

Students with Disabilities Who Contact the School Counselor for  
College Information

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# STUDENTS WITH DISABILITIES WHO CONTACT SCHOOL COUNSELORS

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## ABSTRACT

The purpose of this study was to examine the characteristics of students with disabilities who contact the school counselor for college information. *Self-determination* was the theoretical framework guiding this study. Self-determination refers to a student's ability to (a) act autonomously, (b) identify goals, (c) engage in problem solving activities, (d) appraise strengths and limitations, and (e) capitalize on opportunities. The current study used the Education Longitudinal Study (ELS:2002), a nationally representative database that tracks high school students as they transition from high school to postsecondary options.

The dependent variable was whether the student went to the school counselor for college information. The independent variables included student characteristics (i.e., sex, race and ethnicity, socioeconomic status, disability type, self-determination) and school characteristics (i.e., school enrollment, number of school counselors). This study has conveyed significant information about the relationship between students with disabilities and professional school counselors.

The results of this study provided a wealth of information about students with disabilities who contacted the school counselor for college information. This study marks the first time research addressed the characteristics of students with disabilities who visited the school counselor for college information by utilizing the Educational Longitudinal Study (ELS:2002). The recommendations to school counselors as a result of this research are to develop comprehensive school counseling programs that embody the characteristics of students with disabilities. One logistic regression model was conducted to determine the influence of sex, race, socioeconomic status, disability type, and self-determination on whether students with disabilities were likely to visit the counselor for college information. Predicted odds were calculated to demonstrate the statistically significant, predictive quality of the variables on visiting the counselor for college information. The theoretical framework of self-determination demonstrated an important relationship in whether the student visited the counselor for college information. Finally, a Pearson correlation ( $r$ ) that was used for enrollment and number of school counselor variables produced a positive correlation between the number of school counselors and whether the student visited the counselor for college information.

## DEDICATION

My dissertation is dedicated to God's graces and mercies that have propelled me to improve the lives of others through research and academic endeavors. My children, Chadwick, Camille, and Christina Rainer, are my greatest inspiration to hold steadfast to my goals, regardless of obstacles. They inspire me to embrace perseverance no matter how rugged the road, because lessons learned on the rugged road, make completion of the journey a higher value. My husband, Stuart Rainer, has been a consistent supporter and friend for over 25 years. He has never let me slip into a mindset that included a lack of optimism, or solutions to any adversity. I am grateful to him for never letting me feel that failure is an option. David and Renee Bluford, my parents, have taught me that when your goals are crafted with a higher purpose to help others there is never an obstacle that will stop you, except for a lack of belief in self. My chairperson, Dr. Pamela Brott, has been on this journey with me since my admittance to the master's program and now during my doctorate program. I am grateful for her constant presence that has been the beacon that I could return to when my journey became clouded. Her encouragement through many twists and turns has lifted me to this place in time where I have been able to accomplish one of the biggest goals of my life. Penny Bluford Garrett, my sister has been a strong supporter since the beginning of my doctoral program, and I am very appreciative. Clarence Rainer, my father-in-law, was a dedicated educator, humble spirit, and man of God who inspired thousands of students. Over the years he quietly motivated me to spread my wings academically. I know he spiritually guided me successfully through the dissertation process.

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## CHAPTER 1

### INTRODUCTION

Each year more students with disabilities pursue postsecondary education following high school completion (Kosine, 2007; Newman, Wagner, Cameto, Knokey, & Shaver, 2010). Although an emerging body of research documents the relationship between student expectations and counselor contact, to date, little research has been executed about the characteristics of students with disabilities who contact the school counselor about college information (Kushner, Maldonado, Pack & Hopper, 2011). An understanding of these characteristics could lead to more effective school counseling strategies and interventions for increasing college enrollment for this population.

Currently, there is a small body of research that documents the extent to which general education students contact the school counselor for college information (Bryan, Holcomb-McCoy, Moore-Thomas, & Day-Vines, 2009; Bryan, Moore-Thomas, Day-Vines & Holcomb-McCoy, 2011). However, there are virtually no studies that document the extent to which students with disabilities utilize school counseling services for their college information (Kushner, Maldonado, Pack, & Hopper, 2011). Therefore, this study has expanded the empirical literature to facilitate an understanding of students with disabilities and their contact with school counselors for college information. This research supported the guidelines set out by the American School Counselor Association (ASCA, 2010a) in the Ethical Standards for School Counselors (ASCA) that all students regardless of differences (e.g., ability, race, gender, economic status) should have access to a comprehensive school counseling program.

This study considered the student that is connected to the disability in order to fully comprehend his/her needs during this transition process. The omission of seeing the person as a complete social, psychological, cultural, spiritual, and political being could lead to the student's failure to thrive (Rodis, Garrod, & Boscardin, 2001). Researchers have demonstrated that when students learn to use personal control in their thoughts, feelings, behaviors, and choices over life events they are exercising self-determination (Jameson, 2007; Wehmeyer & Schalock, 2001). Self-determination can contribute to one's ability to set and achieve personal goals, such as college matriculation (National Center on Secondary Education and Transition, 2011).

The current (Kosine, 2007) disaggregated disability categories for students between the ages of 6 to 21 includes the following: (a) specific learning disabilities (45.5%), (b) speech or



language impairments (18.9%), (c) other disabilities (9.7%), (d) other health impairments (9.7%), (e) mental retardation (8.9%), and (f) emotional disturbance (7.7%). Ensuring that this population has access to the least restrictive environments will enable students with disabilities to have full access to college preparatory curriculum comparable to their peers. The fact that these students may not be educated in least restrictive educational environments during the period prior to graduation may impede their access to postsecondary education and potential earnings (Miceli, 2008). Limited access to college preparatory curriculum and programs compromises potential success in college and a productive adult lifestyle.

The data for the current study were derived from the Education Longitudinal Study 2002 (ELS:2002) based on an affirmative answer to whether or not the student currently had an Individualized Education Plan (IEP). The targeted age group that was evaluated in this study included students with disabilities who were sophomores in 2002 with a follow-up as seniors in 2004. Students with disabilities for this study were defined as students with Individualized Education Plans who have been diagnosed with (a) specific learning disabilities, (b) speech and language impairments, (c) intellectual disabilities, (d) emotional disturbance, (e) hearing impairments, (f) orthopedic impairments, (g) visual impairments, and (h) other disability ([see Table 3.3 in Chapter 3](#)).

Of particular interest in the current study were the independent student variables that included the following: (a) sex, (b) race and ethnicity, (c) socio-economic status (d) disability type, and (e) self-determination composite. The composite for self-determination was identified by the four characteristics for self-determined behavior as *autonomy*, *self-realization*, *psychological empowerment*, and *self-regulation* (Wehmeyer, 1995a, 1996, 1997). Independent school variables included the following: (a) school enrollment and (b) number of school counselors.

### **Students with Disabilities**

The number of high school students with disabilities is increasing. From 1995 to 2004, students with disabilities who ranged in ages between 12 and 17 experienced the largest rate of growth (9.8% to 11.8%) compared to other age groups (Kosine, 2007).

Legislation dictated that as the number of students with disabilities increase the level of support and services for students as they transition to college should also increase (Stodden,

Jones, & Chang 2002; Wolanin & Steele, 2004). This study expounded upon the level of support given by school counselors to students with disabilities who seek out college information.

The *Individuals with Disabilities Education Improvement Act (IDEIA) of 2004* objectives provide equal access to education and transition services uniformly to students with disabilities. Although IDEIA identifies a number of counseling roles (e.g., home visits, counseling, parent education), there are no specific roles for school counselors during the transition process. Studies show that when school counselors had frequent and consistent contact with students they had a significant impact on students' achievement and educational plans (H.R. 2579—111th Congress: Pathways to College Act, 2009). Frequent contact with school counselors can lead to increases in high school completion and students' likelihood of going to college compared to those students who do not complete secondary school (Newman, Wagner, Knokey, Marder, Nagle, Shaver, Wei, with Cameto, Contreras, Ferguson, Greene, & Schwarting, 2011). Transition services should be a part of the school counselor's responsibilities to aid students with disabilities in executing their college matriculation goals.

The *No Child Left Behind (NCLB)* legislation entitles students with disabilities to special education services including transition services that enable them to pursue their postsecondary goals. Traditionally, school counselors are the designated secondary personnel that assist students with transition planning. Although, ironically, this legislation does not provide specific guidelines for school counselors as it pertains to servicing students with disabilities (Sabens & Zyromski, 2009).

For instance, Title I of the Elementary and Secondary Education Act (No Child Left Behind, [NCLB] 2009) sets aside resources to assist students with disabilities in preparing for college, yet counselors do not have a clearly defined role in the administration of supplemental supports to students. These supports can include the following: (a) annual yearly progress and graduation rates; (b) a response to comprehensive needs assessments that include counseling, pupil services, mentoring services, and college and career awareness, preparation, and guidance; (c) parent programs that promotes equal partnerships that build alliances between the parents and schools; (d) support services for personal, vocational, technical, college, community college, and university goals; and (e) financial aid information (NCLB, 2009; Sabens & Zyromski, 2009). Several legal mandates have been instituted for promoting improved academic outcomes for students with disabilities. Although this information is in place, there is no defined role for

school counselors. As a result, the probability of inconsistent interpretation and implementation of post-secondary transition services by professional school counselors increases. This study shed light on the characteristics of students with disabilities who contact the counselor for college information.

### **Role of Professional School Counselors and Students with Disabilities**

Professional school counselors have an ethical responsibility to support students as they make academic and financial provisions to pursue postsecondary education (Badittoi & Brott, 2011). The preamble to the ASCA Ethical Standards (2010a) states that, each student has a right to have a school counselor who advocates on her or his behalf. Section A.3.b. of the ASCA Ethical Standards (2010a) states that professional school counselors should “ensure equitable academic, career, post-secondary access and personal/social opportunities for all students through the use of data to help close achievement gaps and opportunity gaps.” ASCA’s ethical standards urging professional school counselors to provide equal access to postsecondary opportunities, supports the theoretical framework catalyzing this study. Self-determination is operationalized by the opportunities that are created by external parities (Wolfensberger, Nirje, Olshansky, Perske, & Roos, 1972; Ward, 2005). Section A.3.c also addresses the components of the theoretical framework of self-determination. This section states that professional school counselors should “provide and advocate for individual students’ career awareness, exploration and post-secondary plans supporting the students’ right to choose from the wide array of options when they leave secondary education” (ASCA 2010a). This particular directive aligns with Wehmeyer’s self-determination definition that asserts students should act autonomously with choices and implement self-regulation by choosing and executing personal goals (Wehmeyer, 1998). The ASCA ethical standards will be explored through the dependent variable to determine whether students are visiting the counselor for college information and the independent variable about the students’ characteristics (i.e., gender, sex, socio-economic status, disability type, self-determination).

In an effort to address students with disabilities directly, the American School Counselor Association (2010b) issued a position statement which further enumerated the roles and responsibilities of school counselors who work with children with disabilities. In general, the position statement charges professional school counselors to help students “make adequate yearly progress regardless of challenges resulting from disabilities and other special needs”

(ASCA, 2010b, p. 44). More specifically, the position statement directs school counselors to “assist with development of academic and transition plans in the Individualized Education Plan (IEP) for students” (ASCA, 2010b, p. 44). Although the ASCA position statement provides support for school counselors involvement in the transition process for students with disabilities, this document is not legally binding; however, Baditoi and Brott (2011) assert that school counselors can work collaboratively with special education teams to implement transition plans.

Many of the legally binding documents mandating the supports needed for students with disabilities do not contain verbiage about the specific role of the professional school counselor during the transition process. This study makes a compelling correlation between what ASCA is proposing in their ethical standards and position statement, and the actual level of contact documented by the respondents of the ELS: 2002 data. Also, it should be noted that the ELS: 2002 started reporting contact information with professional school counselors in the year 2002. This was eight years prior to the ASCA position statement on disabilities (2010) and three years prior to the 2005 ASCA ethical standards. Thus, school counselors did not have prior directives from ASCA, their professional organization, and as a consequence school counselors’ involvement with students with disabilities might not be completely correlated to ASCA directives. This is significant to our outcome data because it might explain the contact or lack of contact school counselors have with students with disabilities as demonstrated by our analysis of ELS: 2002 data. Other government agencies have given their interpretations of the role of professional school counselors with students with disabilities as well.

Counselors who graduated from Council for Accreditation of Counseling and Related Educational Programs (CACREP, 2009) programs have the requisite skills in each of eight identified curricular areas and professional practice through supervised practicum and internship experiences (CACREP). Additionally, CACREP graduates have successfully completed comprehensive exams in an effort to establish proficiency levels (Baditoi & Brott, 2011). Despite efforts to provide comprehensive pre-service training programs, counselor educators have been criticized for not providing their graduates with the skills necessary to promote effective college counseling (McDonough, 2005b; National Association for College Admission Counseling, 1991). In addition to the lack of preparedness concerning college counseling, professional school counselors experience a number of other constraints that interfere with their

ability to dismantle barriers to students' educational attainment (Akos, 2009; Akos, Cockman, & Strickland, 2007; Amatea & Clark, 2005).

Secondary school counselors have (a) large student to counselor ratios that exceed recommended limits, (b) assume an enormous number of non-counseling responsibilities, and (c) have fewer professional positions especially in public schools devoted specifically to college counseling (Bryan, Holcomb-McCoy, Moore-Thomas, Day-Vines, 2009; Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; Hayes, & Paisley, 2002). Furthermore, there are fewer collaborative initiatives between school districts and universities. As a result, counselors are less likely to focus on career and college readiness when they work in schools with large student bodies, low-income communities, urban and rural communities, and communities with large minority populations (Bryan, Holcomb-McCoy, Moore-Thomas, Day-Vines, 2009; Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; Kushner, Maldonado, Pack, & Hopper, 2011).

Although school counselors have a professional and ethical obligation to work with all students regardless of their educational classification, little is known about their level of involvement in the provision of transition services to students with disabilities. As students with disabilities pursue college in greater numbers, knowledge of their utilization of school counseling services will provide important implications for the delivery of more effective counseling services. This study has provided a foundation for research inquiries about the nature of the counseling relationships for students with disabilities who wish to pursue postsecondary education. Additionally, this study has introduced the transition counseling relationship from the student's purview.

### **Self-Determination**

The self-determination composite was utilized to better understand the characteristics of students with disabilities who contact the school counselor for college information. The theoretical framework of self-determination for this study was developed by Michael Wehmeyer (1995a). Wehmeyer's concept of self-determination includes four sub-scales, namely *autonomy*, *self-realization*, *psychological empowerment*, and *self-regulation*.

A self-determination composite was developed for this study using ELS:2002 variables (see Table 1.1). The researcher contacted Wehmeyer (see Appendix A) to verify the ELS:2002 variables that would capture the self-determination composite. The acronym BYSELF was

created from the identified ELS:2002 variables; BY represents the base year and SELF represents self-determination. For this study, the self-determination composite was one of the student variables to describe the students with disabilities who contact school counselor for college information. The findings from the self-determination composite will contribute to a better understanding of the characteristics of students with disabilities. The historical foundation of self-determination as a conduit of postsecondary education initiation and success has been significantly researched (e.g., Jameson, 2007; Webb, Patterson, Syverud, & Seabrooks Blackmore, 2008). This study contributed to the body of research by introducing a self-determination composite as a characteristic of students with disabilities who contact the school counselor.

**Table 1.1 Self-Determination Composite from Subscale Items** [\[Return to TOC\]](#) [\[Return to text\]](#)

Subscales <sup>a</sup>	Item <sup>b</sup>	Description <sup>c</sup>
<b>Autonomy</b> Expression of independence and the ability to act on beliefs, values, interests and abilities	BYS89P	Studies to ensure financial security
	BYS89H	Studies to increase job opportunities
	BYS89E	Can learn something really hard
<b>Self-realization</b> Understanding of one's strengths, weaknesses, abilities, limitations, and a creation of a quality life	BYS89O	Keeps studying even if material is difficult
	BYS89S	Does best to learn what studies
	BYS89J	Works as hard as possible when studies
<b>Psychological empowerment</b> Knowledge that internal actions control external outcomes	BYS89T	Can learn something well if wants to
	BYS89Q	Can get no problems wrong if decides to
	BYS89N	Can get no bad grades if decides to
<b>Self-regulation</b> Interpersonal cognitive problem solving, goal setting, and task performance	BYS89V	Puts forth the best effort when studying
	BYS89D	Studies to get a good grade
	BYS89G	Remembers most important things when studies

<sup>a</sup>Subscales from Wehmeyer (1998).

<sup>b</sup> Variables are from Base Year (BY) student data of the *Education Longitudinal Study of 2002*.

<sup>c</sup> Response options for all items were (1) almost never, (2) sometimes, (3) often, and (4) almost always.

### **Rationale for the Study**

Positive college attendance outcomes for students with disabilities are more likely when they are, first, exposed to strong academic school environments, and, second, they are given expansive opportunities to succeed. The Individuals with Disabilities Education Act (IDEA) of 2004 enforces civil rights to educate all students regardless of ability. This legislation mandates that students with disabilities have access to the least restrictive environment that includes educational services that are available to students matriculating in the general education population (IDEA, 2004). Perhaps the increase in students with disabilities matriculating to college in greater numbers is attributed to the least restrictive environments that are more likely to stimulate positive graduation rates and college attendance. Between 1994 and 2004, the high school graduation rate of students with disabilities who pursued regular diplomas increased from 42.2% to 54.5% (U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs, 2009). There is a correlation between graduation rates of students with disabilities and improvements in federal policy mandates that have resulted in (a) more effective transition planning for students, (b) increased funding, (c) improved support services, and (d) vigorous advocacy efforts (Baditoi & Brott, 2011; deFur & Patton, 1999). This trend indicated that students who earn regular diplomas increase their prospects for enrolling in postsecondary institutions.

The positive outcomes for students with disabilities who have attended college are numerous. There is a significant increase in students' with disabilities quality of living when they attend college. Due to projected future earnings and stability, as a result of college completion, school counselors have a compelling rationale for promoting college access among students with disabilities (Baditoi & Brott, 2011; Darling-Hammond, 2010; Milsom & Hartley, 2005). The projections of stable income outcomes for students with disabilities are increased through postsecondary education attainment (Miceli, 2008). To demonstrate, the median income of college graduates with disabilities ranges between \$40,000 and \$50,000. This figure is nearly identical to the income levels (\$42,877) of college graduates without disabilities (Madaus, 2006). College completion reduces a person's relegation to low-skill and low-wage occupations (Edelman, Holzer, & Offner, 2006) and provides a credible rationale for school counselors to help increase the postsecondary participation rates of students with disabilities. In addition to earnings, high school completion and college attendance dramatically changes the outcomes of

males and females. Men who complete high school are less likely to be in prison, while women are less likely to be on welfare (Darling-Hammond, 2010). An incarceration record would create barriers for prospects of federal funding of postsecondary education, gainful employment and overall well-being (Alexander, 2010; Russell, 2009). Consequently, school counselors have a persuasive rationale to encourage high school completion and postsecondary academic goals for students with disabilities just as they would with the general education population. There is a parallel between a student's contact with the school counselor and high school completion that can lead to college attendance (Newman, Wagner, Knokey, Marder, Nagle, Shaver, Wei, Cameto, Contreras, Ferguson, Greene, & Schwarting, 2011, p.20).

Although legislation that promotes college attendance among students with disabilities is in place in conjunction with human capital (i.e., school counselors) to facilitate transition to college, students with disabilities are still lagging behind their general education peers. Compared to the general education population, only 34% of students with disabilities complete traditional four-year college programs compared to 52% of students without disabilities (Wagner, Newman, Cameto, Garza, & Levine, 2005). Understanding the pattern of student counselor contact among students with disabilities would provide more useful information about how school counselors can better support students with disabilities college goals. Although more students who receive special education services have graduated with regular diplomas, only a small percentage of those students actually matriculate at undergraduate institutions (Miceli, 2008). The predominate reason for the change in matriculation success is a dramatic drop off in support for students with disabilities in high school who are protected by the Individuals with Disabilities Improvement Education Act (IDIEA) 2004. IDIEA mandates a Free Appropriate Public Education (FAPE) and individual education plan (IEP). These programs provide strict guidelines for transition services that help students in high school to develop and execute college goals. However, after graduation these students do not continue to have the same level of support to guide them from matriculation to college and beyond. The only support that is afforded students during college matriculation is Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA; Stodden, Jones, & Change, 2002; Wolanin & Steele, 2004). These supports are not comparable to those administered during high school. As a result, students with disabilities are left to their own resourcefulness to access educational supports. As a result of the dramatic down shift in opportunities for support, many students with disabilities



believe that a postsecondary education lies outside the realm of possibility due to failure to thrive (Rodis, Garrod, & Boscardin, 2001). It is clear that the opportunities to matriculate to college impact the student's long-term postsecondary life. The theoretical framework of self-determination that guides this study supports an environment that creates opportunities to execute goals (Mithaug, 1996; Moloney, Whitney-Thomas, & Dreilinger, 2000). School counselors have access to resources during students' high school tenure to help them develop skills in maximizing access to postsecondary opportunities during high school and beyond (Baditoi & Brott, 2011). It is important that school counselors' efforts include opportunities for students with disabilities to become self-determined in matriculating to college.

Findings demonstrated that, prior to high school graduation, 61% of students with disabilities anticipate completing a 4-year degree program compared to 79% of general education students (Wagner, Newman, Cameto, Levine, & Marder, 2007). Similarly, Kushner et al. (2011) found that students enrolled in special education harbored lower expectations about college attendance and completion. The expectations of significant others, such as school counselors, exert a tremendous influence over the postsecondary college decisions of students (Bryan et al., 2009; Hosseler, Schmit, & Vesper, 1998). The influence of external human capital (e.g., school counselors) is important to students preparing for the transition to postsecondary institutions because human capital resources ideally created opportunities for students to access their postsecondary goals (Bryan et al., 2011). Students neutralized a failure to thrive and became self-determined based on opportunities that are created by human capital resources such as the school counselor (Ward, 2005).

There are many characteristics that have relevance for students with disabilities who decide to pursue college. These characteristics are revealed in the results in reference to the following: (a) sex, (b) race and ethnicity, (c) socio-economic status, (d) disability type, (e) self-determination composite, (f) school enrollment, and (g) number of school counselors.

These characteristics are compounded by issues related to the stigma associated with special education placement and a range of other educational inequities, including but not limited to the disproportionate representation of these students in special education programs (Patton, 1998; Skiba, Simmons, Ritter, Gibb, Rausch, Cuadrado, & Chung, 2008; Wagner, et al., 2005). The disproportionate placement of students with disabilities needed to be considered when evaluating the origins of students' curriculum placement and level of fair access to

postsecondary information. This study addressed the groups of students based on disproportionate characteristics of sex, socioeconomic status, and race and ethnicity.

*Disproportionality* is a significant consideration when developing programs to enable all students to access postsecondary resources. Disproportionality refers to the overrepresentation of children along a particular data point, relative to their numbers in the general population and it has been assessed by researchers through several methods. To date, the *composition index* seems to be the most widely cited approach (Hosp & Reschly, 2003). Essentially, the composition index compares the proportion of a particular racial or ethnic group in the population to their proportion in a particular category. The current data according to the Individuals with Disabilities Education Improvement Act, (2004), illustrates the disproportionate placement of diverse students with disabilities. White students comprise 61.7% of students receiving special education services, Blacks represent 20.5%, Latinos include 14.6%, Asian or Pacific Islanders 1.9%, and American Indian or Alaska Natives make up the remaining 1.3% of students. Based on the composition index, Black students are overrepresented in special education programs because their 20.5% representation in special education exceeds their 16.6% representation in the national school-age population (U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs, 2009). It appears that Black students are disproportionately represented in special education services regardless of their socioeconomic status. This is evidenced by the fact that Black students with disabilities who matriculate in wealthier suburban school districts have an even greater incidence of special education placement (Oswald, Coutinho, & Best, 2002). When Black and Latino students attend college they tend to matriculate at less competitive institutions (Perna, Rowan-Kenyon, Thomas, Bell, Anderson, & Li, 2008). However, unlike Blacks, Latinos are not noted to be disproportionately represented in certain disability categories compared to their White counterparts (U.S. Department of Education, 2006). In general, male and female students are equally distributed within the school-age population; however, male students constitute two-thirds of students who receive special education services (Turnbull, Turnbull, Shank, Smith, & Leal, 2002). Disproportionality represents a serious educational dilemma because it impacts educational services in areas such as special education placement (Coutinho, Oswald, & Best, 2002; MacMillan & Reschley, 1998; Patton, 1998; Skiba et al., 2008 ), gifted education participation (Ford, Moore, & Trotman Scott, 2011), disciplinary referral, suspension, and

expulsion, (Bryan, Day-Vines, Griffin, & Moore-Thomas, 2012), graduation rates (Orfield, Losen, Wald, & Swanson, 2004), and ultimately the students' future for college access and lifetime earnings. Lifetime earnings are predicated on the current socioeconomic status of students with disabilities' family economic status. Numerous conditions of race and socioeconomic status have been researched as factors that influence a general education students' college going probability (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011; Bryan, Holcomb-McCoy, Moore-Thomas, & Day-Vines, 2009), and the objective of this study is to evaluate these characteristics from the student with disabilities perspective.

Socioeconomic status also serves as a decisive factor in postsecondary education participation. For example, 56.7% of students with disabilities whose families earn more than \$50,000 attend some type of postsecondary school compared to 46% of students whose parents earn between \$25,001 and \$50,000 and 29.9% of students whose parents earn less than \$25,000 who attend postsecondary school (Newman et al., 2010). The comparative level of economic disparity experienced by lower income families creates an adverse relationship to college enrollment and self-determination to completion. Self-determination opens opportunities (Ward, 2005) to students with disabilities to execute goals. It appears that higher levels of family socioeconomic resources lead to more opportunities that impact college attendance. As a result, of the fact that lower income students are more likely to be among the first in their families to go college, and they frequently have limited access to resources and information, school counselors' transition knowledge can play an important role in their ability to access college (Gibbons & Shoffner, 2004). More specifically, school counselors have training and expertise in the career development process and can use their skills to help students with disabilities pursue postsecondary education (Baditoi & Brott, 2011). Currently, very little empirical evidence documents the socioeconomic status of students with disabilities who contact the counselor for college information, nor their characteristics to be self-determined. This study will examine the impact of socioeconomic status on the college going rate of students with disabilities in an effort to present discovery on whether this factor bares an impact on college attendance.

This study added to the body of research by examining the socioeconomic status, race and ethnicity, and disability status as an influence on students' interaction with professional school counselors for college information. An understanding of the relationship between special education placement, race, and counselor contact has important implications for the delivery of

culturally relevant school counseling services and this study will provide a foundation for evaluating this relationship. The counseling services that should be supplied to all students with disabilities include postsecondary consultation about an appropriate diploma selection and the implications of its weight in the college application process and participation.

There has been a significant change in college participation of students with disabilities. Findings demonstrate that between 1990 and 2005, students with disabilities attending four-year colleges increased from 5.2% to 14.3% (Sanford, Newman, Wagner, Cameto, Knokey, & Shaver, 2011). Although students with disabilities are pursuing postsecondary education at unprecedented rates, their college participation rates still lag behind students in general education. For example, 19% of students with disabilities attend postsecondary school, compared to 40% of students who received general education services. One objective of this study is to open a dialog about the nature of students with disabilities who successfully matriculate to college and the additional support needed from school counselors to reach postsecondary goals. There is data available about the diploma acquisition type of students with disabilities and this research objective will expand upon this information by discussing student postsecondary degree plans. Among the number of students with disabilities who graduated with diplomas, 39% pursued some type of postsecondary education: 27% enrolled in 2-year colleges; 12% enrolled in 4-year colleges; and 5% enrolled in (a) vocational, (b) technical, (c) or business schools (Sanford, Newman, Wagner, Cameto, Knokey, & Shaver, 2011). When Newman et al. (2010) used the National Longitudinal Transition Study-2 (NLTS2) to examine the postsecondary participation rates of students with disabilities eight years following high school completion, their findings confirmed that students with disabilities were far more likely to enroll in two-year or community colleges than they were to enroll in four-year colleges, and these enrollment rates varied by race. To illustrate, 23.5% of White students enrolled in two-year or community colleges compared to 34.3% of Black and 26.5% of Hispanic students. White students had more robust numbers of attendance in four-year institutions, while their Black and Hispanic counterparts had higher attendance numbers in community colleges. White students attended traditional four-year colleges at a rate of 15.8%, compared to an enrollment rate of 5.3% and 15% for Black and Hispanic students respectively (Newman, Wagner, Cameto, Knokey, & Shaver, 2010). Due to the interrelationship of education and future earnings, it is important for school counselors to assist all students with the career transition process (Baditoui & Brott, 2011;

Sanford et al., 2011). Despite increases in college matriculation rates of students with disabilities, very little was known about school counselors' contribution to the improvement of transition outcomes related to students with disabilities who are college-bound prior to this study.

### **Purpose of the Study**

The purpose of this study was to examine the characteristics of students with disabilities who contact the school counselor for college information. The Education Longitudinal Study (ELS:2002) was used to determine the relationship between the dependent variable (i.e., whether or not a student had gone to the school counselor for college information) and the independent variables (i.e., student variables to include a self-determination composite, school variables). The independent student variables included the following: (a) sex, (b) race and ethnicity, (c) socioeconomic status, (d) disability type, and (f) self-determination composite; independent school variables included the following: (a) school enrollment and (b) number of school counselors (see [Table 3.2](#) through [Table 3.4](#) in Chapter 3).

This study included a sampling of 992 students with disabilities from a respondent sample of 15,362 sophomore high school students from the Education Longitudinal Study 2002 (ELS:2002) dataset. The final weighted sample utilized in this study included 225,508 respondents. The purpose of the ELS: 2002 longitudinal study was to document students' transition from high school to postsecondary education and beyond. The purpose of the current study was to evaluate the characteristics of students with disabilities who contact the counselor for college information.

### **Research Question**

The goal of this research study was to provide concrete data that will lead to more effective school counseling programs and interventions for increasing college enrollment for students with disabilities. The following question guided the study: *What are the characteristics of students with disabilities who contact the school counselor for college information?* Student and school variables were identified as follows:

#### Student Variables

- sex
- race and ethnicity
- socioeconomic status
- disability type
- self-determination composite

#### School Variables

- school enrollment
- number of school counselors

### **Delimitations**

The independent variables (i.e., student, school) were confined to the base year responses of the respondents when they were 10<sup>th</sup> graders opposed to the 1<sup>st</sup> follow-up responses when the respondents were 12<sup>th</sup> graders. No librarian variables were selected.

### **Definition of Terms**

*Autonomy*: A self-determination characteristic when a person is acting on behalf of one's own needs, interests, preferences, and abilities (Wehmeyer, 1995a)

*Individuals with Disabilities Act (IDEA)*: The Individuals with Disabilities Education Act is a law that governs the education of children with disabilities. It dictates state, federal, and public services on behalf of access to early intervention, special education and related services to more than 6.5 million children with disabilities nationally (IDEA, 2004).

*Individuals with Disabilities Education Improvement Act (IDEIA) of 2004*: This is a federal mandated reauthorization of IDEA to ensure a free and appropriate public education (FAPE) for students (birth to 21) in the least restrictive environment (LRE) under a law originally established in 1975. The act was originally titled the Education for All Handicapped Children Act (EAHCA) later to be designated IDEA (IDEIA, 2004).

*Individualized Education Plan (IEP)*: An IEP is a written legal document that provides information in reference to students (a) disability category, (b) educational and emotional performance level, (c) educational annual goals, (d) benchmark short-term objectives, (e) a statement of special education related services and supplemental aids, (f) report of the least restrictive environment of education goals, (g) hours of special education services, (h) time frame of services, and (i) education transition plans (Pierangelo, 2003; Rosenberg, Westling, & McLeskey, 2008).

*Postsecondary education*: School programs that students matriculate to after high school. Those schools include trade, college, and university education program (Sanford, Newman, Wagner, Cameto, Knokey, & Shaver, 2011).

*Professional school counselor*: "Professional school counselors are certified/licensed educators with a minimum of a master's degree in school counseling making them uniquely qualified to address all students' academic, personal/social and career development needs by designing, implementing, evaluating and enhancing a comprehensive school counseling program that promotes and enhances student success. Professional school counselors are employed in

elementary, middle/junior high and high schools; in district supervisory positions; and counselor education positions” (ASCA, 2012, p.1).

*Psychological empowerment*: A self-determination characteristic manifested when a person exhibits an internal locus of control that is guided by self-efficacy and outcome expectations (Wehmeyer, 1995a).

*Secondary school*: The educational time frame after middle school or junior high and before postsecondary school (IDEA, 2004).

*Self-determination*: The act of being a causal agent of change and goal executioner in one’s life devoid of external influence (Wehmeyer, 1995a, 1996). The four characteristics for self-determined behavior include *autonomy*, *self-regulation*, *psychological empowerment*, and *self-realization* (Wehmeyer, 1995a, 1996).

*Self-regulation*: The self-determination characteristic defined as interpersonal cognitive problem solving, goal setting, and task performance (Jameson, 2007; Wehmeyer, 1995).

*Self-realization*: The self-determination characteristic defined as an understanding of one’s strengths, weaknesses, abilities, limitations, and a creation of a quality of life that incorporates all of the aforementioned personality characteristics (Jameson, 2007; Wehmeyer, 1995a).

*Student with disabilities*: A student that has been identified through assessment and evaluation to have a (a) specific learning disability, (b) cognitive disability, (c) hearing impairment, (d) visual impairment, (e) speech or language impairment, (f) emotional disturbance, (g) physical impairment, (h) spectrum of autism, (i) traumatic brain injury, and (j) other health impairments (Sanford, Newman, Wagner, Cameto, Knokey, & Shaver, 2011).

*Transition services*: A service for students with disabilities that includes a plan to transition the student from secondary to postsecondary school. The plan is developed based on an individualized education transition plan for the student that includes their preferences and interests (Baditoi & Brott, 2011; Sanford, Newman, Wagner, Cameto, Knokey, & Shaver, 2011).

### **Summary**

As evidenced by the increased number of students with disabilities matriculating to college and the legislative transition directives to educational professionals it is beneficial to evaluate the contact students with disabilities have with school counselors. This study evaluated the relationship between school counselors and students with disabilities during college inquiry.

The particular differences reported are related to (a) sex, (b) race and ethnicity, (c) socioeconomic status, (d) disability type, (f) self-determination composite (g) school enrollment and (h) number of school counselors. This research addressed the suggestions given through legislation and by leaders in professional organizations that school counselors interact more with students with disabilities during college transition. Further, the research will support a genesis of programs, research, and policy change in reference to the academic preparation and successful college transition of students with disabilities.



## **CHAPTER 2**

### **REVIEW OF LITERATURE**

As the number of students with disabilities seeking postsecondary education increases, the need for school personnel, such as professional school counselors, who are sources for information, support, and guidance commensurately increases. Self-determination characteristics may be considered a key component for students with disabilities in the college inquiry process (Durlak, Rose, & Bursuck, 1994). Therefore, self-determination was the theoretical framework that guided this study. Self-determination for the current study referred to the right of students to direct their own futures in an effort to enhance their post-secondary pursuit (Jameson, 2007; Trainor, 2005). School counselors can serve as an important resource for students with disabilities in developing their self-determination.

Student and school characteristics may play a role for students with disabilities in their contact with school counselors when seeking college information. Researchers (Bryan, Holcomb-McCoy, Moore-Thomas, & Day-Vines, 2009) have identified variables from the Educational Longitudinal Study (ELS) 2002 database to explore student-counselor contact for college information; however, little is known about students' with disabilities counselor contact for college information.

The focus of this chapter was a review of the pertinent literature related to articulating the self-determination theoretical framework for this study, identifying school and student variables for who contacts the school counselor, and defining students with disabilities who seek college information. Woven within the literature review was relevant research on the professional school counselors' relationship with students with disabilities.

#### **Theoretical Framework**

Self-determination theorists have several perspectives for defining self-determination. Generally, theorists view self-determination from the lens of external opportunities and/or internal personality characteristics that allow a person to execute goals, beliefs, and choices. Both perspectives will be explored to convey that these two perspectives of self-determination are not polar contradictions but rather complementary definitions.

In order to understand self-determination as a theoretical framework, it is important to discuss various theoretical orientations of self-determination for persons with disabilities. Three predominant self-determination theorists are included in the review, namely Nirje (1972), Ward

(2005), and Wehmeyer (1995a). Nirje was the first to apply self-determination to persons with disabilities. Ward discussed self-determination from the perspective of external opportunities to be self-determined. Finally, Wehmeyer researched the internal personality characteristics of self-determination that are executed by students with disabilities.

### **Nirje**

Historically self-determination was associated with the inalienable political rights of all people (Wolfensberger, Nirje, Olshansky, Perske, & Roos, 1972). Self-determination discussions from a psychological perspective first appeared in the 1940s, although the debate on *determinism* had been occurring for centuries (Wolfensberger, Nirje, Olshansky, Perske, & Roos, 1972). The discussion moved to self-determination and persons with disabilities with Benget Nirje.

Historically, self-determination first appeared in reference to persons with disabilities in Benget Nirje's (1972) chapter entitled "The Right to Self-Determination" in *The Principle of Normalization* (Wolfensberger, Nirje, Olshansky, Perske, & Roos, 1972). Nirje's overall theme of self-determination was designed to establish a level of respect for people with disabilities that was afforded their non-disabled persons. The manifestation of self-determination was fully realized when the person had input about the choices, wishes, desires, and aspirations that impacted his living and striving. Nirje's perspective was that persons with disabilities could control their decisions, education, personal activities, resolution of problems, and independence. The need for self-determined inalienable rights was considered a necessity for students with disabilities to progress through externally directed academic and occupational infrastructures.

Internal objectives of self-determination were just as impactful as external society boundaries that minimized the degree to which people could be self-determined (Wolfensberger, Nirje, Olshansky, Perske, & Roos, 1972). This interpretation of self-determination is important to the current study's synergy of the internal development of self-determination based on external opportunities to become self-determined. This discussion is relevant to an individual acquisition of self-determination because a lack of self-determined outside opportunities impacts internal self-determination development. This study isolated external opportunities to be self-determined (Ward, 2005) that are created by school personnel.

This study analyzed self-determination based on the internal characteristics of self-determination from the students' perspective of possessing certain self-determined

characteristics. Previous research dictated a discussion of internal development of self-determination based on external opportunities.

### **Ward**

Ward (2005) provides the historical significance of external self-determined opportunities coexisting with internal characteristics of self-determination. Researchers believed that self-determination in students with disabilities was fully executed through the external opportunities that were presented to students that allowed them to exercise self-determination (Mason, 2004; Ward, 2005). Mason (2004) concluded that students who were allowed to participate in the IEP process were more knowledgeable about their accommodations and disability. Additional studies (Arndt, Konrad, & Test, 2006; Everson, Zhang, & Guillory, 2001; Martin, Van Dycke, Christensen, Greene, Gardner, & Lovett, 2006; Shearin, Roessler, & Schriener, 1999; Test & Neale, 2004) have supported the transition participation of students in IEP plans. The Office of Special Education and Rehabilitative Services initiated conferences and grants to promote research and development of self-determination; as a result, initial data were presented in reference to its effectiveness with students with disabilities (Ward, 2005). The aim of this study is to contribute data about the self-determination characteristics of students with disabilities during their inquiries about college with the professional school counselor.

Under the direction of Michael Ward, Chief of the Secondary Education and Transition Services for Youth with Disabilities Program, Recommendation 20 was an initiative to develop model programs to identify and teach skills for self-determination that included school and community activities (Ward, 2005). As a result of this initiative, 26 model programs were funded over a period of four years to promote self-determination (Ward & Kohler, 1996; Wehmeyer, 2004). Additionally, this conference generated self-determination curriculum development projects and programs for students with disabilities during their secondary education (Turnbull & Turnbull, 2006; Wehmeyer, 2004; Wehmeyer, Bersani, & Gagne, 2000). These initiatives illustrated the importance of the development of self-determination characteristics in students.

Many students with disabilities do not know how to process and execute choices. This is due to a lack of instruction on processing choices; therefore, they are not prepared to make choices (Ward, 2005). Ward (1996) recognized institutionalized and internal locus of control barriers to choices for students with disabilities in being self-determined. For the purposes of

this study, Ward's (2005) version of self-determination illustrated the importance of opportunities to self-actualize self-determination.

### **Wehmeyer**

Wehmeyer (1996) defined self-determination as the act of being a causal agent of change and goal executioner in one's life devoid of external influence. Self-determined individuals execute goals, solve problems, and make decisions that move them to action. They are realistic about their abilities and limitations, and they are conductors of their own life opposed to being programmed by others (Wehmeyer, 2002). Wehmeyer (1998) promoted having dominion of choices. Wehmeyer's definition will serve as the nucleus for the theoretical framework to actualize self-determination from internal characteristics.

Wehmeyer (1995a, 1996, 1997) identified four characteristics for self-determined behavior: (a) the person acts *autonomously*, (b) the behavior is *self-regulated*, (c) the actions are initiated and *psychologically empowering*, and (d) the person responds in a *self-realizing* manner. *Autonomy* is an expression of independence and the ability to act on beliefs, values, interests, and abilities. *Self-regulation* is interpersonal cognitive problem solving, goal setting, and task performance. *Psychological empowerment* is an internal locus of control with an understanding that actions impact outcomes in contrast to external outcomes catalyzed by happenstance and luck (Jameson, 2007). *Self-realization* is an understanding of one's strengths, weaknesses, abilities, limitations, and a creation of a quality life that incorporates all of the aforementioned personality characteristics (Jameson).

Wehmeyer's (1995b) definition of self-determination was operationalized internally by the students' belief systems and actions. Researchers (Wehmeyer, Agran, & Hughes, 1998) have revealed that students with disabilities who manifest self-determination characteristics have positive postsecondary outcomes in contrast to their peers who are devoid of self-determination characteristics. The promotion of self-determination characteristics in students who empower themselves through goal creation are more likely to execute the goals they create opposed to goals created for them by other people (Ryan & Deci, 2000). This definition of self-determination is rooted in the students' internal execution of goals and can be operationalized within the context of opportunities.

In summary, Ward (2005) conceptualized self-determination somewhat differently from Wehmeyer. Wehmeyer (1995b) identified the internal characteristics of individuals who exhibit

self-determination. However, according to Ward (2005), the only influence that can operationalize self-determination is an external opportunity. Ward's model of self-determination empowers individuals to execute opportunities within the choices that society provides (Ward, 2005). The level of self-determination that is exercised is dependent upon external opportunities that go beyond internal characteristics. Moloney, Whitney-Thomas, and Dreilinger (2000) concur with Ward's view of creating an environment of opportunities for developmental growth.

This study illustrated the significant impact of the professional school counselors' relationship with students with disabilities as an example of creating an environment for external opportunities (i.e., college). The literature indicating that self-determination evolves out of opportunities made available in schools (Wolfensberger, Nirje, Olshansky, Perske, & Roos, 1972; Trainor, 2005) strengthens this researcher's position to evaluate self-determination in relationship to its predictability of whether a student with disabilities will visit the counselor for college information.

Finally, Wehmeyer (1996) viewed self-determination as the internal motivation of individuals to operate on their belief system and carry out actions that lead to the execution of personally constructed goals. Ward (2005) viewed the actualization of internal self-determination through the opportunities that are created in the external environment. It is important that there is a synergy between these two definitions of self-determination for a student to fully actualize self-determination: opportunities created in the environment so that the individual's internal motivations to execute goals are realized.

### **Synergy of Self-Determination Definitions**

Mithaug (1996) espoused a view of self-determination that included both Wehmeyer's and Ward's definitions. Mithaug believed that the individual has to possess the capacity to demonstrate self-determination while the environment concurrently provides an opportunity to execute choices unencumbered by external influence. In other words, there is a reciprocal relationship between the environment and the individual's personal ability to be self-determined.

This study evaluated self-determination from students' internal perspective (i.e., self-determination characteristics) in reference to their environmental opportunities (i.e., relationship with the professional school counselor) during postsecondary exploration. The overall prevalence of self-determination characteristics in the respondents of the ELS:2002 will be

evaluated from the four characteristics identified by Wehmeyer (1995a, 1996, 1997), namely *autonomy, self-regulation, psychological empowerment, and self-realization*.

Persons with disabilities should be recognized in their endeavors to participate in decisions involving interests (Nirje, 1972). The purpose of examining self-determination as a theoretical framework was to assess its odds of impacting the visits of students with disabilities to the school counselor for college plans. The research to follow examined low, average, and high self-determination as a composite of students with disabilities and its predictability in their contact with school counselors for college information. The interactive predictability of self-determination in conjunction with sex, race/ethnicity, socio-economic, and disability type on whether students with disability visit the counselor for college information will also be explored.

### **School Counselors**

Professional school counselors are trained to assist individuals in becoming casual agents of change and, thereby, would be likely school professionals leading the efforts to implement postsecondary transition outcomes for students with disabilities through self-determination skills (Milsom, 2007). However, the extent to which a counselor communicates with students with disabilities for transition planning has not been formally identified to assess effectiveness. Counselors are considered integral personnel in their ability to offer opportunities for students to carve out their destiny and process successes and failures so they can become more self-determined (Durlak, Rose, & Bursuck, 1994). Assessing the extent to which students contact the school counselor for college information appears to be the first step in examining counselors' effectiveness in promoting self-determination in students with disabilities during the transition process.

### **School Counselor Contact: Student and School Variables**

A study by Bryan, Moore-Thomas, Day-Vines, and Holcomb-McCoy (2011) is analogous to the current study's objectives. However, there are several differences that will be discussed later. The Bryan et al. (2011) study evaluated the counseling relationship by utilizing the Educational Longitudinal Study of 2002 (ELS: 2002), a nationally representative educational database. The ELS: 2002 database is comprised of a national sample of high school 10<sup>th</sup> grade students beginning in the year 2002. The purpose of the study was to investigate the relationship between school counselor contact with students about college information and college application rates. The number of applications to college was the dependent variable, and the

independent variables included college and counselor related variables. A multinomial logistical regression was performed to examine characteristics of students who contacted the counselor for college information.

Findings from the study (Bryan et al., 2011) demonstrated that gender, academic performance, parental involvement, and school enrollment were significant predictors of college application rates. Females were more likely to apply for college; conversely, students from the three lower income quartiles were less likely to apply to two or more schools versus none. In reference to school enrollment, schools with a larger number of counselors had a larger number of students applying to college. Students who saw the school counselor by the 10<sup>th</sup> grade were more inclined to apply to college compared to those students who did not see the counselor. Students, who were from lower SES groups and did not see the counselor, had a lower propensity of seeking college. Race and ethnicity was not a significant predictor of applying to one or more colleges.

Implications for the current study were to observe comparable influences of socioeconomic status, race, gender, and counselor ratios. The current study supplied expanded information in reference to students with disabilities contact with professional school counselor. The current study also examined the socioeconomic and counselor to student ratios that demonstrated significant implications in the Bryan et al. (2011) study. Although in the Bryan et al. (2011) study race and ethnicity indicated no significant predictor of applying for college, the current study investigated the impact of race on students with disabilities in reference to their inquiry about college information with the school counselor.

In a related study, Bryan, Holcomb-McCoy, Moore-Thomas, and Day-Vines (2009) used the ELS: 2002 database to investigate the characteristics of students who sought out professional school counselors regarding college information. The dependent variable was student-counselor contact for college information. The independent variable for the study included race, gender, mother's education, socioeconomic status, academic achievement, type of school, urbanicity, parent involvement, and school counselor's postsecondary expectations for the student. The counselor's postsecondary expectations for the student variable included the following options: (a) I don't know what the counselor expects; (b) The counselor expects me to get a full-time job, become an apprentice, or go in the military; (c) The counselor thinks I should do what I want; (d) The counselor does not care what I do; and (e) The counselor expects me to go to college. The

researchers utilized a hierarchical logistic regression to analyze the data. Findings demonstrated that, compared to males, females were more likely to see the counselor for college information, and Black students contacted the counselor for college information more frequently than their White peers. Students in higher socioeconomic levels were associated with lower levels of contacting the counselor for college information.

The researchers (Bryan, et al., 2009) found that students were less likely to contact the counselor when (a) they didn't know what the counselor expected them to do following high school, (b) when they thought the counselor expected them to work or enlist in the military, (c) when the counselor thought students should do what they wanted, and (d) when they thought the counselor didn't care what they did. Additionally, students who matriculated in colleges with large student populations were less likely to seek out the school counselor for college information.

Implications for the current study clearly indicate that the counselor's perception about students impacts whether or not they talk to the school counselor about college information. However, in contrast, the current study also explored the internal motivations for students who contact the counselor for college information by assessing their self-determination characteristics through a composite score.

Bryan, Moore-Thomas, Day-Vines, Holcomb-McCoy, and Mitchell (2009) utilized the National Education Longitudinal Study of 1988-2000 (NELS:88) to determine the characteristics of students who saw the counselor about general, academic, personal, social, and career issues. The NELS is a large database comprised of a stratified sample of approximately 25,000 eighth graders from more than 1000 public and private schools. The researchers utilized 8,395 middle school eighth graders. The independent variables for the study were race, gender, risk of school dropout, reading achievement, and parent involvement. The dependent variables for the study were overall counselor contact as well as contact about improving academic work, jobs and careers, and personal problems.

The researchers (Bryan, et al., 2009) computed four separate logistic regression analyses. The results revealed that students were more likely to contact the counselor when they (a) matriculated in suburban schools, compared to rural schools; (b) were Black; (c) were at risk of dropping out; and (d) their parents contacted the counselor. Students were less likely to contact the counselor when they were males, had higher reading scores, and when their parents



volunteered in schools. Further, the researchers found that students in urban and suburban schools were more likely to see professional school counselors than their rural counterparts when they had concerns about academic work. Compared to White students, Black and Native American students saw the school counselor between 1.5 and 2 times more frequently than their White peers about academic work, jobs, and careers.

Implications for the current study from the Bryan, et al. (2009) study are related to race and ethnicity (i.e., Black, Native American, White). Their study also revealed that students who were more inclined to see the counselor were Black and at risk for dropping out. The aforementioned discussions about disproportionate representation of Black students, creates an awareness for the risk of dropping out of school (Coutinho, Oswald, & Best, 2002; MacMillan & Reschley, 1998; Patton, 1998; Skiba et al., 2008; Turnbull, Turnbull, Shank, Smith, & Leal, 2002). Students with disabilities need access to all the resources that the professional school counselor can provide for postsecondary transition assistance. The current study expanded on existing research by evaluating the predictability of (a) sex, (b) race and ethnicity, (c) socioeconomic status, (d) disability type, and (f) self-determination on whether the student visits the counselor for college information as they anticipate high school completion leading to postsecondary institutions.

In one of relatively few studies to examine the counselor contact of students with disabilities, Kushner, Maldonado, Pack, and Hopper (2011) utilized the ELS: 2002 database and concluded that students with disabilities saw the counselor at a rate that was comparable to their nondisabled peers; however, their expectations for academic outcomes were lower compared to students in the general education population. More specifically, students with disabilities expected that they would only achieve high school graduation or matriculation at a two-year college. In contrast, students without disabilities believed that they were going to attend and graduate from college. When disaggregated by urbanicity, urban students had the lowest postsecondary aspirations.

Implications for the current study were to address the many questions about the services that special education students receive from professional school counselors. To address this question the proposed study examined the counselor contact with students with disabilities and the type of postsecondary school they wish to attend.

**School Counselor Role: Students with Disabilities**

Monteiro-Leitner, Asner-Self, Milde, Leitner, and Skelton (2006) examined the perceptions of a diverse sample of counselors-in-training, practicing school counselors, and principals from the Midwest concerning the role of school counselors. Assumptions about the tasks school counselors should perform varied by groups of respondents. For instance, principals reported that counselors should spend 12.3 hours per week on counseling small groups and individuals with problems. In marked contrast, counselors-in-training thought that they should spend 18.5 hours per week conducting small group and individual counseling; counselors thought that 18.5 hours was sufficient. Principals perceived that school counselors should spend 4.3 hours per week working on IEPs, while counselors-in-training and professional school counselors thought that they should work zero hours on IEPs. Other responsibilities (e.g., hall duty, bus duty, bus loading and unloading, restrooms, lunchtime) were perceived by principals as a responsibility that counselors should spend 2.2 hours on each week. To the contrary, school counselors and counselors-in-training felt that they should not participate in these activities. Counselors and counselors-in-training felt that they should engage in continuing education at a total of 1.5 hours more than principals' recommended. Counselors-in-training felt that they could spend 1.7 hours a week referring severely mentally ill students compared to counselors and principals who thought time spent on referrals should be 2.7 and 3.5 hours, respectively, per week. Finally, principals felt that counselors should engage in 5 hours per week on testing and one counselor remarked that they spend 50% of their time engaging in this activity.

School counselors reported feeling overwhelmed, unprepared, and untrained to work with students with disabilities (Monteiro-Leitner et al., 2006). They also stated that the work in special education was stressful and complicated given that they received no formal training on special education in their degree program. In fact, one counselor said that she spent too much of her time (50%) doing special education paperwork. Several other counselors asserted that special education took up too much of their time. Principals perceived that it was a sacrifice to have counselors work on special education issues because it prevented them from addressing the needs of the general education populations.

Implications for the current study are that there is a preponderance of negative perceptions about the counselor's involvement in special education. The Monteiro-Leitner, Asner-Self, Milde, Leitner, and Skelton (2006) study conveyed perceptions from administrators

and counselors who work with students with disabilities. This current study expanded the knowledge base to include students with disabilities who encounter the school counselor for college information. Although the role for school counselors with students with disabilities has started to emerge in professional organizations (ASCA, 2004; ASCA, 2010; NCLB, 2009), the literature is not consistent about their roles. Few questions have been asked about the transition services, such as preparation for postsecondary education, as an appropriate role for school counselors. The current study addressed those issues and reveal implications for school counselors who are work with students with disabilities based on characteristics of sex, race and ethnicity, socioeconomic status, disability type, and self-determination.

Janson, Guikkot Miller, and Rainey (2007) investigated the attitudes of school counseling students in reference to their perceptions on providing services to students with disabilities. Q methodology was used to develop 43 opinion statements that reflected participants' attitudes about working with students with disabilities. Q methodology analyzes correlating patterns of opinions among respondents which can later be generalized to a larger population. Participants tabulated their responses by sorting out 43 cards with opinion statements in nine categories from "least characteristic of your attitudes" to "most characteristic of your attitudes." Findings from the study demonstrated that 32 of the 51 respondents (63%) believed that school counselors should initiate efforts to remove barriers that impede the success of students with disabilities. The results revealed that counselors should engage in collaboration and advocacy efforts to better support students with disabilities. In particular, the top recommendations from this study were as follows:

- (a) School counselors should work to remove any systemic barriers to the well-being and academic success of special education students (+4).
- (b) School counselors should view students holistically, not simply as students with disabilities that limit them (+3).
- (c) School counselors should advocate for the needs of students with disabilities (+3).
- (d) School counselors should collaborate with school personnel and teachers to facilitate the best accommodations for students (+4).

Implications for the current study based on results from the Janson et al. (2007) study are to take a holistic view of students and provide opportunities. These implications to evaluate and assist the student holistically parallel Wehmeyer's definition of self-regulation to balance

positive and negative characteristics in the personality for the overall wellbeing of the person. Therefore, one of the current study's objectives was to evaluate self-determination as a composite variable by assessing the overall perspective of the student's internal motivations for post-secondary academic pursuits.

Nichter and Edmonson (2005) conducted research to determine the level of care administered to special education students. Using a seven-item survey, they identified schools that had the following: (a) counselors who specialized in special education, (b) particular services administered to special education students, (c) counselors' perception of preparedness to provide counseling services for special education students, (d) the experiences in order of greatest contribution toward preparation for counseling special education students, (e) what could help counselors feel better prepared to provide counseling services to special education students, (f) ideas for counselor educators to better prepare counselors to provide services for special education students, and (g) ideas for school administrators that would help school counselors provide counseling for special education students (Nichter & Edmonson).

One hundred school counselors from 56 school districts in southeastern Texas were selected for this study (Nichter & Edmonson, 2005). Only 30% of the respondents indicated having a special education counselor on campus while two-thirds of the counselors in the study reported having special education counseling available in their schools. Counselors also reported feeling comfortable working with special education students, due in large measure to the professional development opportunities available in their school districts.

Implications for the current study based on the findings from the Nichter and Edmonson (2005) study are that counselors do have a comfort level working with students with disabilities when they have sufficient training. This study looked at the predictability of students with disabilities who contact the counselor for college information. This provided information about the necessity of counselor's competency and comfort when students of diverse backgrounds (i.e. race and ethnicity, socioeconomic status) contact the counselor for college information.

Milsom (2007) conducted a study to evaluate the school counselors' involvement in the postsecondary transition planning needs of students with disabilities. Milsom investigated the types and frequency of transition planning activities with which high school counselors enlisted in order to support students with mild disabilities (e.g., learning disabilities, attention deficit-hyperactivity disorder) and students with moderate to severe disabilities (e.g., cerebral palsy,

autism). She also examined the barriers that prevented school counselors from engaging in transition planning activities for students with disabilities.

Milsom (2007) developed a postsecondary Transition Questionnaire to assess the postsecondary activities that school counselors engaged in with students with disabilities. The results of the questionnaire revealed that school counselors engaged in planning and changing schedules 73% of the time, exploring colleges 52% of the time, and exploring careers 50% of the time. The results also revealed that professional school counselors most frequently indicated that they were involved in postsecondary transition services with students with disabilities. Most respondents said that they never engaged in transition activities because they felt that someone else provided these services. Many participants also believed that they did not have to engage in the activity because someone else was conducting the transition work. Additionally, few participants indicated that they did not participate in these activities (i.e., lack of competency), and 17% did not believe that attending IEP meetings was relevant.

Implications for the current study based on findings from Milsom (2007) indicate that overall school counselors felt they were competent to assist students with disabilities, but other school personnel were charged with assisting students with disabilities. The respondents in this study believed that other stakeholders in the school were providing support for students with disabilities in reference to transition planning and, therefore, this is not an area of focus. The current study answered the question on a larger scale in reference to whether students with disabilities contacted the professional school counselor during transition planning. This study provided counselors with insight about whether counselors in general are reaching out to students and how their expectations or lack of expectations for students with disabilities has an impact on their postsecondary transition goals.

Askoy and Diken (2009) examined self-efficacy levels regarding special education in a sample of 277 school counselors who worked in elementary schools in Turkey. In general, respondents reported moderate levels of special education self-efficacy; more experienced counselors exhibited higher levels of self-efficacy. School counselors who had previous experience with students with disabilities had higher levels of self-efficacy. Schools counselors who graduated from school counselor programs in psychology departments and students who had support of the special education departments at their school had a higher level of self-efficacy dealing with students with disabilities. This study corroborates Nichter and Edmonson

(2005) push for pre-service programs to improve the self-efficacy and comfort level of counselors dealing with students with disabilities.

Implications for the current study based on results from Askoy and Diken (2009) indicated that professional school counselors can have productive relationships with students if they are trained (i.e., pre-service) and have experiences working with students with disabilities. The current study investigated the nature of the relationship between the professional school counselor and students with disabilities.

### **School Counselor Role: Self-Determination**

Foster, Young, and Hermann (2005) conducted a study to determine the perception and execution of activities that promote student understanding of academic, career, and personal social development. The purpose of this study was to analyze the activities of school counselors and in particular determine if they cohered with the American School Counselor Association (2012) national standards. The researchers developed and sent an electronic survey to 2400 National Certified Counselors. A total of 526 surveys were returned. The panel was comprised of leaders of professional school counselors and counselor educators who have written articles, participated in district events, and professional organizations. In academic development high importance categories included providing general school counseling, facilitating students' development of decision making skills, identifying student support systems, promoting healthy lifestyle choices, and planning and conducting classroom guidance lessons. These activities had mean scores of 4.0 to 4.5 in level of very important and 4.0 to 4.6 in a level of frequency of execution" on a 5.0 scale (Foster, Young, & Hemann, 2005, p.2). These results stress the importance school counselors place on the academic development of students.

In the category of career development the respondents ranked both the frequency and ranking of very important at 4.0 to 4.4 for three activities. These three activities were providing development of decision making skills, identifying students' support system, planning and coordinating classroom guidance, and promoting healthy lifestyle choices. The highest ranking of this group was at 4.0 to 4.2 development of decision making skills, and identifying students' support systems.

The personal or social development activities included 11 activities with a mean range of 4.0 to 4.5. These 11 activities included decision making skills, and identifying students support system, counseling students for physical abuse, conducting prevention activities, promoting

healthy lifestyle choices, facilitating group member conflict resolution, facilitating group process, counseling for sexual trauma, counseling for divorce in the family, and planning and conducting classroom guidance.

### Implications

This study provided insight regarding the importance and frequency of school counselors' activities although there are innate limitations that are indicative of survey research. The salient discoveries that were mentioned in this study are the importance of development of decision making skills and promoting healthy lifestyle choices. These issues are indicative of Wehmeyers' (1995a) self-regulation to set goals and psychological empowerment to act on personal beliefs that create external outcomes. The current study evaluated self-determination and looked at the students expectations.

### **Synthesis of School Counselor Research**

Overall, researchers (Bryan et al. 2011, 2009) have indicated that school counselors' expectations for students have a profound impact on their college going plans. Although these studies have revealed that counselors have a significant influence on students' postsecondary plans, some counselors have not been motivated to assist students with disabilities (Milsom 2007; Monteiro-Leitner, Asner-Self, Milde, Leitner, & Skelton, 2006). With the appropriate training, counselors have been able to feel more comfortable about their effectiveness working with students with disabilities (Askoy & Diken, 2009; Nichter & Edmonson, 2005). Foundational information from these studies helps to support the current study's purpose to evaluate the characteristics of students with disabilities who visit school counselors during postsecondary transition for college. Additionally, researchers (Foster et al., 2005; Janson et al., 2007) support holistic, internally motivated student relationships with counselors that give students dominion over their career goals. These studies supported the current study's use of self-determination as a theoretical framework to guide this study.

### **Self-Determination Research Related to Students with Disabilities**

#### **Self-Determination: Learning Disabled Perspective**

Janiga and Costenbader (2002) performed a study to evaluate the transition services for students with learning disabilities, who constitute the largest category of students with disabilities (U.S. Department of Education, National Center for Education Statistics, 2000). The researchers' main focus was to evaluate transition planning for this group of students and

espoused that students with learning disabilities are not serviced as vigorously as students in other disability categories based on the fact that this is considered a milder disability area (Levinson & Ohler, 1998); consequently, it is assumed that learning disabled students are able to navigate transition planning better than their disabled peers. As a result, Janiga and Costenbader (2002) reported that the school environment developed several barriers to learning disabled students' pursuit of postsecondary colleges and universities.

The purpose of the study was to identify the strengths and areas of growth that high school programs provided students who were entering university and college settings. A survey was developed based on information gathered in consultation with high school transition personnel and disability services college staff. The questionnaire was distributed by mail to 174 coordinators of college and university disability services departments in New York State. They had an overall 41% response rate; institutions of higher learning included public (50.7%), private (40.1%), and religious affiliated (8.2%) colleges, universities, community colleges, and technical and business institutions. The questionnaire included a rating scale of 1 through 5 (5 being the most satisfied, 1 being the least satisfied). A score of three or above was designated a strength; a score less than three was considered a weakness. The overall satisfaction mean was 2.8 ( $SD=0.61$ ).

The coordinators were least satisfied ( $M=2.18$ ;  $SD=0.92$ ) with the advocacy skills of the students with disabilities. This designation can be aligned with Wehmeyer's autonomy to act independently and self-regulation to make your own choices. Although the coordinators rated students' advocacy as a weakness, the reporting of disability information by high school counselors, teachers, and other staff to students was considered a satisfactory strength ( $M=2.90$ ;  $SD=0.96$ ). There is an obvious push to convey information about disability services by school staff, but there is no evidence of development of advocacy skills for students to pilot their postsecondary goals.

As a result of these findings, the researchers recommended extensive career counseling in schools to make students more aware of social skills, self-awareness, and self-advocacy to better articulate their postsecondary program needs and goals. In particular, as a result of the inadequate development of these skills to act independently, students were not able to advocate for accommodations in postsecondary institutions. Janiga and Costenbader (2002) recommended future research in reference to high school students understanding of their own



strengths, weaknesses, and disability. This recommendation aligns with Wehmeyer's (1996) self-determination definition of self-realization to understanding one's strengths, weaknesses, abilities, limitations, and a creation of a quality life that incorporates all of the aforementioned components to create autonomous goals.

Implications to the current study were the importance of a foundational evaluation of the many barriers to students with disabilities pursuit of postsecondary school as a goal. Janiga and Costenbader (2002) implied that school counselors might be a barrier by their suggestion that students with disabilities pursue vocational education opposed to college. Additionally, the researchers suggested that students are not enrolled in curricula that prepare students for college admissions. According to the American School Counselor Association (2003), professional school counselors are responsible for providing a wide range of academic choices that support postsecondary college attainment, which must include students with disabilities.

These two concerns point to the professional school counselors' contact with students and their expectations that students with disabilities will pursue a college education. The obstacles that are suggested by Janiga and Costenbader (2002) will be addressed in this study through the predictability of the type of schools students with disabilities want to attend (i.e. 4-year college, 2-year college).

Furthermore, the suggestion that students do not embody some of the components of self-determination to advocate for themselves gives credence to the current study's theoretical framework that self-determination provides a motivational goal for pursuit of postsecondary education. Self-determination was evaluated as a composite of characteristics that the respondents in this study possess to jettison them forward in their contact with the school counselor that ultimately leads to the college application process.

### **Self-Determination: Female Perspective**

Trainor (2007) used qualitative interview data and analysis to determine the perceptions of females with learning disabilities in reference to their sense of self-determination. Trainor's objective was to determine the impact of gender, SES, race and ethnicity, and language on realized self-determined behaviors and perceptions. The impetus of this study was to supply information that would further explain the achievement gap between young ladies and young men with disabilities.

There were seven female participants ranging in age from 16 to 18 years old (White = 2, Black = 3, Latinas = 2). The study was conducted in an urban public school in the southwest. The data was generated through focus groups and two individual follow-up interviews. The questionnaire contained 13 questions that addressed the theoretical model of self-determination. The component of Wehmeyer's model that was addressed included the concept of being a casual agent of change through goal setting and decision making during the postsecondary transition process (Trainor, 2007). The type of questions that was presented included transition goals. The information was coded and one of the themes that emerged was the fact that the young ladies felt they were self-determined outside of school but not inside of school. Transition planning and instruction was not central to their self-determined transition experience. The students demonstrated confusion about where they could go to obtain resources and support. Additionally, students had difficulty connecting their current desires to future postsecondary goals and had difficulty articulating their hopes for the future. They were under the impression that the school facilitated distribution of college applications. Additionally, in reference to the college application process, they were unaware about the details of how to apply to college. This study stressed the importance of understanding the impact of (a) disability status, (b) gender, (c) socioeconomic status, and (d) cultural and linguistic diversity on the development of self-determination during a students' postsecondary transition planning. This study also revealed a lack of rapport between the students and school personnel in reference to transition information.

Implications to the current study were to increase respondents and to gather data from a longitudinal study (i.e., ELS: 2002) so that findings can be generalized to a larger population. Further, the current study explored differences between male and female students with disabilities.

### **Self-Determination: Culturally and Linguistically Diverse Perspective**

Trainor (2005) evaluated the perspective of culturally and linguistically diverse (CLD) students. This study evaluated the perceptions and behaviors of European American, African American, and Latino students with learning disabilities. More specifically, Trainor looked at the strengths, needs, practices, and preferences of this culturally and linguistically diverse population of students. Culturally diverse students include ethnicities and races, and linguistically diverse students include English Language Learners. Trainor believed that this research was important because the external CLD community at large comprised of policy makers and educators

considered the topic salient to their concerns. The main concern for Trainor in reference to this study was to honor the student's perspective about opportunities to be self-determined in the transition planning. The objective of Trainor's qualitative study was to evaluate the transition planning process from the student's perspective by answering the following questions: (1) What are the self-determined behaviors of CLD male adolescents with LD? (2) How do CLD male adolescents with LD perceive their own role and responsibilities regarding transition planning? (3) How do CLD male adolescents with learning disabilities perceive the influence of their parents and teachers on the transition process? The sample for this study was a purposeful group of males who met the criteria of being 16 years or older, learning disabled, and eligible for free and reduced lunch (FRLP). Each of the students had an Individual Transition Plan (ITP). The outcomes were assessed through observations and interviews. The observations included video or audio tapes and field notes. Additionally, one to two hour interviews and follow-up interviews were conducted.

The data analysis was conducted through a compilation of verbatim responses from respondents, field notes, non-verbal participation, and communications style. Combinations of factors were connected by self-determination transition themes. Some themes that emerged were a mismatch in students' goal to attend college and their exemption from state exit exams. The Black students, who had older siblings who completed college, communicated their transition plans in great detail. In contrast, college-bound White and Latino males were less certain about the journey to pursue college successfully. The incongruence in students' goals for college attendance and their exemption from state exams meant that the students were not taking college preparatory courses. The exemption rates varied amongst the various racial groups and were more egregious for Black and Latino students opposed to White students: Latinos were 4 out of 5 students (80%), Black male exemption rates were 3 out of 4 students (75%), and White exemption rates were 3 out of 6 students (50%). These findings indicate a larger discrepancy in reference to students' interpretation of intended goals and the actual goals that are in place in their curriculum and transition goals.

In reference to self-determination acquisition, students expressed that they made efforts to set goals, and they took action towards those goals for postsecondary transition. The expression of goals from the respondents was exemplary of self-regulation, and an understanding of strengths and weaknesses was indicative of self-realization. Trainor (2005) discussed that

each respondent exemplified self-determination on varying scales due to the articulation of goals, self-advocacy, and action steps towards goals. This study also addressed the components of self-determination that included opportunities to be self-determined through conversations and activities related to transition planning. Trainor included the school counselor as one of the professionals who should meet with students with disabilities regularly to help facilitate transition planning. Additionally, Trainor urged stakeholders to ensure that students' goals align with their desires, regardless of congruence with school staff goals for the student. Black students mentioned that having caring school staff impacted their self-determination efforts. Additionally, Trainor urged researchers to tease out the different components of self-determination opposed to evaluating it as a composite.

An implication for the current study is the data collected about school counselors' contact with students with disabilities from the student's perspective. Although Trainor (2005) directed future researchers to analyze self-determination in separate categories opposed to a composite, the current quantitative study evaluated self-determination as a composite. The significance of evaluating a composite is to reveal the usefulness of self-determination and whether the student visited the counselor for college information. This large quantitative study contributed to the body of research about the prevalence of self-determination characteristics in students with disabilities on a broader scale than some previous studies.

The current quantitative study also provided valuable data in reference to the relational impact for Black students with the professional school counselor. Trainor's (2005) study illustrated the importance of Black students' level of confidence in the professional school counselor's value (caring) for their future. Further, an analysis of selected characteristics (i.e., sex, race and ethnicity, socioeconomic status, disability type, self-determination composite) adds to a description of students with disabilities who visit the school counselor for college information.

### **Self-Determination: Technology**

Kim-Rupnow and Burgstahler (2004) evaluated a technology program based on its influence for infusing self-determination characteristics in students with disabilities who aspire to attend college. This technology program called DO-IT helped students to develop self-determination, social, college, and career skills for pursuing postsecondary goals. The researchers used the DO-IT initiative as an effective transition planning program that included

opportunities to practice social, academic, career, and self-determination (National Council on Disability and Social Security Administration, 2000). This program was implemented through three objectives that included the following: (a) technology-enriched summer study, (b) year-round computer and Internet activities, and (c) work experiences.

This was a retrospective study (Kim-Rupnow & Gurgstahler, 2004) that evaluated the impact of the DO-IT program to prepare students with disabilities for their college-bound goals and was undertaken to assess a longitudinal perspective on the social, academic, and career outcomes of the technology DO-IT program. The research questions included the following: (1) *What is the impact of technology-based exemplary programs on the transition of high school students with disabilities to higher education and employment?* (2) *What are the relative values of these program interventions?* (3) *How can other programs apply successful technology-based practices to promote positive academic and career outcomes for students with disabilities?* The participants (N=173) were scholars from the years between 1993 and 2000. A total of 155 students (52% male, 48% female) completed the survey; 56% were under the age of 23, 33% were between 24 and 26, and 11% were over 26. The disability categories of the students included 41% had physical disabilities, 13% had visual disabilities, 12% had learning disabilities, 9% had hearing disabilities, 1% had speech disabilities, and the remaining 23% had other health impairments (e.g., multiple disabilities, Attention Deficit Disorder, brain injuries). The respondents were asked to provide evaluations of the program at different stages of their participation in the program.

The results of the program were assessed on a scale of 1 (very low) to 5 (very high) on the characteristics and skills that were needed at different stages. A paired-sample *t* tests were used to assess the changes over time for the survey categories. These results demonstrated significant changes over a period of time. The changes over the duration of the program included preparation for college (2.15), Internet skills (1.90), preparation for employment (1.78), self-advocacy skills (1.49), independence (1.32), perceived career options (1.20), social skills (1.08), self-esteem (1.01), and perseverance (0.90). These results demonstrated the effectiveness of this technology-oriented program. The improvement of self-advocacy and independence aligned with Wehmeyer's (1995b) self-determination definition of autonomy and the outcome of self-esteem aligned with psychological empowerment and self-realization.

The respondents also were able to make recommendations for improvements to the program. The respondents believed that the DO-IT program would have been enhanced with a counseling component that helped the participants to understand the applicability of the skills that they were acquiring and whether they were moving in the right direction.

Implications for the current study are in reference to adding a counseling component to maximize the skills that students are acquiring. This demonstrated that, even if there are satisfactory programs for students to master self-determined transition skills, a counselor needs to assist students in individualizing and operationalizing self-determination. The current study took the next step to the Kim-Rupnow and Burgstahler (2004) study by observing the counselor contact of students with disabilities. It provided information about the importance of contact with the school counselor. This data collected about self-determination will support the need to fund programs to promote self-determination skills, counseling services, and successful postsecondary transition goals for students with disabilities.

### **Synthesis of Self-Determination Research**

The self-determination studies that were presented cover significant variables that will be used in the current quantitative study. The importance of the female perspective (Trainor, 2007) and diverse racial perspectives (Trainor, 2005) are appropriate to explore because females and minority groups have not realized the same degree of postsecondary success as their peers. The learning disability category is both the largest disability category and the most vulnerable to minimal postsecondary transition assistance because these students are perceived by school personnel to be more capable of navigating the transition process than other students with disabilities (Janiga & Costenbader, 2002). The Kim-Rupnow and Burgstahler (2004) study demonstrated the importance of developing innovative programs to promote self-determination, and the current study demonstrated the characteristics of students who pursue a relationship with the professional school counselor for college information.

### **Summary**

As a result of the increased number of students with disabilities matriculating in postsecondary colleges and universities following high school, school counselors are in a position to help these students realize their postsecondary goals. Professional school counselors play an important role with students that can facilitate opportunities for college admissions. School counselors' propensity to provide opportunities (Ward, 2005) for students with

disabilities is parallel to their familiarity with their responsibility to students with disabilities, pre service special education training, and years of experience with student populations with disabilities (Askoy & Diken, 2009; Nichter & Edmonson, 2005).

The literature review pointed to the development of self-determination through the opportunities that are created in the environment (Ward, 2005) and internal manifestation to control one's environment through choices (Mithaug, 1996; Wehmeyer, 1995a, 1996). The student's ability to execute self-determination related to post-secondary plans will be evaluated through a composite of identified items from a national database (ELS:2002). The self-determination composite was developed to evaluate its relationship for students with disabilities and whether or not they were more likely to visit the counselor for college information. The predictability of self-determination on whether a student with disabilities visits the counselor for college information provided insight about the significance developing these characteristics. This study is significant for school counselors to be mindful of their role in assisting students with disabilities with making postsecondary plans, developing self-determination skills, and by providing programs and counseling services that can support this student population.

### CHAPTER 3

#### METHODS AND PROCEDURES

This study used self-determination as the conceptual framework to examine the characteristics of students with disabilities who contacted the counselor for college information. Previous studies addressed the characteristics of general education students who visited the counselor for college information (Bryan et al., 2009); however, no other study addresses students' with disabilities contact with counselors. The purpose of this study was to examine the characteristics of students with disabilities who contact the school counselor for college information. The Education Longitudinal Study (ELS:2002) was used to determine the relationship between the dependent variable (i.e., whether or not a student had gone to the school counselor for college information) and the independent variables (i.e., student variables and school variables). The ELS:2002 was a national study conducted by the National Center for Educational Statistics (NCES) that followed a national sample of 10<sup>th</sup> grade students beginning in 2002 and tracked their progress every two years as they proceeded from 10<sup>th</sup> grade to high school completion and through to postsecondary education or the workforce. This nationally representative longitudinal study collected data from students, parents, teachers, librarians, and schools.

Ingels, Pratt, Wilson, Burns, Currivan, Rogers, and Hubbard-Bednasz (2007) report that The Education Longitudinal Study 2002 (ELS:2002) was developed as the fourth installment of the National Center for Educational Statistics (NCES) High School Longitudinal Studies Program. The three previous studies included the National Longitudinal Study of High School Class of 1972 (NLS:72), the High School and Beyond (HS&B) longitudinal study of 1980, and the National Education Longitudinal Study of 1988 (NELS:88). The ELS:2002 was developed as a longitudinal study that provided transition data on students during high school to postsecondary transition.

The ELS:2002 data included information about home life, high school educational opportunities, and postsecondary outcomes for students with disabilities. This study includes a nationally representative sample of high school sophomore students (10<sup>th</sup> graders) with Individual Education Plans from the United States of America. In addition to the students who were surveyed, their parents, teachers, principals, and librarians were surveyed (Ingels, Pratt, Wilson, Burns, Currivan, Rogers, & Hubbard-Bednasz, 2007).



### Research Question

The purpose of the study was to answer the following question: *What are the characteristics of students with disabilities who contact the school counselor for college information?* Student and school variables were identified as follows:

#### Student Variables

- sex
- race and ethnicity
- socioeconomic status
- disability type
- self-determination composite

#### School Variables

- school enrollment
- number of school counselors

### Purpose of Study

The purpose of this study was to examine the characteristics of students with disabilities who contacted the school counselor for college information. The components of self-determination that were reviewed for the study included the internal manifestation of *autonomy*, *self-realization*, *psychological empowerment*, and *self-regulation* (Wehmeyer, 1996, 1997; Wehmeyer & Schwartz, 1997). Twelve indicators of these components were extracted from the ELS:2002 database and combined to form a self-determination composite variable.

### Participants

The Education Longitudinal Study (ELS:2002) base year data included a sample size of 1,268 high schools. Of that total, there were 1,221 eligible schools, and a final total of 752 high schools responded (response rate of 68%). Out of an initial sampling of the 19,218 students only 17,591 were eligible to participate. The final numbers included 15,362 sophomores, which represented weighted student responses of 87% (U.S. Dept. of Education, National Center for Education Statistics, 2006). This dataset was designed for researchers to extract variables from the student or school (e.g., teacher, librarian, principal) perspective. Selected student variables and school variables were extracted for the purposes of this research.

A filter variable for base year students with an Individualized Education Plan (BYIEPFLG) was applied to the data set of 15,362 respondents to derive a data set of 992 students with Individualized Education Plans (IEP). Finally, the ELS:2002 lead statistician recommended that the first year panel weight (F1PLWT) be applied to the sample of 992 filtered

respondents to generalize this sample to a larger population of students with IEPs. The weighted sample represented a total of 225,508 respondents with Individualized Education Plans. The proper application of weights created results with a higher level of reliability.

### **Variables**

The dependent and independent variables were selected from the ELS:2002 (Ingels, Pratt, Wilson, Burns, Currivan, Rogers, & Hubbard-Bednasz, 2007) dataset. The data from the ELS:2002 were used to examine characteristics of students with disabilities who contact the counselor for college information. The independent variables for the students were derived from the student and parent questionnaires, and school variables were derived from the administrator questionnaire.

#### **Dependent Variable**

The dependent variable used in this study was whether or not students with disabilities had gone to the school counselor for college information (F1S48A). This variable was taken from the first follow-up data in order to show temporal precedence of the predictor variables taken from the base year. This binary categorical variable was coded 1 for yes and 0 for no. Frequencies for this variable are shown in [Table 3.1](#).

#### **Independent Variables**

The independent variables included student and school variables from base year questionnaires (i.e., student, parent, administrator). The nominal scale variables were recoded into dummy variables so they could be used in regression analysis.

The two nominal categorical variables from the student questionnaire (see [Table 3.2](#)) were sex (BYSEX) and race and ethnicity (BYRACE). One ordinal student variable, socioeconomic status in quartiles (BYSES2), was included. A series of eight binary categorical variables from the parent questionnaire indicated the student's disability type (see [Table 3.3](#)). These variables and their descriptions included the following: 10<sup>th</sup> grader has specific learning disability (BYP50A); 10<sup>th</sup> grader has speech and language impairments (BYP50B); 10<sup>th</sup> grader has intellectual disabilities (BYP50C); 10<sup>th</sup> grader has emotional disturbance (BYP50D); 10<sup>th</sup> grader has hearing impairments (BYP50E); 10<sup>th</sup> grader has orthopedic impairments (BYP50F); 10<sup>th</sup> grader has visual impairments (BYP50G); and 10<sup>th</sup> grader has other disability (BYP50H).

Self-determination was examined as a composite. The self-determination composite variable (BYSELF) was developed by the researcher and comprised of 12 base year questions

from the student questionnaire (see [Table 3.4](#)). All 12 of these variables had the following ordinal response scale: (1) *almost never*, (2) *sometimes*, (3) *often*, and (4) *almost always*. A principal components factor analysis was performed to determine the number of factors that would emerge from these 12 indicators. Results showed that all of the indicator variables loaded on one factor (see [Table 3.5](#)). The total variance accounted for by the factor was 60.36%. The self-determination composite variable (BYSELF) was formed by averaging the scores of the 12 indicators for each student. By using the average instead of the sum, the composite scores can be interpreted in light of the original four-point scale. Descriptive statistics for the composite variable are shown in [Table 3.6](#).

The two school variables from the administrator questionnaire (see [Table 3.7](#) and [Table 3.8](#)) for the study included (a) school enrollment (BYSCENP) and (b) number of school counselors in the school (BYA23K). School enrollment was measured on a 9-point ordinal scale (see the table for details of the ranges of the categories) and is being treated as a continuous variable for analysis purposes. The number of counselors was a continuous variable indicating the actual number of counselors employed at the school and ranging from 0 to 16.

### **Data Analysis**

After dependent and independent variables were selected, descriptive statistics were calculated for all variables. These variables were selected because previous research and literature indicate that these variables influence the college going rate of students with disabilities. The logistic regression will demonstrate the probability of influence of each variable and a combination of variables that will provide a clear perspective about students who visit the counselor for college information. A logistic regression analysis was conducted to answer the research question: *What are the characteristics of students with disabilities who visit the counselor for college information?* Student-level independent variables in the logistic regression were the following: (a) sex, (b) race and ethnicity, (c) socioeconomic status quartile, (d) disability type, and (e) self-determination composite.

A series of bivariate Pearson's correlations was performed with the two school-level variables (school enrollment and number of school counselors) and the dependent variable (whether or not the student visited the counselor for college information). A Pearson's correlation was used because both the school enrollment and number of school counselor variables were treated as continuous variables.

### Summary

A weighted sample (N=225,508) was drawn from the ELS: 2002 to analyze the characteristics of students with disabilities who visited the counselor for college information. The dependent variable was whether or not the student had visited the counselor for college information by the first follow-up. Appropriate independent variables were identified for the analysis and were drawn from the student, parent, and administrator questionnaires. The self-determination composite was formed from 12 items drawn from the student questionnaire. Student-level variables were used as predictors in a logistic regression model, and school-level variables were correlated with the dependent variable. These analyses were used to answer the research question: *What are the characteristics of students with disabilities who contact the school counselor for college information?*

Pearson correlations were used to assess the relationships between three pairs of variables. These variables included the following: (a) between school enrollment and number of school counselors; (b) between school enrollment and whether students with disabilities visited the counselor for college information; and (c) between the number of counselors and whether disabled students went to the counselor for college information.

**Table 3.1 Student Variables: The Student Has Gone to the Counselor**[\[Return to TOC\]](#) [\[Return to text\]](#)

Non-weighted Sample		Variable Label	Weighted Sample (F1PLWT)	
N=992	%		N=225,508	%
<b>The Student Has Gone to the Counselor</b>				
262	64.7	Yes	67,972	64.3
143	35.3	No	37,713	35.7

<sup>a</sup> This variable is from First Follow-up (F1) student data of the *Education Longitudinal Study of 2002*.**Table 3.2 Student Variables: Demographic Characteristics of Participants**[\[Return to TOC\]](#) [\[Return to page 14\]](#) [\[Return to text\]](#) [\[Return to page 60\]](#)

Non-weighted Sample		Variable Label	Weighted Sample (F1PLWT)	
N=992	%		N=225,508	%
<b>Sex</b>				
647	65.2	Male	147,045	65.2
345	34.8	Female	78,463	34.8
<b>Race/Ethnicity</b>				
10	1.0	Amer. Indian/Alaska Native, non-Hispanic	2,709	1.2
38	3.8	Asian, Hawaii/Pac. Islander, non-Hispanic	4,299	1.9
162	16.3	Black or African American, non-Hispanic	37,339	16.6
60	6.0	Hispanic, no race specified	13,719	6.1
111	11.2	Hispanic, race specified	25,898	11.5
64	6.5	Multiracial, non-Hispanic	13,558	6.0
503	50.7	White, non-Hispanic	127,985	56.8
44	4.4	Missing	0	0
<b>SES2 Quartiles</b>				
366	36.9	Lowest quartile	84,608	37.5
253	25.5	Second quartile	62,874	27.9
197	19.9	Third quartile	47,778	21.2
132	13.3	Highest quartile	30,248	13.4
44	4.4	Missing	0	0

<sup>a</sup> Variables are from Base Year (BY) student data of the *Education Longitudinal Study of 2002*.

**Table 3.3 Student Variables: 10<sup>th</sup> Grader Disability Type**[\[Return to TOC\]](#) [\[Return to page 2\]](#) [\[Return to text\]](#)

Non-weighted Sample				Variable Label	Weighted Sample (F1PLWT)			
N=992		%			N=225,508		%	
yes	no	yes	no		yes	no	yes	no
421	85	42.4	8.6	Specific learning disability	101,573	20,973	45.0	9.3
81	425	8.2	42.8	Speech and language impairments	18,116	104,429	8.0	46.3
25	481	2.5	48.5	Intellectual disabilities	5,074	117,472	2.2	52.1
77	429	7.8	43.2	Emotional disturbance	17,177	105,369	7.6	46.7
29	477	2.9	48.1	Hearing impairments	5,696	116,849	2.5	51.8
16	490	1.6	49.4	Orthopedic impairments	4,321	118,225	1.9	52.4
43	463	4.3	46.7	Visual impairments	10,152	112,394	4.5	49.8
62	444	6.3	44.8	Other disability	13,789	108,757	6.1	48.2
486		49.6		Missing	102,962		45.7	

<sup>a</sup> Variables are from Base Year (BY) parent data of the *Education Longitudinal Study of 2002*.**Table 3.4 Self-Determination Indicator Frequencies<sup>a</sup>**[\[Return to TOC\]](#) [\[Return to text\]](#)

Variable <sup>b</sup>	Item/Description	Responses <sup>c</sup>					
		M	SD	(1)	(2)	(3)	(4)
BYS89P	Studies to ensure financial security	2.47	.953	15.5	39.8	27.3	17.4
BYS89H	Studies to increase job opportunities	2.42	.942	16.9	39.3	28.5	15.3
BYS89E	Can learn something really hard	2.45	.911	14.4	40.5	30.4	14.7
BYS89O	Keeps studying even if material is difficult	2.40	.923	16.2	41.8	27.6	14.4
BYS89S	Does best to learn what studies	2.47	.922	13.3	43.3	26.7	16.8
BYS89J	Works as hard as possible when studies	2.53	.927	12.9	38.9	30.7	17.6
BYS89T	Can learn something well if wants to	2.53	.932	12.2	41.4	27.6	18.8
BYS89Q	Can get no problems wrong if decides to	2.39	.897	15.0	43.9	27.8	13.3
BYS89N	Can get no bad grades if decides to	2.52	.960	14.5	37.6	28.8	19.0
BYS89V	Puts forth the best effort when studying	2.62	.966	11.9	37.6	27.6	23.0
BYS89D	Studies to get a good grade	2.50	.960	14.9	39.1	27.3	18.7
BYS89G	Remembers most important things when studies	2.54	.914	12.1	39.2	31.5	17.2

<sup>a</sup> Cases weighted by Panel Weight BY and F1 (2002 and 2004)<sup>b</sup> Variables are from Base Year (BY) student data of the *Education Longitudinal Study of 2002*.<sup>c</sup> Responses reported as percent for item options: (1) *almost never*, (2) *sometimes*, (3) *often*, and (4) *almost always*.

**Table 3.5 Self-Determination Composite** [\[Return to TOC\]](#) [\[Return to text\]](#) [\[Return to page 46\]](#)

Variable	Item/Description	Factor Loadings
<b>BYS89P</b>	Studies to ensure financial security	.806
<b>BYS89H</b>	Studies to increase job opportunities	.771
<b>BYS89E</b>	Can learn something really hard	.732
<b>BYS89O</b>	Keeps studying even if material is difficult	.817
<b>BYS89S</b>	Does best to learn what studies	.804
<b>BYS89J</b>	Works as hard as possible when studies	.806
<b>BYS89T</b>	Can learn something well if wants to	.804
<b>BYS89Q</b>	Can get no problems wrong if decides to	.768
<b>BYS89N</b>	Can get no bad grades if decides to	.718
<b>BYS89V</b>	Puts forth best effort when studying	.816
<b>BYS89D</b>	Studies to get a good grade	.696
<b>BYS89G</b>	Remembers most important things when studies	.774

A principal components factor analysis showed that all 12 variables loaded on one factor. The factor accounted for 60.36% of the total variance.

**Table 3.6 Student Variables: BYSELF Descriptive Statistics**

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N	Valid	137935
	Missing	87573
Mean		2.4584
Median		2.4167
Mode		2.00
Std. Deviation		.7529

**Table 3.7 School Variables: Total School Enrollment**[\[Return to TOC\]](#) [\[Return to text\]](#)

Non-weighted Sample (N=992)			Variable Label	Weighted Sample (N= 225,508)		
Frequency	%	Valid %		Frequency	%	Valid %
117	11.8	14.0	1-399 students	19,888	8.8	10.5
114	11.5	13.6	400-599 students	22,341	9.9	11.7
80	8.1	9.5	600-799 students	17,743	7.9	9.3
97	9.8	11.6	800-999 students	20,349	9.0	10.7
66	6.7	7.9	1,000-1,199 students	15,780	7.0	8.3
129	13.0	15.4	1,200-1,599 students	32,163	14.3	16.9
103	10.4	12.3	1,600-1,999 students	26,836	11.9	14.1
74	7.5	8.8	2,000-2,499 students	19,081	8.5	10.0
58	5.8	6.9	2,500 or more students	16,043	7.1	8.4
154	15.5		Missing	35,284	15.6	

<sup>a</sup> Variables are from Base Year (BY) student data of the *Education Longitudinal Study of 2002*.

**Table 3.8 School Variables: Descriptive Statistics for Full-Time Guidance Counselors**[\[Return to TOC\]](#) [\[Return to text\]](#)

N	Valid	193507
	Missing	32001
Mean		3.98
Median		4.00
Mode		4
Std. Deviation		2.503
Minimum		0
Maximum		16



## CHAPTER 4

### RESULTS

This study used self-determination as the conceptual framework to examine the characteristics of students with disabilities who contacted the school counselor for college information. Selected student and school variables were analyzed using a weighted sample from ELS:2002 database that included the following: student variables for sex, race and ethnicity, socioeconomic status, disability type, and the self-determination composite (BYSELF); school variables included school enrollment and number of school counselors. Results are reported for these student and school variables.

#### Student Variables

A logistic regression analysis was conducted to determine the predicted probability and odds of students with disabilities visiting the school counselor for college information based on their characteristics of sex, race/ethnicity, socio-economic status, disability type, and level of self-determination. The variables were entered into the model in three blocks. The variables of sex, race/ethnicity, and socio-economic status quartiles were entered into the first block; self-determination was entered into the second block; and disability type was entered into the third block. As the variables were entered into each block, the predictive ability improved with each entry.

The first block had a Nagelkerk  $R^2$  of 21.3%, the second block had a Nagelkerk  $R^2$  of 25.6% (.043), and the final model produced a Nagelkerk  $R^2$  of 45.3% (.197) (see [Table 4.1](#)). The level of accuracy of the predictions for *Yes* and *No* responses is shown in [Table 4.2](#). The model is especially good at predicting students who did go to the counselor for college information (93.6%). [Table 4.3](#) shows the logarithmic coefficients resulting from the inclusion of these three blocks of predictors. The reference categories for nominal and ordinal scale variables converted to dummy variables were female, White, and SES 4<sup>th</sup> quartile. To illustrate the results of the logistic regression, the probabilities and odds of going to the school counselor for college information were calculated for students with selected characteristics. The calculated probabilities let us know the probability of the respondent going to visit the counselor for college information, and the odds let us know the likelihood or lack of likelihood of going to the counselor for college information. Following are a few examples of predicted probabilities and

odds of students with specific characteristics visiting the school counselor for college information that were calculated from the coefficients provided in the logistic regression results.

For a Black male student in the 3<sup>rd</sup> socio-economic quartile, with an average level of self-determination and a learning disability, the predicted probability of visiting the counselor for college information was 40.18% (see calculation). Because this is less than 50%, a student fitting this profile would not be predicted to go to the counselor. The predicted odds (.6712) indicated that the student is 1.4898 times more likely *not* to visit the counselor for college information than to visit the counselor for college information. The following calculations were derived from [Table 4.3](#) B coefficients list and the average for self-determination (2.45) from [Table 3.6](#):

Calculation:  $P=1/(1+e^{-(.398-.876-1.499-.718+1.254(2.45)-.775)})= .40186$

Calculation Labels:  $P=1/(1+e^{-(\text{constant, male, Black, SES3rd quartile, self-determination (average self-determination level), learning disabled)})$

The following calculations were derived from [Table 4.3](#) Exp(B) coefficients list:

Calculation:  $\text{Odds}=(1.490)(.416)(.223)(.488)(3.504)^{(2.45)}(.461)= 0.6712$

Calculation Labels:  $\text{Label}=(\text{constant, male, Black,SES3rd quartile, self-determination}^{(\text{average self-determination})},\text{learning disabled.})$

(Note: Because these odds were less than 1, the reciprocal (1.4898) was calculated to ease interpretation.)

For a student with all of the demographic characteristics described above except that this student is female, the predicted probability of visiting the counselor for college information was 61.7% (see calculation). Because this percentage is more than 50%, a student with these characteristics would be predicted to visit the counselor for college information. The predicted odds of 1.613 indicated that the student is about 1.6 times more likely to visit the counselor for college information than not to visit the counselor for college information.

Calculation:  $P=1/(1+e^{-(.398-.876(0)-1.499-.718+1.254(2.45)-.775)})=.617 (61.7\%)$

$\text{Odds}=(1.490)(.223)(.488)(3.504)^{(2.45)}(.461)=1.613$

For a Hispanic (race not specified) female student with a learning disability, in the 3<sup>rd</sup> socio-economic quartile, with average self-determination, the predicted probability of visiting the counselor for college information was just short of 9% (see calculation). The predicted odds of

.10129 indicated that the student was almost 10 times more likely *not* to visit the counselor for college information than to visit the counselor.

$$\text{Calculation: } P=1/(1+e^{-(.398-4.296-.718+1.254(2.45)-.775)})=.0896$$

$$\text{Odds}=(1.490)(.014)(.488)(3.504)^{(2.45)}(.461)=.10129 \text{ (Because this value is less than 1, the reciprocal (9.8726) was calculated to aid in interpretation.)}$$

For a Hispanic (race not specified) student with the same characteristics as above, but male, the predicted probability of visiting the counselor for college information was just under 4% (see calculation). The predicted odds of .04214 indicated that the student was 23.73 times more likely *not* to visit the counselor than to visit the counselor for college information.

$$\text{Calculation: } P=1/(1+e^{-(.398-.876(1)-4.296-.718+1.254(2.45)-.775)})=.03937$$

$$\text{Odds}=(1.490)(.416)(.014)(.488)(3.504)^{(2.45)}(.461)=.04214= \text{(The reciprocal (23.73) was calculated to aid in interpretation, as this odds ratio was less than 1.)}$$

For a White female student in the 3<sup>rd</sup> socio-economic quartile, with an average level of self-determination and a learning disability, the predicted probability of visiting the counselor for college information was 87.8% (see calculation). The predicted odds of 7.2358 indicated that the student was more than 7 times as likely to visit the counselor for college information as not to visit the counselor for college information.

$$\text{Calculation: } P=1/(1+e^{-(.398-.718+1.254(2.45)-.775)})=.878 \text{ (87.8\%)}$$

$$\text{Odds}=(1.490)(.488)(3.504)^{(2.45)}(.461)=7.2358$$

For a White male student fitting the same profile, the predicted probability of visiting the counselor for college information was 75% (see calculation). The predicted odds of 3.010 indicated that the student is 3 times more likely to visit the counselor for college information than not to visit the counselor for college information.

$$\text{Calculation: } P=1/(1+e^{-(.398-.876(1)-.718+1.254(2.45)-.775)})=.7505 \text{ (75\%)}$$

$$\text{Odds}=(1.490)(.416)(.488)(3.504)^{(2.45)}(.461)=3.010$$

For a Black male learning disabled student in the 4<sup>th</sup> socio-economic quartile, with average self-determination, the predicted probability of visiting the counselor for college information was 58% (see calculation). The predicted odds of 1.3754 indicated that a student with these characteristics is almost 1.4 times more likely to visit the counselor for college information than not to visit the counselor.

$$\text{Calculation: } P=1/(1+e^{-(.398-.876-1.499+1.254(2.45)-.775)})= 0.57939 \text{ (about 58\%)} \\ \text{Odds}=(1.490)(.416)(.223)(3.504)^{(2.45)}(.461)= 1.3754$$

For a student with the same characteristics as above, but in the 1<sup>st</sup> socio-economic quartile, the predicted probability of visiting the counselor for college information was almost 65% (see calculation). Although counter-intuitive, the positive coefficient of .289 for the lowest SES quartile means that, in combination with the other factors in the model, students at the bottom of the SES hierarchy are slightly more likely to go to the counselor for college information than are students with the highest level of SES. The predicted odds of 1.836 indicated that the student is almost twice as likely to visit the counselor for college information as not to visit the counselor for college information.

$$\text{Calculation: } P=1/(1+e^{-(.398-.876-1.499+.289+1.254(2.45)-.775)})= 0.64778 \\ \text{Odds}=(1.490)(.416)(.223)(1.335)(3.504)^{(2.45)}(.461)= 1.836$$

### **Self-Determination**

The self-determination composite is the only continuous independent variable in the model. The coefficient (B = 1.254) for this variable must be multiplied by the student's self-determination score and the product is then added to the sum of the other applicable coefficients to comprise the negative of the natural log (or exponent of the natural base, e). The positive value of the coefficient suggests that higher levels of self-determination should predict a higher probability of the student going to the school counselor for college information.

For a Black male student with a learning disability, in the 3rd socio-economic quartile, with the maximum self-determination score of 4, the predicted probability of visiting the counselor for college information was 82.4% (see calculation). The predicted odds 4.6877 indicated that the student is about 4.7 times more likely to visit the counselor for college information than not to visit the counselor for college information.

$$\text{Calculation: } P=1/(1+e^{-(.398-.876-1.499-.718+1.254(4)-.775)})= 0.8243 \\ \text{Odds}=(1.490)(.223)(.416)(.488)(3.504)^{(4)}(.461)=4.6877$$

For a student with the same demographic characteristics but the lowest possible self-determination score of 1, the predicted probability of visiting the counselor for college information was just under 10% (see calculation). The predicted odds of 0.10896 indicated that the student was about 9.2 times more likely *not* to visit the counselor for college information as to visit the counselor for college information.

Calculation:  $P=1/(1+e^{-(.398-.876-1.499-.718+1.254(1)-.775)})= 0.0983$   
 Odds= $(1.490)(.223)(.416)(.488)(3.504)^{(1)}(.461)= 0.10896$  (The reciprocal (9.1776) was calculated to aid in interpretation, as the odds ratio was less than 1.)

To compare odds for students with different profiles, an odds ratio can be computed. For example, comparing the two student profiles above, which differ only on the self-determination level, would yield  $4.6877/0.10896 = 43$ . This odds ratio means that students with the highest possible self-determination score was 43 times more likely to visit the school counselor for college information than was the student with the lowest possible self-determination score. Comparing the high self-determination student to a student with the same demographic characteristics but with an average self-determination score of approximately 2.45 would yield an odds ratio of  $4.6877/0.6712 = 6.984$ . Therefore, the student with the highest level of self-determination is about seven times more likely to go to the counselor for college information than is the student with an average level of self-determination. In addition to self-determination this study makes a significant contribution in reference to the race and ethnicity differences among students with disabilities.

The odds ratios for comparisons between males and females are very distinct. A Black female (learning disabled student, SES 3rd Quartile, average self-determination) is 2.4031 times more likely to visit the counselor for college information than her male counterpart. Likewise a White female (learning disabled student, 3<sup>rd</sup> SES Quartile with, Average self-determination) is 2.4039 times more likely to visit the counselor for college information than her male counterpart. The results demonstrate that females regardless of race and ethnicity are more likely to visit the counselor for college information than males.

In reference to race there are also significant differences. A White male (learning disabled student, SES 3<sup>rd</sup> Quartile, average self-determination) is 71.4285 times more likely to visit the counselor for college information than a Hispanic male with the same disability type, SES Quartile, and self-determination level. A White Female with the same profile as the White male above is 4.4859 as likely to visit the counselor for college information as a Black Female with the same profile as the White female.

### School Variables

School variables selected from ELS:2002 for analysis included school enrollment and number of school counselors. School enrollment and number of school counselors were treated as continuous variables and analyzed with the variable of whether or not a student visited the counselor for college information using Pearson's correlations.

The correlation analysis provided insight into the relationships between pairs of these three variables. All of the correlations were statistically significant ( $p < .001$ ). As might be expected, there was a positive correlation (.803) between the number of school counselors and school enrollment (see [Table 4.4](#)). A small but positive correlation (.066) between the number of counselors in the school and the dependent variable indicated that having more counselors in a school is associated with students with disabilities visiting the counselor for college information. The small but negative correlation between school enrollment and visiting the counselor (-.045) means that a larger number of students in a school is associated with a smaller number of students with disabilities visiting the school counselor for college information. A smaller school has a slightly greater probability that students with disabilities will visit the school counselor than at a school with a larger population of students.

### Summary

The theoretical framework of self-determination demonstrated noteworthy outcomes of predictability of contact with the counselor. The results of the logistic regression analysis clearly confirmed that higher levels of self-determination increased the probability of a student with disabilities going to the counselor for college information. With regard to SES quartiles, a student in the highest quartile has a greater probability of going to the counselor for college education than does a student in the second or third quartile, but a student in the lowest quartile has a slightly higher probability of going to the counselor than the highest SES student. Holding all else constant, female students have a higher probability of contacting the counselor for college information than male students. When comparing racial groups, White students have the highest statistically significant probability of going to the counselor for college information, followed by Hispanic (race specified), then Black students. The lowest level of probability of going to the counselor is for Hispanic (race not specified) students. Probability and odds profiles for students with any combination of the characteristics included in the model can be calculated. Two racial groups (American Indian/Native American and Asian) and three disability types

(mental retardation, emotional disturbance, and orthopedic) were not statistically significant in the model and therefore are not interpreted.

The correlation analysis of the two school-level variables (school enrollment and number of counselors) and whether the student visited the counselor for college information showed statistical significance for all three pairs of variables. The correlation between school enrollment and the number of counselors was positive and high (.803), indicating the large schools tend to have a large number of counselors. There was a small positive relationship (.066) between the number of counselors and students with disabilities visiting the counselor for college information. A small negative correlation (-.045) described the relationship of the school enrollment and whether or not students with disabilities went to the counselor for college information.

**Table 4.1: Model Summary for Sex, Race, SES, Self-Determination, Disability Type<sup>a</sup>**

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Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	Nagelkerke R Difference
1	37593.107	.152	.213	
2	36307.941	.183	.256	.043
3	29782.320 <sup>a</sup>	.324	.453	.197

<sup>a</sup>Estimation terminated at iteration number 20 because maximum iterations has been reached. Final solution cannot be found.

**Table 4.2: Classification Table for Sex, Race, SES, Self-Determination, Disability Type<sup>a</sup>**

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	<u>Observed</u>	<u>Predicted</u>			
		Has gone to counselor for college entrance information		Percentage Correct	
		No	Yes		
Step 1	Has gone to counselor for college entrance information	No	6047	4979	54.8
		Yes	1504	22064	93.6
	Overall Percentage				81.3

<sup>a</sup> The cut value is .500

**Table 4.3: Variables in the Equation**[\[Return to TOC\]](#) [\[Return to text\]](#)

Variables	Descriptor	B	S.E.	Wald	df	Sig.	Exp(B)
Step							
1 <sup>a</sup>							
BYSEX	Female <sup>a</sup>						
BYSEX(1)	Male	-.876	.033	704.112	1	.000	.416
<u>Race/Ethnicity</u>							
BYRACE	White <sup>a</sup>			3135.831	6	.000	
BYRACE(1)	Amer. Indian/Alaska Native	18.785	2559.682	.000	1	.994	1.440E8
BYRACE(2)	Asian, Hawaii/Pac.Islander	.011	.137	.006	1	.938	1.011
BYRACE(3)	Black or African American	-1.499	.046	1052.522	1	.000	.223
BYRACE(4)	Hispanic, no race specified	-4.296	.095	2056.179	1	.000	.014
BYRACE(5)	Hispanic, race specified	-.823	.050	273.271	1	.000	.439
BYRACE(6)	Multiracial	-2.880	.071	1666.515	1	.000	.056
<u>Socio-economic</u>							
BYSES2QU	4th Socioeconomic quartile <sup>a</sup>			1526.177	3	.000	
BYSES2QU(1)	1st Socioeconomic quartile	.289	.057	25.314	1	.000	1.335
BYSES2QU(2)	2nd Socioeconomic quartile	-1.408	.050	795.772	1	.000	.245
BYSES2QU(3)	3rd Socioeconomic quartile	-.718	.050	210.014	1	.000	.488
<u>Self-determination</u>							
BYSELF	Self -determination	1.254	.027	2114.202	1	.000	3.504
<u>Disability</u>							
BYP50A	Learning Disabled	-.775	.051	227.407	1	.000	.461
BYP50B	Speech and Language	-2.187	.046	2214.529	1	.000	.112
BYP50C	Intellectual Disabilities	-23.914	1251.217	.000	1	.985	.000
BYP50D	Emotional Disturbance	.039	.056	.501	1	.479	1.040
BYP50E	Hearing Impairments	-2.562	.079	1055.782	1	.000	.077
BYP50F	Orthopedic Impairments	21.323	1651.775	.000	1	.990	1.822E9
BYP50G	Visual Impairments	-.353	.085	17.468	1	.000	.702
BYP50H	Other Disability	.304	.065	21.543	1	.000	1.355
Constant		.398	.085	21.933	1	.000	1.490

<sup>a</sup>Reference



**Table 4.4 Bivariate Correlations for Number of School Counselors, Number of Students in a School, and Whether the Student with Disabilities Visited the Counselor for College Information** [\[Return to TOC\]](#) [\[Return to text\]](#) [\[Return to text page 62\]](#)

		Number of full-time counselors	Has gone to counselor for college information	Number of students
Number of full-time counselors	Pearson <i>r</i>	1	.066**	.803**
	Sig. (2-tailed)		.000	.000
	N	193,507	90,403	183,135
Has gone to counselor for college entrance information	Pearson <i>r</i>	.066**	1	-.045**
	Sig. (2-tailed)	.000		.000
	N	90,403	105,685	89,182
Number of Students	Pearson <i>r</i>	.803**	-.045**	1
	Sig. (2-tailed)	.000	.000	
	N	183,135	89,182	190,224

\*\* Correlation is significant at the 0.01 level (2-tailed).

## **CHAPTER 5**

### **DISCUSSION AND RECOMMENDATIONS**

This study corroborated existing demographic data about students with disabilities and expounded upon the college information contact between school counselors and students. This study pioneered areas of research with a specific focus on students with disabilities, self-determination, and contact with the school counselor during the college information gathering process. The results in this study provided information about the relationship between self-determination and the prevalence of students visiting the counselor for college information regardless of race or socioeconomic status.

#### **Student Variables**

The selected variables provided insight to many facets of students with disabilities who contact the counselor for college information. This research included information that corroborated previous research and has expanded the current research about students with disabilities in reference to (a) sex, (b) race and ethnicity, (c) socioeconomic status, (d) disability type, and (e) self-determination. The results will assist counselor educators and school counselors in developing curricula and programs that will be beneficial in servicing students with disabilities who are interested in college attendance. Additionally, this study demonstrated, as illustrated in previous research, that self-determination is a critical factor in the likelihood of whether students with disabilities pursue and matriculate in college. The data in the current study provided statistically significant relationships between students' with disabilities self-determination level and their pursuit of college information through the school counselor.

#### **Sex**

The information in reference to males and females aligns with previous research about the general education population. As confirmed by previous data, a larger percentage of females visited the counselor for college information than males (Bryan et al., 2009; Bryan et al., 2011). However, this study expanded upon the research and demonstrated that female students with disabilities also visited the counselor for college information at higher rates. In light of the fact that males are disproportionately represented in special education, these results are important to the development of comprehensive school counseling programs that reach out to male students for transition planning (Coutinho et al., 2002; MacMillan & Reschley, 1998; Skiba et al., 2008; Turnbull et al., 2002). The fact that these results demonstrated that females consistently visit the

counselor across several race and ethnicity groups indicate that male oriented programs must be developed with competencies that are culturally rich.

### **Race and Ethnicity**

The Hispanic student population with disabilities is the third largest (11.5%) group represented in the data sample behind Black (16.6%) and White students (50.7%) with disabilities (see [Table 3.2](#)). This group of students represents a rapidly growing population and the potential contribution to the college graduate population should not be overlooked.

However, this study revealed that White males (with learning disabilities, 3<sup>rd</sup> socioeconomic quartile, and average self-determination) are 71.428 times more likely to visit the counselor than Hispanic males with the same profile as the White males. This information makes it glaringly obvious that Hispanic males are not being provided services related to college information by school counselors. Additionally, although females in general exceed males in visiting the counselor for college information, White females exceed Black females with the same profile of learning disabled, 3<sup>rd</sup> socioeconomic quartile, and average self-determination. White females with the above profile are 4.4859 times more likely to visit the counselor for college information than their Black female counterparts. All students with disabilities are entitled to Free Appropriate Public Education (FAPE) as mandated by Individuals with Disabilities Improvement Education Act (IDEIA, 2004; Stodden, Jones, & Change, 2002; Wolanin & Steele, 2004). FAPE requires that students have access to high school transition goals that include college. Unfortunately, the Hispanic males and Black females described above are not likely to access the college transition program if they are not visiting the school counselor for college information. The ASCA National Model (2012) provides directives about counseling program delivery systems for all students with accountability standards to assess how counseling programs impact student achievement. Unless the above principles are in place in a comprehensive school counseling program, counselors will not have the needed accountability that measures the impact of services for racially and ethnically diverse students during their postsecondary transition.

### **Socioeconomic Status**

The socioeconomic status of students also is a factor in whether or not the student with disabilities sought out the counselor for college information. According to previous studies (Newman et al., 2010), students whose families earn less income are less likely than

economically advantaged peers to pursue postsecondary college options. Additionally, the Bryan, et.al 2011 results revealed that a student with a lower socioeconomic status was more likely to not go to the counselor for college information; hence, their chances of college application are also unlikely. However, this study demonstrated an inverse relationship with socioeconomic status and the likelihood of students with disabilities to visit the counselor for college information.

For example, a Black male learning disabled student in the 1st socioeconomic quartile with average self-determination status is 1.334 times more likely to visit the counselor for college information than a Black male with all aspects being equal except the 4th socioeconomic profile. This information is parallel to findings that Black students in socioeconomic advantaged school districts are disproportionately placed in special education, which can potentially derail college matriculation (Oswald, Coutinho, & Best, 2002). School counselors can utilize these data and their professional training to structure programs that are inclusive of Black male populations in special education (Nichter & Edmonson, 2005).

### **Self-Determination**

A Black male with learning disabilities with high self-determination (score of 4) in the same socio-economic 3<sup>rd</sup> quartile as a Black male with low self-determination (score of 1) was 43 times more likely to visit the counselor for college information and 6.984 times as likely to visit the counselor for college information than the same profile student with an average score of self-determination (2.45). These self-determination results supported the historical foundation that self-determination has been a catalyst of postsecondary education initiation and success (e.g., Jameson, 2007; Webb, Patterson, Syverud, & Seabrooks Blackmore, 2008).

The data presented in this study made evident that there is a neutralizing factor to the adverse effects of race on the likelihood of students with disabilities visiting the counselor for college information. The historic prevalence of males, Blacks, and Hispanics being less proactive about seeking the counselor for college information confirms the need for counselor educators and school counselors to actively seek out these populations to ensure equal access to academic supports as designated by ASCA (2010). The aforementioned data from the current study provide insight about the relationship of high-self-determination and motivation to seek the school counselor for college information.

Overall, the self-determination composite that represented the theoretical framework in the current study demonstrated a relationship between the level of self-determination and predictability of visiting the counselor for college information. In reference to sex, what was discovered about the respondents in this study was that females traditionally seek college information at higher rates than males. What we learned about socioeconomic status is that students generally in the lower socioeconomic quartiles compared to higher socioeconomic quartiles are more likely to pursue college information. Higher self-determination levels neutralize the adverse effects of race in the pursuit of the counselor for college information. Race consistently created a barrier for students with disabilities in reference to visiting the counselor for college information unless self-determination was higher. This information demonstrated an opportunity for school counselors to initiate contact with students with learning disabilities to identify their needs to assist in adding college matriculation as a goal. These data have reinforced an evaluation of the types of school counselor support and staffing availability that is in place to assist students with disabilities with their postsecondary college transition process.

### **School Variables**

School variables selected from ELS:2002 for analysis included school enrollment and number of school counselors. School enrollment and number of school counselors were treated as continuous variables and analyzed using a Pearson's correlation.

#### **School Enrollment and Number of School Counselors**

The results of the Pearson's correlation supported previous research that examined student to counselor ratios by demonstrating a statistical significant ( $p < .001$ ) relationship. There was a positive correlation (.803) between the number of school counselors and school enrollment (see [Table 4.4](#)). In particular, the small yet positive correlation (.066) between the number of counselors in the school and the dependent variable indicated that having more counselors in a school is associated with students with disabilities visiting the counselor for college information. These results have paramount implications because, not only do these data support previous research (Bryan et al., 2009; Bryan et.al, 2011; Kushner et al., 2011), the additional information about a negative correlation (-.045) of a larger number of students in a school is associated with a smaller number of students with disabilities visiting the school counselor for college information. This information has provided information to support the

standard that counselors provide services to all students regardless of ability or student-to-counselor ratios as recommended by ASCA (2010a, 2010b; Bryan et al., 2011). No Child Left Behind legislation supports the mandate that students with disabilities receive a postsecondary transition plan that can include college participation. These results will inform school counselors that students with disabilities are not likely to visit the counselor for college information if schools have a larger number of students. This study has provided significant information about the implications for students with disabilities in large student populated schools and has emphasized the positive impact school counselors can have with college information for students with disabilities.

### **Recommendations**

The recommendations to school counselors as a result of this research are to be proactive in developing comprehensive postsecondary transition programs for students with disabilities that accommodate their personal characteristics (i.e., race and ethnicity, sex, socioeconomic status, disability type, self-determination) that might influence contact with the school counselor for college information. Further, professional development opportunities for school counselors should be provided to increase a college transition delivery system of services that is grounded in data as exemplified through this study.

Counselor educators have a wealth of information from this study that demonstrates a need to develop graduate school curriculum that is inclusive of the characteristics and perceptions of students with disabilities and their legislative rights in reference to their contact with school counselors. Researchers can expand the quantitative analysis of students with disabilities contact with counselors for college information by examining individual variables of self-determination. Additionally, phenomenological qualitative studies that examine the student's with disabilities individual reflections about their contact with school counselors for college information can increase the accountability data to better service students with disabilities in their pursuit of college. This study also provides information to state education leaders who influence mandates on student-to-counselor ratios that have a direct impact on whether students with disabilities visit the counselor for college information.

Overall, this research has provided a concentrated focus on students with disabilities whose matriculation in college is increasing. As a result, it is the responsibility of counselors,

educators, and legislators to ensure that matriculation to college for students with disabilities continues to grow.

### **Implications**

This study adds to the body of research through the examination of selected characteristics for students with disabilities who contact the school counselor for college information. These characteristics included the following: (a) sex, (b) race and ethnicity, (c) socioeconomic status, (d) self-determination, (e) disability type, and (f) student-to-counselor ratio. This research explored an understanding of the relationship between counselor contact for college information and students' need for a delivery system that is academically challenging, culturally relevant, and equally accessible. The comprehensive counseling services that should be supplied to students with disabilities include rigorous course schedule, diploma selection, and postsecondary options that should neutralize equity differences in gender, race, and socioeconomic status (Bryan et al., 2009, 2011). In particular, the information about Hispanic females and males being less likely to visit the counselor for college information at higher rates than other racial groups should be assessed based on the implications of its weight on the college application process and adherence to a comprehensive school counseling program (ASCA, 2003). This study supports the need for additional research on school counseling practices and counselor education curriculum development for students with disabilities pursuing further education. Further, collaborative dialogue among special education teachers, school counselors, administrators, and support personnel needs to be expanded.

### **Limitations**

There are a few limitations to the results of the current study. First, the study used a secondary dataset with a preselected set of questions. Second, the researcher did not have access to the ELS:2002 restricted dataset that would include more variables related to students with disabilities. For example, the current database does not provide counselor questions that would help the researcher determine if and how counselors promoted self-determination in students. As such, a composite score for a self-determination variable was formulated based on Wehmeyer's definition of autonomy, self-realization, self-regulation, and psychological empowerment and the limited availability of variable items.

A logistic regression model was conducted to determine the predictability of sex, race and ethnicity, socioeconomic status, disability type, and self-determination on whether students

with disabilities were likely to visit the counselor for college information. The logistic regression results should be accepted with reservation. There were 45.2% false positives of students with disabilities who did not visit the counselor, but the logistic regression model predicted that they did visit the counselor, which might affect the interpretation of the results. The prediction was more accurate (93.6%) for students who visited the counselor; however, the self-determination composite was correct for only 54.8% of students with disabilities who did not go to the counselor.

### **Summary**

Evidence from this research clearly demonstrated strong relationships among the selected variables analyzed to determine the characteristics of students with disabilities who contact the school counselor for college information. The data that were presented in this study inform students with disabilities, parents of students with disabilities, school counselors, counselor educators, education administrators, special educators, and legislators about the influence of the characteristics of students with disabilities and their contact with counselors for college information. Collectively, the aforementioned groups of people all have a responsibility to ensure that the findings of this study become a catalyst for increased contact between students with disabilities and school counselors for college information. This research marks the first time a national longitudinal database was used to investigate the characteristics of students with disabilities who contact the counselor for college information based on the extensive variables in this study. This study examined the critically disproportionate representation of sex and race and ethnicity of students with disabilities and its commensurate impact on whether they contacted the school counselor for college information. Additionally, socioeconomic status was evaluated to determine its impact on students' with disabilities opportunities to access the counselor for college information. Sex, race and ethnicity, socioeconomic status, and self-determination all have an impact on students' with disabilities opportunities to contact the counselor for college information. Results from this study provide statistical evidence that school counselors must ensure outreach to students with disabilities during the transition process regardless of sex, race and ethnicity, socioeconomic status, or counselor to student ratio.

The self-determination composite was explored to gain insight into the influence of self-determination on whether the student with disabilities would visit the counselor for college information. The calculated probability and odds demonstrated that there is a predictive



likelihood in whether students visited the counselor for college information based on their level of self-determination. Consequently, this study provided a foundation for exploring the opportunities that school counselors make available to students with disabilities for developing internal characteristics of self-determination that will lead to success in college matriculation (Jameson, 2007; Ward, 2005; Wehmeyer & Schalock, 2001).

This study answered the research question, *What are the characteristics of students with disabilities who contact the school counselor for college information?* The results of this study have provided statistically significant information about students with disabilities who visit the school counselor for college information. As exemplified above, the information in this study makes a contribution to the body of research in reference to students with disabilities and their pursuit of college information.

### References

- Akos, P. (2009). School counselor assignment in secondary schools. *Professional School Counseling, 13*(1), 23-29.
- Akos, P., Cockman, C., & Strickland, C. (2007). Differentiating classroom guidance. *Professional School Counseling, 10*, 455-463.
- Alexander, M. (2010). *The Jim Crow: Mass incarceration in the age of colorblindness*. New York: New Press.
- Amatea, E., & Clark, M. (2005). Changing schools, changing counselors: A qualitative study of school administrators' conceptions of the school counselor role. *Professional School Counseling, 9*, 16-27.
- American School Counselor Association. (2010a). Ethical standards for school counselors, Retrieved from <http://asca2.timberlakepublishing.com/files/EthicalStandards2010.pdf>
- American School Counselor Association. (2010b). The professional school counselor and students with special needs. Retrieved from <http://www.schoolcounselor.org/files/PositionStatements.pdf>
- American School Counselor Association. (2003). *The ASCA national model: A framework for school counseling programs*. Alexandria, VA.
- American School Counselor Association. (2012). *The ASCA national model: A framework for school counseling programs (3<sup>rd</sup>)*. Alexandria, VA.
- American School Counselor Association (2012). The Role of the Professional School Counselor Retrieved from <http://www.schoolcounselor.org/content.asp?contentid=240>
- Arndt, S.A., Konrad, M., & Test, D.W. (2006). Effects of the self-directed IEP on student participation in planning meetings. *Remedial and Special Education, 27*(4), 194-207.
- Askoy, V., & Diken, I.H. (2009). Examining school counselors' sense of self-efficacy regarding psychological consultation and counseling in special education, *Elementary Education Online, 8*(3), 709-719.
- Baditoi, B.E., & Brott, P.E. (2011). *What school counselors need to know: About special education and students with disabilities*. Arlington VA: Council for Exceptional Children.

- Bryan, J., Day-Vines, N.L., Griffin, D., & Moore-Thomas, C. (2012). The disproportionality dilemma: Patterns of teacher referrals to school counselors for disruptive behavior. *Journal of Counseling and Development, 90*, 177-190.
- Bryan, J., Holcomb-McCoy, C., Moore-Thomas, C., & Day-Vines, N.L. (2009). Who sees the school counselor for college information? A national study. *Professional School Counseling, 12*(4), 280-291.
- Bryan, J., Moore-Thomas, C, Day-Vines, N.L., & Holcomb-McCoy, C. (2011). School counselors as social capital: The effects of high school college counseling on college application rates. *Journal of Counseling & Development, 89*, 190-199.
- Council for Accreditation of Counseling and Related Educational Programs. (2009). CACREP 2009 Standards. Retrieved from <http://www.cacrep.org/doc/2009%20Standards%20with%20cover.pdf>
- Coutinho, M.J., Oswald, D.P., & Best, A.M. (2002). The influence of socio demographics and gender on the disproportionate identification of minority students as having learning disabilities. *Remedial and Special Education, 23*. 49-59.
- Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future*. New York: Teachers College Press.
- Deci, E.I., & Ryan, R.M. (1985). The General causality orientations scale: Self-determination in personality. *Journal of Research in Personality, 19*, 109-134.
- deFur, S., & Patton, J. (1999). *Transition and school-based service: Interdisciplinary perspectives for enhancing the transition process*. Austin, TX: Pro-Ed.
- Durlak, C.M., Rose, E., & Bursuck, W.D. (1994). Preparing high school students with learning disabilities for the transition to postsecondary education: Teaching the skills of self-determination. *Journal of Learning Disabilities, 27*(1), 51-59.
- Edelman, P., Holzer, H.J., & Offner, P. (2006). *Reconnecting disadvantaged young men*. Washington DC: Urban Institute Press.
- Education Longitudinal Study of 2002 (ELS:2002): See: Ingels, S.J., Pratt, D.J., Wilson, D., Burns, L.J., Currivan, D., Rogers, J.E., & Hubbard-Bednasz, S. (2007). Everson, J.M., Zhang, D., & Guillory, J.D. (2001). A statewide investigation of individualized plans in Louisiana. *Career Development for Exceptional Individuals, 24*, 37-49.

- Everson, J.M., Zhang, D., & Guillory, J.D. (2001). A statewide investigation of individualized transition plans in Louisiana. *Career Development for Exceptional Individuals, 24*, 37-49.
- Ford, D.Y., Moore, J.L., & Trotman Scott, M. (2011). Key theories and frameworks for improving the recruitment and retention of African American students in gifted education. *Journal of Negro Education, 80*, 239-253.
- Foster, L.H., Young, J. S., & Hermann, M. (2005). The Work Activities of Professional School Counselors: Are the National Standards Being Addressed? *Professional School Counseling, 8*(4), 313-321.
- Gibbons, M.M., & Shoffner, M. F. (2004). Prospective first-generation college students: Meeting their needs through social cognitive career theory. *Professional School Counseling, 8*, 91-97.
- Hayes, R.L., & Paisley, P.O. (Summer, 2002). Transforming school counselor preparation programs. *Theory into Practice, 41*(3), 169-176.
- Hosp. J. L., & Reschly, D. J. (2003). Referral rates for intervention or assessment: A meta-analysis of racial differences. *The Journal of Special Education, 37*, 67-80.
- Hossler, D., Schmit, J., & Vesper, N. (1998). *Going to college: How social, economic, and educational factors influence the decisions students make*. Baltimore, MD: Johns Hopkins University Press.
- H.R. 2579--111th Congress: Pathways to College Act. (2009). In *GovTrack.us (database of federal legislation)*. Retrieved from <http://www.govtrack.us/congress/bill.xpd?bill=h111-2579>
- Individuals with Disabilities Education Improvement Act of (IDEIA) (2004), Retrieved from <http://www2.ed.gov/legislation/FedRegister/other/2005-2/040105a.html>
- Ingels, S.J., Pratt, D.J., Wilson, D., Burns, L.J., Currivan, D., Rogers, J.E., & Hubbard-Bednasz, S. (2007). *Education Longitudinal Study of 2002: Base-year to second follow-up data file documentation (NCES 2008-347)*. U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- Jameson, R.D. (2007). Self-determination and success outcomes of two-year college students with disabilities. *Journal of College Reading and Learning, 37*(2), 26-46.

- Janiga, S. J., & Costenbader. (2002). The transition from high school to postsecondary education for students with disabilities: A survey of college service coordinators. *Journal of Learning Disabilities, 35*(5), 462-468.
- Janson, C., Guikkot Miller, L., & Rainey, S. (2007). From apprehension to advocacy: A Q study into preservice school counselors' attitudes toward working with students with disabilities. *Journal of Special Education Leadership, 20*(2), 73-83.
- Kim-Rupnow, W.S., & Burgstahler, S. (2004). Perceptions of students with disabilities regarding the value of technology-based support activities on postsecondary education and employment. *Journal of Special Education Technology, 19*(2), 43-56.
- Kosine, N. R. (2007). Preparing students with learning disabilities for postsecondary education: what the research literature tells us about transition programs. *Journal of Special Education Leadership, 20*(2), 93-104.
- Kushner, J., Maldonado, J., Pack, T., & Hopper, B. (2011). Demographic report on special education students in postsecondary education: Implications for school counselors and educators. *International Journal of Special Education, 26*(1), 175-181.
- Levinson, E. M., & Ohler, D.L. (1998). Transition from high school to college for students with learning disabilities: Needs, assessment, and services. *The High School Journal, 82*(1), 62-69.
- MacMillan, D. L., & Reschly, D. J. (1998). Overrepresentation of minority students: The case for greater specificity of the variables examined. *The Journal of Special Education, 32*, 15-24.
- Madaus, J.W. (2006). Employment outcomes of university graduates with learning disabilities. *Learning Disability Quarterly, 29*, 19-31.
- Martin, J.E., Van Dycke, J, L., Christensen, W.R., Greene, B.A., Gardner, J.E., & Lovett, D.L. (2006). Increasing student participation in IEP meetings: Establishing the self-directed IEP as an evidenced-based practice. *Exceptional Children, 72*(3), 299-316.
- Mason, C. (2004). Implementation of self-determination activities and student participation in IEPs. *Exceptional Children, 70*(4), 441-451.

- McDonough, P.M. (2005). Counseling matters: Knowledge, assistance, and organizational commitment in college preparation. In W.G.Tierney, Z.B. Corwin, & J.E.Colyar (Eds.), *Preparing for college: Nine elements of effective outreach* (pp. 69-87). Albany: State University of New York Press.
- Miceli, M.A. (2008). *The associations among youth characteristics, secondary school experiences, and enrollment in two-and four year colleges among youth with Disabilities*. Graduate School of the University of Maryland, College Park, MD.
- Milsom, A. (2007). School counselor involvement in postsecondary transition planning for students with disabilities. *Journal of School Counselor*, 5(23), 1-21.
- Milsom, A., & Hartley, M.T. (2005). Assisting students with learning disabilities transitioning to college: What school counselors know. *Professional School Counselor*, 8(5) 436-441.
- Mithaug, D.E. (1996). The optimal prospects principle: A theoretical basis for rethinking instructional practices for self-determination. In D.J. Sands and M.L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 147-165). Baltimore, MD: Paul H. Brookes.
- Moloney, M., Whitney-Thomas, J., & Dreilinger, D. (2000). Self-determination and struggle in the lives of adolescents. *Research to Practice*, 6(2), 1-4. Retrieved from <http://www.communityinclusion.org/publications/text/rp23text.html>
- Monteiro-Leitner, J., Asner-Self, K.K, Milde, C., Leitner, D.W., & Skelton, D. (2006). The role of the rural school counselor: Counselor, counselor-in-training, and principal perceptions. *Professional School Counseling*, 9(3), 248-251.
- National Association for College Admission Counseling. (Spring 1991). Statement on counselor competencies, 131, 38-46.
- National Center on Secondary Education and Transition. (2011). Self-determination for middle and high school students. Retrieved from <http://www.ncset.org/topics/sdmhs/default.asp?topic=30>
- National Council on Disability and Social Security Administration (2000). *Transition and post-school, outcomes for youth with disabilities: closing the gaps of postsecondary education and employment*. Washington, DC: Author.

- Neal, L. I., McCray, A.D., Webb-Johnson, G., & Bridgest, S.T. (2003). The effects of African American movement styles on teachers' perceptions and reactions. *The Journal of Special Education, 37*(1), 49-57.
- Newman, L., Wagner, M., Cameto, R., Knokey, A.M., & Shaver, D. (2010). *Comparisons across time of the outcomes of youth with disabilities up to 4 years after high school . A report of findings from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved from [http://www.nlts2.org/reports/2010\\_09/nlts2\\_report\\_2010\\_09\\_complete.pdf](http://www.nlts2.org/reports/2010_09/nlts2_report_2010_09_complete.pdf)
- Newman, L., Wagner, M., Knokey, A.-M., Marder, C., Nagle, K., Shaver, D., Wei, X., with Cameto, R., Contreras, E., Ferguson, K., Greene, S., & Schwarting, M. (2011). *The Post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2)* (NCSE 2011-3005). Menlo Park, CA: SRI International.
- Nichter, M., & Edmonson, S. (2005). Counseling services for special education students. *Journal of Professional Counseling: Practice, Theory & Research, 33*(2), 50-62.
- Nirje, B. (1972). The right to self-determination. In W. Wolfensberger (Ed.), *Normalization: The principle of normalization in human services* (pp.176-200). Toronto: National Institute on Mental Retardation.
- No Child Left Behind (NCLB) Reauthorization: 2009 Recommendations, Retrieved from <http://www.NACACNET.ORG/legislativeactionrecommendations/pages/default.ASPX>
- Orfield, G., Losen, D., Wald, J., & Swanson, C., (2004). *Losing Our Future: How Minority Youth are being left behind by the graduation rate crisis*, Cambridge, MA: The Civil Rights Project at Harvard University. Contributors: Advocates for Children of New York, The Civil Society Institute.
- Oswald, D.P., Coutinho, M.J., & Best, A.M. (2002). Community and school predictors of overrepresentation of minority children in special education. In D.L. Losen & G. Orfield (Eds.), *Racial inequity in special education* (pp. 1-13). Cambridge, MA: Harvard Education Press.
- Patton, J. M. (1998). The disproportionate representation of African Americans in special education: Looking behind the curtain for understanding and solutions. *The Journal of Special Education, 32*, 25-31.

- Perna, L.W., Rowan-Kenyon, H., Thomas, S.L., Bell, A., Anderson, R., & Li, C. (2008). The role of college counseling in shaping college opportunity: Variations across high schools. *Review of Higher Education, 76*, 485-518. doi:10.1353/jhe.2005.0036
- Pierangelo, R. (2003). *The Special Educator's Book of Lists* (2<sup>nd</sup> ed). CA: John Wiley & Sons.
- Rodis, P., Garrod, A., & Boscardin, M.L. (2001). *Learning disabilities and life stories*. Boston: Allyn and Bacon.
- Rosenberg, M.S, Westling, D.L., & McLeskey, J., (2008). *Special Education for today's teachers: An introduction*, NJ: Pearson Prentice Hall.
- Russell, K.K. (2009). *The color of crime: racial hoaxes, white fear, black protectionism, police harassment, and other macroaggressions*. New York: NYU Press.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78. Retrieved October 22, 2005 from <http://content.apa.org/journals/amp/55/1/68.html>
- Sabens, F.S., & Zyromski, B. (2009). Aligning school counselors, comprehensive school counseling programs, and the No Child Left Behind Act of 2001. *Journal of School Counseling, 7*(31) 1-31.
- Sanford, C., Newman, L., Wagner, M., Cameto, R., Knokey, A.-M., & Shaver, D. (2011). *The post-high school outcomes of young adults with disabilities up to 6 years after high school. Key findings from the National Longitudinal Transition Study-2 (NLTS2)* (NCSER 2011-3004). Menlo Park, CA: SRI International.
- Shearin, A., Roessler, R., & Schriener, K. (1999). Evaluating the transition component in IEPs of secondary students with disabilities. *Rural Special Education Quarterly, 18*(2), 22-35.
- Skiba, R. J., Simmons, A. D., Ritter, S., Gibb, A., Rausch, M. K., Cuadrado, J., & Chung, C. G. (2008). Achieving equity in special education: History, status, and current challenges. *Exceptional Children, 74*, 264-288.
- Stodden, R.A., Jones, M.A., & Chang, K.B.T. (2002). *Services, supports and accommodations for individuals with disabilities: An analysis across secondary education, postsecondary education and employment*. Unpublished manuscript retrieved from [http://www.ncset.hawaii.edu/publications/pdf/services\\_supports.pdf](http://www.ncset.hawaii.edu/publications/pdf/services_supports.pdf)
- Test, D. W., & Neale, M. (2004). Using the self-advocacy strategy to increase middle graders' IEP participation. *Journal of Behavioral Education, 13*, 135-145.



- Trainor, A.A. (2007). Perceptions of adolescent girls with LD regarding self-determination and postsecondary transition planning. *Learning Disability Quarterly*, 30, 31-45.
- Trainor, A.A. (2005). Self-determination perceptions and behaviors of diverse students with LD during the transition planning process. *Journal of Learning Disabilities*, 38(3). 233-249.
- Turnbull, A., & Turnbull, R. (2006). Self-determination: Is a rose by any other name still a rose? *Research and Practice for Persons with Severe Disabilities*, 31(1), 83-88.
- Turnbull, R., Turnbull, A., Shank, M., Smith, S., & Leal, D. (2002). *Exceptional education in today's schools*. Upper Saddle River, NJ: Prentice Hall.
- U.S. Dept. of Education, National Center for Education Statistics. (2006a) *Education Longitudinal Study (ELS), 2002: Base Year*. Washington, DC: U.S. Dept. of Education, National Center for Education Statistics.
- U.S. Dept. of Education, National Center for Education Statistics. (2000). *Postsecondary students with disabilities: Enrollment, services, and persistence* (NCES Publication No. 2000-092). Jessup, MD: Education Publications Center.
- U.S. Department of Education. (2006). *Twenty-sixth annual report to Congress on the implementation of the Individuals with Disabilities Education Act*. Washington, DC: Author.
- U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs (OSERS) (2009). *28<sup>th</sup> Annual Report to Congress on the implementation of the Disabilities Education Act, 2006*, vol. 1, Washington, DC.
- Wagner, M., Newman, L., Cameto, R., Levine, P., & Marder, C. (2007). Perceptions and expectations of youth with disabilities. A special topic report on findings from the National Longitudinal Study-2 (NLTS2): Chapter 6-youth's expectations for the future. *The Journal for Vocational Special Needs Education*. (30)1.
- Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P (2005) *A first look at the post school experiences of youth with disabilities A report from the National Longitudinal Transition Study-2 (NLTS2)*. (NCSE 2006-3004). Menlo Park: CA: SRI International.
- Ward, M.J. (1996). Coming of age of self-determination: a historical and personal perspective. In D. J. Sands & M.L. Wehmeyer (Eds.). *Self-determination across the life span: Independence and choice for people with disabilities* (pp. 1-16). Baltimore: Paul H. Brookes.

- Ward, M.J. (2005). An historical perspective of self-determination in special education: accomplishments and challenges. *Research & Practice for Persons with Severe Disabilities*, 30(3), 108-112.
- Ward, M.J., & Kohler, P.D. (1996). Promoting self-determination for individuals with disabilities: Content and process. In L.E. Powers, G.H.S. Singer, & J. Sowers (Eds.), *On the road to autonomy: Promoting self-competence in children and youth with disabilities* (pp. 275-290). Baltimore: Paul H. Brookes.
- Webb, K.W, Patterson, K.B, Syverud, S.M., & Seabrooks Blackmore, J.J. (2008). Evidenced based practices that promote transition to postsecondary education: Listening to decade of expert voices. *Exceptionality*, 16, 192-206.
- Wehmeyer, M.L. (1995a). The Arc's Self-Determination Scale: Procedural guidelines. *Office of Special Education and Rehabilitative Services (ED)*. Washington DC. Div of Innovation and Development.
- Wehmeyer, M. L. (1995b). The use of assistive technology by people with mental retardation and barriers to this outcome: A pilot study. *Technology and Disability*, 4, 195-204.
- Wehmeyer, M.L. ( 1996 ). Self-determination as an educational outcome: Why is it important to children, youth, and adults with disabilities? In D.J. Sands & M.L. Wehmeyer (Eds.), *Self-determination across the life span: Independence and choice for people with disabilities* (pp.17-36). Baltimore: Brookes.
- Wehmeyer, M. L. (1997). Self-determination as an educational outcome: A definitional framework and implications for intervention. *Journal of Developmental and Physical Disabilities*, 9, 175-209.
- Wehmeyer, M. (1998). Self-determination and individuals with significant disabilities: Examining meanings and misinterpretations. *Research and Practice with Severe Disabilities*, 23(1).
- Wehmeyer, M. L. (2002). Self-determination on disabilities and gifted education (ERIC EC: E632). *Eric EC Digest*.
- Wehmeyer, M. L. (2004, April). *No content left behind: Self-determination in the era of standards-based reform*. Paper presented at the National Center on Secondary Education and Transition Capacity Building Institute on Self-Determination. New Orleans.

- Wehmeyer, M., Agran, M., & Hughes, C. (1998). *Teaching self-determination to students with disabilities: Basic skills for successful transition*. Baltimore: Paul H. Brookes.
- Wehmeyer, M., Bersani, H., & Gagne, R. (2000). Riding the third wave: Self-determination and self-advocacy in the 21st century. *Focus on Autism and Other Developmental Disabilities, 15*(2), 06-115.
- Wehmeyer, M., & Schalock, R. (2001). Self-determination and quality of life: Implications for special education services and support. *Focus on Exceptional Children, 33*, 1-16.
- Wehmeyer, M., & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation. *Exceptional Children, 63*(2), 245-255.
- Wolanin, T.R., & Steele, P.E. (2004). *Higher education opportunities for students with disabilities: A primer for policymakers*. Washington, DC: The Institute for Higher Education Policy.
- Wolfensberger, W., Nirje, B., Olshansky, S., Perske, R., & Roos, P. (1972). *The principle of normalization in human services* Toronto: National Institute on Mental Retardation.

**Appendix A**

## Wehmeyer's Email Response

[\[Return to text\]](#)

From: "Wehmeyer, Michael L" <[wehmeyer@ku.edu](mailto:wehmeyer@ku.edu)>

Date: Fri, 30 Dec 2011 17:54:46

To: '[prainer@vt.edu](mailto:prainer@vt.edu)'<[prainer@vt.edu](mailto:prainer@vt.edu)>

Subject: RE: Dissertation Research

Hi Paula,

I've looked at the items you've grouped from the ELS: 2002 within the four essential elements of self-determined behavior that we've conceptualized. I would generally agree that the items you've selected reflect each essential element. Given that you're trying to fit items from an extant questionnaire into the self-determination framework, there's only so much you can do, and while I think you should feel comfortable in saying that the items reflect the essential elements or domains, that's not the same as stating that the items fully and adequately measure each essential element or domain. To make that statement, you'd basically have to also collect data on self-determination and look at the relationship between your items and the actual domains on the measure. That's not to say that this isn't useful, as I think it is. I think you can create a composite variable that you call self-determination if you make it clear that this may not be a full measure of self-determination. I'm much more comfortable with creating a composite or latent variable you call self-determination than I would be if you were proposing this as a measure of self-determination. So, as long as you clearly describe what you've done and acknowledge the limits to this, I think there's utility in forming a composite variable with these items and seeing how it plays out!

Good luck with your research, I'll be interested to learn what you've found.

Mike

\*\*\*\*\*

Michael L. Wehmeyer Ph.D.

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## Appendix B

### IRB Approval Letter



Office of Research Compliance  
 Institutional Review Board  
 2000 Kraft Drive, Suite 2000 (0497)  
 Blacksburg, VA 24060  
 540/231-4606 Fax 540/231-0959  
 email [irb@vt.edu](mailto:irb@vt.edu)  
 website <http://www.irb.vt.edu>

#### MEMORANDUM

**DATE:** July 30, 2012  
**TO:** Pamela E Brott, Paula Lynn Rainer  
**FROM:** Virginia Tech Institutional Review Board (FWA00000572, expires May 31, 2014)  
**PROTOCOL TITLE:** Students With Disabilities Who Contact School Counselors  
**IRB NUMBER:** 12-688

Effective July 30, 2012, the Virginia Tech Institution Review Board (IRB) Chair, David M Moore, approved the New Application request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

<http://www.irb.vt.edu/pages/responsibilities.htm>

(Please review responsibilities before the commencement of your research.)

#### PROTOCOL INFORMATION:

Approved As: **Exempt, under 45 CFR 46.110 category(ies) 4**  
 Protocol Approval Date: **July 30, 2012**  
 Protocol Expiration Date: **N/A**  
 Continuing Review Due Date\*: **N/A**

\*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

#### FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.

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