faculty, student, and staff knowledge of services for SWDs is often limited, inaccurate, or non-existent. In addition, high school guidance counselor referrals to college disability support services were reported by some college Office of Disability/Special Services staff to vary widely by high school.

*A young woman with dyslexia who participated in the study was the first in her family to attend college. She plans to return to college to complete her teaching degree at a four-year college. She shared that despite the assistance of the special populations department at her college, it was occasionally challenging to get professors to agree to accommodations. When asked for suggestions on ways that colleges could provide services for students like herself, she said, "There needs to be education for professors about the accommodation process, especially the older ones, and that there needs to be more communication and ongoing dialogue."*

**Table 2. Breakdown of Student Services Accessed by Study Participants**

	# of Students	Percent
Pre-College Training	1	5%
Remedial Coursework	13	65%
Financial Aid	12	60%
Motivational Support	8	40%
Mental Health Services	6	30%
Office of Disability/Special Services	20	100%
Office of Career Services	4	20%
Extracurricular Activities at College	6	30%
Social Services Entitlement Programs (i.e., Division of Vocational Rehabilitation Services, Commission for the Blind and Visually Impaired)	3	15%

Source: Study questionnaire, 2012

## Participating Colleges' Perspectives

All of the participating colleges sent a representative to the roundtable discussion, which was facilitated by the project's principal investigator. The roundtable discussion complemented the data collection conducted by the colleges' Offices of Disability/Special Services by highlighting not only the unique challenges these offices have in carrying out their mission, but by sharing their promising practices and hopes for the future in terms of improving services for students with disabilities.

### Challenges of Recordkeeping

All of the participating colleges experienced difficulty in keeping accurate and easily accessible historical academic and service records of SWDs. Either systemic recordkeeping systems were new, did not exist, or were not designed to measure student needs and outcomes. This lack of effective recordkeeping led to significant gaps in information, which made it difficult to reliably determine some of the past services and accommodations that students received. There was general agreement by the participants that it would be useful to aggregate key information into one database (i.e., grade point average, course completion, disability status, past and current services and accommodations, contact information, etc.). The establishment of a comprehensive database would be useful in tracking student performance and determining when students become at risk for non-completion. The disability professionals agreed that if outreach and appropriate interventions were provided to students as they started to show signs of academic problems and other issues, then student completion may be affected in a positive manner.

Many of the colleges did not have information on all of the services a student may have accessed (i.e., counseling, mental health) while enrolled. Tracking the service history of students with hidden disabilities is especially difficult as these students often choose not to disclose some of the services used both on and off campus. If students did not disclose whether they used services not provided by the Office of Disability/Special Services, there was no way to know or coordinate services for the SWDs' benefit. Another challenge discussed was that many SWDs choose not to disclose at all, perhaps as a result of a self-perceived stigma of having a disability and needing assistance.

Administrators and departmental staff often rely on a variety of funding streams to support recordkeeping practices. When there are gaps in funding, there also may be gaps in information. The participants stressed the importance of more consistent funding streams for management of data on SWDs.

### Faculty/Student Outreach

The professionals at the colleges who assist SWDs agreed that it is important to raise awareness among students and faculty regarding the resources available on campus. Many thought that community awareness campaigns can be effective tools for increasing knowledge of services and supports for SWDs within the institution. These initiatives can include informing incoming students about the Office of Disability/Special Services and the resources available, and conducting outreach to raise awareness for both students and faculty. Professional staff stressed the critical need for faculty members to be aware of all the resources that the Office of Disability/Special Services has to offer. The increase of adjunct faculty and part-time lecturers at many colleges often makes it more difficult to encourage faculty participation in initiatives and services for SWDs. The roundtable participants identified a need for a more reliable form of mass communication to faculty (full



and part time) other than official, college-based email, which often goes unread. Recommendations included utilizing social media to conduct outreach to faculty and students. Also discussed was including disability awareness and knowledge in campus-wide efforts on diversity training.

## Promising Practices

All of the colleges' Offices of Disability/Special Services serve many students on limited budgets. It is noteworthy that these offices were cited by all of the SWD completers as a major contributor to their ability to persevere and complete their education. While accommodations were key in assisting these SWDs to complete their education, it was the staff at the Offices of Disability/Special Services that ensured the SWDs had access that was easy and reasonable.

Additionally, a working relationship between the Offices of Disability/Special Services and Career Services is important because career development challenges for SWDs are often unique. SWDs' transition into employment often requires addressing issues of self-advocacy and disclosure of a disability. Some institutions have addressed this issue by establishing a career services staff directly targeted at SWDs. The Office of Specialized Services at New Jersey City University has resources available to SWDs online. On other campuses, the Office of Disability/Special Services encourages SWDs to use their self-advocacy skills at the Office of Career Services as an exercise of skills that are critical in the transition to and survival in the workplace.

## Self-Advocacy

The roundtable participants agreed that encouraging self-advocacy while the SWDs are enrolled increases the opportunity to become more competitive in seeking employment. Research has demonstrated the critical need for the ability to self-advocate in obtaining needed accommodations (Izzo & Lamb, 2003; Stodden, Whelley, Chang, & Harding, 2001). A person's experience in understanding his/her skills and advocating for accommodations is thought to significantly contribute to successful outcomes in both school and in employment (Adelman & Vogel, 1990). The roundtable discussion indicated that in some instances, the role of the Office of Disability/Special Services has become that of an "indirect coordinator" where students are prompted to manage their own affairs and where professional staff are available to answer questions and provide assistance if needed. The transition from college to employment is an important time where the mastery of self-advocacy skills is critical to obtaining gainful employment.

Self-advocacy issues often surface at transition times, such as starting college. An important result of well-executed transition planning is the development of self-determination and self-advocacy skills, and weak transition planning can leave such skills underdeveloped (Getzel & Thoma, 2008). The transition to postsecondary education often involves an overwhelming amount of new information and responsibility that can be especially challenging for SWDs. Engaging with students early in their postsecondary education is important to successfully manage the transition.

SWDs who are transitioning from high school to postsecondary institutions often face familiar challenges in a new way. For some students, negative attitudes developed in high school about being in "special education" carry over to the experience of postsecondary disability services. Reaching out to high school administrators and staff about the services available at a college can help SWDs get an early start on learning strategies that would increase their chances of successful completion of their college studies.

## Concern Regarding Access to Mental Health Services

The roundtable participants shared that the increased demand for mental health services and counseling has resulted in many students being wait-listed for such services. As a result, many students must be referred to outside mental health services, which may not adequately address the needs of college-age SWDs and may not be coordinated with on-campus supports as well. The participants noted that college counseling departments need more full-time counselors to meet the increased demand for long-term mental health counseling services.

## Recommendations for Further Study

Information on the limited use of disability services by community college SWDs (only half of whom were found to be using on-campus disability support services) (Barnett & Dendron, 2009) raises questions about the completion rate of SWDs who do not use disability support services while enrolled in college. The inevitable question that follows is “Why not?” What follows are four recommendations for testable hypotheses for further exploration of which critical factors contribute to SWDs’ ability to maximize their successful completion of college and transition into adulthood.

### **Recommendation #1. Conduct more in-depth research to assess the critical success factors for SWDs.**

**Goal: To develop a core of knowledge about critical success factors for SWDs’ college completion that identifies which interventions can assist SWDs,** including which factors are more associated with the outcomes of successful SWD completers versus their less successful counterparts (non-completers). This exploration of SWD completers revealed that the study participants largely attributed their successful college completion to their relationship with an “anchor person” at the Office of Disability/Special Services. In the overall population of students with disabilities, to what extent would the relationship between college completion of SWDs and campus mentors be found? Further exploration as to whether expanded involvement, including active outreach by the Office of Disability/Special Services, can be extended to other SWDs to improve their college completion rates may help SWDs who are not yet experiencing successful completion. Further analysis is recommended to study the relationship of following factors to student completion: students’ personal attributes, type of impairment/disability, staff availability at Office of Disability/Special Services, outreach services, family support, community services, counseling services (on- and off-campus locations), and engagement in campus life. Measures of student success could include degree completion and employment outcomes.

### **Recommendation #2. Conduct research on effective interventions by colleges that support critical success factors for SWDs.**

**Goal: To develop a body of knowledge that identifies effective interventions that support the development of critical success factors for SWDs, including the impact of active outreach combined with early identification of students in academic distress.** Since the literature indicates that many students who experience significant and ongoing challenges do not have well-developed self-assessment and self-advocacy skills, further research on the impact of college outreach, soft skill development (including self-awareness and advocacy and interpersonal relations), and efforts to destigmatize services on campus through universal design of support services would help identify effective practices that result in college completion. Measures of SWDs’ attitudes about the stigmatization of having a disability and its impact on academic achievement could include degree completion and employment outcomes.

**Recommendation #3. Conduct research on the impact of college faculty and staff development on disability as a diversity issue.**

***Goal: To encourage college efforts to include disabilities as part of faculty/staff diversity training. Understanding which college disability faculty/staff development efforts are most impactful could be critical to changing the climate on college campuses in a way that would support all members of the campus community in achieving their maximum potential.*** Many of the study participants voiced concerns about the faculty's general lack of knowledge about disability issues in the classroom and how to assist SWDs. The study participants noted that college faculty and staff would benefit from incorporating disability awareness and the American Disabilities Act fundamentals in required diversity training. The study participants noted that faculty need help and support in approaching students who are having difficulties in class — academically and behaviorally. Further research on what colleges are doing in this area, and where it has been well received, effective, and/or incorporated into university/college culture would contribute to the literature as well as practices on campus.

**Recommendation #4. Conduct research that explores promising practices that assist college SWDs' transition to employment.**

***Goal: To assist in the transition of SWDs from college to employment by examining closely the different approaches colleges are using to assist SWDs in their transition to employment.*** The colleges in this study had varying approaches to helping SWDs with the transition from college to work, but offered limited information about which practices produced desired, positive results on a consistent basis. In this effort, it would be important to more closely examine and quantify the relationship between a wide variety of college Offices of Disability/Special Services and Career Services and how this relationship affects SWDs' employment after graduation. The study of such college efforts could include providing specific supports to SWDs transitioning from college to work, such as the availability of: counseling and advising to help with career-related academic choices; internships, service learning, and mentoring opportunities; and workshops on self-assessment and self-advocacy. Some current literature discusses the benefits of internship and service learning for SWDs, but its effect on eventual gainful employment needs further study. Measuring student success could include evidence of post-college employment.

## Conclusion

The key factors helpful to college completion identified by the participants in this study include access to a mentoring relationship while at college, perseverance and determination, a positive attitude in addition to work experience, and legally mandated accommodations. Noteworthy is that with the exception of legally mandated accommodations, the key factors identified by the study participants are much the same as the factors many highly successful individuals find indispensable. In other words, access to mentors, exposure to positive work and internship experiences, and the willingness and ability to use these experiences for personal and professional growth are critical for all students in successfully completing their college education.

The advice from the study participants to SWDs was universally the same: "Don't give up on yourself. Even if you are failing today, reach out for and use help. Stay in the game and tomorrow things will change." The study participants' advice to the colleges can be distilled into the following: "Educate your faculty on how to help SWDs in the classroom and continue to provide and expand opportunities for students to get help that is nonjudgmental and respectful of their abilities and dreams as well as their disabilities."

Colleges have a unique opportunity to help SWDs with degree completion by providing a learning environment and community that is universally conducive to allowing all students to explore and unfold their talents in preparation for full participation in the workforce and their community. This involves access to accommodations as well as opportunities and the SWDs' courage to persevere. Not every student who seeks out the services of the Office of Disability/Special Services is as successful as this select group, but the combined experiences of the study participants are instructive on how to further study and develop supports for SWDs' efforts at college completion and eventual employment.

## References

- Adelman, P., & Vogel, S. (1990). College graduates with learning disabilities: Employment attainment and career patterns. *Learning Disability Quarterly, 13*(3), 154-166.
- Astin, A. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*(3), 297-308.
- Barnett, L., & Dendron, C. (2009). *Enriched and inspired: Service pathways to college success (a report from Project Reach: Service inclusion for students with disabilities)*. Washington, DC: American Association of Community Colleges.
- Blalock, J. W. (1981). Persistent problems and concerns of young adults with learning disabilities. In W. Cruickshank & A. Silver (Eds.), *Bridges to tomorrow (Volume 2, The Best of ACLD)* (pp. 35-55). Syracuse, NY: Syracuse University Press.
- Blalock, J. W. (1982). Residual learning disabilities in young adults: Implications for rehabilitation. *Journal of Applied Rehabilitation Counseling, 13*(2), 9-13.
- Bureau of Labor and Statistics, U.S. Department of Labor. (2012). *News release: Persons with a disability: Labor force characteristics — 2011, Friday, June 8, 2012*. Retrieved from: <http://www.bls.gov/news.release/pdf/disabl.pdf>.
- Getzel, L., & Thoma, C. (2008). Experiences of college students with disabilities and the importance of self-determination in higher education settings. *Career Development for Exceptional Individuals, 31*(2), 77-84.
- Hoffmann, F. J., Sheldon, K. L., Minskoff, E. H., Sautter, S. W., Steidle, E. F., Baker, D. P., et al. (1987). Needs of learning disabled adults. *Journal of Learning Disabilities, 18*(9), 542-555.
- Izzo, M. V. & Lamb, P. (2003). Developing self-determination through career development activities: Implications for rehabilitation counselors. *Journal of Vocational Rehabilitation, 19*, 71-78.
- Karp, M. M. (2011). *How non-academic supports work: Four mechanisms for improving student outcomes*. New York: Community College Research Center, Teachers College, Columbia University.
- Madaus, J. W. (2006). Employment outcomes of university graduates with learning disabilities. *Learning Disability Quarterly, 29*(1), 19-31.
- Mallette, B. I., & Cabrera, A. (1991). Determinants of withdrawal behavior: An exploratory study. *Research in Higher Education, 32*(2), 179-194.

- National Collaborative on Workforce & Disability for Youth and Workforce Strategy Center. (2009). *Career-focused services for students with disabilities at community colleges*. Washington, DC: Authors. Retrieved from <http://www.workforcestrategy.org/images/pdfs/publications/disabilities-and-community-colleges.pdf>.
- National Council on Disability. (2011). *National disability policy: A progress report*. Washington, DC: Author. Retrieved from: [http://www.ncd.gov/progress\\_reports/Oct312011](http://www.ncd.gov/progress_reports/Oct312011).
- Nicholas, R., Kauder, R., Krepcio, K., & Baker, D. (2011). *Ready and able: Addressing labor market needs and building productive careers for people with disabilities through collaborative approaches*. New Brunswick, NJ: NTAR Leadership Center, Rutgers University.
- Nora, A. (1987). Determinants of retention among Chicano college students. *Research in Higher Education*, 26(1), 31-59.
- O'Day, B., & Stapleton, D. (2009). *Transforming disability policy for youth and young adults with disabilities*. Princeton, NJ: Center for Studying Disability Policy: Mathematica Research, Inc.
- Pascarella, E. T., & Terenzini, P. (1980). Predicting persistence and voluntary dropout decisions from a theoretical model. *Journal of Higher Education*, 51(1), 60-75.
- Raue, K., & Lewis, L. (2011). *Students with disabilities at degree-granting postsecondary institutions* (NCES 2011-018). Washington, DC: National Center for Education Statistics, U.S. Department of Education.
- Stodden, R. A., Whelley, T., Chang, C., & Harding, T. (2001). Current status of educational support provision to students with disabilities in postsecondary education. *Journal of Vocational Rehabilitation*, 16, 189-198.
- Terenzini, P. T., & Pascarella, E. (1977). Voluntary freshman attrition and patterns of social and academic integration in a university: A test of a conceptual model. *Research in Higher Education*, 6(1), 25-43.
- Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68, 599-623.
- U.S. Department of Education. (2011). *The post-high school outcomes of young adults with disabilities up to six years after high school: Key findings from the National Longitudinal Transition Study-2 (NLTS2)*. Washington, DC: Author. Retrieved from: <http://ies.ed.gov/ncser/pubs/20113004/pdf/20113004.pdf>.
- U.S. Department of Labor, Office of Disability Employment Policy. (n.d.). Retrieved from: <http://www.dol.gov/odep/categories/youth/youthemployment.htm>.

## Appendix A. Student with Disabilities: Completers' Attitudes and Satisfaction Interview Guide Questions

1. What was the single most important factor contributing to your completion of degree/certificate?
2. How easy/difficulty was it to access accommodations/services? On campus? Off campus?
3. What type of accommodation(s) did you require as a student?
4. Why do you think you need(ed) accommodations?
5. How did you find out about accommodations/services?
6. Did you study with others in a "study group"? If yes, how often?
7. Did you work when in school?
8. Did you have a social network at the college? Was it informal (people you met on your own at college)? Was it a group sponsored by the college?
9. What type of accommodation(s) do you require as an employee?
10. How much did you contribute financially to your education?
11. Do you think it was worth it? Why or why not?
12. Did you have interruptions in your schooling? Why? How many? For how long?
13. When did you graduate?
14. Do you plan to return for further schooling? Why or why not?
15. How long did it take for you to find a job?
16. How long have you been seeking employment?
17. Do you think your education provided the skills needed to find a job? Why or why not? What type of skills do you think would have been more helpful?
18. What types of assistance is your college/university providing to find employment?
19. Have you or are you using non-college/university assistance in locating employment?

20. How did you select the college/university you attended?
21. Did the college/university meet your expectations? Why or why not?
22. What would you like to share about your experience that could help other students like yourself?
23. What would you like to share about your experience that could help the college/university provide services to other students like yourself?
24. Is there something else you would like to share?

## Appendix B. Questions Asked on Student Services and Outcomes

1. Which services did the student completers receive?
  - Case Management
  - Pre-College Training
  - Remedial Coursework
  - Financial Aid
  - Motivational Support
  - Mental Health Services
  - Office of Disability Services
  - Office of Career Services
  - Extracurricular Activities
  - Social Service/Entitlement Programs
  - Emergency Supports
2. What outcome(s) did the student completer have?
  - Completed BA/BS
  - Completed AS/AA
  - Full-Time Job
  - Part-Time Job
  - Transfer to Career and Technical Education
  - Transfer to Four-Year College
  - Unemployed

## About the Author

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Kessler Foundation's fundamental strategy is to link science and grantsmanship so that people with disabilities can lead more productive, independent, and fulfilling lives. Kessler Foundation Research Center conducts research that improves quality of life for persons with injuries of the spinal cord and brain, stroke, multiple sclerosis, and other chronic neurological and orthopedic conditions. Although individuals living with disabilities represent the largest minority group seeking employment in today's marketplace, they are often not considered an integral component of corporate diversity programs. Through its strategic focus on employment, Kessler Foundation has invested more than \$25 million since 2005 in organizations that work to create job opportunities through development, placement employer education, and social enterprise. This funding has enabled people with disabilities to overcome the obstacles that often face them and meet the workforce needs of American business. Innovative grantmaking has introduced creative solutions to help eliminate some of the barriers that prevent people with disabilities from working.

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