

## ABSTRACT

Title of Dissertation:           **SECONDARY TRANSITION EXPERIENCES:  
ANALYZING PERCEPTIONS, ACADEMIC SELF-  
EFFICACY, ACADEMIC ADJUSTMENT AND  
OVERALL IMPACT ON COLLEGE STUDENTS' WITH  
LD SUCCESS IN POSTSECONDARY EDUCATION**

Allison Lynette Butler, Doctor of Philosophy, 2011

Dissertation directed by:       **Dr. Ellen S. Fabian  
Department of Counseling and Personnel Services**

The National Center for Special Education Research at the Institute of Education Sciences under the United States Department of Education funded the National Longitudinal Transition Study – 2 to provide the first national overview of the characteristics and experiences of youth with disabilities which includes self-representations of themselves, their schooling, their personal relationships, and their future aspirations. The study was initiated in 2001 and data collection ended in 2010. The NLTS2 provided insight to youth's perceptions of secondary experiences and expectations for the future which was an area with limited research. The current study draws from college students with learning disabilities in an attempt to analyze their perceptions through experience. Exploratory and descriptive, this investigation examines the relationship between students' perceptions of their secondary transition experiences,

academic self-efficacy, academic adjustment, and cumulative semester grade point average (GPA). The purpose of this study was to analyze participants' experiences to generate information regarding how students perceive the effectiveness of their secondary transition programs in pursuit of postsecondary success. In addition, this study examined self-efficacy issues and academic adjustment.

Through online survey administration the following instruments were used: a demographic questionnaire, National Longitudinal Transition Study – 2 (NLTS2) Youth Continuation Interview (YCI) containing questions asking participants to rate their perceptions, the Academic Self-Efficacy scale (CASES; Owen and Froman, 1988), and the academic adjustment subscale of the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1989).

Data was analyzed using a one-way Analysis of Variance (ANOVA) and Pearson's product moment correlations. In addition a step-wise multiple regression was performed in order to identify the most influential factors associated with postsecondary academic success (GPA). Academic self-efficacy was the primary determinant of student success. Variables found to have significant relationships with academic self-efficacy were perceptions of secondary transition experiences, academic adjustment, self-reported cumulative grade point average, and number of semesters completed. An inverse relationship was discovered to exist between academic self-efficacy and type of institution as well as being African American and Latino students.

SECONDARY TRANSITION EXPERIENCES: ANALYZING PERCEPTIONS,  
ACADEMIC SELF-EFFICACY, ACADEMIC ADJUSTMENT AND GPA FOR  
COLLEGE STUDENTS WITH LEARNING DISABILITIES PURSUING  
POSTSECONDARY EDUCATION

By

Allison Lynette Butler

Dissertation submitted to the Faculty of the Graduate School of the  
University of Maryland, College Park, in partial fulfillment  
of the requirements for the degree of  
Doctor of Philosophy  
2011

Advisory Committee:

Dr. Ellen Fabian, Chair  
Dr. Jo Ann Hutchinson  
Dr. Courtland Lee  
Dr. William Sedlacek  
Dr. Steven Selden

© Copyright by  
Allison Lynette Butler  
2011

## Dedication

This dissertation is dedicated to my mother Annie Louise Butler (1945-2004).

## Acknowledgements

I could never accomplish this feat without the support and guidance of my committee. I appreciate the critiques from my dissertation chair, Dr. Ellen Fabian, which helped me develop a strong body of research. Without her expertise, I could not have completed this body of work. I would like to thank Dr. Courtland Lee who helped me consider this topic when I had no idea where to begin. He has given me a passion for teaching and has been a wonderful mentor. He had created so many opportunities for me to publish as well as present at local and national conferences. It has been an honor to work under your leadership. Dr. Jo Ann Hutchinson has been a constant support and helped me develop the confidence in myself. In addition she has been a great supervisor and mentor over the years. Special thanks to Dr. William Sedlacek who was always a phone call away. I appreciate your patience, motivation, and understanding throughout my tenure as a graduate student. My deepest gratitude to Dr. Steven Selden who dedicated his time as a Dean's representative. I have truly appreciated your input. He has been an excellent teacher. The combined efforts of my committee challenged me and my research and writing has improved under their guidance.

Thank you to all the participating colleges' and universities' Disability Service offices: University of Maryland, College Park; University of Maryland, Eastern Shore; Salisbury University; Montgomery Community College; Prince George's Community College; and Northern Virginia Community College. I would especially like to thank the following people for their support and time: Dr. William Talley who took the time to mentor me and support my efforts throughout the years; Julie Dyer, Thomas Mays, and NOVA Disability Services Leadership Team.

I would like to thank my fellow peers in the Department of Counseling and Personnel Services. I never felt alone because we all had to face similar challenges. The support from each of you gave me strength. I would like to thank the following doctoral students: Glacia Ethridge, Alissa Mayers and Nicole Bryan. A special thanks to my sister/friend Dr. Marja Humphrey. We experienced this whole process together and I could not have gotten this far without you. I am so thankful that you, Kamarica, Jonathan, and Amisa are part of my life.

I have to share my deepest gratitude to the UMD's Counseling Center and Disability Support Services offices. I truly appreciate your support. I always felt like I was part of a family. A special thanks to Dr. Margaretha Lucas, I have valued your guidance and I appreciate your willingness to always help. I would also like to thank: Dr. Vivian Boyd, and Dr. Sharon Kirkland-Gordan. A special thanks to my second mother, Kathleen Wilcox, who has always cared about my best interest. I am so lucky to have you in my life. My dearest sister friend, Evalyn Hamilton, who always supported me – I love you dearly.

I truly have to thank all of my friends through all walks of my life who listened to my complaints, fears, and struggles throughout the years: Ginelle Bates, Shani Allison, Melanie Smith, Kristy Vernille-Blocklin, Raushanah Kareem, Stephanie Issacs, Kristin Williams, Claudette Pridgen, Stefan Charles-Pierre, Amy Cooper, Apryl Houston, Beverly Russell, and Wendi Williams.

The love, encouragement, and prayers of my family has been a true testament to my success. My daddy, David Butler Jr., always expected the best from me and gave me the drive to pursue higher education. My sister, Shawndra 'Shorty' Wynn, has always

supported her little sister. Thank you for always looking out for me. I would especially like to thank: Walter, Xavier, and Quincy Wynn, Kenneth and Carole Butler, Grandma and Grandpa Butler, Denise, Joseph and Shirley Moore, David and Linda Collins Sr., Yvonne Ross, Louis and Shirley Butler, Grandma Aline Harris, Grandpa Johnny, Early and Toretha Fox, Dorothy Harris, Levi and Laura Harris, Clarence and Joyce Harris, Catherine Williams, Beverly Weston, and Frank Williams. Thank you to all my cousins: Clay and Renee, LeAnn, Johnny, Aaron and Maria, Shemia, John and Michelle, Ayana, and Joseph. I love you all dearly. A special thanks to my cousin/little sister Kyah Gill. Thank you for always being there for me over the years.



## Table of Contents

Dedication .....	ii
Acknowledgements .....	iii
Table of Contents .....	vi
List of Tables .....	viii
List of Figures .....	ix
Chapter I: Introduction .....	1
Perceptions and Expectations of Youth with Disabilities .....	2
Adjustment of Postsecondary Education for Students with LD .....	3
Self-Efficacy and Academic Performance .....	5
Statement of Problem .....	6
Significance of the Study.....	6
Purpose an Research Questions.....	7
Definition of Terms .....	9
Chapter II: Literature Review.....	11
Introduction .....	11
Conceptual Framework .....	12
Conceptual Model of the Current Study .....	13
Policies and Legislation affecting Transition.....	16
Individuals with Disabilities Education Act .....	16
Section 504 of Rehabilitation Act 1973 .....	19
Americans with Disabilities Act .....	20
Other Laws and Policies affecting Transition .....	20
Review of Transition Services for Students with LD.....	24
Best Practices in Transition.....	29
Academic Challenges for Students with LD.....	37
Internal Factors that affect Academic Performance .....	37
External Factors that affect Academic Performance .....	38
Academic Self-Efficacy .....	40
Academic Adjustment .....	42
Summary .....	44
Chapter III: Methodology .....	46
Restatement of Problem .....	46
Research Questions .....	46
Participants .....	47
Instrumentation .....	52
Modified YCI Scale .....	53
Academic Self-Efficacy .....	56
Academic Adjustment .....	57
Academic Performance .....	57
Procedures .....	58
Research Design and Data Analysis.....	62
Chapter IV: Results .....	64

Research Question One .....	65
Research Question Two.....	71
Research Question Three.....	72
Research Question Four.....	75
Summary .....	83
Chapter V: Discussion .....	86
Background of Study.....	87
Perception of Secondary Transition Experiences .....	88
Academic Adjustment .....	88
Academic Performance.....	89
Limitations of the Study.....	89
Meaning of the Results.....	100
Recommendations for Practice.....	101
Directions for Future Research.....	102
Conclusion .....	104
Appendices .....	
Appendix A: Demographic Questionnaire.....	105
Appendix B: Dummy Coding for Categorical Variables.....	106
Appendix C: NTLS2 Youth Continuation Interview.....	107
Appendix D: College Academic Self-Efficacy Scale.....	111
Appendix E: SACQ Academic Adjustment Subscale.....	112
Appendix F: Announcement for Pilot Study.....	113
Appendix G: Pilot Study Procedures and Results.....	117
Appendix H: IRB Approvals from Each Participating School.....	121
Appendix I: Research Flyer.....	127
Appendix J: Research Announcement for Larger Study.....	128
Appendix K: List of Accommodations Used by College Students with LD.....	132
Appendix L: Tolerance Values.....	138
References .....	140

## List of Tables

Table	Page
1. Conceptual Framework for Current Study.....	15
2. Kohler and Field’s Categories of Effective Transition .....	32
3. Frequency Distribution of Participants by Selected Demographic Variables .....	50
4. Distribution of Respondents’ Demographic Variables.....	52
5. Scaling of Selected YCI Items.....	54
6. Perception Labels by Modified YCI Quartile .....	56
7. Statistical Analyses .....	64
8. Distribution of Respondents by Academic Challenges .....	66
9. Distribution of Respondents by Interpersonal Challenges.....	66
10. Distribution of Respondents by Services and Supports Utilized in High School.....	67
11. Distribution of Respondents by Timeline Attending College and Postsecondary Supports .....	69
12. Relationships Among Demographic Variables and CASES .....	76
13. Relationships Among Demographic Variables and Modified YCI and SACQ.....	77
14. ANOVA (CASES, SACQ, YCI by Type of Institution) .....	78
15. Levene’s Test of Homogeneity .....	79
16. Multiple Regression Model Summary .....	81
17. Summary of Multiple Regression Analysis for GPA .....	82
18. Frequency Distribution of Participants by Race, Gender, and GPA .....	100

## List of Figures

Figure	Page
1. Plot of GPA Error Terms Versus Estimated Cumulative GPA Values .....	74
2. Plot of the CASES Variable and the Modified YCI Quartile.....	75

## Chapter I: Introduction

Over the years there has been a marked increase of students with disabilities pursuing higher education. Between 1988 and 2000, “learning disabilities” were the fastest growing category of reported disability among students (HEATH Resource Center, 2003). By 2000, two in five freshmen with disabilities (40%) cited a learning disability compared to 16% in 1988 (HEATH Resource Center, 2003). Prompted by major legislation, beginning with the Rehabilitation Act of 1973 and most recently with the 2004 Amendments to the Individuals with Disabilities Education Act (IDEA), students with disabilities have been enrolling in postsecondary education programs in significant numbers (Sharpe & Johnson, 2001); however, peers without disabilities are twice as likely to pursue postsecondary education (Fabian, 2007; Newman, 2005).

Although the number of students with learning disabilities attending college has risen, they are still less likely than their nondisabled peers to attend college (Mull, Sitlington, & Alper, 2001). In 1994 (and again in 1999) the National Joint Committee on Learning Disabilities (NJCLD) expressed concern that many students with learning disabilities do not consider postsecondary options (Mull et al., 2001). Many studies have supported this phenomenon reporting that adult adjustment of individuals with learning disabilities can lead to low self-esteem; thus, limiting their motivation to explore post school options (Blackorby & Wagner, 1996; Mull et al., 2001).

In addition, there is evidence suggesting that many students with disabilities who enroll in postsecondary institutions have difficulty completing their postsecondary programs (Mull et al., 2001). The National Center for Education Statistics (1994) found that 52% of students with learning disabilities versus 64% of students without disabilities

attained their target degree or were still enrolled. Murray, Goldstein, Nourse, and Edgar (2000) found that of the students who attended postsecondary education institutions, 80% had not graduated five years after high school, compared to 56% of youth without disabilities. Ten years after graduating from high school, 56% of youth with learning disabilities had not yet graduated from postsecondary education, compared to 32% of individuals without disabilities.

Certain policies have been mandated to support students with disabilities such as IDEA, Rehabilitation Act of 1973, and No Child Left Behind Act of 2002 (NCLB). These acts were passed to improve transition services in order to promote academic achievement and gainful employment for students with disabilities with the intent of facilitating successful postschool outcomes. Despite federal policies and initiatives to allocate resources to support career and transitional competencies of individuals with disabilities, the educational attainment of adults with LD remains substantially below the general population (Gregg, 2007; Wagner, Newman, Cameto, Garza, & Levine, 2005).

### Perceptions and Expectations of Youth with Disabilities

The National Alliance for Secondary Education and Transition highlight the importance of youth's attitudes as a crucial component in the successful transition of youth to early adulthood (2005). The National Longitudinal Transition Study – 2 (NLTS2) is one of the few studies which addresses the lack of knowledge regarding the<sup>1</sup> perceptions of youth with disabilities toward secondary school. The NLTS2 examined the perceptions of youth with disabilities regarding academic challenges, interpersonal

---

<sup>1</sup> The youth who are the focus of this report represent only a subset of youth with disabilities receiving special education services in secondary school in 2001, not the entire population. This report presents findings drawn from the first time data were collected directly from the youth in 2003; they were ages 15-19 at the time.

challenges, school safety, services and supports receive at school, affiliation with school, and enjoyment of school (Wagner, Newman, Cameto, Levine, & Marder, 2007). The following results<sup>1</sup> were reported based on youth's view of secondary school and expectations of their future:

- Based on all measures, youth with disabilities have positive views of school;
- The majority of youth with disabilities do not find school particularly hard, and most report having no more than occasional problems completing homework, paying attention, or getting along with teachers or other students;
- Most youth expect they will graduate from high school with a regular diploma; however, they are less confident they will attend a postsecondary school (Wagner et al., 2007).

#### Adjustment to Postsecondary Education for Students with Learning Disabilities

The transition to postsecondary education may require changes in residence, different social relationships, increased financial demands, and uncertainty of career aspirations (Wehman, 2006). College life can be unsettling and challenging for young adults, often affecting their independence, initiative, and self-regulation (Bryde & Milburn, 1990). Research has shown that first year college students experience various academic and social adjustments to their new environments such as loneliness, disconnection from family and friends, heightened interpersonal conflicts, and financial burdens (Baker & Siryk, 1980; Lopez, Campbell, & Watkins, 1988). If such issues remain unresolved, students experiencing difficulties are more likely to exit the

postsecondary institution. Gregg (2007) purported that the adolescent and adult population with LD continues to be underserved and underprepared to meet the demands and standards of postsecondary education.

In response to increased enrollment of students with disabilities in postsecondary educational institutions, many studies specifically examined the psychosocial adjustment to college or university environments for them (Saracoglu, Minden, & Wilchesky, 1989). Variables associated with student adaptation to college included problem-solving skills, visibility of resources, peer supports, stressful interactions, attachment to family, and satisfaction of classroom accommodations. Certain studies specifically addressed outcomes and experiences of students with LD. Although adjustment factors are unique to each individual, the overall psychosocial impact of LD continues in adulthood. When combined with the complexities and responsibilities of the postsecondary setting, it impacts the student's ability to adapt to life changes (Ryan, Nolan, Keim, & Madsen, 1999). Furthermore, college students with learning disabilities experience significantly poorer academic adjustment to the college setting compared to college students without disabilities (Hartman-Hall & Haaga, 2002).

#### Self-Efficacy and Academic Performance

Tinto (1993) emphasized that the key determinant of persistence at and success in college is commitment. In addition, he indicated that aptitudes and capabilities contribute to a sense of academic confidence or efficacy that influences goal commitment. Over the years there have been several studies that address academic self-efficacy as a determinant of success of high school to university transitions (Chemers, Hu, & Garcia, 2001, Choi, 2005; Hampton & Mason, 2003). Unfortunately, research has indicated that youth with



LD have poor self-concepts and low self-esteem, which can adversely affect academic, social, and employment success (Ryan & Price, 1992; Yuan, 1994).

Greenbaum, Graham, and Scales (1995) among others (i.e., Wehman, 2006) found that successful students with LD had the following characteristics: their disabilities were in the mild to moderate range; significant others provided guidance, encouragement and support; they accepted and were knowledgeable about their disability and how their disability affects their learning status; and they possessed high levels of determination, perseverance, and a belief in their abilities to overcome certain obstacles in completing their educational pursuits. Self-efficacy is an important component of academic achievement. Several studies have shown the importance of students possessing high academic self efficacy which positively influences academic performance (Lent, Brown, Larkin, 1986; Pajares, 1996; Sarcoglu et al., 1989, Slemon & Shafrir, 1997).

### Statement of the Problem

Admission to postsecondary institutions is only the first step in the process of becoming a successful student. Students with LD have unique challenges as a result of their disability as well as dealing with institutional barriers that may impact academic success (Ryan et al., 1999). The recent NTLS2 data reveal that the majority of youth<sup>2</sup> with disabilities have positive views of their secondary school experiences; however, they are less confident that they will attend postsecondary school (Wagner et al., 2007). It is assumed that students with LD have received the necessary academic skills, knowledge

---

<sup>2</sup> The descriptive findings regarding youth's self-representations are reported for the full sample of youth; those findings are heavily influenced by information provided by youth with learning disabilities, who constitute 63% of the weighted sample (Wagner et al., 2007). Youth with mental retardation, emotional disturbances, or other health impairments, and speech/language impairments constitute 12%, 12%, 5%, and 4% of the weighted sample, respectively (Wagner et al., 2007).

about their disability, and rights and responsibilities at the secondary level to achieve success. Yet, the President's Commission on Excellence in Special Education (2002) posited that many federal programs fail to allocate the necessary resources to improve successful transition of students with disabilities to postsecondary and employment settings. This study focuses on how well students with LD perceive the effectiveness of their transition experience in preparation for postsecondary education.

### Significance of the Study

To improve postsecondary outcomes for students with LD it is important to better understand the relationship between high school transition experiences, academic self-efficacy, and academic adjustment in determining their overall impact on academic performance as these students pursue college. Understanding the effectiveness of transition experiences could serve as a basis for developing and implementing transition activities that contribute to postsecondary academic success. In addition, results of this study may assist disability professionals and postsecondary institutions to structure transition activities and ease the adjustment of students with LD in postsecondary settings. These efforts may increase retention rates for university students with LD. Other professionals such as teachers, transition specialists, rehabilitation counselors, school administrators, school counselors and postsecondary disability professionals will have information to promote educational goals, personal growth, and student adjustment.

### Purpose and Research Questions

The purpose of this study is to assess whether or not students with LD perceive their transition experience as effective. The significance of this research is to gain a clearer understanding as to students' with LD perceptions of their own transition

experiences in order to identify implications for how high schools and postsecondary institutions can adequately prepare students for postsecondary success. In doing so, this study will explore self-efficacy, academic adjustment, as well as transitional issues for students with LD. Provided the educational attainment issues faced by students with LD, this research will expand knowledge and contribute to disability service professionals' designing and implementing programs that support students with LD and increase retention rates and overall academic success of this population.

The study is guided by the following research questions:

1. What are the perceptions of college students with LD regarding their secondary transition experiences in preparation for postsecondary education?
2. What is the relationship between positive/negative perceptions of secondary transition experiences and (a) academic self-efficacy; and (b) academic adjustment to campus setting?
3. What are the contributions of each of these variables (a) positive/negative perceptions of secondary transition experiences; and (b) academic self-efficacy to academic performance (academic adjustment and GPA) in college students with LD?
4. What are the relationships between students' demographic characteristics and (a) students' perceptions of secondary transition experiences, (b) academic self-efficacy, (c) academic adjustment, and (d) GPA?

*Definition of Terms*

For the purpose of this study, the following definitions apply:

Academic Adjustment	Refers to the fit which students achieve with the academic context of the college environment (Ramsay, Barker, & Jones, 1999).
Academic Performance	Will be measured in this study as self-reported cumulative/current semester GPA
Learning Disabilities	A student with a learning disability has a documented discrepancy of strengths and weaknesses related to internal information processing, which can lead to a variety of difficulties in acquisition and use of the person's abilities in speaking, listening, written expression, or mathematical skills. (National Joint Committee on Learning Disabilities, 2004)
Perception	Defined as students' with LD opinions and insights regarding transition experiences.
Postsecondary Education	Education beyond high school, including vocational and career schools and 2- and 4-year colleges and universities.
Transition Plan	A document that is a part of the larger Individualized Education Planning (IEP) document. It includes student preferences and interests concerning postschool plans and the course of study required to prepare the student to accomplish his/her plans. The document also outlines future planning tasks/activities that are to be completed by IEP team members, including the student, using designated timelines (National Council on Disability, 2003).
Transition Services	A coordinated set of activities for a student with a disability that (a) is designed within an outcome-oriented process, that promotes movement from school to postschool activities, including postsecondary education, vocational training, integrated

employment (including supported employment), continuing and adult education, adult services, independent living, or community participation; (b) is based on the individual student's needs, taking into account the student's preferences and interests; and (c) includes instruction, related services, community services, the development of employment and other postschool adult living objectives, and if appropriate, acquisition of daily living skills and functional vocational evaluation (IDEA, 2004).

#### Secondary Transition Experiences

Activities for a student with disability designed to prepare the student for a variety of postschool options, including postsecondary education, vocational training, or supportive employment; specific activities occur during 9<sup>th</sup> -12<sup>th</sup> grade.

#### Self-Efficacy

Refers to an individual's perceived capability in performing necessary tasks to achieve goals (Bandura, 1997). An individual's perceived self-efficacy is believed to influence choice of tasks, the level of task performance, amount of effort put into performing chosen tasks, and perseverance in the task performance (Bandura, 1997).

## Chapter II: REVIEW OF THE LITERATURE

### Introduction

The transition from high school to postsecondary education can be an arduous task for young adults. This process is one of exhilaration, adventure and interest as well as being emotionally fueled with confusion, frustration and discouragement. It has been found that positive self-efficacy has a significant impact on whether or not college students graduate (Bandura, 1997, Costello & English, 2001, Allen, 1999). The completion of a postsecondary degree has been associated with higher employment rates and higher incomes. The success of young adults during this process will affect their ability and confidence to achieve an independent lifestyle. Academic success, including graduation, is even more challenging when a student has a learning disability (LD), is a member of a non-college educated family or is a first generation immigrant. Studies have shown that learning disabilities diagnosed in childhood continue to affect academic, social and vocational functioning into adulthood (Costello & English, 2001, Kerka, 2002).

There has been a marked increase of interest in programs and services for students with disabilities who are attending postsecondary institutions (Sitlington, 2003, National Center on Education Statistics, 1999; Vogel & Adelman, 1993). The number of first year students with learning disabilities has increased tenfold since 1976, resulting in students with learning disabilities becoming the fastest growing group of college students with disabilities receiving services (Sitlington, 2003, Norlander, Shaw, & McGuire, 1990). A survey of postsecondary offices for students with disabilities indicated that students with LD constitute more than one-third of all students with disabilities served (Harbour, 2004).

Although some postsecondary programs reach out to neighboring public schools in an effort to facilitate the transition to higher education, high schools are not necessarily actively involved in this process as it relates specifically to the needs of students with LD (Durlak, Rose, & Bursuck, 1994). Unfortunately, research suggests that many of these students have difficulty completing postsecondary programs (Durlak et al., 1994).

Hasazi, Furney, DeStafano (1999) defined transition as “a series of purposeful activities designed so that the students have the skills, opportunities, and support to locate and maintain employment, to pursue postsecondary level education and training, to participate in the social fabric of the community, and to make decisions about their lives”. Over a 40-year period, Congress has been grappling with issues affecting individuals with disabilities and developing legislation to support and prevent discrimination in all aspects of life. These challenges have broad implications for programs such as special education, general education, and other organizations dedicated to supporting young adults with disabilities as they make a transition from high school into employment, postsecondary education, and other aspects of adult life (NCSE, 2004).

### Conceptual Framework

The NTLTS2 was designed to gather in-depth information regarding secondary and postsecondary experiences of youth with disabilities. The study began in the 2000-2001 school year and sampled students between the ages of 13-16 who were at least in 7<sup>th</sup> grade and received special education services. Specifically, the NLTS2 survey examines self-representations and expectations of youth with disabilities, how they differ across disability categories and demographic groups, and how parents and teachers perceive the student’s school program and performance. The NLTS2 provides a wealth of

information to begin the process of understanding students with disabilities' perceptions regarding their secondary school experiences, data which have influenced the current study.

### *Conceptual Model for Current Study*

Pursuit of postsecondary education has been statistically related to students' engagement in their schooling during their high school years (Finn, 2006; Fredricks & Eccles, 2006; Mahoney, Cairns, & Farmer, 2003). There are a variety of services that provide support, counseling, and preparation for postsecondary education-bound students with LD. However, there is limited research addressing the perceptions of students with LD regarding aspects of their transition experiences in preparation for postsecondary success. Brigharm, Morocco, Clay and Zigmond (2006) identified five school-wide strategies which promote academic achievement in high schools specifically for the benefit of students with disabilities. For the schools that participated in this study, it was found that having LD was not a barrier to mainstream learning or overall academic achievement (Brigharm et al). The authors devised a "Theory of Action" for what would be considered "good" high schools based on how the five school-wide strategies are integrated within programs that support students with disabilities. The following describes these five strategies:

Strategy 1: provide challenging academic opportunities;

Strategy 2: students must have an ensemble of supports that balance their needs;

Strategy 3: students become motivated to succeed when they experience a sense of connection and belonging to the school through relationships



with adult and/or other students;

Strategy 4: An adult community of teachers, specialists, parents, and administrators work together to design and teach courses that reflect state standards and design and staff support structures that can be tailored to individual students ;

Strategy 5: Responsive leaders manage to balance demands for accountability for individual students' growth and for accountability to state standards and assessments.

These strategies were obtained through case studies of three high schools.

Researchers revealed that one important unanswered question remained, "how are these high schools preparing students with LD to transition into work and higher education, and how well do they do after they graduate?" (Brigharm et al, 2006).

In terms of addressing this question, the NTLS2 studies (Levine, Marder, & Wagner, 2004) were the first to identify youth with disabilities' perceptions of their transition experiences. The NTLS2 study specifically addresses the areas that affect youth with disabilities success, such as academic challenges, interpersonal challenges, school services and support, affiliation with school, and enjoyment of school. These areas collectively measure youth with disabilities' perceptions of their transition experiences and were used in the current study. The conceptualization for this study focuses on the predictor variables which have been found to be associated with academic success. The criterion variables in this study are academic adjustment and self-reported GPA (See Table 1).

Table 1

*Conceptual Model for the Current Study*

Predictor Variables	Definition	Empirical Research
Students' Perceptions	Students' with LD opinions and insights regarding transition experiences.	National Alliance for Secondary Education and Transition emphasize the importance of youths' attitudes as an essential component in successful transition (2005). NTLS2 study was the first to address the lack of knowledge of students' with disabilities perceptions about their transition experiences (Wagner et. al., 2007).
Academic Self-Efficacy	Refers to an individual's perceived capability in performing necessary tasks to achieve goals (Bandura, 1997). This study focuses on academic self-efficacy which is the belief in one's ability to complete the necessary steps to achieve academic success.	Academic self-efficacy is a determinant of postsecondary success (Chemers, Hu, & Garcia, 2001; Choi, 2005; Hampton & Mason, (2003).

When students with LD enter college, they have certain transition experiences that have or have not prepared them for academic success at the postsecondary institution. More specifically, this study will examine components of academic success measured by GPA and identify if any relationships exist between perceptions of secondary transition experiences, academic self-efficacy, academic adjustment, and self-reported GPA. The conceptual model of this study specifically focuses on college students with LDs' perceptions of their secondary transition experiences and the impact on postsecondary

academic success. The researcher recognizes the importance of other influences on academic success such as parental involvement, teacher interaction, or social interactions; however, these factors can be addressed in future research.

Students with LD attending postsecondary institutions have many challenges that prevent successful completion of a degree. Although a great deal is currently known about a wide range of factors influencing academic success, very little is known about student preparation prior to entering higher education and the impact of transition services. To cover the most relevant information, the current literature review will examine transition services that affect individuals with LD. The following areas will be discussed in this review: policies and legislation influencing transition services; review of transition studies; overview of best practices in transition; academic challenges facing students with LD; academic preparedness; self-efficacy; and academic adjustment.

### Policies and Legislation affecting Transition Services

#### *IDEA – The “Special Education” Law*

The Individuals with Disabilities Education Act (IDEA) is the primary law that governs treatment of students with disabilities from pre—school through high school years. Formerly known as the Education for All Handicapped Children Act of 1975 (P.L. 94-142), it established specific minimal standards for state and local compliance in educating youth with disabilities from age 3 ½ to age 21 or graduation from high school, whichever comes first. Its basic provisions require all federally funded schools (all public schools included) to provide free, appropriate, public education in the least restrictive environment; nondiscriminatory testing, evaluation, and placement; procedural

due process of law; regular parent (or guardian) consultation; and appropriate educational services as specified in a written Individualized Education Program (IEP).

Many students enrolled in special educational services receive an Individualized Education Plan (IEP) which is developed by a team of professionals and family members within the school serving the student. An IEP is designed to support the student's attainment of his or her future career and academic goals, by identifying services and supports needed in order to achieve them. Although IDEA is a federal statute, there is a considerable margin within the law as to precision of classification, how schools obtain and report information, as well as other implementing regulations; therefore, there are substantial differences in how IDEA is practiced from state to state. In other words, the overall goal is the same; yet implementation differs.

Since the passage of IDEA in 1975, there have been numerous amendments which have created some substantial changes to it. This section will focus on these changes. The passage of the 1997 amendments to IDEA resulted in better transition services (Hitchings, Retish, & Horvath, 2005). Under IDEA (1997), an annually updated statement of "transition needs" was required beginning at age 14. By the age of 16, a "statement of needed transition services" was required, to mirror the mandate that transition services be a coordinated set of activities (Hitchings et al).

The pursuit of higher education has been targeted as an important transition outcome for students with disabilities due to the impact of a college degree on future adult outcomes (Madaus & Shaw, 2006). The National Center for Education Statistics found that students with disabilities who graduate from college exhibit similar employment rates and annual salaries as compared to their peers without disabilities

(2000). The 2004 reauthorization of IDEIA (Individuals with Disabilities Education Improvement Act) contained several changes that directly address the needs of students with LD who are preparing for transition to higher education. Of note, changes affect the areas of assessment and transition planning. The area of assessment is critical, in that students with LD who seek postsecondary education must provide documentation to the college/university in order to secure protections and services under Section 504 of the Rehabilitation Act of 1973, which will be discussed later. Under IDEIA amendments schools are not required to update a student's disability documentation prior to exiting; therefore these students may be required to provide documentation necessary to meet the post-secondary guidelines, an effort requiring additional time and money for students and families (Shaw, 2005).

The most recent 2007 IDEIA amendment supported the following changes: emphasizing substantive requirements of the special education process; aligning IDEA with No Child Left Behind (NCLB) provisions such as adequate yearly progress report (AYP), highly qualified personnel, and evidence based practices; and altering eligibility requirements (Yell, Shriner, & Katsiyannis, 2006).

#### *Section 504-Civil Rights for Individuals with Disabilities*

Congress passed the Rehabilitation Act of 1973 (P.L. 93-112) which funds the public system of vocational rehabilitation services in the United States. Title V, Section 504 of the 1973 Act states:

No otherwise qualified person with a disability...shall, solely on the basis of disability, be denied access to, or the benefits of, or be subjected to

discrimination under any program or activity provided by any entity/institution that receives Federal financial assistance.

Case law has clarified some of the more ambiguous terms presented in Section 504 regarding postsecondary education. For example, the term “otherwise qualified” means that the student has to meet the requisite academic and technical standards in spite of his/her disability when requesting reasonable accommodation (Davis v. Southeastern Community College, 1979). Securing services from the postsecondary institution is required upon disclosure of disability and formal request of services (Salvador v. Bell, 1985). In addition Subpart E of Section 504 emphasizes that recruitment and admission must be handled in a nondiscriminatory manner. In other words, postsecondary institutions cannot inquire about disability status; therefore, it is the student’s responsibility to notify the institution of his/her disability in order to request accommodations. There are also precise regulations governing the way in which equal opportunity should be fostered in the areas of admissions, appropriate academic adjustments, counseling, advising, athletics, and employment assistance.

#### *ADA-Americans with Disabilities Act of 1990*

In 1990 Congress enacted the Americans with Disabilities Act (ADA) to provide a lucid and comprehensive law to eliminate discrimination against individuals with disabilities. Title I of the ADA prohibits discrimination on the basis of disability in employment. Title II prohibits any entity funded by state or local government from discrimination on the basis of disability. Title III of the ADA extends its mandates to privately funded entities that provide their goods, programs, or services to the public. Title IV is dedicated to assuring access to telephone and communication systems. Title V

of the ADA addresses technical provisions. While the ADA does not address transition services directly, its provisions regarding physical and technological accessibility, employment non-discrimination, and transportation services have had a substantial effect on improving opportunities for youth and adults with disabilities.

*Other laws affecting transition services*

In the last twenty years, other federal laws have guided recent educational reforms. It is quite obvious that both federal and state support is necessary for success in the area of transition. The passage of these laws prompted the development of comprehensive strategies designed to increase standards for academic and occupational systems; state and local accountability systems; improvement of special education programs; and increase collaboration with schools, employers, postsecondary institutions, and other entities. Through legislation such as the Technology-Related Assistance for Individuals with Disabilities Act of 1998, the Carl D. Perkins Vocational and Applied Technology Education Act of 1990, the Goals 2000: Education Act of 1999, and the No Child Left Behind Act of 2002, Congress provided support for students with disabilities at the state level.

In the area of vocational education, the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 established equal accessibility to vocational education for students with disabilities. In essence this legislation prompted the development of various programs such as vocational education classes, work-study for students, and postsecondary technical education programs. For example, the “Tech Prep” program attempts to integrate secondary curriculum with that of community and technical colleges. Due to federal funding, all 50 states have some type of a Tech Prep program.

These programs develop technically oriented curricula that span the last two years of high school and the first two years of college. According to Bragg, Kim, and Barnett (2006), 39 of the 50 states report targeted efforts to serve special populations, racial/ethnic minorities, and low-income student. The Office of Vocational and Adult Education (2003) expressed, “many of our youth with LD drop out of high school before they have the opportunity to access Tech Prep programs”; however, the Tech Prep model has great potential for many students with LD. To prompt certain changes, more specificity and rigor in curricula as well as modification of existing standards is needed (Gregg, 2007).

The recent No Child Left Behind Act (NCLB) of 2002 mandated federal involvement in education. In response to the disproportional achievement gap between disadvantaged minority students and their peers including students with disabilities, the NCLB had four major goals: strengthen accountability for results, increase parental flexibility and control, increase parental options, and usage of empirically based teaching approaches and strategies.

In a recent report, The National Council on Disability (NCD) discussed the impact of the reauthorizations of IDEA and NCLB (2008). A fundamental tension exists between the two laws due to their differing historical approaches (NCD). IDEA focuses on individualized needs assessment, service provision, and performance measurement approach; whereas, NCLB emphasizes a shared objective of quality education by requiring statistical indicators of progress mainly through standardized testing. In light of this distinction, one of the growing concerns is how and to what extent are students with disabilities factored in the statistical composites by which school systems are evaluated under the No Child Left Behind Act (NCD). Adequate yearly progress (AYP) reports are



the essence of NCLB. States, school districts, individual schools, and subgroups of at-risk students, including students with disabilities must improve test scores from year to year. Failure of particular schools to achieve AYP results in corrective actions or penalties. Overall, inadequate results will lead to loss of funds and even school closings.

NCD reports that Congress considering expanding NCLB, which covers elementary and secondary schools, to cover postsecondary education as well (2008). If this expansion occurs many things can be done within the framework of current law to improve access, choice, participation, and outcomes for students with disabilities in college. Several considerations should be made incorporating the legal provisions of ADA and Section 504, such as involvement in accessible design of university facilities, assistive technology resources, and accessibility of curricular materials.

While laws have been enacted to improve transition services, researchers have presented alarming information regarding the quality of transition activities among Local Educational Agencies (LEAs). In one study, "model" and "representative" sites were compared by a cross-case analysis (Hasazi, Furney, & DeStefano, 1999). Analyses show that model sites provided leadership support in the transition process within the district, interagency collaboration agreements, planned professional development, and transition initiatives integrated with other general education initiatives (Hasazi et al). On the other hand, representative sites lacked adequate support for students 18 to 21 years, served a smaller number of students, and reported pressure to choose between academic and vocational training curricula (Hasazi et al).

For many youth, "a successful transition into the labor force is contingent upon a successful transition from special education to the adult service delivery system"

(DeStefano & Snauwaert, 1989, p. 37). A special report from the President's Commission on Excellence in Special Education purported that "transition services are not being implemented to the fullest extent possible and that meaningful results do not occur. IDEA's federal requirements are too complex for educators, students, parents and others (such as vocational rehabilitation program counselors) to understand what the law requires and when it is required" (2002). To ensure positive post school outcomes for students with disabilities, reform is crucial in implementing federal law at the state level.

Another report directing efforts to improve postsecondary outcomes for students with disabilities was published by the General Accounting Office (GAO) in 2003. This report focused on IDEA and current literature and recommendations in regards to transition challenges affecting students with disabilities dropping out of high school. Highlighting the fact that students, parents, and others consistently identify a multitude of transition issues, such as the lack of vocational training and poor collaboration between schools and service providers, the report reemphasizes the ineffectiveness of IDEA's policies and procedures regarding transition to postsecondary education and employment settings.

This section has reviewed legislation that affects transition of students with disabilities to adult life. Although several acts were developed to protect the rights of students with disability in the area of education and employment, there is a breakdown in implementation which ultimately affects the experience of the transition process, academic success, and post school outcomes. The next section will address the issues that students with LD experience in transitioning from high school to postsecondary education.

## Review of Transition Studies for Students with LD

Traditionally, transition services were offered to students with severe cognitive, physical, and sensory disabilities. It was assumed that students with LD possessed the necessary cognitive skills that supported their transition into adult life (Bassett & Smith, 1996). More attention has been paid to services for LD students as a result of outcomes of longitudinal studies which reported bleak post-school outcomes for this population (Collet-Klingenberg, 1998; Edgar, 1987; Schumaker, Deshler, Alley & Warner, 1983). Compared to the general population students with LD still have high rates of unemployment and underemployment even though they have the highest employment rate of all disability categories (Edgar; Humes & Brammer, 1985; Sitlington & Frank, 1990). Research has shown that only 17% of students with LD who are eligible to enroll in post-secondary education actually do so (Fairweather & Shaver, 1991). This is a drastic difference from the 56% of the general student body. Once the field of special education and disability service professionals recognized that learning disabilities can impede adult functioning, transition efforts and research to support transition programs were initiated for students for LD.

Dowdy, Carter, and Smith (1990) reviewed the self-perceived differences in the transition needs of secondary students with and without LD. A transitional services survey was developed to examine differences in: (a) identification of career goals; (b) self-perceived social support system; (c) assistance in transition from school to work; (d) post-graduation goals; and (e) self-perceived assets and limitations in respect to goals after high school; and (f) knowledge of vocational rehabilitation services. With regard to career goals, both groups reported that parents had the greatest impact on those decisions.

In addition, parents assisted in securing employment during high school. Both groups expressed a need for more assistance in career goals and planning. When questioned about college, 63.9% of students with LD indicated that their parents would provide assistance if they attended colleges compared to 98.3% of NLD students. With respect to existence of support programs, Dowdy et al., reported few differences between students with and without LD. Most support programs for students with LD were provided through vocational rehabilitation agencies whereas support programs for NLD students were administered in their high school business courses.

To expand the focus of transition, Hicks-Coolick and Kurtz (1997) examined factors contributing to success for students with LD pursuing postsecondary education by conducting semi-structured interviews with disability service professionals in nine postsecondary settings. In an effort to gain a representative sample, researchers chose nine postsecondary institutions which included two private colleges, two state universities, two public four year colleges, one community college, and two vocational schools. The main research question was, “What personal characteristics contribute to the postsecondary academic success of students with LD?” (Hicks-Coolick & Kurtz, 1997). Researchers three interrelated factors – motivation, preparation, and self-advocacy - that differentiated a successful student with LD.

Participants in this study purported that successful students deemed postsecondary education as their primary objective; therefore, these students utilized the necessary support services available to achieve their goals. Motivation and diligence toward achieving an objective were not necessarily reflected in the GPAs earned by the students with LD. Academic preparation was crucially important to meet the challenges in a

postsecondary setting. These challenges were met when students developed self-advocacy skills.

In responding to the need for transition services, secondary and post-secondary institutions developed a variety of programs. For example, Dalke and Schmitt (1987) examined the outcomes of a summer transition program that supported students with LD seeking postsecondary education. They reported that the GPAs for the semester for those who participated in the program were significantly higher than the GPAs of the students who had not participated. A 17-item questionnaire was designed to assess the students' transition needs. Administered at the end of the program, the results illustrated the students' overall satisfaction with the program. Students reported a heightened awareness and knowledge of their disabilities as a direct result of the training received during the program.

The U.S. Department of Education funded the National Longitudinal Transition Study (NLTS-2) in an attempt to document the experiences of a national sample of students who were 13-16 years of age in 2000 as they progressed from secondary school into adult life. This study focused on a wide range of important topics such as high school coursework, extracurricular activities, academic performance, postsecondary education and training, employment, independent living, and community participation (Wagner et al., 2007). The NLTS2 was designed to be a ten-year study to gain in-depth information regarding secondary and postsecondary experiences of youth with disabilities. Research participants included students, parents/guardians, teachers, and school administrators. Data collection procedures included parent telephone interviews, youth telephone interviews, student in-person interview, teacher survey, school program

survey, school background survey, and transcript requests. In addition there were five waves of data collection where certain groups were assessed every two years.

Results from the first wave of data collection provide a wealth of information regarding youth perceptions and expectations of school and transition experiences.

Specifically, NLTS2 findings<sup>3</sup> revealed (Wagner et al., 2007):

- On virtually all measures, positive views of school predominate, and strongly negative views are held by a minority of youth with disabilities;
- The majority of youth with disabilities report not finding school particularly hard, and most report having no more than occasional problems completing homework, paying attention, or getting along with teachers or other students;
- Almost half agree “a lot” that they receive the services and supports they need to succeed at school, and the majority report enjoying school at least “pretty much”;
- The most negative views (e.g., having daily problems at school, finding school “very hard,” or not liking or feeling part of school “at all”) are held by 1 percent to 11 percent of youth with disabilities across measures;
- Most youth expect they will graduate from high school with a regular diploma. They are less confident they will attend postsecondary school;

---

<sup>3</sup> This report reveals results based on the first wave of data collection directly from youth, ages 15-19, in 2003. Self-perceptions, views of secondary school, personal relationships, and expectations from the future were analyzed.

- Youth tend to hold higher expectations for themselves than their parents hold for them. Despite this difference, parents' and youth's expectations are related to each other in that youth who hold higher expectations for their own futures also tend to have parent who hold high expectations for them.

### Best Practices in Transition

There are extensive resources that explore the history of transition, the process of transition, transition models, and reported best practices in transition. Identifying factors of successful secondary special education programs has been one area of literature with scarce information. Since the IDEA was first authorized, the federal Office of Special Education and Rehabilitation Services (OSERS) emphasized transition as a priority, and over 266 model programs as well as more than 500 projects were established to focus on transition education and services for students with disabilities (Rusch, Chadsey-Rusch, & Szymanski, 1982; Kohler & Field, 2003). The final result of implementation and research led to identification of several factors that contribute to best practices in transition.

A number of common factors have been presented among the myriad of best practices research. The most frequently cited factors include: interagency collaboration, vocational assessment, vocational skills training, social skills training, career education curricula, paid work experience, written transition plans and family involvement (Foss, 1999). Collet-Klingenburg (1998) asked service providers and educators from Minnesota to indicate what factors are critical to effective transition planning for students with disabilities. The factors generated from the study were: (a) student and family

involvement, (b) an emphasis on total life experiences, (c) agency involvement, (d) training in self-awareness and self-advocacy, (e) comprehensive transition plans following secondary education, (f) IEP team member collaboration, (g) earlier age for transition planning (14yrs), (h) transition plans based on student needs and desired adult outcomes, (i) functional instruction which includes student experiences, and (j) functional life skills taught in natural settings.

In an analysis of 46 transition studies consisting of theory-based, experimental/quasi-experimental, and follow-up research, Kohler (1993) identified vocational training, parental involvement, interagency collaboration, social skills training, paid work experience and individualized transition plans as best practices in transition. Minskoff (1996) found the following essential components for transition programs for students with LD:

1. Individual transition plans
2. Vocational education and training
3. Work experience
4. Social skills training
5. Parent involvement
6. Interagency coordination
7. Integration with non-disabled persons in vocational and work settings
8. Academic support
9. Vocational counseling
10. Job seeking and job placement services
11. Personal counseling
12. Supportive services from an advocate
13. Program evaluation involving follow-up and follow-along

Other researchers have identified similar components and have sought to develop general models and strategies and/or generate information useful for program development and implementation (Zigmond, 1990; Kohler, 1993; Phelps & Hanley-Maxwell, 1997). Furthermore this research has provided a synthesis of findings from



specific implementation and follow-up studies, as well as the development and dissemination of transition services and programs standards.

Another result of transition studies was the heightened recognition that transition into adult life is a complex process where a myriad of factors affect students' lives after school completion (Benz et. al, 2000; Kohler 2003; Wehmeyer & Schwartz, 1997).

Overall studies suggest that successful transition requires the development of a student's abilities through academic and other experiences, specific supports that enhance or facilitate those abilities, and applying abilities to real-life experiences (Kohler). Research has demonstrated the importance of student involvement in the planning and preparation for successful post-school outcomes.

Many studies have illustrated a variety of transition models for students with LD that focus on specific outcomes such as quality of life, community living, and transitioning from secondary environment to employment (Halpern, 1985; Halpern, 1993; Wehman, Kregel, & Barcus, 1985; Will, 1985). A limited number of studies have specifically focused on transition of students with LD to postsecondary education settings (Evelo & Price, 1990; Dalke & Schmitt, 1987; Rojewski, 1992). Kohler (1996) developed a comprehensive and inclusive transition model that affects all aspects of transition planning, IEP development, life skills, community living, vocational training, family involvement, counseling, and postsecondary education. However, the initial group involved in developing the model did not include professionals who were directly associated with transition-related education and service delivery. In addition student perceptions were not included in the model development.

Many researchers have examined effective transition practices and adopted a broader conceptualization of transition planning, which Kohler (1998) referred to as transition-focused education (Kohler & Field, 2003). Within each of these categories are a myriad of transition approaches (Kohler, DeStafano, Wermuth, Grayson, & McGinty, 1994; Aune, 1991), evaluation studies (Kohler et al), and model transition project outcomes (Rusch, Kohler, & Hughes, 1992). Recognizing the multitude of approaches and conceptual organization of practices, it will be useful to focus on the commonalities among them. Using this approach, one can interpret elements associated with positive student outcomes that are central across multiple studies. Kohler and Field identified common elements through a three-phased research process that are indicated in Table 2. Each of these categories is reviewed separately below.

Table 2

*Kohler and Field's Categories of Effective Transition*

Categories of Effective Transition	Description
Student-Focused Planning	Development of student goals using relevant assessment information as a basis for planning, student participation in planning and decision making, and student evaluation of their progress in meeting their goals (Martin, Marshall, & Maxson, 1993; Ward & Kohler, 1996; Kohler & Field, 2003)
Student Development	Emphasis on life, employment, and occupational skill development through school-based and work-based learning experiences; student assessment and use of accommodations is a crucial element which provides a basis for evaluating

	how learning experiences result in successful transition (Kohler & Field, 2003).
Interagency and Interdisciplinary Collaboration	Synthesized efforts of collaboration help to facilitate community involvement, organizations and agencies in all aspects of transition focused education (Kohler & Field, 2003).
Family Involvement	Includes parental and family participation in planning and delivering education and transition services (Kohler & Field, 2003).
Program Structure and Attributes	Certain features that relate to efficient and effective delivery of transition-focused education and services which include philosophy, planning, policy, evaluation and resource development (Kohler & Field, 2003).

---

### *Student-Focused Planning*

Student-focused planning assists students with disabilities to develop and enhance self-determination skills through practice and application (Kohler & Field, 2003).

Transition planning for a student's future begins in elementary and secondary school. A key component of student-focused planning is that all educational decisions are based on students' individual aspirations, interests, and goals, and that there is a need to help students articulate short- and long-term goals (Kohler & Field, 2003). Students participating in cross-curricula opportunities enhance student awareness and motivation to establish goals (Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000). With student and family participation an IEP is developed to prepare students for the future and to help make meaningful connections between personal and academic experiences.

Key stakeholders in the transition planning process as mandated by IDEA include school psychologist, educators, school administrators, agency personnel and parents/guardians. Students are encouraged to actively participate which bolsters the development of self-advocacy skills and creates a context where students can express themselves and discuss their needs. Effective planning involves student reflection of their progress or lack thereof during the preceding year (Kohler & Field, 2003).

#### *Collaborative Service Delivery*

Collaborative service delivery is attained by interagency agreements that clarify roles, responsibilities, effective communication strategies, and other collaborative components designed to strengthen curriculum and program development and service delivery (Benz, Lindstrom, & Halpern, 1995). These collaborative processes assist educators and adult service providers to identify educational opportunities and community resources which support students with disabilities' lifelong learning and support needs. Researchers posited that interagency collaboration and support for transitioning youth and their families is a crucial factor that when done well, supports the achievement of transition goals, but when done poorly, can limit or impede transition goals (Devlieger & Trach, 1999).

#### *Family Involvement*

Family involvement can facilitate transition planning as well as increase successful school outcomes for students with disabilities. Researchers have found that family involvement leads to better school attendance, increased postsecondary outcomes and higher assessment scores, improvement of students' self-esteem, and a reduction of drop-out rates (Blackorby & Wagner, 1996). Family involvement assists the transition

team in developing appropriate printed materials that help to inform students and family regarding the process of transition and provide insight into future possible post-school outcomes for these students. Further, deFur, Todd-Allen, and Getzel (2001) investigated parent identified factors which improved transition planning based on the development of personal relationships. Parents identified effective service professionals as being proficient communicators, knowledgeable about disability legislation, initiating and maintaining collaborative relationships that link them with other families and community resources, and serve as advocates for their children (deFur et al).

### *Program Structure*

Program structure and school attributes offer a foundation for implementing transition planning to support transition focused education. These structures influence outcome-based practices in education and potentially lead to the expansion of curricular options such as community-level strategic planning, cultural sensitivity, a clear mission and objectives, competent staff, and appropriate allocation of resources (Kohler, 1996; Kohler & Field, 2003). Program structures must be in place for transition programs in schools to establish systematic community involvement which leads to a variety of educational options, community-based learning opportunities, systematic inclusion of students in the social context of school, and heightening expectations related to skill building, values, and postschool outcomes for all students (Edgar & Polloway, 1994; Kohler & Field).

Hasazi et al's (1999) study described in the previous section found substantive differences between both local and state level transition programs implemented under the

IDEA mandates. They found the following factors as characteristic of effective programs:

- (a) incorporation of systemwide, student- and family-centered strategies;
- (b) fostering of effective and substantive interagency collaboration; (c) facilitation of systemic professional development; (d) a visionary, supportive, and inclusive form of leadership; (e) coordination of an integrated set of reform efforts; and (f) emergence of connections among a variety of local and federal transition initiatives (Hasazi et al., 1999, p. 558).

These findings support the importance of developing program structures that incorporate a strong program policy and aligned philosophy that leads to effective transition focused education.

#### Academic Challenges for Students with LD

As students with LD seek higher education, they are faced with various challenges and barriers to success. A learning disability is a deficit in cognitive processing in one or more areas of attention, reasoning, processing, memory, communication, reading, writing, spelling, and/or calculation. These deficits manifest in the academic realm; thereby, infringing on the student's academic abilities and performance.

Evidence suggests that many students with disabilities who enroll in postsecondary institutions have difficulty completing their postsecondary programs. Murray, Goldstein, Nourse, and Edgar (2000) found that of the students with LD who had attended postsecondary education institutions, 80% had not graduated five years after

high school, compared to 56% of youth with no disabilities. Ten years after graduating from high school 56% of youth with LD still had not graduated compared to 32% of their non-disabled counterparts. Overall, there are internal and external factors that contribute to the decreased retention rates of this population, which will be discussed further.

### *Internal Factors that Affect Academic Performance*

Students with LD have a variety of problems that contribute to their poorer academic performance. Due to the nature of their disabilities, these students almost always spend more time and energy on their studies than do their peers (Rath & Royer, 2002). Available study time is often a valuable commodity in college settings and making less efficient use of it is often a burden and a source of discouragement. In some cases, there may not be an adequate amount of time available for studying effectively regardless of the students' best efforts. In addition, students with LD often have reading comprehension problems and other learning difficulties accompanied by unrealistic (e.g., usually overly optimistic) views of their abilities (Stage, 1996; Rath & Royer).

College students with LD usually have difficulties in reading (Runyan, 1991), written expression (Vogel & Adelman, 1992), and math (Vogel, 1985; Dunn, 1995). In addition, many have trouble organizing and budgeting time, taking notes, taking tests, identifying the essential requirements of a task, integrating information, and establishing long and short-term goals (Dunn). Researchers have reported deficits in the area of social and interpersonal skills, as well (Rath & Royer, 2002). Mangrum and Strichart (1988) suggested that some college students with LD drop out of college because of their inability to handle the course load which is further complicated by reported emotional-social difficulties. For example, these students may be immature in handling emotions,

and they may have personality characteristics associated with younger individuals (Mangrum & Strichart; Dunn; Stage, 1996).

Another issue that creates a barrier to academic success relates to the number of college-bound students with LD that lack an understanding of his/her disability and how it affects his/her performance. Many students with LD are unable to explain their disability to others in plain language (Brinckerhoff, 1996). After years of academic struggle in high school, these students may view themselves as lacking any learning strengths or abilities, which may decrease their self-concept.

#### *External Factors that Affect Academic Performance*

Some students enroll in college because of pressure from parents seeking prestige associated with a college degree (Levinson, 1998; Janiga & Costenbader, 2002).

Students may find themselves in programs that do not meet their occupational aspirations, because the decision to attend college does not always take into account the student's career goals. For students with LD who have IEPs, transition plans do not necessarily ensure that the student's goals are being considered.

Additionally, students with LD lack the content preparation necessary to succeed in college or have not been provided with learning strategies instruction that will permit them to generalize their skills across settings (Mitchell & Sedlacek, 1995; Brinckerhoff, 1996; Gregg, 2007). Family over-protectiveness tends to heighten this issue of preparation. For example, a student with a LD may adopt a teacher or parent's attitude that she cannot do math or science, which is not necessarily the case. These students may opt for less challenging classes, and usually are not prepared for the difficulty of the material expected of college-bound students.



Since learning disabilities are hidden disabilities, the needs of these students are not readily understood and accepted as are the needs of students with more obvious disabilities such as visual or hearing impairments. Students with LD often deny their learning problems, wanting to distance themselves from the special education label they carried in elementary and secondary school (Brinckerhoff, 1996). Unfortunately these students may not seek the accommodations they need to succeed in college.

The adjustment from a secondary to postsecondary education also presents difficulty for students with LD. Typically, the university setting provides less student – teacher contact and larger class sizes (Mitchell & Sedlacek, 1995; Lerner, 1997; Janiga et al., 2002). College courses usually require long-range projects and infrequent evaluations, in contrast to the short-term assignments and frequent grading experienced in high school (Janiga et al). College students have more unstructured time to manage and often lose their familiar support network of family and friends. Although all students in college experience these new learning conditions, students with LD are at greater risk for failure because of their inherent learning difficulties (Lerner; Janiga et al). Their ability to self-assess strengths, deficits, interests, and values is often impaired, and they may find decision-making to be a difficult and problematic process (Cummings, Maddux, & Casey, 2000; Levinson & Ohler, 1998). Therefore, students with LD need assistance to determine specific accommodations and they need assistance with career decision-making (Kerka, 2002). In addition, they must acquire self-advocacy skills in order to communicate their own strengths and weaknesses to professors to facilitate application of appropriate accommodations (Cummings et al).

Many postsecondary institutions house a disability services center that serves as the focal point for overall coordination of campus efforts, plans for services, and the direct delivery of specialized support services to provide accommodations for students with disabilities. A U.S. Department of Education survey conducted in 1998 found that 98% of all institutions that enrolled students with disabilities provided at least one support service. Alternative test formats or extended time were provided at 88% of these institutions; tutors were provided at 77%; readers, note takers, or scribes were available at 69%; and assistance with class registration were provided at 62% of these institutions (U.S. Department of Education, 2000).

However, the identification of students who need these services is often difficult (Gajar, 1992; Janiga et al., 2002). The majority of the referrals received by postsecondary programs that serve students with disabilities are from parents or self-referral prior to admission, but a large proportion of students are identified after they already have experienced difficulties with the college curriculum. The need to prepare students with LD for postsecondary education is critical to enable self-advocacy to insure they seek out needed services, and reach their educational goal of degree completion.

#### *Academic Self-Efficacy*

Many students with LD have very little understanding of the nature of their disability and the effects on their lives. They often have poor self-concept and low self-esteem which can be detrimental to academic, social, and employment success (Ryan & Price, 1992; Saracoglu, Minden, & Wilchesky, 1989; Kerka, 2002). Also there is evidence to suggest that problems with self-esteem and general emotional-social functioning may continue into adulthood (Buchanan & Wolf, 1986). Research has shown

students with LD experience various processing and study skills deficits (Deshler, Schumaker, Alley, Warner, & Clark, 1982) which might be expected to lead to problems in academic adjustment (Saracoglu et al).

Bandura (1994) defined self-efficacy as individuals' "beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). Perceptions of self-efficacy are related to motivation in that they can enhance or decrease motivation (Bandura 1993). Bandura and his colleagues found that both the beliefs of students and the collective beliefs of teachers (in their own instructional efficacy) contributed significantly to students' levels of academic achievement in school settings.

For the college student, prior conceptions of ability (often based on experiences in previous educational settings), social comparisons (i.e., within classes, living environments, and extracurricular contexts), framing of feedback (i.e., achieved progress or shortfalls), and perceived controllability (locus of control) all combine for the development of self-efficacy (Stage, 1996). Bandura's (1993) concept of self-efficacy also influences general learning and development during college years. The campus environment provides the context within which a student who does not excel in the classroom can still develop skills and abilities outside the classroom that are useful and valued in the "real world". As students' beliefs about themselves become more positive, their motivation to perform and, therefore, overall performance is enhanced. With success, self-efficacy beliefs become even more positive. The student is more motivated, and performance proceeds in a continual reciprocal relationship (Stage, 1996).

For students, self-efficacy beliefs influence choices of activities and environments, and thus shape their lives. Choices of educational opportunities, social networks, and careers are also influenced by students' perceived self-efficacy (Stage, 1996). Chemers, Hu, & Garcia found compelling support for the role of self-efficacy in first year college students' success and adjustment (2001). They reported that self-efficacy directly and indirectly showed powerful relationships to academic performance and personal adjustments (Chemers et al., 2001).

Due to the presence of LD and associated secondary factors such as low self-efficacy beliefs, individuals with LD often experience difficulties in an academic setting (Hampton, 1998). Much research indicated that college students with LD have lower self-efficacy than students without disabilities (Saracoglu et al. 1989; Slemon & Shafrir, 1997; Klassen, 2002; Lackaye, Margalit, Ziv, & Ziman, 2006); however, very few studies have explored mechanisms that may contribute to the differences. The present study was designed to explore relationships among perceptions of transition experiences, type of institution attended, academic self-efficacy, academic adjustment, and academic performance.

#### *Academic Adjustment*

Chickering describes the transition to college as a process of complex challenges in emotional, social and academic adjustment (1969). Students can be quite resilient in learning how to adapt to the college environment; however, others deal with frustration, anxiety, low self-esteem and depression (Pappas & Loring, 1985) which has been found to predispose students to dropping out (Gerdes & Mallinckrodt, 1994). Scholars refer to adjustment as "a dynamic and interactive process that takes place between the person and

the environment and is directed towards an achievement of fit between the two” (Anderson, 1994; Ramsay, Barker, & Jones, 1999). Therefore, “academic adjustment” is described as the fit which students achieve with the academic context of the college environment.

The concept of academic adjustment entails more than a student’s scholarly abilities. Baker and Siryk (1989) highlight important components of academic adjustment that include motivation to learn, taking action to meet academic demands, a clear sense of purpose, and general satisfaction with the academic environment. Studies have shown that students who make relatively early decisions to identify clear purposeful educational goals tend to persevere within the college environment (Gerdes & Mallinckrodt, 1994). Early studies on adjustment to college found that freshmen have more positive expectations concerning college than the actual experience of being in college (Berdie, 1968; Buckley, 1971; Herr, 1971; King & Walsh, 1972; Watkins, 1978; Whiteley, 1982). This idealized concept is termed the “freshmen myth” which is associated with disengagement when high expectations are not met (Shaw, 1968). Unfortunately those students that have unrealistically high expectations tend to drop out of school in higher numbers than do those who do not have such a discrepancy between expected and actual experience (Shaw, 1968; Baker & Siryk, 1989; Gerdes & Mallinckrodt, 1994).

As aforementioned, college students with LD experience poor self-concept, interpersonal difficulties, and high levels of stress while pursuing postsecondary education. Saracoglu et al. (1989) investigated the adjustment of students with LD to university and found that these students reported significantly poorer academic

adjustment than their non-LD peers. Without support, students with LD have unique challenges that impact academic success at the postsecondary level.

### Summary

Federal laws and policies have been implemented to improve transition planning in response to poor outcomes for students exiting special education. Stressful challenges associated with the transition experience from secondary to postsecondary education affect all young adults; however, students with disabilities experience greater challenges that complicate their transition process (Everson, Zhang, & Guillory, 2001) Students with LD are not adequately prepared to pursue postsecondary education.

Several federal initiatives and transition planning practices have specifically examined the status and quality of transition planning as well as the adherence to federal mandate such as IDEA, NCLB, and the Rehabilitation Act. The report from the President's Commission on Excellence in Special Education recommends a major revision of the IDEA transition policies to enhance the transition services. Students with disabilities need successful transition experiences to promote achievement and provide them with the skills needed to pursue postsecondary education or sustainable employment in their future endeavors.

This literature review highlighted the federal legislation, initiatives, and reports that have influenced transition services. More attention should be given to research that focuses on the quality of transition activities, students' perceptions of transition activities, and its impact on future aspirations such as employment and postsecondary education. Without changing the current system of transition, issues of retention, unemployment, lack of academic preparedness will continue to impact students with LD.

Students with LD face a variety of academic challenges. High schools have an important role in preparing college-bound students with disabilities for academic success in higher education. Transition activities are tailored to the each student's strengths and match goals with specific outcomes. A substantial amount of literature reports the lack of preparation students with LD experience in attempting to pursue higher education. Specifically learning issues not resolved in high school such as developing useful study strategies; lack of confidence; lack of support; and lack of resources such as academic accommodations all have a major impact on academic success. However, little is known regarding how students with LD perceive their secondary transition experiences. In addition, there is no research that attempts to identify a relationship between positive/negative transition experiences and the impact on postsecondary outcomes. Specifically this current study focuses on students with LD perceptions of their secondary transition experiences and the impact on academic self-efficacy, academic adjustment, and overall academic success (GPA).

## Chapter III: METHODOLOGY

The researcher sought to investigate what potential relationships exist between students' perceptions of transition activities in respect to postsecondary academic performance, academic adjustment to postsecondary setting, and academic self-efficacy. The specific objective of this study was to determine if students' perceptions of their secondary transition experiences impact postsecondary academic success. This study was exploratory in nature and sought answers for future research.

### Restatement of the problem

More information was needed regarding if transition activities in high school were adequately preparing students with learning disabilities for academic success in postsecondary education settings. Accordingly, this study attempted to examine the following variables related to academic success: how well did students with learning disabilities perceive their secondary transition experiences; how did students rate their level of academic self-efficacy; and how did these variables predict academic adjustment and self-reported grade point average. The researcher compared perceptions of secondary transition experiences among first year and second year students with learning disabilities attending postsecondary institutions in the Maryland and Virginia areas.

### Research Questions

The research questions that guided the current study were as follows:

1. What are the perceptions of college students with LD regarding their secondary transition experiences in preparation for postsecondary education?



2. What is the relationship between positive/negative perceptions of secondary transition experiences and (a) academic self-efficacy; and (b) academic adjustment to campus setting?
3. What are the contributions of each of these variables (a) positive/negative perceptions of secondary transition experiences; and (b) academic self-efficacy to academic performance (academic adjustment and GPA) in college students with LD?
4. What are the relationships between students' demographic characteristics and (a) students' perceptions of secondary transition experiences, (b) academic self-efficacy, (c) academic adjustment, and (d) GPA?

#### Participants

The population for this study included first year and second year students with LD registered with their universities' disability services office. The researcher identified three large public universities (University of Maryland, College Park; University of Maryland, Eastern Shore; and Salisbury University) and three large community colleges (Prince George's Community College; Montgomery Community College; and Northern Virginia Community College) in the Maryland/Virginia area using the University of Maryland's Information System consisting of local colleges and universities. In addition the schools were listed members of the Association for Higher Education and Disability (AHEAD). The AHEAD directory was used only to identify disability service providers' email addresses at these universities.

Demographic information was gathered to better understand intrinsic and extrinsic factors related to perceptions of transition experiences and academic success.

Items requested included gender; age; race; college year; semester status; college major; university attending; state of origin; and cumulative grade point average (GPA).

Respondents were asked to complete background questions by indicating choices or by answering open-ended questions (Appendix A).

The modified Youth Continuation Interview, College Academic Self-Efficacy Scale, and Student Adjustment to College Questionnaire were sent to college students with LD identified by each college/university Disability Service Director or staff members. The number of emails that were sent out could not be determined due to the protection of anonymity for each college/university. 203 students returned the survey, with 51 incomplete and 152 completed instruments. The majority of responding students represented Maryland (65.8%); Virginia (10.5%); and the District of Columbia (5.3%). A small number of participants attended high school in other regions of the United States which included Ohio, Michigan, Florida, Kansas, Utah, and Puerto Rico; however the majority of the sample attended high school around the Northeast region of the United States.

Table XX illustrates information concerning the demographic characteristics of the 152 participants. The table presents the number and percentage of college students with LD who represent identified categories of demographic variables. Reviewing the data, 59% of the participants were female while 41% were male. In addition, 63% were Caucasian, 16% were African American, and 8% were Latino/Latina. The majority of the students were 19 years or older. 28% of the respondents were over 21. 25% were exactly 19 years old. The range of ages are inclusive of the diverse student body from

each participating college/university which includes traditional students entering college from high school and non-traditional students who enrolled at later ages.

Table 3 also presents the number of students from each participating college/university. The majority of participants were from the University of Maryland, College Park representing 45% of students in the sample. Salisbury University had the second largest participant pool with 18% of the sample. Both these universities had the largest disability services offices with around 1800 or more students with disabilities currently registered. In addition both these schools are predominately Caucasian which is illustrated by race/ethnicity percentages.

From Table 3 it can be seen that second year students were the majority of respondents consisting of 33% of the sample. 18% of the respondents were first year students and 19% were third year students. The mean of self-reported cumulative GPA was 3.00 with a standard deviation of .554. The GPAs reported in this study were based on a 4.0 scale. The majority of respondents did not fall below 2.0 GPA, most likely due to college/university policies in which a student who receives below a 2.0 will be placed on academic probation; thus, the possibility of leading to academic suspension if the student cannot raise his or her GPA.

The majority of the sample completed between one to three semesters of college in the period of time the study was implemented. Specifically, 23% of the students completed two semesters whereas 20% completed one semester of coursework. Seventeen percent of the sample completed three semesters of coursework. Seventy-eight percent of the students were pursuing their degrees as full-time status; while 18% of the students were part-time status.

Table 3

*Frequency Distribution of Participants by Selected Demographic Variables*

Variables	Frequency (N=152)	Percent
<b>Gender</b>		
Female	90	59.2
Male	62	40.8
<b>Age</b>		
18	15	9.9
19	38	25
20	35	23
21	22	14.5
Over 21	42	27.6
<b>Ethnicity</b>		
Caucasian	95	62.5
African American	24	15.8
Latino/Latina	12	7.9
Biracial	10	6.6
Asian	9	5.9
Other	2	1.3
<b>State attended High School</b>		
Maryland	100	65.8
Virginia	16	10.5
District of Columbia	8	5.3
New Jersey	7	4.6
New York	5	3.3
Pennsylvania	4	2.6
California	2	1.3
North Carolina	2	1.3
Ohio	2	1.3
Florida	1	.7
Kansas	1	.7
Michigan	1	.7
Puerto Rico	1	.7
Rhode Island	1	.7
Utah	1	.7
<b>College/University Attended</b>		
University of Maryland, College Park	68	44.7
Salisbury University	28	18.4

University of Maryland, Eastern Shore	13	8.6
Prince George's Community College	16	10.5
Northern Virginia Community College	14	8.6
Montgomery Community College	13	8.6
<hr/>		
Current College Year		
First Year Student	28	18.4
Second Year Student	51	33.6
Third Year Student	29	19.1
Fourth Year Student	23	15.1
Five or More Years	21	13.8
<hr/>		
# of Semesters Completed		
1 semester	31	20.4
2 semesters	35	23
3 semesters	26	17.1
4 semesters	16	10.5
5 semesters	10	6.6
6 semesters	9	5.9
More than 6 semesters	25	16.5
<hr/>		
Self-Reported GPA		
3.5 – 4.0	34	22.4
3.0 - 3.4	51	33.6
2.5 – 2.9	37	24.3
2.0 – 2.4	22	14.5
1.9 or below	6	3.9
Missing Value	2	1.3

Table 4 illustrates the minimum, maximum, mean, and standard deviation on all demographic variables based on participants' responses. . Since these variables are categorical, dummy codes were used during data analysis. Appendix B illustrates the dummy coding used for Table 4.

Table 4

*Distribution of Respondents' Demographic Variables*

	N	Minimum	Maximum	Mean	Std. Deviation
Age	152	18	1004	291.6	441.7

Ethnicity	152	1000	1006	1000.9	1.5
Gender	152	1000	1001	1000.6	.5
GPA	146	1.5	4.0	3.0	.6
Type of Institution	152	1000	1006	1000.3	1.5
# Semesters	152	1000	1006	1002.4	2.1
Current Year	152	1000	1004	1001.7	1.3

---

### Instrumentation

A demographic questionnaire and three research instruments were used in this study. After completing the demographic questionnaire, participants were asked to complete one survey and three research scales: the NLTS2 Youth Continuation Interview (YCI), the Academic Self-Efficacy Scale, and the Academic Adjustment Scale, a subscale of the Student Adjustment to Campus Questionnaire

#### *NLTS2 Youth Continuation Interview*

Until recently there were not many measures developed to analyze perceptions of secondary transition experiences pertaining to college students with learning disabilities. For the purposes of this study, the NLTS2 Youth Continuation Interview (YCI) was selected to obtain information regarding secondary transition experiences. The entire youth interview consisted of social and extracurricular activities, health, secondary school experiences/involvement, postsecondary education, employment, risk behaviors, youth's feelings and expectations, and youth's household. Since the focus on this study was on perceptions of secondary transition experience, academic preparation, and success in college, only the secondary school experiences and postsecondary education section

pertaining to college/university settings was utilized. This was not to suggest social activities, health, employment, risk behaviors, or youth's household do not contribute to success in college.

The YCI is a 22-item questionnaire in which participants were asked about educational experiences in secondary school (Appendix C). Some questions were eliminated based on the nature of the population. In other words, the YCI was developed for a sample of students between the ages of 13-16. Certain modifications were made to address an older student body and focus on students attending postsecondary institutions. For example, questions such as "Did you graduate from high school?" and "Did you drop out of high school" were eliminated in the adapted version of YCI since the participant pool who were surveyed in the current study were enrolled at a postsecondary institution.

#### *Modified YCI Scale*

To investigate the effects of the perception of secondary transition experiences for students with learning disabilities, this research adapted items from the NTL2 Youth Continuation Interview (YCI). The YCI did not provide a holistic measurement of a student's perception of their transition experiences, so it was necessary to develop a Modified YCI Scale to determine if the student's perception of the transition experience was positive or negative.

The entire YCI (Appendix C) was delivered to subjects as part of this research, so there were no concerns about context effects causing items to perform differently than they would on the regular YCI. The ten YCI survey items shown in Table 4 were identified as items that measure whether the student had a positive or negative perception of their transition experience. Since these items were Likert scale items with different

scales, each item response was normalized to a 0-1 scale. Missing values were zero imputed. In some cases, the scale was reversed, as a lower response value represented a more positive perception of the transition experience. The different raw score response and the corresponding scale value were shown in Table 5.

Table 5

*Scaling of Selected YCI Items*

YCI Item	Raw Score Response Value					
	Blank	1	2	3	4	5
How much did you enjoy high school?	0	0	1/3	2/3	1	___
How much did you feel like you were part of high school?	0	0	1/3	2/3	1	___
How hard was high school for you?	0	0	1/3	2/3	1	___
Getting along with your teachers?	0	1	3/4	1/2	1/4	0
Paying attention in school?	0	1	3/4	1/2	1/4	0
Getting along with other students?	0	1	3/4	1/2	1/4	0
How much choice did you have about the goals on your IEP?	0	0	1/2	1	___	___
How do you feel about your part in the decisions about your IEP?	0	1	1/2	0	___	___
How much do you think your IEP goals are challenging and right for you?	0	0	1/3	2/3	1	___
How useful have the services and accommodations been in helping you stay at the university and do your best there?	0	0	1/3	2/3	1	___

Student's scaled responses to these ten items were then summed to generate the Modified YCI Scale. The Modified YCI Scale consisted of values from 0-10 such that 0 was a very negative perception of the secondary transition experience, and 10 was a very positive perception of the secondary transition experience. This Modified YCI Scale was



used to gather information regarding positive and negative views of students' secondary transition experiences.

Because the Modified YCI Scale may be an imprecise measure of a student's perception, the interval Modified YCI Scale was transformed into an ordinal measurement: *YCI<sub>q</sub>*. Students' Modified YCI Scale scores were converted into four ordinal perception values: very negative, negative, positive, and very positive. These values were assigned to each respective quartile of the Modified YCI Scale. Quartile values are shown in Table 6. These four values were used in the final two multiple regression analysis tests as a moderating variable.

Table 6

*Perception Labels by Modified YCI Quartile*

---

	Modified YCI Scale Values
Q <sub>1</sub> : Very Negative	0.00 – 3.50
Q <sub>2</sub> : Negative	3.51 – 4.25
Q <sub>3</sub> : Positive	4.26 – 5.00
Q <sub>4</sub> : Very Positive	5.01 – 10.00

---

*Academic Self-Efficacy*

Participants completed the College Academic Self-Efficacy Scale (CASES) developed by Owen and Froman (1988). CASES consisted of 33 items ranging from very specific (i.e. attending class consistently in a dull course) to fairly general (i.e. understanding difficult passages in textbooks) built on a 5-point Likert-type scale ranging from *quite a lot* (5 points) to *very little* (1 point) (Appendix D). Higher scores indicated higher college academic self-efficacy. The authors posited an alpha coefficient of .90 and

test-retest reliability of .85 within an 8-week interval. Similarly, using a sample of 230 undergraduate students, Choi (2004) reported a coefficient alpha of .92.

In addition, Owen and Froman (1988) provided good empirical support for both factorial and concurrent validity. To assess concurrent validity, two different criteria were utilized. In different studies, participants were asked to complete 5-point self-ratings on “frequency” and “enjoyment” regarding each of the 33 academic behaviors on CASES. These were considered criteria suggested by self-efficacy theory (Bandura, 1997). Given their analysis, Owen and Froman purported, “academic self-efficacy showed very strong incremental validity beyond that explained by GPA alone.... In a variation of these concurrent validity studies, ...the addition of CASES increased R from .62 to .81” (p.5).

#### *Academic Adjustment*

Academic adjustment to college was measured using an on-line version of the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1999). The entire SACQ consisted of a 67 item self-report questionnaire that could be administered individually or in groups. The SACQ focused on four aspects of adjustment to college or university: academic adjustment, social adjustment, personal-emotional adjustment, and institutional attachment. Only the academic adjustment subscale was used in this study (Appendix E).

The academic adjustment subscale measured how well the students manage the educational demands of the university experience and consisted of 24 items. Each SACQ item was a statement that the student responds to on a 9-point scale ranging from “applies very closely to me” to “doesn’t apply to me at all”. The student indicated the point on the scale which best represented the degree to which the statement was true for him or her at

the time of testing. Higher scores on the Academic Adjustment subscale were expected to be associated with higher levels of academic motivation (Beyers & Goossens, 2002). Measures of internal consistency for the Academic Adjustment subscale ranged from .81-.90.

### *Academic Performance*

Self-reported cumulative grade point averages (GPA) were used as indicators of academic performance. Each institution has similar grading scales (i.e. A=4.0, B=3.0, C=2.0, D=1.0, and F=0.0). Participants were asked to report their cumulative GPAs in the completed survey.

### Procedures

Timmerman purported electronic surveys have evolved from disk-by-mail surveys to e-mails with embedded or attached surveys and finally to web-based surveys posted on the Internet (2002). With web-based surveys, participants were usually notified by e-mail to participate in the survey. The e-mail generally included a link to the URL (uniform resource locator) web address of the survey.

Online surveys have several important advantages over paper-and-pencil surveys that make them particularly attractive to researchers. These include reduced response time, lower cost, and ease of data entry (Granello & Wheaton, 2004). Researchers examined nonresponse in student surveys to investigate why some schools achieve higher student survey response rates than other schools. The major findings in this study showed: social environment, such as urbanicity and percentage of part-time students, has an impact on response rates at schools using a Web survey mode (Porter & Umbach, 2006). In addition public schools tended to have lower response rates than private schools

(Porter & Umbach). Another study found that web-based surveys were especially useful when collecting data from special populations which are characterized by those which share similar characteristics and are difficult to reach (Mitra, Jain-Shukla, Robbins, Champion, and Durant, 2008; Yeaworth, 2001). Mitra et al (2008) provided a set of recommendations for data collection conditions for using web based surveys: (a) make sure that the paper and pencil version of the questionnaire can be appropriately translated to a html version; (b) the data collection process in the first 96 hours is a critical period following the broadcast of the email inviting people to participate in a study; (c) it is important to have frequent reminders sent after the first email; and (d) it is important to recognize there is variability in the rate of response on a variety of factors such as gender, school year, and technology environment of the school.

Consideration of all these factors influencing response rate was given in selecting data collection methods and administration. Using the Survey Gizmo site, a professional online survey was designed to email to participants. Since there were a range of factors influencing the response rate of the current study which include density, urbanicity, type of institution (2yr/4yr), and the use of a web-based instrument, the response rate was expected to be lower ranging from 30-40%. The email containing the link consisted of a brief description of the research agenda, personal incentives for participation in the study, and potential professional insights of the study (Appendix F).

A pilot study of 20 students was conducted to generate psychometric data pertaining to the YCI. General research procedures for the pilot study were similar to those of the larger study. For the purposes of the pilot study, participants were recruited from the University of Maryland's Disability Support Service (DSS) office. All policies

and procedures for research approval by the agency/organization were conducted prior to the data collection. For results of the pilot study sample, refer to Appendix G.

Data were collected during the 2009-2010 academic year. Permission to collect data was granted from each participating institution's Institutional Review Board (Appendix H). Data were collected from a sample of students with learning disabilities. Students with learning disabilities eligible to participate in this study were identified through the university's disability service office. Students were eligible to register and receive services from these offices after providing documentation of a diagnosed disability. Students who were registered with the disability offices were contacted via listserv or by email sent by the disability service office. In addition, to recruit those students with LD who are not registered with their college's DSS office, a flyer was created to invite these students to participate in the study and contact the researcher (Appendix I). This sample consisted of first year and second year students with learning disabilities who volunteered to participate in the study.

The research announcement informed all participants that the research attempted to answer questions regarding perceptions of high school transition experiences and how these students prepared for postsecondary education (Appendix J). In addition, respondents were informed of the requirements of the research (i.e., online instrument completion). The research announcement instructed students who wish to participate in the research study on how to access the study introduction, description of research procedures, informed consent form, and respective questionnaires with the provided URL.

Respondents participated in the research by selecting the provided URL in the email requesting participation. The email included a cover letter and informed consent form (Appendix J). The rationale, procedures, and voluntary nature of the research study were explained in the cover letter. Additionally, participants were informed that the purpose of the research was in part to fulfill the requirements for the completion of a doctoral degree and to answer questions regarding perceptions of transition experiences, academic self-efficacy, and academic adjustment to postsecondary institutions. Participants were told that completion of the survey including the three questionnaires would take between 25-30 minutes. The consent form also stated that their participation was voluntary and that they could decide to exit the questionnaire at any time without penalty. The first 200 participants who volunteered to take part in the study were eligible to receive \$5 Amazon gift card by submitting an email address upon completion of the survey. The respective gift card prizes were sent via email from the Amazon website using the email addresses retrieved from the students.

Research has shown that providing monetary incentives does help to improve response rates (Jobber, Saunders, and Mitchell, 2004; Warriner, Goyder, Gjertsen, Hohner, & McSpurren, 1996). Szelenyi, Bryant, and Lindholm (2005) conducted an experiment exploring how differential amounts of incentives affect diverse college student populations. Specifically, the researchers found that increasing prepaid monetary incentives from \$0 to \$2 had an overall impact on the response rate increasing 13% (Szelenyi et al). Their findings did not suggest substantial returns resulting from increasing the amount of money from \$2 to \$5; however, for specific demographics such as race and gender result in an increase of response rate (Szelenyi et. al). Males, African

Americans, and Latino/a student were found to have a higher response rate from increasing monetary incentives from \$2 to \$5. From a practical perspective, the research has shown that it appears more reasonable to provide a small monetary incentive to a greater number of students rather than utilizing larger incentives across a smaller sample population (Szelenyi et. al).

Since participation in the study was anonymous, respondents were told that permission to give their informed consent was a result of submitting the survey upon completion. Each participant was instructed to submit their email address separately from the questionnaire using the URL link provided upon completion of the survey if they wanted to be eligible to receive a \$5 Amazon gift card. At the end of submission, participants were thanked for their contribution to the research study.

#### Research Design and Data Analysis

Data collected from the surveys was stored into a computer file using Statistical Package for Social Sciences (SPSS) – Windows version 17.0. First, the researcher completed a frequency distribution to check for missing values and/or coding errors. Next, inferential statistical analyses, ANOVA, were used to determine if statistical differences exist between each postsecondary institution in terms of the following dependent variables: perceptions of transition experiences, academic self-efficacy, and academic success (academic adjustment and GPA). For some research questions, the researcher used a correlational design. A correlational design is typically used to examine or describe relationships among a wide number of variables of interest (Mitchell & Jolley, 1999). The researcher explored bivariate correlations which sought to determine a pattern of relationships between predictor (positive/negative perceptions of

transition experiences) and criterion variables (academic self-efficacy and academic adjustment). Finally, the researcher used multiple regression analysis with dummy coding of categorical variables and examined the contribution of independent variable of student demographics and positive/negative perceptions of secondary transition experiences and other intervening, mediating, or dependent variables. Scores on the YCI, CASES, SACQ, and cumulative GPA were included in data analysis.

Researchers employ regression to estimate the quantitative effect of the causal variables upon the variable that they influence (Cohen, Cohen, West, & Aiken, 2002). The objective of regression analysis is to help predict a single dependent variable from the knowledge of one or more independent variables (Cohen et al). Multiple regression is preferred over simple correlation as it allows for the control or partialing out of the effects of the other variables in the equation. In multiple regression, the regression coefficients illustrate the strength of the effects of one variable on another while controlling for other variables.

To insure that the basic assumptions of the model were not violated, additional analyses were conducted. First, partial regression plots were developed to test for linearity. Second, a Levene's test for homogeneity of variance was conducted, which measures the equality of variances for a single variable or pair of variables (Cohen et al., 2002). Third, the residuals were plotted against any possible sequencing variable. Fourth, the assumption of normality of the error term distribution and individual variables was addressed by using normal probability plots. A criterion alpha level of .05 was used to make decisions regarding the statistical significance of the findings.



## CHAPTER IV: RESULTS

This study explored how well college students with LD were prepared for postsecondary academic success based on their high school transition experiences. This chapter provides information regarding the population of college students with LD utilized in this study, and presents the findings to illustrate the relationships between perceptions of high school transition experiences, academic self-efficacy, academic adjustment, and/or academic performance. Multiple regression, analysis of variance, and simple correlations are shown to illustrate significant relationships between predictor and criterion variables. Results of this study should be interpreted with caution. All the relationships described are not to suggest causation. Instead the findings illustrate relationships and potential impact on certain variables. The research questions and specific statistical analyses are outlined in Table 7. The findings associated with the selected research questions are discussed in this chapter.

Table 7

### *Statistical Analyses*

Research Question	Variables	Statistical Analysis
1. What are the perceptions of college students with learning disabilities regarding their transition experiences in preparation for postsecondary education?	<p><u>Dependent Variable:</u> Perceptions of transition experiences</p> <p><u>Independent Variable:</u> Students</p>	Obtain frequency distribution tables, means, standard deviations (sd) for all demographics (age, sex, gender, race, type of institution). one way analysis of variance (ANOVA); obtain means and sd for all 3 scales
2. What is the relationship	<u>Criterion Variable:</u>	Pearson product moment

between positive/negative perceptions of secondary transition experiences and (a) academic self-efficacy; and (b) academic adjustment to campus setting?	Academic Self-Efficacy Academic Adjustment	bivariate correlation, R
3. What are the contributions of each of these variables (a) positive/negative perceptions of secondary transition experiences; and (b) academic self-efficacy, to academic performance (academic adjustment and GPA) in college students With LD?	<u>Predictor Variable:</u> Perceptions of secondary transition experiences	Multiple R and R <sup>2</sup>
4. What are the Relationships between Students' demographic Characteristics and (a) Students' perceptions of Secondary transition Experiences, (b) academic Self-efficacy, (c) academic Adjustment and (d) GPA?	<u>Criterion Variable:</u> Academic Performance (Academic adjustment and GPA)	Multiple R and R <sup>2</sup>
	<u>Predictor Variable:</u> Perceptions of Transition Experiences; Academic Self-Efficacy	
	<u>Criterion Variable:</u> Academic Self-Efficacy; Academic Adjustment; GPA	Pearson product moment bivariate correlation, R; Correlation matrix; One way analysis of variance (ANOVA); Stepwise Regression Analysis
	<u>Predictor Variable:</u> Student Demographic Characteristics; Perceptions of Secondary Transition Experiences	

---

#### Research Question One

The following tables illustrate self-reported perceptions of college students with LD regarding the following aspects of their secondary transition experiences: academic challenges; interpersonal challenges; services and supports received at high school; and postsecondary education supports. The survey items included a variety of answer choices ranging from “yes”, “no”, “not sure”; levels of agreement; and degree of usefulness. Each answer choice was assigned numeric coding values. For instance, for all responses

with “Yes”, “No”, or “Not Sure”, numeric values of 1000, 1001, and 1002 were assigned. Means and standard deviations were calculated for each category of questions. Certain questions on the YCI pertain to these specific areas of students’ perceptions. Each table outlines the questions as well as means and standard deviations from the total of participating students.

Table 8

*Distribution of Respondents by Academic Challenges*

	N	Minimum	Maximum	Mean	Std. Deviation
How hard was high school for you?	152	1	4	2.53	.75
How often did you have trouble paying attention in school?	152	1	5	3.17	1.41

The majority of students reported some difficulties in high school (46%), while a substantial percent (39%) felt that it was not very hard. The mean score for this variable was 2.53 and the standard deviation was .75. About 49% of the students reported having trouble paying attention in school on a regular basis. The mean for this variable was 3.17 and the standard deviation was 1.41.

Table 9

*Distribution of Respondents by Interpersonal Challenges*

	N	Minimum	Maximum	Mean	Std. Deviation
Was there an adult who you felt close to and who cared about you?	150	1000	1002	1000.52	.74
How often did you have trouble getting	152	1	5	1.88	.93

along with your teachers?

How often did you have trouble getting along with other students?	152	1	5	2.26	1.23
---	-----	---	---	------	------

---

In response to the question that assesses if students received supports and services in high school, 62% of the sample reported they had at least one individual that supported them. Numeric coding was used for “Yes”=1000, “No”=1001, and “Not Sure”=1002 responses. Overall the majority of students who responded did have an adult within the school who they felt were concerned for their well-being. The mean for this variable was 1000.52 and the standard deviation was .74.

About 51% of the participants reported having trouble getting along with teachers just a few times in high school. The mean for this variable was 1.88 and the standard deviation was .93. Overall 38% of the students expressed having trouble getting along with other students just a few times in high school. 31% of the students expressed never having trouble getting along with other students in high school. The mean for this variable was 2.26 and the standard deviation was 1.23.

Table 10

*Distribution of Respondents by Services and Supports Utilized in High School*

	N	Minimum	Maximum	Mean	Std. Deviation
In high school, did you meet with adults at school to set goals and make a plan to achieve them?	152	1.000	1002	1000.87	.63
During high school, did you go to IEP meeting?	152	1000	1002	1000.76	.63

How much do you think your IEP goals were challenging for you?	37	1	4	2.76	.76
How much choice did you have about your IEP goals?	39	1	3	2.26	.68
How do you feel about your part in decisions about your IEP?	37	1	3	2.27	.61
Were you getting the support and services from the school that you needed to do well there?	152	1000	1002	1000.58	.69

---

Over half of the participants, 55%, responded they did not have an IEP. Thirty-five percent of the sample responded that they did have an IEP in high school. The mean for this variable was 1000.76 ; and the standard deviation was .63. To clarify, “Yes”=1000, “No”=1001, and “Not Sure”=1002 were the numerical codes assigned to these responses. Students were then asked if they met with an adult in high school who helped set goals and a plan to achieve each goal (i.e. transition plan). The majority of participants (59%) expressed that they did not have someone who helped with a transition plan. About 28% of students responded that they did have someone who helped with their transition plan. The mean for this variable was 1000.87 and the standard deviation was .63.

For the participants who had a high school IEP, 87% students asserted that were involved in setting goals for their IEP (M=2.26; sd=.68). In essence, the majority of the students who had a high school IEP was proactive with their involvement, had an

appropriate role in decision-making and felt their goals were challenging and right for them. Slightly more than half of the students (53%) reported they received supports and services from their high school in order to do well. Thirty-six percent of students expressed they did not receive enough supports and services from their high school.

The following table focuses on postsecondary supports and services that participants have utilized. In addition, descriptive information will be presented illustrating entrance into college and supports used as a registered college student with LD.

Table 11

*Distribution of Respondents by Timeline Attending College and Postsecondary Supports*

	N	Minimum	Maximum	Mean	Std. Deviation
About how long after leaving high school was it before you began college?					
Days	30	0	90	36.23	37.84
Weeks	30	0	14	4.67	5.19
Months	126	0	8	3.22	1.37
Years	47	0	5	.94	1.13
Have you been steadily enrolled during the school year or Off/On taking classes?	152	1000	1002	1000.18	.43
Did you stop going to college?	152	1000	1002	1000.89	.35
Did you ever go to a study center or writing center in college to get help with your work?	152	1000	1002	1000.53	.53

Do you think you received enough services and accommodations to help you with college?	152	1000	1002	1000.57	.72
---	-----	------	------	---------	-----

---

Participants reported on average between 36 days to one year between ending high school and beginning college ( $M=36.23$ ;  $sd=37.84$  and  $M=.94$ ;  $sd=1.13$ , respectively). Some participants spent even more time away (up to 14 years). The majority of participants (84%) were steadily enrolled in school since they began college ( $M=1000.18$ ;  $sd=.43$ ). For those students who had to stop attending college, reasons included financial issues, having children, academic probation, death in the family, and illness.

Respondents were asked to report college supports that were used as well as if the supports were helpful for them to do their best in college. About 77% of respondents acknowledged that they received services and supports from college ( $M=1000.57$ ;  $sd=.72$ ). Most of the sample (49%) reported utilizing a campus study center or writing center ( $M=1000.53$ ;  $sd=.53$ ). However, 36% of the students sought out other services on their own that were not available at their college. Overall 57% of the respondents felt they received enough services at their college ( $M= 1000.57$ ;  $sd=.72$ ).

Each participant was asked to list specific accommodations that he/she used as a registered college student with LD. Not surprisingly, the majority of accommodations used by this sample of students were testing accommodations (i.e. 94% used extended time and 46% needed a different setting to take exams), assistive technology (i.e. 65% used computer spell checker in class or on tests; 40% had special use of calculator; and 38% had books on tape), classroom accommodations (i.e. 4% or 58 had additional time to

finish assignments), human aides ( i.e. 57% used a notetaker in class and 35% had a tutor) and out of class supports (i.e. 75% had early registration, and 37% had assistance with learning strategies or study skills). The entire list of specific accommodations is shown in Appendix K.

Finally after reviewing the responses to the YCI, a one-way analysis of variance (ANOVA) was used to compare the mean modified YCI scale for the perceptions of secondary transition experiences for students with learning disabilities from the University of Maryland College Park ( $M = 4.238, SD = 1.474$ ), University of Maryland Eastern Shore ( $M = 4.378, SD = 1.184$ ), Salisbury University ( $M = 4.262, SD = 1.290$ ), Prince George's Community College ( $M = 4.249, SD = 0.984$ ), Montgomery Community College ( $M = 4.378, SD = 1.501$ ), and Northern Virginia Community College ( $M = 4.363, SD = 1.554$ ). Using an alpha level of 0.05, this test was not found to be statistically significant ( $F_{(5, 146)} = 0.052, p = 0.998$ ). The mean perception of secondary transition experiences as measured by the modified YCI scale did not differ significantly between groups of students from different schools.

#### Research Question Two

A test of the Pearson correlation was used to address the relationship between the modified YCI scale for the perceptions of secondary transition experiences for students with learning disabilities ( $M = 4.28, SD = 1.36$ ) and the CASES scale for academic self-efficacy ( $M = 114.11, SD = 26.46$ ). Using an alpha level of 0.05, this test was found to be statistically significant,  $r_{(152)} = 0.27, p = 0.001$  (two-tailed), indicating that these two variables are positively related.



In addition, another test of the Pearson correlation was used to address the relationship between the modified YCI scale for the perceptions of secondary transition experiences for students with learning disabilities ( $M = 4.28$ ,  $SD = 1.36$ ) and the SACQ scale for academic adjustment ( $M = 81.32$ ,  $SD = 9.73$ ). Using an alpha level of 0.05, this test was not found to be statistically significant,  $r_{(152)} = 0.16$ ,  $p = 0.055$  (two-tailed), indicating that these two variables are not related. Nevertheless, one should note that this is a small relational effect between the modified YCI scale and the SACQ scale.

### Research Question Three

This research was designed to determine the influence of academic self-efficacy on academic adjustment, while controlling for the students' perceptions of secondary transition experiences. Students' SACQ scores for academic adjustment were regressed on their CASES scores for academic self efficacy and their modified YCI scale quartile, which corresponds to four categories of perception: very negative, negative, positive, and very positive. The overall multiple regression was statistically significant ( $R^2 = 0.14$ ,  $F_{(2, 149)} = 12.13$ ,  $p < 0.001$ ).

The two predictor variables (CASES and modified YCI Quartile) accounted for 14% of the variance in academic adjustment; however, it does not seem that all of the predictors are important in the regression. The unstandardized regression coefficient ( $\beta$ ) for academic self-efficacy was 0.133 ( $t_{(149)} = 4.64$ ,  $p < 0.001$ ), suggesting that a one point increase in a CASES score will correspond to a 0.133 point increase in the SACQ score for students with learning disabilities when controlling for their perception of secondary transition experiences. The effect of the student's modified YCI Quartile was not statistically significant ( $\beta = 0.36$ ,  $t_{(149)} = 0.54$ ,  $p = 0.593$ ), which suggests that a student's

perception of their secondary transition experience has no effect on their academic adjustment.

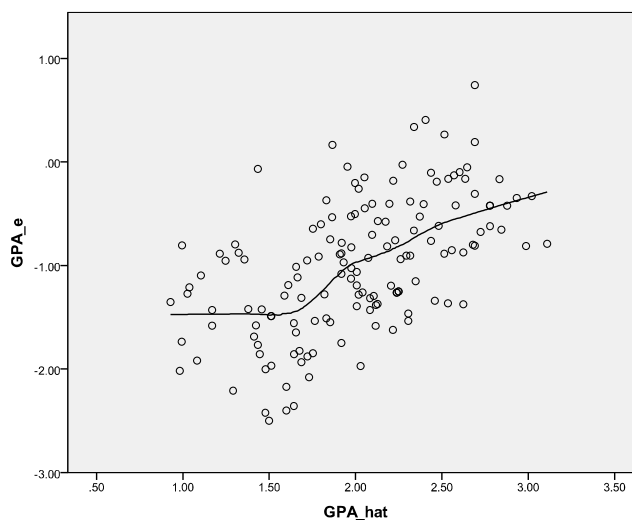
These findings suggest that a student's perception of their secondary transition experience will play no role in their academic adjustment at college, and that a student with learning disabilities will have a more positive academic adjustment if they have more academic self-efficacy.

The researcher also sought to determine the influence of academic self-efficacy on the cumulative grade point average of students with learning disabilities, while controlling for the student's perception of secondary transition experiences. Students' GPAs were regressed on their CASES scores for academic self efficacy and their modified YCI Quartile. The overall multiple regression was statistically significant ( $R^2 = 0.28$ ,  $F_{(2, 143)} = 27.14$ ,  $p < 0.001$ ).

The two predictor variables (CASES and modified YCI Quartile) accounted for 27.5% of the variance in cumulative GPA; however, it once again does not seem that all of the predictors are important in the regression. For this regression, the unstandardized regression coefficient ( $\beta$ ) for academic self-efficacy was 0.011 ( $t_{(143)} = 7.340$ ,  $p < 0.001$ ), suggesting that a one point increase in a CASES score will correspond to a 0.011 point increase in the cumulative GPA for students with learning disabilities when controlling for their perception of secondary transition experiences. The effect of the student's modified YCI Quartile was once again not statistically significant ( $\beta = -0.043$ ,  $t_{(143)} = -1.188$ ,  $p = 0.237$ ), which suggests that a student's perception of their secondary transition experience has no effect on their cumulative GPA.

These findings suggest that a student's perception of their secondary transition experience will play no role in their academic success at college, and that a student with learning disabilities will be more successful academically if they have more academic self-efficacy.

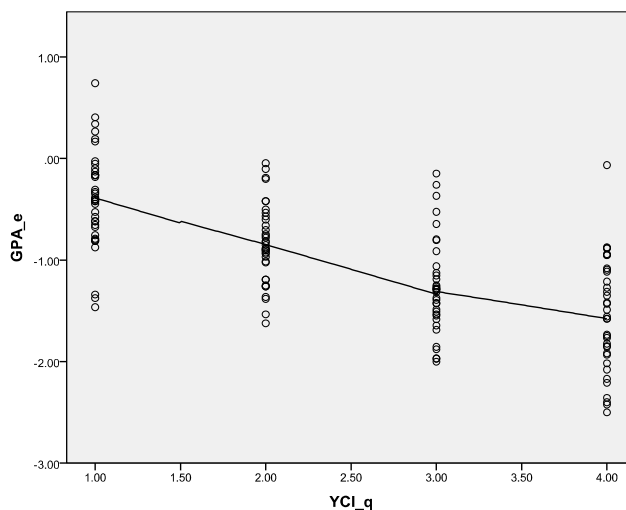
Figure 1 Plot of GPA Error Terms versus Estimated Cumulative GPA Values.



Partial regression plots were developed to test for linearity. It should be noted that this model violates the multiple regression assumptions of the homoscedasticity of residuals and linearity. Figure 1 illustrates a plot of GPA error terms versus estimated cumulative GPA values, which shows a distinct underestimate of the model as the estimate drops below a GPA of 3.00. This is likely because GPA is a constrained scale. It is impossible for students to have a score higher than 4.00. Similarly it is very rare to see cumulative GPAs below 2.00. This may be because students with severely low cumulative GPA scores leave college. It may also be that it is very rare for students to earn class grades below a C in college, thus clustering students with a range of CASES scores into a very small range of cumulative GPA values. According to Berry and Feldman (1985) and Tabachnick and Fidell (1996), severe violations of homoscedasticity

of residuals can weaken the analysis and result in Type I errors. As such, the results of this regression model should be interpreted cautiously.

Figure 2 Plot of College Academic Self-Efficacy Scale Variable and Modified Youth Continuation Interview Quartile Variable.



In the case of linearity, a plot of the CASES variable and the modified YCI Quartile variable shows systematic increases in the error terms for the estimated GPA score as the predictor values increase (Figure 2). According to Cohen et al. (2002), unlike the violation of homoscedasticity, this violation may result in an underestimate of the effects of the model.

#### Research Question Four

Pearson's correlations were computed to identify what student demographic characteristics are associated with students' perceptions of secondary transition experiences, academic self-efficacy, academic adjustment, and GPA. Scores for the modified YCI, CASES, and SACQ were entered into a correlation matrix with students' demographic characteristics and self-reported cumulative GPA. Tables 12 and 13 illustrate the data produced to identify existing relationships.

Table 12

*Relationships Among Demographic Variables and College Academic Self-Efficacy Scale*

Variables	C	1	2	3	4	5	6	7	8	9	10	11	12
C	1	.12	-.02	-.31**	-.30**	.07	.01	.28*	-.22**	.11	.24**	.17*	.52**
1	.12	1	-.09	-.13	-.11	.03	.14	.02	.09	-.07	.73**	.45**	.13
2	-.02	-.09	1	.11	.07	.04	.06	-.20*	.14	.10	-.06	-.03	.06
3	-.31**	-.13	.11	1	.17*	.03	.13	-.36**	.30**	-.07	-.30	-.21**	-.35**
4	-.30**	-.11	.07	.17*	1	-.11	-.12	-.56**	-.13	-.05	-.25**	-.16	-.35**
5	.07	.03	.04	.03	-.11	1	-.07	-.32**	-.07	-.03	-.01	-.05	.10
6	.01	.01	.06	.13	-.12	-.07	1	-.34**	-.08	-.03	-.01	.06	.01
7	.28**	.02	-.20*	-.36**	-.56**	-.32**	-.34**	1	-.38**	-.15	.21**	.18*	.25**
8	-.22**	.09	.14	.30**	-.13	-.07	-.08	-.38**	1	-.03	-.01	-.12	-.08
9	.11	-.07	.10	-.07	-.05	-.03	-.03	-.15	-.03	1	-.02	.00	.05
10	.24**	.73**	-.06	-.30	-.25**	-.01	-.01	.21**	-.01	-.02	1	.73**	.27**
11	.17*	.45**	-.03	-.21**	-.16	-.05	.06	.18*	-.12	.00	.73**	1	.12
12	.52**	.13	.06	-.35**	-.35**	.10	.01	.25**	-.08	.05	.27**	.12	1

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

\*Correlation is significant at the 0.05 level (2-tailed).

C = CASES

1 = Age

2 = Gender

3 = Type of Institution

4 = African American

5 = Asian

6 = BiRacial

7 = Caucasian

8 = Latino

9 = Other Race

10 = Current College Year

11 = Semesters Completed

12 = GPA

The researcher first examined the matrix to identify any variables that show proof of multicollinearity as evidenced by correlations of .80 or higher. Multicollinearity occurs when there are “moderate to high intercorrelations among predictor variables to be used in a regression analysis” (Mertle & Vannatta, 2005). By review of the correlation matrix it was evident there were no variables in the correlation matrix to indicate multicollinearity.

There were several significant correlations. A large positive correlation existed between CASES scale for academic self-efficacy and self-reported cumulative GPA,  $r_{(152)}=.52$ . There was a positive medium correlation between CASES and SACQ,  $r_{(152)}=0.37$ ; and, an inverse correlation between CASES and type of institution attended,  $r_{(152)} = -0.31$ . In addition, several slight correlations existed between CASES and the number of semesters completed ( $r_{(152)}=0.17$ ); current year in college ( $r_{(152)}=0.24$ ); Caucasian students ( $r_{(152)}=0.28$ ); African American students ( $r_{(152)}= -0.30$ ); and Latino students ( $r_{(152)}= -0.22$ ).

Table 13

*Relationships Among Demographic Variables and Modified Youth Continuation Interview and Student Adjustment to College Questionnaire*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Y	.03	.07	.01	.08	.04	-.52	-.08	.06	-.03	.02	-.07	.06
S	.00	-.07	-.04	-.05	-.04	-.01	.04	-.05	.21**	.00	.00	.09

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

Y = Modified YCI

S = SACQ

1 = Age

2 = Gender

3 = Type of Institution

4 = African American

5 = Asian

6 = BiRacial

7 = Caucasian

8 = Latino

9 = Other Race

10 = Current College Year

11 = Semesters Completed

12 = GPA

A small but significant correlation existed between SACQ subscale for academic adjustment and “Other” Race of students,  $r_{(152)}= 0.21$ . An inverse correlation was found between GPA and type of institution attended  $r_{(152)}= -0.35$ . There was also a slight positive significant correlation between GPA and college year  $r_{(152)}=0.27$ . All correlations presented in this section were found to be significant at the 0.01 level with a two-tailed distribution.

A one-way analysis of variance was performed to compare mean differences of the CASES, SACQ, and modified YCI scale with the type of institution attended (Table 14). Due to the multiple outcome variables (CASES, SACQ, and modified YCI scale) and only two levels (2yr vs. 4yr College), there was less chance of a Type I error occurring if ANOVA was used instead of multiple *t-tests* (Cohen et al., 2003). Using an alpha level of 0.05, Levene's test was statistically significant ( $F_{(1, 150)} = 6.511, p = 0.012$ ) for CASES only (Table 15). Results must be interpreted with caution due to the violation of normality assumption.

Table 14

*One Way Analysis of Variance (College Academic Self-Efficacy Scale, Student Adjustment to College Questionnaire, Youth Continuation Interview by Type of Institution)*

		Sum of Squares	df	Mean Square	F	Sig.
CASES	Between Groups	10335.156	1	10335.156	16.249	.000
	Within Groups	95405.160	150	636.034		
	Total	105740.316	151			
SACQ	Between Groups	24.666	1	24.666	.260	.611
	Within Groups	14256.176	150	95.041		
	Total	14280.842	151			
YCI	Between Groups	.050	1	.050	.030	.862
	Within Groups	249.255	150	1.662		
	Total	249.305	151			

Table 15

*Levene's Test of Homogeneity*

	Levene's Statistic	df1	df2	Sig.
CASES	6.511	1	150	.012
SACQ	.081	1	150	.776

Levene's				
	Statistic	df1	df2	Sig.
CASES	6.511	1	150	.012
SACQ	.081	1	150	.776
YCI	.893	1	150	.346

Results indicate that CASES was the only scale that illustrated any statistical significance between two-year community colleges and four-year universities. Coincidentally, students attending four-year institutions have higher academic self-efficacy than students attending two year community colleges.

A stepwise regression analysis was performed using student demographic characteristics (age, gender, race, and type of institution attended), perceptions of secondary transition experiences (modified YCI), academic self-efficacy (CASES), and academic adjustment (SACQ) as predictor variables and self-reported cumulative GPA as the criterion variable. A stepwise regression analysis was performed with seven potential models; however, only the significant effects are reported below. Multicollinearity statistics indicated that the tolerance values for the predictor variables were greater than .1, which reveals that there is no violation to multicollinearity. A tolerance value close to 1 shows little multicollinearity violations; whereas, a tolerance value close to 0 means that independent variables are highly correlated with one another resulting in a violation of multicollinearity (Appendix L).

To determine a regression model, predictor variables were added or removed based on their effect on the criterion variable. The independent variable with the strongest correlation to the dependent variable is entered into the model first (Table 16). Age was the first variable entered into the prediction equation model as the strongest



predictor variable and all other variables were removed. Age accounted for slightly over 53% (.53) of variance on the model and had a strong correlation (.73) to GPA.

Next, Race was added into the prediction model as the next variable with the highest partial correlation on GPA after controlling for the first predictor variable. Race accounted for an additional 5% of the variance in Model 3, specifically African Americans and Latinos. The last variable that was added was Type of Institution, which accounted for a little over 2% of the variance in Model 4 and produced a strong correlation coefficient value,  $R = .78$ .

Table 16

*Multiple Regression Model Summary*

Variable	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard Error of the Estimate
Age	.73	.53	.53	.90
Gender	.73	.53	.53	.90
Race	.76	.58	.56	.87
Type of Institution	.78	.61	.58	.85
CASES	.78	.61	.58	.85
SACQ	.78	.61	.58	.85
YCI	.78	.61	.58	.85

Table 17 summarizes the regression analysis revealing the effects on GPA. In model 1 and 2, the participants' age had a positive effect ( $\beta = .73, p = .000$ ); whereas, gender had no effect on GPA. Model 3 reveals that African American and Latino students had a statistically significant inverse effect on GPA, ( $\beta = -.21, p = .000$  and  $\beta = -$

.12,  $p = .034$ ; respectively). In addition, Model 4 shows that Type of Institution also had a statistically inverse effect on GPA, ( $\beta = -.17$ ,  $p = .005$ ). Although Age, Race, and Type of Institution attended were statistically significant predictors of GPA, the remaining variables (gender, academic self-efficacy, academic adjustment, and perceptions of secondary transition experiences) did not contribute to the final multiple regression model. The final model revealed that age, being non African American, and not attending a community college remained a significant factor for increased GPA.

Table 17

*Summary of Multiple Regression Analysis for GPA*

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	1001.094	.087		11464.766	.000
Age	.002	.000	.730	13.068	.000
2 (Constant)	1002.098	149.268		6.713	.000
Age	.002	.000	.730	12.976	.000
Gender	-.001	.149	.000	-.007	.995
3 (Constant)	908.390	147.371		6.164	.000
Age	.002	.000	.725	13.254	.000
Gender	.093	.147	.035	.630	.529
African American	-.744	.200	-.208	-3.725	.000
Asian	-.387	.303	-.070	-1.278	.203
BiRacial	-.287	.289	-.054	-.991	.323
Latino/a	-.580	.270	-.120	-2.143	.034
Other Race	.118	.624	.010	.190	.850
4 (Constant)	901.296	143.864		6.265	.000
Age	.002	.000	.701	12.966	.000
Gender	.100	.144	.038	.696	.488
African American	-.607	.201	-.170	-3.026	.003
Asian Asian	-.300	.297	-.054	-1.008	.315
Biracial	-.121	.288	-.023	-.419	.676
Latino/a	-.285	.283	-.059	-1.006	.316

Other Race	.018	.610	.002	.030	.976
Community college	-.485	.170	-.168	-2.855	.005
‡ (Constant)	907.837	1444.077		6.301	.000
Age	.002	.000	.696	12.785	.000
Gender	.093	.144	.035	.647	.519
African American	-.551	.209	-.154	-2.630	.009
Asian	-.309	.298	-.056	-1.038	.301
BiRacial	-.115	.288	-.022	-.399	.691
Latino/a	-.228	.290	-.047	-.787	.433
Other Race	-.030	.612	-.003	-.049	.961
Community College	-.455	.173	-.157	-2.629	.009
CASES	.003	.003	.056	.951	.343
† (Constant)	920.825	145.077		6.347	.000
Age	.002	.000	.694	12.743	.000
Gender	.081	.145	.030	.556	.579
African American	-.538	.210	-.150	-2.557	.012
Asian	-.324	.298	-.059	-1.084	.280
BiRacial	-.117	.289	-.022	-.405	.686
Latino/a	-.218	.290	-.045	-.751	.454
Other Race	.072	.625	.006	.116	.908
Community College	-.443	.174	-.153	-2.548	.012
CASES	.004	.003	.077	1.195	.234
SACQ	-.007	.008	-.049	-.832	.407
‡ (Constant)	921.393	145.798		6.320	.000
Age	.002	.000	.694	12.698	.000
Gender	.080	.146	.030	.549	.584
African American	-.541	.215	-.151	-2.516	.013
Asian	-.324	.300	-.059	-1.083	.281
BiRacial	-.116	.290	-.022	-.401	.689
Latino/a	-.221	.294	-.046	-.751	.454
Other Race	.075	.629	.007	.120	.905
Community College	-.444	.175	-.153	-2.540	.012
CASES	.004	.003	.075	1.105	.271
SACQ	-.007	.008	-.049	-.831	.408
YCI	.004	.058	.004	.073	.942

## Summary

This study explored four research questions about potential relationships and differences in student demographic characteristics, students' positive/negative perceptions of secondary transition experiences, academic self-efficacy, and academic adjustment on academic success. The observed sample for this study was comprised of first year and second year students with LD enrolled in the Fall 2009-Spring 2010 semester at six postsecondary institutions (University of Maryland, College Park, University of Maryland, Eastern Shore, Salisbury University, Prince George's Community College, Montgomery Community College, and Northern Virginia Community College). Data were collected from an online survey submitted to prospective students with LD registered with disability support services and self-identified students with LD who requested participation via email to the researcher.

The study examined relationships and differences through predictor and criterion variables assessing the impact on postsecondary academic success. Specifically this study analyzed student demographic characteristics, students' perceptions of secondary transition experiences, academic self-efficacy, and academic adjustment to determine the impact on academic success. The main predictor variable was perceptions of secondary transition experiences. Academic self-efficacy served as a predictor and criterion variable. Academic adjustment and academic performance (academic adjustment and GPA) served as criterion variables. College students with LD were independent variables to identify positive/negative perceptions of their transition experiences which was a dependent variable for one of the research questions explored.

Reviewing the full scope of students' perceptions of secondary transition experiences showed that the majority of college students with LD had positive transition

experiences. One analysis of variance results revealed that there were no differences between perceptions of secondary transition experiences and type of institutions. In addition academic self-efficacy tended to be higher for those students with LD who attend a four-year institution versus a two -year community college. Pearson's product-moment correlations reveal the following statistically significant relationships at the .05 level:

- positive relationships between academic self-efficacy and (a) perceptions of secondary transition experiences, (b) academic adjustment, (c) GPA, (d) number of semesters completed, (e) current college year, and (f) being a Caucasian student;
- inverse relationships between academic self-efficacy and type of institution as well as being an African American and Latino students;
- positive relationship between academic adjustment and "Other" Race;
- positive relationship between GPA and college year;
- and, an inverse relationship between GPA and type of institution attended.

Finally, multiple regression results revealed that Age, Race, and Type of Institution were statistically significant predictors of GPA. Chapter 5 presents a discussion of the research findings as they relate to the literature review and provide conclusions and recommendations for future research and practice.

## CHAPTER V: DISCUSSION

This study investigated perceptions of college students with LD secondary transition experiences and the impact on postsecondary academic success. Most of the findings were consistent with those of the NTL2 study completed within the 2000-2010 time period regarding perceptions of secondary transition experiences. This study was exploratory in that the relationships between the perceptions of secondary transition experiences and academic adjustment, academic self-efficacy, or academic performance have not been addressed recently. The information gathered from this analysis will be used for future research.

The generalizability of the results from the current study is limited in terms of the institutions and the measures. It is important to understand that an effort was made to gather a well-represented sample; however, additional research is needed to include a larger and more diverse sample of students and a variety of educational outcome measures. Overall the researcher found that academic self-efficacy was the main variable that contributes to postsecondary academic success for students with LD. Although this finding is not surprising, it can facilitate a dialogue between key stakeholders invested in assisting students with LD prepare for postsecondary education. Students with LD mainly face challenges to academic success due to the nature of their disability which impacts learning, comprehension, speech, organization, and writing. All of the essential elements that aid in academic success are usually deficits for students with LD. Because academic self-efficacy is a measure of confidence in ability, it is not surprising that in order for students with LD to be successful they must be confident in their own academic skills. However, the challenge lies in having transition programs that provide the tools and skills

necessary to promote and maintain academic self-efficacy for students with LD. The next section discusses how the results of this study are consistent with other research and practices.

### Background of Study

Since the passage of Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act of 1973, more attention has been paid to transition programs and how to improve postsecondary outcomes for students with disabilities. Throughout the last 30 years transition mandates have included 1997 and 2004 IDEA Amendments which have sought to strengthen existing transition concepts and service approaches. These mandates have brought attention to how students' transition programs can be coordinated to promote success in their post-school employment, postsecondary education, and independent living.

The emphasis on transition policies and best practices has been based on documented gaps of students with disabilities compared to their nondisabled peers in the areas of employment, education and independent living (Blackorby & Wagner, 1996; Newman, 2005; Bragg, Kim, & Barnett, 2006). It has been found that educators, parents, and adult service professionals are crucial to the transition planning process to improve the quality of life and enhance postsecondary outcomes for students with disabilities (Harvey, 2001). The President's Commission on Excellence in Special Education had a direct initiative to enhance transition policies and practices to improve transition services.

The transition experience can be quite challenging for all students with disabilities seeking successful postsecondary outcomes. This current study focused on the transition experiences of students with LD pursuing postsecondary education. Until the National

Longitudinal Transition Study 2 (NTLS2) study (2000-2010), there was limited information regarding how well transition activities in high school are preparing students with LD for academic success. In view of that, the researcher attempted to investigate the following variables related to academic success: how students with LD perceive their secondary transition experiences; how do students rate their level of academic self-efficacy; and how do these variables predict academic adjustment and self-reported grade point average.

A comprehensive review of the literature revealed a range of issues that affect postsecondary outcomes for students with LD. Transition studies and best practice models were reviewed and similar themes arose in exploring what specific elements should be incorporated into a transition program to assist students with LD improve postsecondary success. One important study found that in order to be considered a “good high school” for students with LD, five essential themes should be present: (1) providing a broad array of academic course and program options; (2) implementing school-wide support structures that could be combined and customized to the needs and strengths of individual students; (3) working intentionally to connect students to the school and build motivation to succeed; (4) creating a connected and caring adult community to serve students’ academic and social/personal needs; and, (5) developing responsive leaders who manage tensions inherent in the commitment to prepare students with LD to be successful in their lives beyond school (Brigham, Morocco, Clay, & Zigmond, 2006). Every high school has different methods and transition planning activities ideally designed to support all students with disabilities. The foundation of this study was



supported by the lack of knowledge regarding student preparation prior to entering college and the impact of transition services in the college adjustment process.

Another important study, NTLS2, focused on youth with disabilities' perceptions of their transition experiences, finding that the majority of youth with disabilities did not find school particularly hard and most youth do not have more than occasional problems completing homework, paying attention, or getting along with teachers or other students (2008). Most youth report feeling connected to their high school (NTLS2). Close to half of the sample agreed they received the services and supports they need to succeed at school and the majority report enjoying school (NTLS2). Overall it was evident that students with disabilities are having positive experiences in high school and that those interested in postsecondary education feel prepared for continued academic success.

The current study reflects similar findings. On most measures, positive views predominate. For example, the majority of respondents indicated that they felt a connection with their high school and overall enjoyed their high school experiences. Most of the participants did not have more than occasional difficulties getting along with teachers or students. Over half the students agreed that they received the support and services from the school needed to succeed. The most negative views (e.g. difficulties at school, not enjoying, or not feeling connected to the school) were held by less than 15% of the students across all measures, with two exceptions, about one-third of students reported they did not have all the support they needed in high school nor an adult who cared about them in high school. This finding is similar to that reported by the NLTS-2 study.

Brigharm et.al, (2006) developed the “Theory of Action” for high schools to identify the necessary components students with disabilities need in high school to achieve success:

Students become motivated to succeed when they experience a sense of connection and belonging to the school through relationships with adults and/or other students (strategy 3); have an adult community of teachers, specialists, parents, and administrators who work together to design and teach courses that reflect state standards and design and staff support structures that can be tailored to individual students (strategy 4); and responsive leaders who manage tensions in the use of resources to created strong course choices and provide the staffing and training needed to help students be successful (strategy 5).

Of note, the foundation of each strategy is the idea that challenging academic opportunities (strategy 1) needs to be matched and balanced with sufficient support (strategy 2) to enable students to do well (Brigharm et. al). All students with disabilities must have the skills and support of the high school, adults, and other students to meet their individual needs to effectively pursue postsecondary aspirations.

The current study explored components of the “theory of action” to ascertain how well students with LD perceived their high school transition experiences in preparation for college. Specifically these components were academic challenges, interpersonal challenges, services and supports received in school, affiliation with school, and enjoyment at school. Analysis between academic self-efficacy, academic adjustment, and academic performance (GPA) revealed interesting findings not previously explored

in relation to high school transition experiences. The findings suggest that there is a slight relationship between academic self-efficacy and perceptions of transition experiences, academic adjustment, and academic performance (GPA). These results are based on correlational findings, and should not be misconstrued with causation.

#### Perceptions of Secondary Transition Experiences

The results revealed that there was a slight positive correlation between academic self-efficacy and perceptions of secondary transition experiences. Positive experiences and connections in high school were associated with higher academic self-efficacy. Although it is not known specifically what types of transition activities each participant experienced in high school, these results illustrate the importance of investing in effective transition programs to enhance students' with LD confidence in pursuing higher education. This confidence in their academic pursuits will empower them and help them to face certain challenges while transitioning from high school to college.

#### Academic Adjustment

Findings indicate that positive academic adjustment is associated with higher academic self-efficacy. It is evident that regardless of transition experiences, students with LD can have positive adjustment to college if they have positive self-efficacy. College students with greater awareness of the necessary tools needed to be an effective student can have more confidence in their academic abilities which eases the adjustment to a college setting where a variety of academic conditions and level of responsibilities change.

### Academic Performance

Results from the current study reveal an association between academic self-efficacy and GPA for college students with LD. These results should be viewed with caution due to the constrained GPA values. Students were clustered into a small range of values, specifically, no student can obtain higher than a 4.0 and most students falling below a 2.0 are in danger of academic probation or suspension. Overall, students with LD who have more confidence in their academic skills will usually have higher GPAs.

### Limitations of the Study

In evaluating these findings, it is important to recognize the limitations of the instrument and methods used. The conclusions, discussions, and recommendations presented in Chapter 5 need to be considered in association with the following limitations of the study.

The emphasis of this research was limited to the Maryland and Virginia area. Six colleges and universities were chosen to participate. The schools chosen were considered to be representative of a diverse population of students on the basis of race/ethnicity, gender, traditional (18-21) and non-traditional; and socioeconomic status; however, the results may not be generalizable in other contexts. The sample consisted of a majority of Caucasian students which presents a unique challenge for interpretation of the results.

Students self-identified and some students did not have an IEP in high school. The researcher should have emphasized the focus of the study on students with LD who had an IEP in high school. The results can be generalized to all college students with LD although the intent was to focus on college students with LD who had a high school IEP.

In addition, the researcher did not collect potentially important information on family socioeconomic status and class background.

The ideal response rate was not as high. The design of the study did not emphasize any further collection of data to analyze nonresponse bias. Given the small sample size, the study had fairly low statistical power to detect differences. Due to the investigation of predicting relationships between variables, no causal conclusions can be drawn from the information obtained.

A broad scope of information regarding secondary transition experiences was obtained using the YCI; however, details about the high school and types of transition activities were not represented. Responses were based on student self-report. Studies on the validity of survey responses on academic development suggest only a modest correlation with objective, standardized measures (Pascarella, 2001), and others caution that self-reported data should not be used in lieu of objective measures (Carrell and Willmington, 1996; Herzog, 2007). The student reported perceptions in this study provide a context for each individual's reality about their own beliefs. Although not objective in nature, the self-reported data were gathered anonymously to help eliminate response bias so that participants did not feel pressure regarding their secondary transition experiences and their GPA.

### The Meaning of the Results

This study explored the idea that students' with LD secondary transition experiences would have a significant impact on postsecondary academic achievement. The concept of this phenomenon was supported by Brigharm et.al's, (2006) Theory of Action model which suggests that for a student with a disability to be successful, he or

she needs academic preparation, support, connectedness, and responsible leadership. In addition, results from the NTL2 study fueled the perceptions aspect by focusing specifically on how students with disabilities perceive academic challenges, interpersonal challenges, support and services in high school, affiliation with high school and enjoyment of high school. However, the results of this study suggest that how well students' perceive their secondary transition experiences may not yield significant improvements for overall academic success, although this conclusion is limited in this study due to only 35% of respondents having a high school IEP.

It was clear from the results that not all students with LD utilized a high school IEP, a process which is designed to support achievement of post-school goals through the provision of supports and strategies. Over half of the participants, 55%, responded they did not have an IEP and 35% of the sample responded that they did have an IEP in high school (with the remaining 10% responding they were "Not Sure" if they had an IEP).

The modified YCI was adapted from the NTL2 study which provided a broad overview of students with disabilities' experiences in high school. The data gathered from the YCI illustrated general patterns of perceptions regarding high school transition experiences. The current study shows no evidence that perceptions of secondary transition experiences have any influence on academic success; however, given the research on positive transition models/programs and acknowledging the limitations of this study, it is unlikely that perceptions of secondary transition experiences have no impact on students' postsecondary achievement. The findings of this study lead us to think of alternative explanations as to why perceptions of secondary transition

experiences do not affect students with LD academic success. These explanations will be explored in the following paragraphs.

The most significant and major limitation of this study was the number of college students involved. Students were sent research announcement via their school email addresses. Many students utilize personal email addresses like Gmail, Yahoo, or Hotmail more frequently than school emails. Some participants did not finish the online survey questionnaire because of time constraints, boredom, or distractibility. Although participants had the option to “Save” and return to the survey, many students chose not to use this survey feature.

Using Cohen's  $f$ , a comparison of the mean modified YCI values for each school found that the modified YCI variable had a small standardized effect ( $\hat{f} = 0.041$ ). Cohen (1992) suggests that for a six group analysis of variance with a small standardized effect size, each group should have at least 215 members to have sufficient power to limit Type II errors at the  $\alpha = 0.05$  level. If there is any difference in the mean modified YCI scores for students with learning disabilities at each of the six schools, 215 students would need to be surveyed from each campus, resulting in a total sample size of 1,290 students. This response frequency may be difficult to achieve due to the time restraints of the research and the number of available students with learning disabilities at each of these campuses. Since the  $n$ 's were so small for each participating school, there was significantly less power, which is the ability of a measure to detect an effect given that the effect exists, in the statistical analysis and the opportunities for a Type II error increases (Cohen, Cohen, West, & Aiken, 2003). Cohen et. al define Type II error as accepting the null hypothesis that states no difference exists between groups when the null hypothesis is false (2003).

As such, it will suffice to say that there may indeed be differences in the mean modified YCI scales at each school, but they cannot be detected without a larger sample.

This study only focused on college students with LD who had registered with a designated college disability service office. There was a largely missed unidentified sample of students who do not disclose their disability and have no affiliation with a college disability service office. This unidentified group of students could provide a wealth of information regarding personal high school experiences and the lack of use classroom accommodations at the college level. It would be interesting to learn how well adjusted these students are and the retention of these students without the use of academic supports.

Above all else, academic self-efficacy seemed to be the key relationship in all aspects of analyzing academic success in the areas of academic adjustment, academic performance, and perceptions of secondary transition experiences. However, the relationship between perceptions of secondary transition experiences and academic adjustment and academic performance did not exist. This finding supports the predictive value of self-efficacy reported in the research of Chemers, Hu, & Garcia (2001) who found that self-efficacy directly and indirectly showed powerful relationships to academic performance and personal adjustments. A variety of other studies support the finding that self-efficacy is a strong predictor of college student academic performance (Pajares & Miller, 1994; Choi, 2004). Interestingly, a slight positive relationship suggests that a college student with LD who had positive transition experiences also had higher self-efficacy. Some other components that were not addressed from the modified YCI for this study that could have impacted the results include parental involvement; specific



transition activities that each student participated in or not; and the specific demographics of each high school attended.

Adopting a qualitative approach could have provided a wealth of information regarding each student's transition experience and give a voice to how and what they feel has or has not prepared them for postsecondary academic success. In addition for those students who responded as "not having an IEP" or "not sure if I had an IEP", further information could be gathered as how well their experiences were and overall how was the impact of postsecondary success compromised or supported.

Based on the review of participants' responses, it was found that the majority of students had positive experiences in high school. The majority of participants felt connected to the school; had an adult who cared about them; and had very few issues with students or teachers. Not all participants had a high school IEP and may not have participated in structured and coordinated transition activities in high school. Data from this study revealed that the most important elements of a successful transition program identified in the literature must be currently implemented within most high schools that this sample of students attended. Based on the majority of students' perceptions from the current study their needs were met in the areas of academics, interpersonal connections, necessary services and supports, connection to the school, and overall enjoyment of school. It might be suggested that the majority of these students attended "good high schools" which supported their efforts in pursuing postsecondary education.

Alternatively, it could be that the students who responded to this survey had more positive high school transition experiences. Detailed information about what types of transition activities, review of IEPs, and information regarding collaboration from the

transition team members would have provided information to compare how each school specifically addresses best practices in transition.

Analysis of the data revealed that positive transition experiences have the potential to improve academic self-efficacy. From the literature, it has been evident that students with LD who have positive self-efficacy become more motivated and therefore have better academic outcomes (Stage, 1996). Students with LD usually have lower self-efficacy compared to their nondisabled counterparts mainly due to the nature of their disability and how it impacts academic success (Saracoglu et al. 1989; Slemon & Shafir, 1997; Klassen, 2002; Lackaye, Margalit, Ziv, & Ziman, 2006). The participants in this study either engaged in effective transition programs or had the necessary services and support that assisted in enhancing their self-efficacy. The assumption based on the literature is that these participants had positive high school transition experiences that promoted their confidence in themselves.

The majority of the participants in this study did not have high school IEPs, which indicates that they did not experience the transition process that most students with disabilities encounter. These students still had positive experiences in high school where they felt connected and supported which promoted their academic self-efficacy; however, this sample of students decided to participate in this study although they never utilized transition services in high school. The entire sample of students was identified by their college/university's Disability Services office. Students with LD consist of at least one third-one half of the disability population at each participating college/university. Many students with LD in high school may not either receive a diagnosis until they are older or may not want to be labeled as having a disability. It would be interesting to learn more

about the portion of the sample that did not use high school IEPs and how did they decide to disclose their disability at the college level to utilize accommodations.

Participants' academic self-efficacy was also positively linked to academic adjustment and academic performance (GPA). This finding can be viewed as additional support for to improve academic skill building, promoting self-advocacy, and supporting students' needs in the development of future transition plans and practices. Researchers have found that poor academic adjustment impacts student retention and academic success (Sarcoglu, Minden, & Wilchesky, 1989). Participants in this sample had higher self-efficacy which was associated to better academic adjustment. In addition students with higher self-efficacy seemed to have higher GPAs. Interactions at the secondary level for students with LD should foster motivation, encouragement and advisement to support students' aspirations beyond high school. This serves as a crucial reminder of the importance of connection to some adult within high school to help students with LD strive to meet their educational goals as well as transition activities designed to challenge the student and prepare them for challenges beyond high school. The intent was to utilize these data to improve transition services and provide insight currently limited in the literature concerning perceptions of high school transition experiences.

Academic efficacy plays a major role in academic performance. Unfortunately the data from the current study mirrors the nationwide academic achievement gap that continues to be an issue at the secondary and postsecondary levels of education. Table 18 illustrates the distribution of participants by race, gender, and self-reported cumulative GPA. Even at the college level, a pervasive achievement gap exists. Table 18 reveals a

disparity between African American and Latino students compared to their Caucasian counterparts.

Table 18

*Frequency Distribution of Participants by Race, Gender, and GPA*

GPA	1		2		3		4		5		6		7	
	N=146		N=146		N=146		N=146		N=146		N=146		N=146	
	(%)		(%)		(%)		(%)		(%)		(%)		(%)	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
3.5-4.0	10 (6.8)	14 (9.6)	0	1 (0.7)	2 (1.4)	3 (2.1)	0	2 (1.4)	0	0	0	1 (0.7)	0	1 (0.7)
3.0-3.4	18 (12.3)	20 (13.7)	1 (0.7)	4 (2.7)	0	0	0	1 (0.7)	0	0	1 (0.7)	4 (2.7)	0	0
2.5-2.9	6 (4.1)	8 (5.5)	4 (2.7)	4 (2.7)	0	3 (2.1)	2 (1.4)	5 (3.4)	0	0	2 (1.4)	2 (1.4)	0	1 (0.7)
2.0-2.4	7 (4.8)	4 (2.7)	1 (0.7)	7 (4.8)	1 (0.7)	0	0	2 (1.4)	0	0	0	0	0	0
1.9 and below	1 (0.7)	1 (0.7)	2 (1.4)	0	0	0	0	0	0	0	0	0	0	0

M=Male  
 F=Female  
 1= Caucasian  
 2 = African American  
 3 = Asian  
 4 = Latino  
 5= Pacific Islander  
 6= Biracial  
 7=Other

The majority of these students report a GPA below 2.9; whereas the majority of Caucasian students reported a cumulative GPA of 3.0 or higher. While 4.1% of African American students earned a 3.4 or higher; 12.3% of these students earned a 2.9 or below. About 42.2% of Caucasian students earned a 3.4 or above and 18.5% earned a 2.9 or below. Considering that African American students consisted of only 15.8 percent of the total participant pool, this disparity reveals an undesirable side of education that must be addressed. Although this sample is not representative of the entire population it still mirrors the achievement gap nationwide.

The precollegiate achievement gap for black and white students stands at about three quarters of a standard deviation in the areas of reading and even higher in math (Krueger, Rothstein, & Turner, 2006). Some explanations for the persistence of this gap have been the continuing disparity of economic resources between black and white students' families (Wilson, 2010). Specifically, researchers agree that the following factors contribute to the achievement gap: education of the mother and father, family income, whether the mother was working, the mother's age at birth of the child, the number of siblings, whether the mother was single or married, and whether the parent(s) were Hispanic, Black, or White (Barton & Coley, 2010). In addition the level of school quality and effective teachers was another factor especially when a significant number of black and Latino students attend inferior elementary and secondary schools (Krueger et al., 2010). A large body of research exists and has been summarized in the Educational Testing Services Policy Information Center entitled *The Family: America's Smallest School*. Some of the resulting adverse effects include: less academic success; behavioral and psychological problems; substance abuse and contact with the police; sexual relationships at earlier ages; less economic well-being as adults; and less physical and psychological well-being as adults. It is obvious that these issues are pervasive and effect black and Latino children well into adulthood. This study did not examine socioeconomic status or family involvement. This area is an essential component to address in future research.

While ethnicity and academic self-efficacy have been established as factors influencing academic performance (Bong 2001; Gore, 2006), this study revealed that African American and Latino students tend to have lower self-efficacy while attending a

four year university; whereas, these students tended to have higher academic self-efficacy while attending a community college. Bembenutty (2007) found that academic self-efficacy correlated with academic achievement (GPA) among both minority and Caucasian students, however, minority students reported lower self-efficacy scores and GPA. This particular study was conducted at four year universities. Very little was known about the impact of community college academic success. Tinto (2006) reports that students attending community colleges are less academically prepared, report lower income levels, and spend less time on campus; therefore, it is not a surprise to expect differences in ethnicity and self-efficacy beliefs between community colleges and universities. The community college climate for most students is less intimidating due to a variety of factors such as the tuition rates are affordable, smaller teacher to student ratio, and open admission policies. Many students who may not feel ready to begin at the university level usually attend a community college; therefore, some students may have higher self-efficacy beliefs while attending a community college because they have higher expectations of succeeding in that environment versus a four year university.

#### Recommendations for Practice

This research has emphasized the importance and necessity improving transition services to promote academic self-efficacy which can be heightened by positive transition experiences. Depending on the high school and college settings, the key stakeholders in improving transition practices include transition specialists/coordinators, and disability service professionals in higher education, as well as secondary school support personnel such as school counselors, who should be involved in transitioning programs. Involvement and support of these professionals is crucially important for ensuring

effective transition planning and supports within the high school tailored to prepare students with LD for postsecondary education. Working with this diverse group of professionals can increase interagency collaboration efforts and strengthen transition programs.

Counselor educators have an important role in preparing school counselors serving students with LD as well as all disabilities. School counselors are a direct resource in the high school in terms of assisting all students to prepare for postsecondary education. However, school counselors are not privy to effective strategies to promote success for students with LD, and usually defer to the IEP team to help promote academic success. Counselor educators must emphasize the importance of working with these students in order to ensure that school counselors can develop effective programming within the school that promotes postsecondary academic success for all students including students with disabilities. In addition counselor educators should promote collaboration with all key stakeholders in the transition process (i.e. special educators, parents, school psychologists, and transition specialists). School counselors should be well versed on academic challenges all students with disabilities face and learn how to incorporate effective programming to promote academic self-efficacy for students with IEPs as well as those who do not have IEPs.

It was evident from this study that positive transition experiences and promoting academic self-efficacy can lead to better postsecondary outcomes for students with LD seeking higher education. Disability service professionals have a critical role in assisting students with LD to maintain or improve their self-efficacy in order to ease the process of adjusting to the new academic environment. These efforts could help increase retention

rates for students with LD. Although the majority of students had positive high school experiences, many students with LD still face academic challenges and lack of support to attain successful post school outcomes. These students cannot be forgotten and efforts to address this group of students need to be implemented to promote educational attainment, personal growth, and adjustment for each student. Although it seems as though many high schools have adopted successful transition programs, improvement requires ongoing review and changes to established programs. Every school should continually revisit best practices in transition services. In addition all professionals such as teachers, transition specialist, rehabilitation counselors, school administrators, school counselors, and postsecondary disability professionals should continue to seek out new approaches to assisting students with LD, consult with other high schools regarding their transition programs, and maintain connections with local colleges and universities to promote effective transition practices.

Some participants in this study did not have a high school transition plan. Since not all students with disabilities utilize all the services and supports in high school, it may be useful to develop a high school program preparing senior students with disabilities planning to attend college with useful skills and resources needed for successful transition into college. All components of the program will be designed to aid in academic preparation and adjustment to the college environment. This program could serve as a platform for mentorship by inviting past graduates who are currently enrolled in college to discuss personal experiences. Topics covered in the program should address laws and rights pertaining to adults with disabilities in a postsecondary education setting, promoting self-advocacy skills, and academic skill building such as critical thinking and



time management. Desired goals and objectives at the postsecondary level should be defined and creating high school outreach connections with local colleges and universities would prepare students for the postsecondary environment and improve academic adjustment to meet the demands of a new academic setting.

#### Directions for Future Research

Based on this study and review of the literature, the following recommendations for future research are proposed. Future study in the area of transition programming for students with LD and factors attributing to postsecondary success is needed to determine the most effective and efficient use of these experiences.

The current study was limited to students with LD enrolled as first year and second year attending postsecondary institutions within one academic year. Conducting a longitudinal study focusing on junior high school students with LD as they transition to their first two years of college would be very informative. Specific areas to address could be: reviewing IEP plans and goals; identify levels of academic self-efficacy each year; academic adjustment; and overall academic performance could provide a wealth of information on key components of the transition process needed to prepare students with LD for successful postsecondary outcomes.

Another useful study could employ qualitative analysis of key stakeholders in the transition process such as educators, school administrators, school counselors, and transition specialists which would provide a strong perspective of how these professionals support, develop, and implement transition programs and their perceptions of the effectiveness of these programs in preparing students with LD seeking higher education.

For the current study, every effort was made to select schools that reflect a broad diverse population of students. A replication of the current study with focus on increasing the sample size could enhance the generalizability of the study. In addition, investigating parental involvement and overall impact of support services in assisting students with LD achieve IEP goals and postsecondary academic success should be included.

A level of collaboration between secondary and postsecondary disability professionals could support a seamless transition for students with LD and should be explored. A systemic analysis of interagency collaboration process specifically obtaining perspectives from high school, disability service professionals in higher education, and rehabilitation counselors or transition specialist regarding effective strategies in assisting students with LD in the transition process would provide a wealth of information needed to enhance transition activities to adequately prepare students with LD for postsecondary success.

Since a large number of students from the current study did not have an IEP while attending high school, a comparison of students with LD who had an IEP and students with LD who did not have an IEP would provide information regarding effectiveness of established goals and outcomes from the IEP and how successful students are without an IEP. Some possible questions to explore would be: Do these two groups have different perceptions of how well their transition experiences were?; What supports are students without IEPs using to assist them in pursuing higher education?; and, Are students with IEPs more likely to disclose their disability once they enroll in college?

The majority of respondents did not fall below 2.0 GPA most likely due to college/university policies in which a student who receives below a 2.0 will be placed on academic probation; thus, the possibility of leading to academic suspension depending if the student can raise their GPA. It would be interesting to investigate students with LD who have dropped out of college. Compare their perceptions of secondary transition experiences including academic challenges, use of accommodations, parental involvement, and levels of self-efficacy and academic adjustment with student with LD thriving within the postsecondary setting.

### Conclusion

Conclusively, it is evident that identifying and assessing the perceptions of secondary transition experiences for students with LD was a starting point. Consistently improving and evaluating the effectiveness of transition programs should be a true priority for all high schools. High schools should recognize the importance of establishing and maintaining quality transition programs effective in preparing and motivating students with disabilities who pursue higher education. School administrators, school counselors, counselor educators, transition specialists, and disability service professionals in higher education can easily collaborate to improve and establish new transition programs that serve to enhance students' with LD transition experiences and promote self-efficacy to increase their chances of postsecondary academic success.

APPENDIX A:  
Demographic Questionnaire

1. What is your gender?
  - a.) Female
  - b.) Male
  
2. What is your age?
  - a.) 18
  - b.) 19
  - c.) 20
  - d.) 21
  - e.) over 21
  
3. What is your ethnicity?
  - a.) Caucasian
  - b.) African American
  - c.) Asian
  - d.) Latino/Latina
  - e.) Pacific Islander
  - f.) Biracial
  - g.) Other
  
4. Which State did you attend *high school*? \_\_\_\_\_
  
5. What is your current college year?
  - a.) First year student
  - b.) Second year student
  - c.) Third year student
  - d.) Fourth year student
  
6. How many semesters have you completed at this current university?
  - a.) 1 semester
  - b.) 2 semesters
  - c.) 3 semesters
  - d.) 4 semesters
  
7. What is your college major? \_\_\_\_\_
  
8. What is your current cumulative GPA? \_\_\_\_\_

APPENDIX B  
Dummy coding for Categorical Variables

- a. Age
  - i. 18
  - ii. 19
  - iii. 20
  - iv. 21
  - v. 1004- over 21
- b. Current Year
  - i. 1000-1<sup>st</sup> year
  - ii. 1001-2<sup>nd</sup> year
  - iii. 1002-3<sup>rd</sup> year
  - iv. 1003-4<sup>th</sup> year
  - v. 1004-5<sup>th</sup> or more
- c. Ethnicity
  - i. 1000-Caucasian
  - ii. 1001-African American
  - iii. 1002-Asian
  - iv. 1003-Latino/Latina
  - v. 1004-Pacific Islander
  - vi. 1005-Biracial
  - vii. 1006-Other
- d. Gender
  - i. 1000-Male
  - ii. 1001-Female
- e. University/Community College
  - i. 0-UMCP (1000), UMES (1001), Salisbury(1003)
  - ii. 1-PGCC (1005), MCC (1006), NOVA (1007)
- f. Semesters Completed
  - i. 1000-1 semester
  - ii. 1001-2 sem
  - iii. 1002-3 sem
  - iv. 1003-4 sem
  - v. 1004-5 sem
  - vi. 1005-6 sem
  - vii. 1006-over 6

APPENDIX C  
NTLS2 Youth Continuation Interview

**Directions: Please select the answer that best fits your experiences for each question or statement.**

1. How much did you enjoy high school?

A lot                      Pretty Much                      A Little                      Not At All

2. How much did you feel like you were part of the high school?

A lot                      Pretty Much                      A Little                      Not At All

3. How hard was high school for you?

Very Hard      Pretty Hard                      Not Very Hard                      Not Hard At All

4. Was there an adult at school who you felt close to and who cared about you?

Yes      No      Not Sure

5. Were you getting the support and services from the school that you needed to do well there?

Yes      No      Not Sure

6. When you were in high school how often did you have trouble:

a. Getting along with your teachers

Never    Just a few times                      About once a week                      Almost Every Day                      Everyday

b. Paying attention in school

Never    Just a few times                      About once a week                      Almost Every Day                      Everyday

c. Getting along with other students

Never    Just a few times                      About once a week                      Almost Every Day                      Everyday

7. During your high school years, did you go to a meeting at school about an

Individualized Education Plan, or IEP, for special education program or services?

Yes      No      Not Sure

8. In high school, did you meet with adults at school to set goals for what you will do after high school and make a plan for how to achieve them? Sometimes this is called a transition plan.

Yes No Not Sure

9. If yes to question 8,

a. How much choice did you have about the goals on your IEP?

Almost No Choice About Goals Some Choice A lot of Choice

b. How do you feel about your part in the decisions about your IEP?

Want to be more involved Were involved about the right amount Wanted to be less involved

c. How much do you think your IEP goals are challenging and right for you?

Very challenging and right for me Pretty challenging and right for me

Not very challenging and right for me Not at all challenging and right for me

10. About how long after leaving high school was it before you began attending college?

Number: \_\_\_\_\_ Days Weeks Months Years

11. Did you stop going to college?

Yes No Not Sure

12. If you did stop, Why? \_\_\_\_\_

13. Have you been enrolled steadily during the school year, or off and on, taking classes some semesters but not others?

Steadily Off and On Don't Know

14. Are you attending as a full-time or part-time student?

Full Time Part Time Both Don't Know

15. What is your major or primary course of study? \_\_\_\_\_

16. Did you ever go to a study center or writing center in college to get help with your work?

Yes                      No                      Don't Know

17. Have you received any services, accommodations, or other help from the school to help you do your best there, like a tutor or more time to take test?

Yes                      No                      Don't Know

18. What services, accommodations, or other help have you received?

<b>1</b>	<b>Testing Accommodation</b>
	More time in taking tests
	Having tests and other materials read to youth
	Different tests
	Different grading standards
	Different setting to take tests
	Instructions given in sign language or manual communication
	Scribe to record answers
<b>2</b>	<b>Accommodations in assignments</b>
	Additional time to finish assignments
	Different assignments, e.g., shorter, different lab assignments in a science class
<b>3</b>	<b>Materials/technology adaptations</b>
	Large print or Braille materials or large print computer
	Books on tape
	Use of computer or spell checker in class or to take tests
	Computer software designed for students with disabilities
	Computer adapted for student's needs (e.g., alternative keyboard, switch interface)
	Special use of calculator (e.g., use for tests that other students don't have) 15
<b>4</b>	<b>Human aides</b>
	A reader or interpreter
	Note taker in class
	A personal aide or instructional assistant to help you in class
	Tutor
	Support person to monitor academic progress, help with managing school workload
<b>5</b>	<b>Out-of-classroom learning supports</b>
	A behavior management program
	Help with learning strategies or study skills (e.g., writing center)
	Support group for students with disabilities
	Early registration
<b>6</b>	<b>Physical adaptations in classrooms</b>
	Physical changes to the classroom, special desks
	Changes to equipment, like different lab equipment in a science class
<b>7</b>	<b>Independent living supports</b>
	Transportation assistance (i.e., to get to classes)
	Housing assistance (e.g., modified living arrangements)
	Orientation and mobility services
	Social activities for students with disabilities



	Food service arrangements or accommodations
	Medical supports
<b>8</b>	<b>Therapies</b>
	Psychological or mental health services or counseling
	Social work services
	Occupational therapy or life skills training
<b>9</b>	Service coordination or case management
<b>10</b>	Child care
<b>11</b>	Other. Specify: _____

20. Besides what the university had available, have you gotten any services or help on your own?

Yes

No

Don't Know

21. How useful have the services and accommodations been in helping you stay at the university and do your best there?

Very Useful

Somewhat Useful

Not Very Useful

Not At All Useful

22. Do you think you getting enough services and accommodation to help with school?

Yes

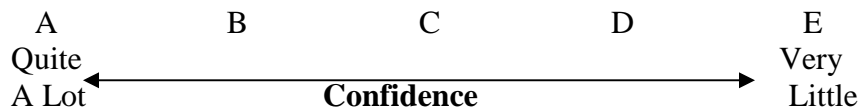
No

Don't Know

## APPENDIX D: College Academic Self-Efficacy Scale

**Directions:**

**How much confidence do you have about doing each of the behaviors listed below?  
Circle the letters that best represent your confidence.**

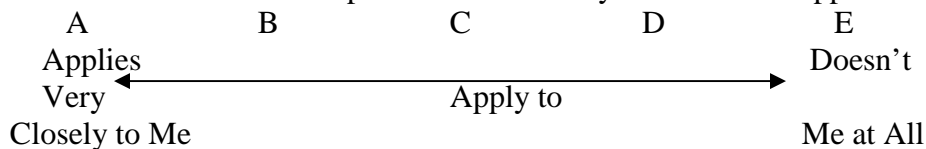


- A B C D E 1. Taking well-organized notes during a lecture.  
 A B C D E 2. Participating in a class discussion.  
 A B C D E 3. Answering a question in a large class.  
 A B C D E 4. Answering a question in a small class.  
 A B C D E 5. Taking "objective" tests (multiple choice, T-F, matching)  
 A B C D E 6. Taking essay tests.  
 A B C D E 7. Writing a high quality term paper.  
 A B C D E 8. Listening carefully during a lecture on a difficult topic.  
 A B C D E 9. Tutoring another student.  
 A B C D E 10. Explaining a concept to another student.  
 A B C D E 11. Asking a professor in class to review a concept you don't understand.  
 A B C D E 12. Earning good marks in most courses.  
 A B C D E 13. Studying enough to understand content thoroughly.  
 A B C D E 14. Running for student government office.  
 A B C D E 15. Participating in extracurricular events (sports, clubs).  
 A B C D E 16. Making professors respect you.  
 A B C D E 17. Attending class regularly.  
 A B C D E 18. Attending class consistently in a dull course.  
 A B C D E 19. Making a professor think you're paying attention in class.  
 A B C D E 20. Understanding most ideas you read in your texts.  
 A B C D E 21. Understanding most ideas presented in class.  
 A B C D E 22. Performing some simple math computations.  
 A B C D E 23. Using a computer.  
 A B C D E 24. Mastering most content in a math course.  
 A B C D E 25. Talking to a professor privately to get to know him or her.  
 A B C D E 26. Relating course content to material in other courses.  
 A B C D E 27. Challenging a professor's opinion in class.  
 A B C D E 28. Applying lecture content to a laboratory session.  
 A B C D E 29. Making good use of the library.  
 A B C D E 30. Getting good grades.  
 A B C D E 31. Spreading out studying instead of cramming.  
 A B C D E 32. Understanding difficult passages in textbooks.  
 A B C D E 33. Mastering content in a course you're not interested in.

APPENDIX E: Student Adjustment to College Questionnaire  
Academic Adjustment Subscale

Directions:

The following items in this section are statements that describe college experiences. Please read each statement and decide how well it applies to you at the present time. For each item select the letter that best represents how closely the statement applies to you.



- A B C D E** 1. I have been keeping up to date on my academic work.
- A B C D E** 2. I know why I'm in college and what I want out of it.
- A B C D E** 3. I am finding academic work at college difficult.
- A B C D E** 4. I have not been functioning well during examinations.
- A B C D E** 5. I am satisfied with the level at which I am performing academically.
- A B C D E** 6. I'm not working as hard as I should at my course work.
- A B C D E** 7. My academic goals and purposes are well defined.
- A B C D E** 8. I'm not really smart enough for the academic work I am expected to be doing now.
- A B C D E** 9. Getting a college degree is very important to me.
- A B C D E** 10. I haven't been very efficient in the use of study time lately.
- A B C D E** 11. I enjoy writing papers for courses.
- A B C D E** 12. I really haven't had much motivation for studying lately.
- A B C D E** 13. Lately I have been having doubts regarding the value of a college education.
- A B C D E** 14. Recently I have had trouble concentrating when I try to study.
- A B C D E** 15. I'm not doing well enough academically for the amount of work I put in.
- A B C D E** 16. I am satisfied with the quality or the caliber of courses available at college.
- A B C D E** 17. I am attending classes regularly.
- A B C D E** 18. I am enjoying my academic work at college.
- A B C D E** 19. I am having a lot of trouble getting started on my homework assignments.
- A B C D E** 20. I am satisfied with the number and variety of courses available at college.
- A B C D E** 21. I am satisfied with my program of courses for this semester/quarter.
- A B C D E** 22. Most of the things I am interested in are not related to any of my course work at college.
- A B C D E** 23. I am very satisfied with the professors I have now in my courses.
- A B C D E** 24. I'm quite satisfied with my academic situation at college.

Items from the Student Adaptation to College Questionnaire copyright © 1989 by Western Psychological Services.

APPENDIX F  
Announcement for Pilot Study  
(Example Participant Email)

Date:  
From: jahutch@umd.edu  
Subject: Participate in study – Eligible to Win \$10 gift Card  
BCC: [student@.edu](mailto:student@.edu)

Dear Student:

This message has been forwarded by your DSS office to solicit your participation in a study being conducted by Allison Butler at the University of Maryland, College Park regarding your perceptions of your high school transition experiences and how well these experiences prepared you for academic success in college. Although your participation in this study will not benefit you personally, the researchers hope that this information can be used to help improve transition-related services and promote academic success for students with learning disabilities entering four year colleges and universities.

Your participation in this study is completely voluntary. Your responses to these survey items will not affect your academic standing at your university nor your current usage of classroom accommodations. Should you decide to participate, you will be asked to complete an online survey which will take approximately 45 minutes or less to complete. One participant will be randomly selected to receive a \$10 gift card from Target. If you would like to be eligible to receive a gift card, you will have to provide an email address after you submit your completed survey.

All responses collected in this study will be completely confidential. Thank you in advance for your time and your effort in supplying information that will benefit other students with learning disabilities in their pursuits of postsecondary success. If you have any questions or concerns, please feel free to contact me by email at [abutler4@umd.edu](mailto:abutler4@umd.edu) or by phone at (240) 893-2983. You may also contact my dissertation chair at University of Maryland, Dr. Ellen Fabian by email at [efabian@umd.edu](mailto:efabian@umd.edu) or by phone (301) 405-2872.

To begin, please click on the following survey link: [www.surveygizmo.com](http://www.surveygizmo.com).

Allison Butler, MA, CRC  
Doctoral Candidate  
Counselor Education  
University of Maryland, College Park  
[abutler4@umd.edu](mailto:abutler4@umd.edu)

## Informed Consent for Pilot Study

### Secondary Transition Experiences: Analyzing College Students with LD Perceptions and Impact on Postsecondary Academic Success

Welcome! Thank you for choosing to participate in this study conducted by Allison Butler at the University of Maryland, College Park. The purpose of this study is to allow you to express your experiences in pursuit academic success. Although your participation in this study will not benefit you personally, the researchers hope that this information can be used to help improve transition-related services and promote academic success for students with learning disabilities entering four year colleges and universities. Your participation in this study is understood to be completely voluntary and you can exit the survey at anytime without penalty.

#### Directions

The first part of the survey contains demographic items which will allow you to provide information about your background.

The next three sections of the survey include statements and questions regarding your perceptions of your secondary transition experiences, self-efficacy, and academic adjustment. For all statements and questions, please make only one response for each item.

You will not be asked to reveal your name on the survey. You only provide your email address after completing the survey if you want to be eligible to win a gift card. The survey will take 35-45 minutes to complete and you will be eligible to receive a \$10 gift card upon completion. Once you press “Submit”, this action submits your responses and verifies your participation in the study. Your email address will appear separately from the survey and will no longer be kept once you have been sent confirmation of your eligibility results. If I write a report or article about this research project, your identity will be protected to the maximum extent possible.

There are no known risks from participating in this study; however, if you have questions about your rights as a research participant, please contact: Institutional Review Board Office, University of Maryland, College Park, MD 20742; [irb@deans.umd.edu](mailto:irb@deans.umd.edu); (301) 405-0678. This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

Please continue and begin the survey if the following statements are true:

- You are at least 18 years of age;
- The study has been explained to you;
- Your questions have been answered; and
- You freely and voluntarily choose to participate in this study

**I Agree**

**I Disagree**

### **Participant Email Request After Completing the Survey**

*Thank you so much for your participation! If you would like be eligible to win a \$10 gift card to Target, Please Click this Button!*

*Please enter your email address for a chance to win a \$10 gift card to Target!*

\_\_\_\_\_@\_\_\_\_\_.com

*Thank you again for your participation!*

**Example Email to Notify Participants about Eligibility Results****Pilot Study**

**Date:**

**From:** *abutler4@umd.edu*

**Subject:** *Redeem your \$10 gift card*

**BCC:** *[student@\\_\\_\\_\\_.edu](#)*

*Thank you again for choosing to participate in my study. You have won a \$10 gift card to Amazon. Your promotion code is: \_\_\_\_\_. You will use this code to redeem your prize online by ordering a product from [www.target.com](http://www.target.com).*

*Please notify me if you experience any difficulties receiving your through Target.*

*Best Regards,*

*Allison Butler*

*University of Maryland, College Park*

*3214 Benjamin Building, 20742*

*240-893-2983*

*[abutler4@umd.edu](mailto:abutler4@umd.edu)*

## APPENDIX G

### Pilot Study Procedures

A pilot study was conducted to generate psychometric data pertaining to the YCI. General research procedures for the pilot study were similar to those of the larger study. For the purposes of the pilot study, participants were recruited from the University of Maryland's Disability Support Service (DSS) office. All policies and procedures for research approval by the agency/organization were conducted prior to the data collection.

Twenty students with LD were randomly selected from the university's disability service database. Selected participants were contacted via a research announcement posted on the UMD's DSS office listserv distributed by agency staff. The announcement asked volunteer participants to access the research study using a provided URL. Participants who volunteered to take part in the study were eligible to win a \$10 Target gift card. Participants used the URL provided in the email to access the research study introduction, description of research procedures, and informed consent form (see after pilot study results). The participants were informed of the requirements of the research (i.e., online questionnaire completion) as well as how the research will attempt to answer questions regarding perceptions of high school transition activities and adequate academic preparation for postsecondary institutions. Respondents were also informed that their participation was voluntary and would not influence their access to classroom accommodations or other services. The research materials were individually administered in an online format. Completion of the YCI took about 25 minutes.



### Pilot Study Results

For the pilot data, a subsample of 20 participants from the existing sample of survey respondents were chosen using simple random sampling. At the time this subsample was drawn, 57 people had completed the survey. Of the 20 participants in the pilot subsample, a 100% response rate was observed for each variable under investigation.

The age of the pilot participants is evenly distributed, with four (20%) of the participants at age 18, four (20%) of the participants at age 19, five (25%) of the participants at age 20, two (10%) of the participants at age 21, and five (25%) of the participants at age 22 or above. If these trends continue, we will observe a representative spread of ages amongst the full sample for the study.

The sex of the participants is skewed heavily in the pilot sample, with 17 (85%) female pilot participants and only 3 (15%) males. If this ratio does not even out to a more equitable spread, then the final study results will need to be interpreted cautiously as to how they may be applied to the male population.

Similarly, the race of the participants is also weighted heavily in the pilot sample towards the Caucasian population, with 15 (75%) of the pilot participants identifying themselves in this category. The remaining pilot participants are spread fairly evenly, with one (5%) participant identifying as African American, one (5%) participant identifying as Asian, one (5%) participant identifying as Latino/Latina, and two (10%) participants identifying as Biracial. No participants identified as Pacific Islanders. Unless these subgroups are better represented in the final sample, no analyses can be drawn from

these subgroups, and again the results must be interpreted cautiously if inferences are being made to non-Caucasian populations.

The pilot subsample consists of 13 (65%) participants who attend the University of Maryland, College Park, with the remaining seven (35%) attending Salisbury University. To date there are no participants are attending University of Maryland, Eastern Shore. Geographically, 13 (65%) of the participants attended high school in Maryland. Of the remaining seven (35%) participants, five (25%) participants attended high school in eastern states. These trends suggest that results may not be generalizable to a national population.

The independent variable of academic self-efficacy was measured as an interval score by summing the response values from the CASES set of items from the survey. The minimum observed score in the pilot subsample for the academic self-efficacy index was 60 points, and the maximum observed score was 165 points ( $M = 117.20$ ,  $S.D. = 24.91$ ). A histogram of the data indicates a distribution that is approximately normal.

The dependent variable of academic adjustment was also measured as an interval score by summing the response values from the SACQ items from the survey. The minimum observed score in the pilot subsample for academic adjustment was 65 points, and the maximum observed score was 120 points ( $M = 82.10$ ,  $S.D. = 11.43$ ). A histogram of these values indicates a positively skewed distribution ( $Skew = 1.765$ ).

The other dependent variable is the self-reported grade point average (GPA). The reported GPA values for the pilot subsample participants ranged between a minimum of 2.20 and a maximum of 4.00 ( $M = 3.09$ ,  $S.D. = 0.47$ ). Again, a histogram of the data suggests a normal distribution. Since this variable is a self-reported variable, it should be

interpreted with the understanding that there may be unintentional or intentional error inherent in any self-reported variable.

*Bivariate Correlations*

	GPA	Academic Self-Efficacy	Academic Adjustment
GPA	—		
Academic Self-Efficacy	.328	—	
Academic Adjustment	.133	.499*	—

\*  $p < 0.05$

The bivariate correlation matrix of the variables suggests a significant, moderate, positive bivariate correlation between academic self-efficacy and academic adjustment ( $r = .499$ ,  $p < 0.05$ ). Though not statistically significant, a moderately weak positive correlation is observed between academic self-efficacy and GPA. This relationship may become significant when the sample size is increased, or it may still be a significant variable in a multiple regression model when the perception of secondary transition experience is added as a variable.

There is no significant correlation between GPA and academic adjustment in the pilot subsample. This is encouraging because it suggests that the proposed multiple regression models to be tested will not be predicting highly correlated variables. This suggests that the two models will be attempting to explain variance in two unique variables, thus indicating that duplicative analyses will not be conducted. This may also suggest that at least one of these models will not be viable. More specifically, if one model significantly explains variance in either GPA or academic adjustment, then it becomes less likely that the same variables will be able to explain variance in the remaining dependent variable on their own.

## APPENDIX H

## IRB Approvals from Each Participating School



2100 Lee Building  
 College Park, Maryland 20742-5125  
 301.405.4212 TEL 301.314.1475 FAX  
 irb@deans.umd.edu  
 www.umresearch.umd.edu/IRB

July 07, 2009

**MEMORANDUM***Application Approval Notification*

**To:** Dr. Ellen Fabian  
 Allison Butler  
 Counseling and Personnel Services

**From:** Joseph M. Smith, MA, CIM *MS*  
 IRB Manager  
 University of Maryland, College Park

**Re:** **IRB Application Number:** 09-0445  
**Project Title:** "Secondary Transition Experiences: Analyzing College Students with LD Perceptions and Impact on Postsecondary Academic Success"

**Approval Date:** July 07, 2009

**Expiration Date:** July 07, 2012

**Type of Application:** Initial

**Type of Research:** Exempt

**Type of Review for Application:** Exempt

---

The University of Maryland, College Park Institutional Review Board (IRB) approved your IRB application. The research was approved in accordance with the University IRB policies and procedures and 45 CFR 46, the Federal Policy for the Protection of Human Subjects. Please include the above-cited IRB application number in any future communications with our office regarding this research.

UMD Counseling Center IRB Review  
Counseling Center Research Procedure Evaluation Form

In order to expedite the review process of your research proposal, the Counseling Center Research Committee would like to ask you to answer the following questions. Please provide a detailed and accurate description to each item below. Failure to do so may result in further delay of the Committee's decision. When completed, attach the form to the packet containing other documents to be submitted to the Committee (e.g., human subjects protocol, research protocol, sample instrumentation, etc.).

Title of the Study: Secondary Transition Experiences: Analyzing College Students with LD  
 Perceptions and Impact on Postsecondary Academic Success

Principal Investigator: Allison Butler

Date: 8/3/2009

Address: 3214 Benjamin Bldg.  
 College Park, MD 20742

Phone: (H): 240-893-2983  
 (W): 301-405-2858

Is this study the researcher's Master's thesis or doctoral dissertation?    **Doctoral Dissertation**

**No**

**Yes**

Counselor Education – College of Education

How long will your study last? Specify the proposed beginning and the ending dates of your research.

The study should not take more than six months to complete, but the student investigator has IRB approval from July 7, 2009 – July 7, 2012.

Section 1: Client Input

1. Are you planning on collecting data from the Center clients?

**Yes**

**No**

If "No," skip to Section 2: Staff Input below.

If "Yes," have you obtained an approval from the human subjects committee at your institution?

**Yes**

**No**

How many subjects? Estimated at 150 College Students with LD

At what point in the counseling process (e.g., intake, termination, etc.) do you plan to collect data from clients?

Students with disabilities register with DSS to provide documentation of a disability and to secure classroom accommodations for the year. This occurs during the intake session. The students who will be asked to participate have already completed the intake to register for services. The student researcher will not know if they receive counseling services but they will not be asked to participate in the study through the Counseling Center.

2. List the name(s) of the instrument(s) to be used for data collection. Indicate accurately how long each instrument will take an average client to complete. In case of behavioral observation (i.e., interview), specify how much time is required from each client.

Demographic Questionnaire – 2 minutes

National Transition Longitudinal Study – 2 (NTLS2): Youth Continuation Interview – 15 minutes

College Academic Self-Efficacy Scale (CASES) – 15 minutes

Student Adjustment to College Questionnaire: Academic Adjustment subscale – 15 minutes

3. On the basis of the above description, how much total time is required of each client for data collection?

It will take each client 45 minutes or more depending on the student's pace.

4. Describe any special activities to be required of each client for your study (e.g., specialized training session for data collection, listening to audio-visual materials, etc.). Be specific about: (a) what they are and (b) how much time will they require?

There are no special activities that need to be performed prior to data collection. The survey used is self-explanatory with each section providing directions of how to complete each survey item. The majority of the questions is multiple-choice and will not require further thought or extra time to process information.

## Section 2: Staff Input

5. Describe the tasks to be performed by the Counseling Center psychologists for your study (e.g., mailing materials, telephone contacts with subjects, computerized work, etc.). Be specific about: (a) what they are and (b) how much time will they require? Include any instruments to be used.

Only DSS personnel will be asked to email a research announcement to registered students with LD. To execute the data collection process, the DSS directors and DSS administrative staff will be asked to select DSS students to participate in the study. The study focuses on adult students ' with LD who have completed 1-3 semesters of coursework. The DSS staff will have to identify these potential participants email address based on their records. The DSS directors will be asked to copy and paste the research announcement and 'blind copy' the DSS students' email addresses to protect anonymity. DSS staff will have to look at their database to identify students with LD to participate in the study. This may require some time depending on how each University stores their records and what information is recorded.

### Section 3: Clerical Input

6. Are there any special instructions to be required of the Counseling Center clerical staff for your study (e.g., mailing materials, telephone contacts with subjects, computerized work, etc.) If yes, describe (a) what they are and (b) how much time will they require? Include any instruments to be used.

Counseling Center clerical staff will not be asked to perform any task to execute this study. DSS staff and the DSS director are responsible for randomly selecting students to participate and sending out the study recruitment email. Selecting a group of students may take 15-30 minutes while searching the DSS database of students. Depending if the director types out each email address or utilizes a 'cut and paste' feature will determine the amount of time it takes to send out the email. It is difficult to determine how long it will take to secure a list of students and email the survey to a group of students. The survey is already available via online format; therefore, DSS staff or DSS directors will not have to provide any additional materials to assist with data collection.



**UNIVERSITY OF MARYLAND EASTERN SHORE**

Institutional Review Board

**Hazel Hall, Suite 1062  
Princess Anne, Maryland 21853-1299**

**VOICE: (410) 651-6262  
FAX: (410) 651-6736**

Date: October 9, 2009

To: Dr. William Talley, Department of Rehabilitation  
From: Clayton Faubion, Ph.D., Co-Chair, UMES IRB



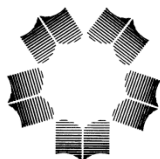
RE: Protocol #2010-008 – “Secondary Transition Experiences: Analyzing College Students with LD Perceptions and Impact on Postsecondary Academic Success”

I am writing to confirm that the UMES protocol mentioned above has been reviewed by the UMES Institutional Review Board and deemed exempt, category 2. Exempt studies do not require further review by the IRB. It is also noted that the protocol was previously reviewed and approved by the University of Maryland College Park IRB.

Please be advised that any and all information recorded in your study must be kept confidential and no changes to the study protocol can be made without additional review and prior approval by the UMES IRB.

If you have any questions or concerns you can contact me at (410) 651-6379 or [cwfaubion@umes.edu](mailto:cwfaubion@umes.edu).





PRINCE GEORGE'S  
COMMUNITY COLLEGE

ADMINISTRATION AND FINANCE  
OFFICE OF PLANNING AND  
INSTITUTIONAL RESEARCH

301 LARGO ROAD  
LARGO, MD 20774-2199  
301-322-0723

November 18, 2009

Ms. Allison Butler  
9110 Tumbleweed Run  
Unit C  
Laurel, MD 20723  
[abutler4@umd.edu](mailto:abutler4@umd.edu)

Dear Ms. Butler,

I am writing to inform you that, as Chair of Prince George's Community College's Institutional Review Board (IRB), I have reviewed your research proposal supporting the project entitled ***Secondary Transition Experiences: Analyzing College Students with LD Perceptions and Impact on Postsecondary Academic Success and*** have concluded that executing your research protocol would not result in undue risk to the Prince George's Community College students whom you intend to recruit. Therefore you may move forward with your research.

The IRB also believes that your study may provide valuable information that may help shape the development of future programs and processes at Prince George's Community College. Therefore, the IRB requests a summary of your findings once you have concluded your research.

On behalf of the IRB I wish you well in your research as you complete your graduate program.

Sincerely,

Andrea A. Lex, Ph.D.  
Dean of Planning & Institutional Research and Chair of the Prince George's Community College IRB

Cc: IRB File

APPENDIX I:  
Research Flyer

## College Students with LD Invited!

*If you are a College Student with a Learning Disability that has completed 1-3 semesters of coursework, you are eligible to participate in a study focusing on how well your high school experiences prepared you college.*

- Email Researcher to participate to receive further details.
- Complete a 25 minute online survey.
- First 200 participants win a \$5 gift card to Amazon
- Your participation is completely voluntary.
- Your responses will not affect your academic standing.
- Participants can exit survey at any time.

---

**Contact person: Allison Butler ([abutler4@umd.edu](mailto:abutler4@umd.edu))**

APPENDIX J:  
Research Announcement for Larger Study  
(Example Participant Email)

From: DSS Representative  
Subject: Participate in study – Win \$5 Gift Card  
BCC: [student@.edu](mailto:student@.edu)

Dear Student:

This message has been forwarded by your DSS office to solicit your participation in a study being conducted by Allison Butler at the University of Maryland, College Park regarding your perceptions of your high school transition experiences and how well these experiences prepared you for academic success in college. Although your participation in this study will not benefit you personally, the researchers hope that this information can be used to help improve transition-related services and promote academic success for students with learning disabilities entering four year colleges and universities.

Your participation in this study is completely voluntary. Your responses to these survey items will not affect your academic standing at your university nor your current usage of classroom accommodations. Should you decide to participate, you will be asked to complete an online survey which will take approximately 45 minutes or less to complete. The first 200 participants will receive a \$5 Amazon gift card by clicking on the attached link provided after survey completion. Upon survey completion, you will be asked to supply your email address in order to be eligible to receive a gift card. You will be notified by email if you are one of the first 200 participants.

All responses collected in this study will be completely confidential. Thank you in advance for your time and your effort in supplying information that will benefit other students with learning disabilities in their pursuits of postsecondary success. If you have any questions or concerns, please feel free to contact me by email at [abutler4@umd.edu](mailto:abutler4@umd.edu) or by phone at (240) 893-2983. You may also contact my dissertation chair at University of Maryland, Dr. Ellen Fabian by email at [efabian@umd.edu](mailto:efabian@umd.edu) or by phone (301) 405-2872.

Remember only the first 200 participants receive a gift card so please complete and submit the survey as soon as possible after you have received this email by clicking the following link: [www.surveygizmo.com](http://www.surveygizmo.com).

Allison Butler, MA, CRC  
Doctoral Candidate  
Counselor Education  
University of Maryland, College Park

## Informed Consent for Larger Study

### Secondary Transition Experiences: Analyzing College Students with LD Perceptions and Impact on Postsecondary Academic Success

Welcome! Thank you for choosing to participate in this study conducted by Allison Butler at the University of Maryland, College Park. The purpose of this study is to allow you to express your experiences in pursuit academic success. Although your participation in this study will not benefit you personally, the researchers hope that this information can be used to help improve transition-related services and promote academic success for students with learning disabilities entering four year colleges and universities. Your participation in this study is understood to be completely voluntary and you can exit the survey at anytime without penalty.

#### Directions

The first part of the survey contains demographic items which will allow you to provide information about your background.

The next three sections of the survey include statements and questions regarding your perceptions of your secondary transition experiences, self-efficacy, and academic adjustment. For all statements and questions, please make only one response for each item.

You will not be asked to reveal your name on the survey. You only provide your email address after completing the survey if you want to be eligible to win a gift card. The survey will take 35-45 minutes to complete and you will be eligible to receive a \$5 gift card upon completion. Once you press “Submit”, this action submits your responses and verifies your participation in the study. Your email address will appear separately from your survey and will no longer be kept once you have been sent confirmation of your eligibility results. You will be notified by email if you are one of the first 200 participants. If I write a report or article about this research project, your identity will be protected to the maximum extent possible.

There are no known risks from participating in this study; however, if you have questions about your rights as a research participant, please contact: Institutional Review Board Office, University of Maryland, College Park, MD 20742; [irb@deans.umd.edu](mailto:irb@deans.umd.edu); (301) 405-0678. This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.

Please continue and begin the survey if the following statements are true:

- You are at least 18 years of age;
- The study has been explained to you;
- Your questions have been answered; and
- You freely and voluntarily choose to participate in this study.

**I Agree**

**I Disagree**

**Participant Email Request After Completing the Survey**

***Thank you so much for your participation! If you would like be eligible to win a \$5 gift card to Amazon, Please Click this Button!***

***Please enter your email address for a chance to win a \$5 gift card to Amazon!***

\_\_\_\_\_@\_\_\_\_\_.com

***Thank you again for your participation!***

**Example Email to Notify Participants about Eligibility Results****Larger Study**

*Date:*  
*From:* [abutler4@umd.edu](mailto:abutler4@umd.edu)  
*Subject:* Redeem your \$5 gift card  
*BCC:* [student@\\_\\_\\_\\_.edu](mailto:student@____.edu)

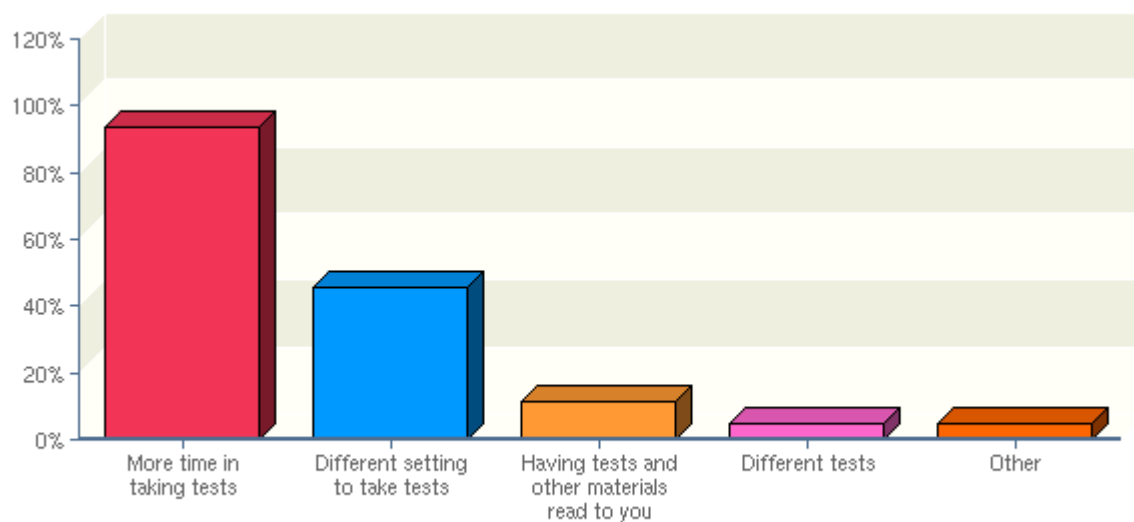
*Thank you again for choosing to participate in my study. You have won a \$5 gift card to Amazon. I have submitted your email to Amazon.com and you will receive your prize via email.*

*Please notify me if you experience any difficulties receiving your gift card through Amazon.*

*Best Regards,*  
*Allison Butler*  
*University of Maryland, College Park*  
*3214 Benjamin Building, 20742*  
*240-893-2983*  
[\*abutler4@umd.edu\*](mailto:abutler4@umd.edu)

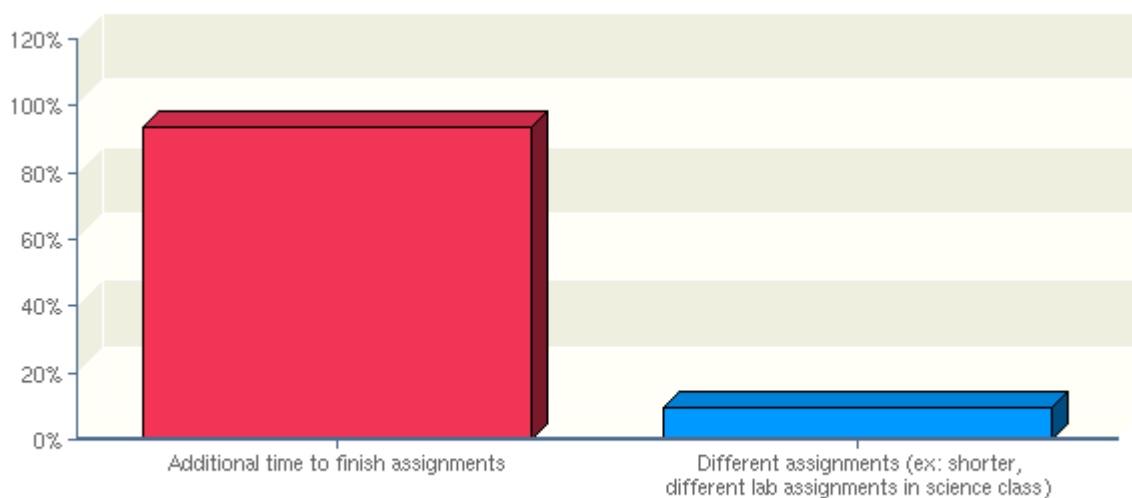
## APPENDIX K:

## List of Accommodations Used by College Student with LD

**Testing Accommodations**

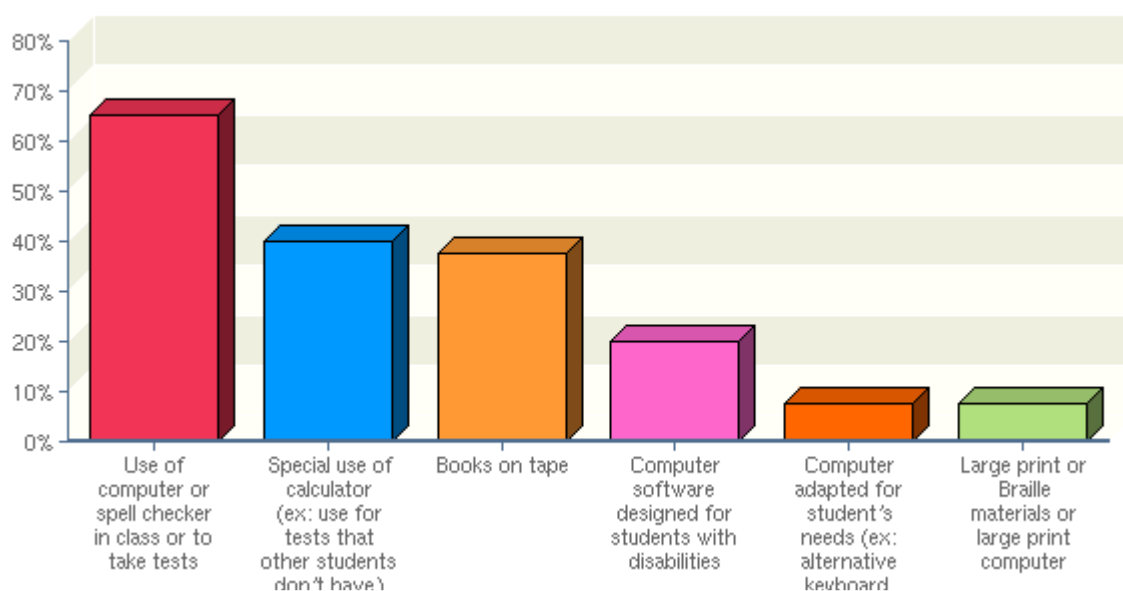
Item	Count	Percent %
More time in taking tests	123	93.89%
Different setting to take tests	60	45.80%
Having tests and other materials read to you	15	11.45%
Different tests	6	4.58%
Scribe to record answers	4	3.05%
Different grading standards	1	0.76%
Instructions given in sign language or manual communication	1	0.76%

### Accommodations in assignments



Item	Count	Percent %
Additional time to finish assignments	58	93.55%
Different assignments (ex: shorter, different lab assignments in science class)	6	9.68%

### Materials/Technology adaptations

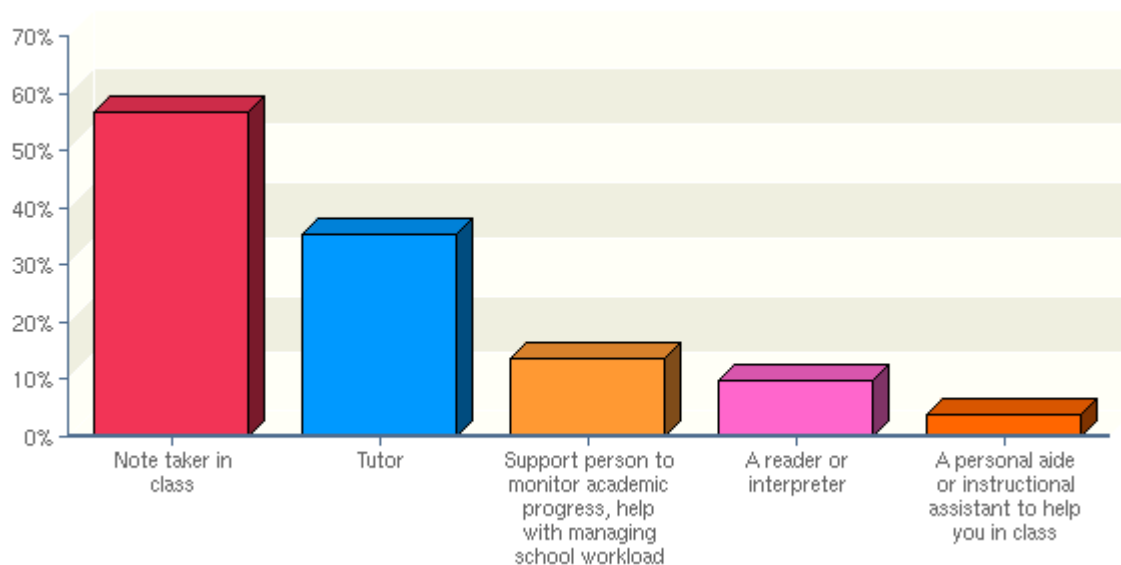


Item	Count	Percent %
Use of computer or spell checker in class or to take tests	26	65.00%
Special use of calculator (ex: use for tests that other students don't have)	16	40.00%



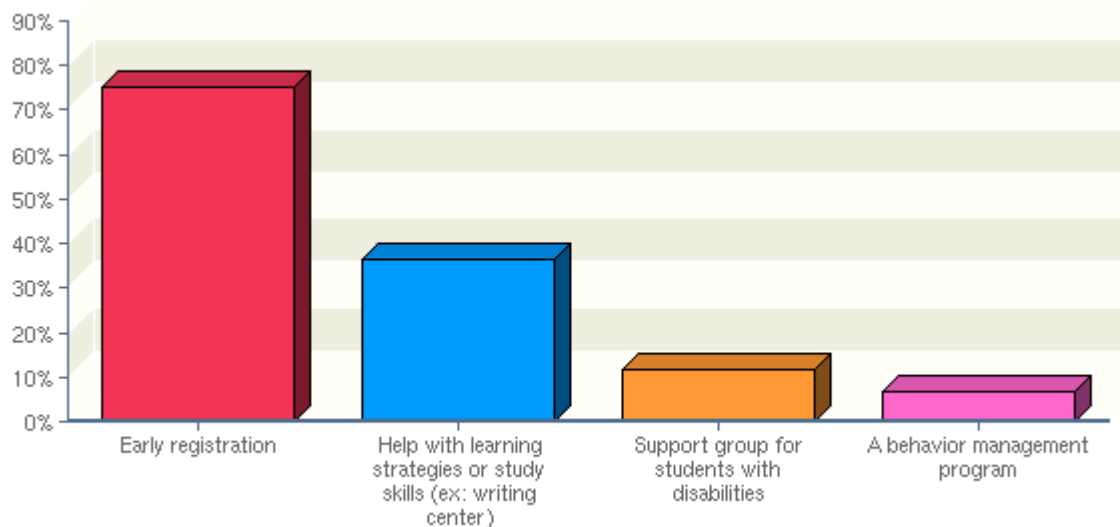
Books on tape	15	37.50%
Computer software designed for students with disabilities	8	20.00%
Computer adapted for student's needs (ex: alternative keyboard, switch interface)	3	7.50%
Large print or Braille materials or large print computer	3	7.50%

## Human Aides



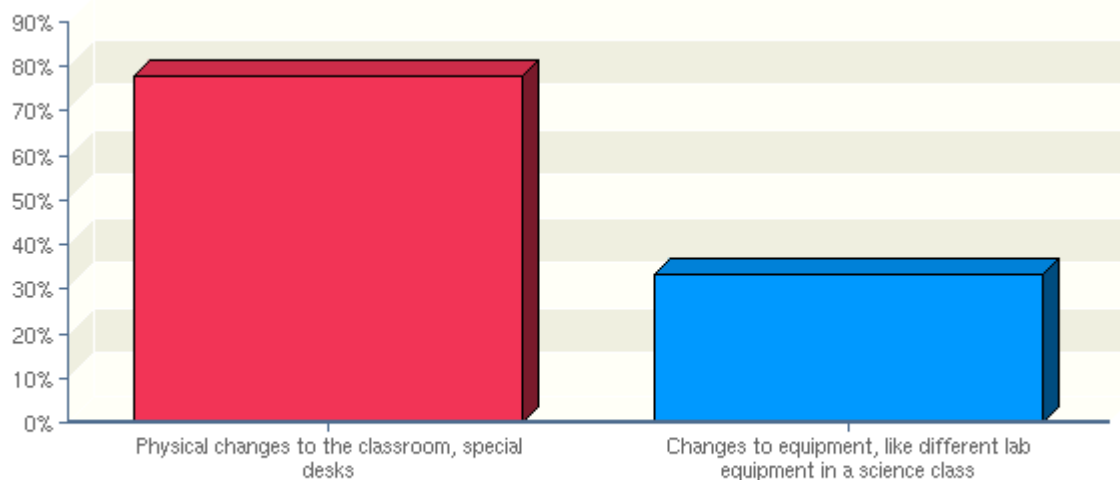
Item	Count	Percent %
Note taker in class	29	56.86%
Tutor	18	35.29%
Support person to monitor academic progress, help with managing school workload	7	13.73%
A reader or interpreter	5	9.80%
A personal aide or instructional assistant to help you in class	2	3.92%

## Out-of-classroom learning supports



Item	Count	Percent %
Early registration	45	75.00%
Help with learning strategies or study skills (ex: writing center)	22	36.67%
Support group for students with disabilities	7	11.67%
A behavior management program	4	6.67%

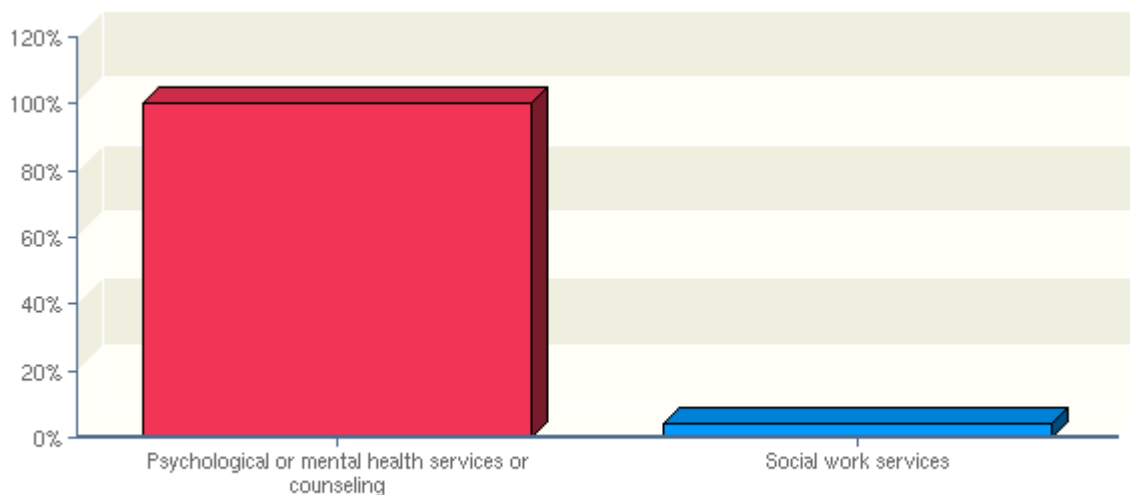
## Physical adaptations in classrooms



Item	Count	Percent %
Physical changes to the classroom, special desks	7	77.78%

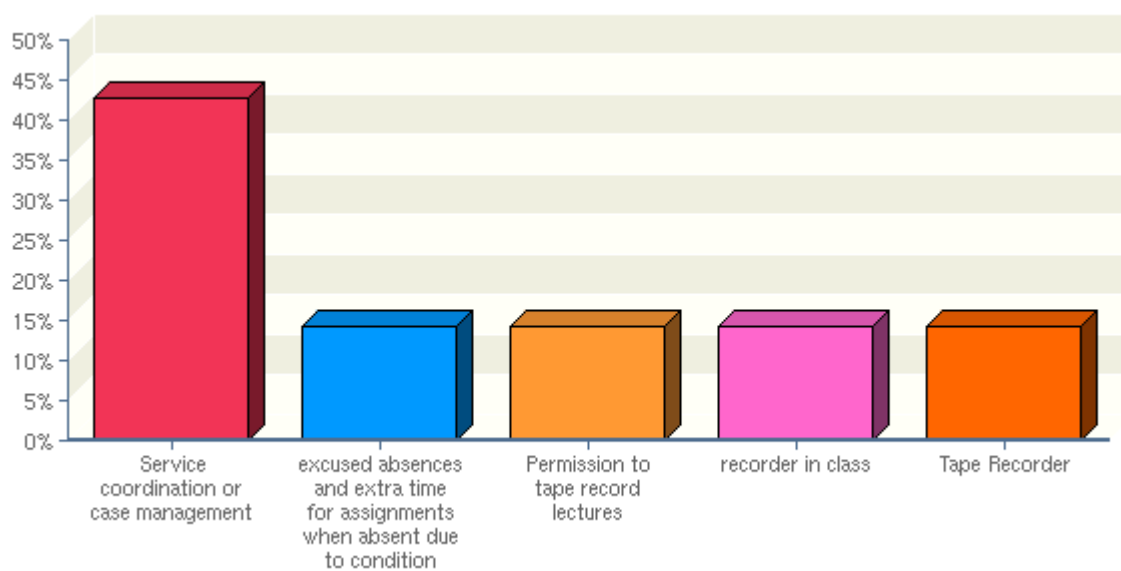
Changes to equipment, like different lab equipment in a science class	3	33.33%
---	---	--------

## Therapies



Item	Count	Percent %
Psychological or mental health services or counseling	25	100.00%
Social work services	1	4.00%

## Miscellaneous



Item	Count	Percent %
Service coordination or case management	3	42.86%
excused absences and extra time for assignments when absent due to condition	1	14.29%
Permission to tape record lectures	1	14.29%
recorder in class	1	14.29%
Tape Recorder	1	14.29%

## APPENDIX L

## Tolerance Values

Model		Beta In	t	Sig.	Partial Correlation	Collinearity
						Statistics
						Tolerance
1	Gender	.000 <sup>a</sup>	-.007	.995	-.001	.993
	African American	-.179 <sup>a</sup>	-3.286	.001	-.260	.989
	Asian	-.034 <sup>a</sup>	-.611	.542	-.050	.999
	BiRacial	-.015 <sup>a</sup>	-.267	.790	-.022	1.000
	Latino/A	-.081 <sup>a</sup>	-1.441	.152	-.117	.992
	Other Race	.032 <sup>a</sup>	.576	.565	.047	.995
	Community College	-.215 <sup>a</sup>	-4.001	.000	-.311	.984
	CASES	.155 <sup>a</sup>	2.808	.006	.224	.985
	SACQ	-.003 <sup>a</sup>	-.052	.959	-.004	1.000
	YCI	.002 <sup>a</sup>	.030	.976	.002	.999
2	African American	-.179 <sup>b</sup>	-3.280	.001	-.260	.986
	Asian	-.034 <sup>b</sup>	-.609	.544	-.050	.997
	BiRacial	-.015 <sup>b</sup>	-.266	.791	-.022	.996
	Latino/a	-.082 <sup>b</sup>	-1.453	.148	-.119	.968
	Other Race	.033 <sup>b</sup>	.577	.565	.047	.987
	Community College	-.217 <sup>b</sup>	-4.007	.000	-.313	.975
	CASES	.155 <sup>b</sup>	2.799	.006	.224	.984
	SACQ	-.003 <sup>b</sup>	-.053	.958	-.004	.995
	YCI	.002 <sup>b</sup>	.030	.976	.002	.994
3	Community College	-.168 <sup>c</sup>	-2.855	.005	-.232	.801
	CASES	.085 <sup>c</sup>	1.432	.154	.119	.818
	SACQ	-.023 <sup>c</sup>	-.417	.677	-.035	.944
	YCI	.023 <sup>c</sup>	.426	.670	.036	.980
4	CASES	.056 <sup>d</sup>	.951	.343	.080	.790
	SACQ	-.022 <sup>d</sup>	-.407	.685	-.034	.943
	YCI	.020 <sup>d</sup>	.379	.705	.032	.979
5	SACQ	-.049 <sup>e</sup>	-.832	.407	-.070	.807
	YCI	.003 <sup>e</sup>	.047	.963	.004	.857
6	YCI	.004 <sup>f</sup>	.073	.942	.006	.856

a. Predictors in the Model: (Constant), Age What is your age

- b. Predictors in the Model: (Constant), Age What is your age, Gender What is your gender
- c. Predictors in the Model: (Constant), Age What is your age, Gender What is your gender, Asian Asian, BiRacialBiRacial, OtherRace Other, AfricanAmerican African American, Latino Latino
- d. Predictors in the Model: (Constant), Age What is your age, Gender What is your gender, Asian Asian, BiRacialBiRacial, OtherRace Other, AfricanAmerican African American, Latino Latino, CommunityCollegeCommunitycollege
- e. Predictors in the Model: (Constant), Age What is your age, Gender What is your gender, Asian Asian, BiRacialBiRacial, OtherRace Other, AfricanAmerican African American, Latino Latino, CommunityCollegeCommunitycollege, CASES
- f. Predictors in the Model: (Constant), Age What is your age, Gender What is your gender, Asian Asian, BiRacialBiRacial, OtherRace Other, AfricanAmerican African American, Latino Latino, CommunityCollegeCommunitycollege, CASES, SACQ
- g. Dependent Variable: Year1 What is your current college year

## References

- Allen, D. (1999). Desire to finish college: An empirical link between motivation and persistence. *Research in Higher Education*, 40(4), 461-485.
- Americans with Disabilities Act of 1990, P. L. 101-336, 42 U. S. C § 12101 *et seq.*
- Anderson, L. E. (1994). A new look at an old construct: Cross-cultural adaptation. *International Journal of Intercultural Relations*, 18, 293-328.
- Aune, E. (1991). A transition model for post-secondary bound students with LD. *Learning Disabilities Research and Practice*, 6, 177-187.
- Baker, R. W., &Siryk, B. (1980). Alienation and freshman transition into college. *Journal of College Student Personnel*, 21, 437-442.
- Baker, R. W., &Siryk, B. (1989). *Student Adaptation to College Questionnaire (SACQ): Manual*. Los Angeles: Western Psychological Services.
- Baker, R., &Siryk, B. (1999). *SACQ: Student Adaptation to College Questionnaire manual*. Los Angeles: Western Psychological Services.
- Bandura, A. (1994). Self-efficacy. *Encyclopedia of Human Behavior*, 4, 71-81.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bassett, D., & Smith, T. (1996, Mar). Transition in an Era of Reform. *Journal of Learning Disabilities*, 29(2), 161-166.
- Bauman, S., Airey, J., &Atak, H. (1998, May). Effective use of Web-based technology: Using the Internet for data collection and communication applications. Paper presented at the 53rd Conference of the American Association for Public Opinion Research, St. Louis, MO. Retrieved March 15, 2006, from <http://www.wirthlin.com/strategic/casefiles/wes.phtml>

- Bembenuddy, H. (2007). Self-regulation of learning and academic delay of gratification: Gender and ethnic differences among college students. *Journal of Advanced Academics*, 18(4), 586-616.
- Berdie, R. F. (1968). Changes in university perceptions during the first two college years. *Journal of College Student Personnel*, 9, 85-89.
- Berk, L.E. (2000). *Child Development (5th ed.)*. Boston: Allyn and Bacon. 23-38.
- Benz, M., & Halpern, A. S. (1993). Vocational and transition services needed and received by students with disabilities during their last year of high school. *Career Development for Exceptional Individuals*, 16, 197-211.
- Benz, M.R., Lindstrom, L., Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children*, 66(4), 509-529.
- Berry, W. D. & Feldman, S. (1985). *Multiple Regression in Practice*. Beverly Hills, CA: Sage.
- Beyers, W., & Gossesns, L. (2002). Concurrent and predictive validity of the student adaptation to college questionnaire in a sample of European freshman students. *Educational and Psychological Measurement*, 62(3), 527-538.
- Blackorby, J., & Wagner, M. (1996). Longitudinal postschool outcomes of youth with disabilities: Findings from the National Longitudinal Transitional Study. *Exceptional Children*, 62, 399-413.
- Bong, M. (2001). Role of self-efficacy and task-value in predicting college students' course performance and future enrollment intentions. *Contemporary Educational Psychology*, 26, 553-570.



- Bragg, D.D., Kim, E., & Barnett, E.A. (2006). Creating access and success: Academic pathways reaching underserved students. In D.D.Bragg & E.A. Barnett (Eds.), *Academic pathways to and from the community college* (pp. 5- 20). San Francisco: Jossey-Bass.
- Brigham, N., Moroccco, C.C., Clay, K., & Zigmond, N. (2006). What makes a high school a good high school for students with disabilities. *Learning Disabilities Research & Practice*, 21(3), 184-190.
- Brinckerhoff, L. C., Shaw, S. F., & McGuire, J. M. (1993). *Promoting postsecondary education for students with learning disabilities: A handbook for practioners*. Austin, TX: PRO-ED.
- Brinckerhoff, L.C. (1996). Making the transition to higher education: opportunities for student empowerment. *Journal of Learning Disabilities*, 29, 118-137.
- Brinckerhoff, L.C., McGuire, J. M., & Shaw, S. F. (2002) *Postsecondary education and transition for students with learning disabilities. (2<sup>nd</sup> ed)*. Austin, TX: PRO-ED.
- Bronfenbrenner, U. (1990). Discovering what families do. *In Rebuilding the Nest: A New Commitment to the American Family*. Retrieved (March 3, 2009): <http://www.montana.edu/www4h/process.html>.
- Bryde, J.F., & Milburn, C.M. (1990). Helping to make the transition from high school to college. In R.L. Emans (Ed.), *Understanding undergraduate education* (pp. 203-213). Vermillion, SD: University of South Dakota Press.
- Buchanan, M., & Wolf, J. S. (1986). A comprehensive study of learning disabled adults. *Journal of Learning Disabilities*, 19, 34-38.

- Buckley, H. D. (1971). A comparison of freshman and transfer expectations. *Journal of College Student Personnel*, 12, 186-188.
- Carrell, L., & Willmington, S. (1996). A comparison of self-report and performance data in assessing and speaking and listening competence. *Communication Reports*, 9(2): 185-191.
- Carl D. Perkins Vocational and Technical Education Act of 1998, Pub. L. No. 105-332 (1998).
- Chartrand, J. M., Camp, C. C., & McFadden, K. L. (1992). Predicting academic adjustment and career indecision: A comparison of self-efficacy, interests congruence and commitment. *Journal of College Student Development*, 33, 292-300.
- Chemers, M.M., Hu, L., & Garcia, B.F. (2001). Academic Self-Efficacy and First-Year College Student Performance and Adjustment. *Journal of Educational Psychology*, 93(1), 55-64.
- Chickering, A.W. (1969). *Education and identity*. San Francisco: Jossey-Bass.
- Choi, N. (2005). Self-Efficacy and Self-Concept as Predictors of College Students' Academic Performance. *Psychology in the Schools*, 42(2), 197-205.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159.
- Cohen, P., Cohen, J., West, S. G., & Aiken, L. S. (2002). *Applied Multiple Regression/Correlation Analysis for the Behavior Sciences*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Collet-Klingenberg, L. L. (1998). The reality of best practices in transition: A case study. *Exceptional Children*, 65(1), 67-78.

- Costello, J. J., & English, R. W. (2001). The psychosocial development of college students with and without learning disabilities. *Journal of Postsecondary Education and Disability*, 15(1), 16-27.
- Cowen, S. (1993). Transition planning for LD college bound students. In S. A. Vogel & P.B. Adelman (Eds.), *Success for college students with learning disabilities* (pp. 39-56). New York: Springer-Verlag.
- Cronin, M.E., & Gerber, P.J. (1982). Preparing the learning disabled adolescent for adulthood. *Topics in Learning & Learning Disabilities*, 2(3), 55-68.
- Cummings, R., Maddux, C., & Casey, J. (2000). Individualized transition planning for students with learning disabilities. *The Career Development Quarterly*, 49, 60-72.
- Dalke, C., & Schmitt, S. (1987). Meeting the transition needs of college-bound students with learning disabilities. *Journal of Learning Disabilities*, 20(3), 176-180.
- Davis v. Southeastern Community College. 442 U.S. 397 (1979).
- deFur, S.H., Todd-Allen, M., Getzel, E.E. (2001). Parent participation in the Transition Planning Process. *Career Development for Exceptional Individuals*, 24(1), 19-36.
- Deshler, D. D., Schumaker, J. B., Alley, G. R., Warner, M. M., & Clark, F. L. (1982). Learning disabilities in adolescent and young adult populations: Research implications. *Focus on Exceptional Children*, 15(1), 1-12.
- DeStefano, L., & Snauwaert, D. (1989). A value-critical approach to transition policy analysis.

- Dowdy, C. A., Carter, J. K., & Smith, T. E. (1990). Differences in transitional needs of high school students with and without learning disabilities. *Journal of Learning Disabilities, 23*(6), 343-348.
- Dunn, C. (1995). A comparison of three groups of academically at-risk college students. *Journal of College Student Development, 36*(3): 270-279.
- Dunn, C. (1996). A status report on transition planning for individuals with learning disabilities. *Journal of Learning Disabilities, 29*, 17-30.
- Durlack, 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*, 51-59.
- Edgar, E. (1987). Secondary programs in special education: Are many of them justifiable? *Exceptional Children, 30*(2), 103-123.
- Elbaum, B., & Vaughn, S. (2003). For which students with learning disabilities are self-concept interventions effective? *Journal of Learning Disabilities, 36*, 101-108.
- Elias, S. M., & Loomis, R. J. (2000). Using an academic self-efficacy scale to address university major persistence. *Journal of College Student Development, 41*(4), 450-454.
- Evelo, S. & Price, L. (1991). The transition of students with learning disabilities: A case study. *Journal of Postsecondary Education and Disability, 91*(1 and 2), 207-218.

- 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.
- Fabian, E. S. (2007). Urban youth with disabilities: Factors affecting transition employment. *Rehabilitation Counseling Bulletin*, 50(3), 130-138.
- Fairweather, J. S., & Shaver, D. M. (1991). Making the transition to postsecondary education and training. *Exceptional Children*, 57(3), 264-270.
- Farmer, T. (1998, December). Understanding this thing we call Internet research. Retrieved March 23, 2006, from [http://infotekonline.com/Info\\_Online\\_New/White\\_paper\\_on\\_internet.htm](http://infotekonline.com/Info_Online_New/White_paper_on_internet.htm)
- Finn, J.D. (2006). *The Adult Lives of At-Risk Students: The Role of Attainment and Engagement in High School* (NCES 2006-328). U.S. Department of Education, Washington, DC: National Center for Education Statistics.
- Flexer, R. W., Baer, R. M., Luft, P., & Simmons, T. J. (2005). *Transition planning for secondary students with disabilities*. Columbus, OH: Pearson Merrill Prentice Hall.
- Fredricks, J.A., and Eccles, J.S. (2006). Is Extracurricular Participation Associated With Beneficial Outcomes? Concurrent and Longitudinal Relations. *Developmental Psychology* 42(4): 698-713.
- Foss, P.D. (1990). *Transition from school to community: What works for students with disabilities?* Unpublished master's thesis, University of Central Florida.
- Gajar, A.H. (1992). *University-based models for students with learning disabilities: The Pennsylvania state university model*. In F.R. Rusch, L. Destefano, J.

Chadsey-Rusch, L.A. Phelps, & E. Szymanski (Eds.), *Transition from school to adult life: Models, linkages, and policy* (pp. 51-70). Pacific Grove, CA: Brooks/Cole.

General Accounting Office. (2003). *Federal actions can assist states in improving postsecondary outcomes for youth*, Retrieved (June 11, 2008):

<http://www.gao.gov/highlights/d03773high.pdf>

Gerdes, H., & Mallinckrodt, B. (1994). Emotional, social, and academic adjustment of college students: A longitudinal study of retention. *Journal of Counseling & Development, 72*, 281-288.

Granello, D. H., & Wheaton, J.E. (2004). Online data collection: strategies for research. *Journal of Counseling and Development, 82*, 387-393.

Greenbaum, B., Graham, S., & Scales, W. (1995). Adults with learning disabilities: Educational and social experiences during college. *Exceptional Children, 61*(5), 460-471.

Gregg, N. (2007). Underserved and Unprepared: Postsecondary Learning Disabilities. *Learning Disabilities Research & Practice, 22*(4), 219-228.

Grigal, M., Test, D. W., Beattie, J., & Wood, W.M. (1997). An evaluation of transition components of Individualized Education Programs. *Exceptional Children, 63*, 357-372.

Goals 2000: The Educate America Act. Pub. L. No. 103-227, 108, Stat. 125 (1994).

Gore, P. A. (2006). Academic self-efficacy as a predictor of college outcomes: Two incremental validity studies. *Journal of Career Studies, 14*, 92-115.

- Halpern, A. S. (1985). Transition: A look at the foundations. *Exceptional Children*, 51, 479-486.
- Halpern, A. S. (1993). Quality of life as a conceptual framework for evaluating transition outcomes. *Exceptional Children*, 59, 486-498.
- Hampton, N. Z. (1998). Sources of academic self-efficacy scale: an assessment tool for rehabilitation counselors. *Rehabilitation Counseling Bulletin*, 41(4), 260-277.
- Hampton, N. Z., & Mason, E. (2003). Learning disabilities, gender, sources of efficacy, self-efficacy beliefs, and academic achievement in high school students. *Journal of School Psychology*, 41(2003), 101-112.
- Harbour, W. S. (2004). The 2004 AHEAD survey of higher education disability service providers. Waltham, MA: Association on Higher Education and Disability.
- Hart, D., Zimbrich, K., and Whelley, T. (2002). Challenges in coordinating and managing services and supports in secondary and postsecondary options. *NCSET Issue Brief*, 1(6). Eric Document #: 475332.
- Hartman-Hall, H.M., & Haaga, D.A.F. (2002). College student's willingness to seek help for their learning disabilities. *Learning Disability Quarterly*, 25, 263-274.
- Harvey, M.W. (2001). Transition in the field of special education. *Preventing school failure*. 45(3), 100-111.
- Hasazi, S.B., Furney, K.S., & DeStefano, L. (1999). Implementing the IDEA transition mandates. *Exceptional Children*, 65: 555-567.
- HEATH Resource Center (2003). Postsecondary students with disabilities: recent data from the national postsecondary student aid survey. Retrieved Oct 27,

2003, <http://www.heath.gwu.edu/Templates/Newsletter/issue5/5%20Postsecondary%20Student>.

Herr, E. L. (1971). Student needs, college expectations, and “reality” perceptions.

*Journal of Educational Research, 65, 51-56.*

Herzog, S. (2007). Diversity and education benefits: moving beyond self-reported questionnaire data. Education Working Paper Archive, 76pp.

Hicks-Coolick, A. & Kurtz, P. D. (1997). Preparing students with learning disabilities for success in postsecondary education: needs and services. *Social Work in Education, 19(1)*, 31-42.

Hitchings, W. E., Retish, P., & Horvath, M. (2005). Academic preparation of adolescents with disabilities for postsecondary education. *Career Development for Exceptional Individuals, 28(1)*, 26-35.

Humes, C. W., & Brammer, G. (1985). LD career success after high school. *Academic Therapy, 21(2)*, 171-176.

Individuals with Disabilities Education Act of 2004. 20 U. S. C. §1400 *et seq.* (2004).

Individuals with Disabilities Education Act Amendments of 1997, 20 U. S. C. §1400 *et seq.* (1997).

Janiga, S.J., & Costenbader, V. (2002). The transition from high school to postsecondary education for students with learning disabilities: a survey of college service coordinators. *Journal of Learning Disabilities, 35*, 462-469.

Jobber, D., Saunders, J., & Mitchell, V.W. (2004). Prepaid monetary incentive effects on mail survey response. *Journal of Business Research, 57*, 347-350.

Kerka, S. (2002). Learning disabilities and career development. Practice Application



Brief No. 20. *ERIC Clearinghouse. ED-99-CO-0013.*

- King, H., & Walsh, W. B. (1972). Change in environmental expectations and perceptions. *Journal of College Student Personnel*, 13, 331-337.
- Klassen, R. (2002). A question of calibration: a review of the self-efficacy beliefs of students with learning disabilities. *Learning Disabilities Quarterly*, 25, 88-102.
- Kohler, P.D. (1993). Best practices in transition: Substantiated or implied? *Career Development for Exceptional Individuals*, 16, 107-121.
- Kohler, P. D. (1996). *Taxonomy for transition programming: Linking research and practice*(Report No. 305 053). (ERIC Document Reproductive Service No. ED 399 722).
- Kohler, P.D., & Field, S. (2003). Transition-focused education: Foundation for the future. *Journal of Special Education*, 37(3), 174-183.
- 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.
- Lackaye, T. D., & Margalit, M. (2006). Comparisons of achievement, effort, and self-perceptions among students with learning disabilities and their peers from different achievement groups. *Journal of Learning Disabilities*, 39(5), 432-446.
- Lackaye, T., Margalit, M., Ziv, O., & Ziman, T. (2006). Comparisons of self-efficacy, mood, effort, and hope between students with learning disabilities and their non-Id-matched peers. *Learning Disabilities Research & Practice*, 21(2), 111-121.

- Lamb, P., Brown, M., Hodges, B., & Foy, D. (2004). Building bridges toward science careers for youth with disabilities. *Improving Secondary Education and Transition Services Through Research*, 3(2). Retrieved January 13, 2009 from <http://www.ncet.org/publications/viewdesc.asp?id=1494>.
- Lawson, S. & Everson, J. (1993). A national review of statements of transition services for students who are deaf-blind. Helen Keller National Center/Technical Assistance Center.
- Lehmann, J. P., Bassett, D.S., & Sands, D.J., (1999). Research translated into practices for student involvement in transition-related activities. *Career Development for Exceptional Individuals*, 22(1), 3-19.
- Lent, R. W., Brown, S. D., & Larkin, K. C. (1986). Self-efficacy in the prediction of academic performance and perceived career options. *Journal of Counseling Psychology*, 33, 265-269.
- Lerner, J. (1997). Learning disabilities: Theories, diagnosis, and teaching strategies (7<sup>th</sup>ed.). Boston: Houghton Mifflin.
- Levinson, E.M. (1998). Transition: Facilitating the postschool adjustment of students with disabilities. Boulder, CO: Westview Press.
- 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.
- Lopez, F. G., Campbell, V.L., & Watkins, C. E., Jr. (1988). Family structure, psychological separation, and college adjustment: A canonical analysis and cross validation. *Journal of Counseling Psychology*, 35, 402-409.

- Madaus, J. W., & Shaw, S. F. (2006). The impact of the IDEA 2004 on transition to college for students with learning disabilities. *Learning Disabilities Research & Practice, 21*(4), 273-281.
- Mahoney, J.L., Cairns, B.D., and Farmer, T.W. (2003). Promoting Interpersonal Competence and Educational Success Through Extracurricular Activity Participation. *Journal of Educational Psychology, 95*(4): 409-418.
- Mangrum, C.T., and Strichart, S.S. (1988). *College and the learning disabled student*. Philadelphia: Grune & Stratton.
- Mertler, C.A., & Vannatta, R.A. (2005). *Advanced and Multivariate Statistical Methods* (3<sup>rd</sup>ed). Los Angeles, CA: Pyrczak Publishing.
- Minskoff, E.H. (1996). Facilitating successful transition: using the TRAC model to assess and develop academic skills needed for vocational competence. *Learning Disability Quarterly, 16*(3), 161-170.
- Mitchell, A. A., & Sedlacek, W. E. (1995). Freshmen with learning disabilities: A profile of needs and concerns. *Journal of the Freshman Year Experience, 7*(2), 27-41.
- Mitchell, M. L., & Jolley, J. M. (1999). The correlator: A self-guided tutorial. *Teaching of Psychology, 26*(4), 298-299.
- Mitra, A., Jain-Shukla, P., Robbins, A., Champion, H., & Durant, R. (2008). Differences in rate of response to web-based surveys among college students. *International Journal on E-Learning, 7*(2), 265-281.
- Montgomery, R. L., & Haemmerlie, F. M. (1993). Undergraduate adjustment to

- college, drinking behavior, and fraternity membership. *Psychological Reports*, 73, 801-802.
- Mull, C., Sitlington, P., & Alper, S. (2001). Postsecondary education for students with learning disabilities: a synthesis of the literature. *Exceptional Children*, 68, 97-118.
- Multon, K.D., Brown, S.D., & Lent, R.W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 38, 30-38.
- Murray, C., Goldstein, D.E., Nourse, S., & Edgar, E. (2000). The postsecondary school attendance and completion rates of high school graduates with learning disabilities. *Learning Disabilities Research & Practice*, 15, 119-128.
- Napoli, A. R., & Wortman, P. M. (1998). Psychological factors related to retention and early departure of two year community college students. *Research in Higher Education*, 39, 419-455.
- National Alliance for Secondary Education and Transition. (2005). *National Standards and Quality Indicators: Transition Toolkit for Systems Improvement*. Minneapolis: University of Minnesota, Institute for Community Integration.
- National Center for Education Statistics. (1999). *Students with disabilities in postsecondary education: A profile of preparation, participation, and outcomes*. Washington, DC: U.S. Department of Education.
- National Center on Secondary Education & Transition (2004). Discussion paper, *Current challenges face the future of secondary education and transition*

*services for youth with disabilities in the United States.* Minneapolis, MN: University of Minnesota, Institute on Community Integration.

National Council on Disability. (2003, May). *Addressing the needs of youth with disabilities in the juvenile justice system: The current status of evidence-based research.* Washington, DC: Author. Retrieved June 12, 2008, from <http://www.ncd.gov/newsroom/publications/2003/juvenile.htm>

National Council on Disability. (2008 May). *People with Disabilities and Postsecondary Education.* Washington, DC: Author. Retrieved June 12, 2008, from <http://www.ncd.gov/newsroom/publications/2003/education.htm>

National Survey of Student Engagement (2003). *The college student report: 2003 overview.*

Newman, L. (2005). *Changes in postsecondary participation of youth with disabilities.* Retrieved May 25, 2008, from National Longitudinal Transition Study 2 Reports and Products, <http://www.nlts2.org/reportsP1.html#postsecondaryed>

No Child Left Behind Act 2002. Retrieved (June 11, 2008): <http://www.ed.gov/nclb/landing.jhtml?src=pb>

Norlander, K. S., Shaw, S. F., & McGuire, J.M. (1990). Competencies of postsecondary education personnel serving students with learning disabilities. *Journal of Learning Disabilities*, 23, 426-431.

Office of Vocational and Adult Education. (2003). *Charting a new course for career and technical education (High School Leadership Summit Issue Paper).* Washington, DC: US. Department of Education.

- Onwuegbuzie, A. J., & Daniel, L. G. (2003). A framework for reporting and interpreting internal consistency reliability estimates. *Measurement and Evaluation in Counseling and Development*, 35(2), 89-103.
- Owen, S. V., & Froman, R., D. (1988, April). *Development of a college academic self-efficacy scale*. New Orleans, LA: Paper presented at the annual meeting of the National Council on Measurement in Education.
- Pascarella, E. T. (2001). Using student self-reported gains to estimate college impact: A cautionary tale. *Journal of College Student Development*, 42, 488-492.
- Pappas, J. P., & Loring, R. K. (1985). Returning learner. In L. Noel, R. Levitz, & D. Saluri (Eds.), *Increasing student retention: Effective programs and practices for reducing the dropout rate* (pp. 138-161). San Francisco, CA: Jossey-Bass.
- Phelps, L.A., & Hanley-Maxwell, C. (1997). School-to-work transitions for youth with disabilities: A review of outcomes and practices. *Review of Educational Research*, 67(2), 197-226.
- Porter, S. R., & Umbach, P. D. (2006). Student survey response rates across institutions: Why do they vary? *Research in Higher Education*, 47(2), 229-247.
- Powers, M., Gil-Kashiwabara, E., Geenen, S. J., Powers, L. E., Balandran, J., & Palmer, C. (2005). Mandates and effective transition planning practices reflected in IEP's. *Career Development for Exceptional Individuals*, 28(1), 47-59.
- President's Commission on Excellence in Special Education 2002. *A new era:*

*revitalizing special education for children and their families*, Retrieved (June 28, 2008): [www.ed.gov/inits/commissionsboards/whspecialeducation/](http://www.ed.gov/inits/commissionsboards/whspecialeducation/)

Ramsay, S., Barker, M., & Jones, E. (1999). Academic adjustment and learning processes: a comparison of international and local students in first-year university. *Higher Education Research & Development*, 18(1), 129-144.

Rath, K, A., and Royer, J.M. (2002). The nature and effectiveness of learning disability services for college students. *Educational Psychology Review*, 14(4): 353-381.

Rehabilitation Act of 1973, Section 504, P.L. 93-112.

Repetto, J., White, W., & Snauwaret, D. (1990). Individual transition plans (ITP): A national perspective. *Career Education for Exceptional Individuals*, 13(2), 109-119.

Research and Training Center on Service Coordination (2001). *Data report: Service coordination policies and models*. Research and Training Center on Service Coordination: Division of Child and Family studies. University of Connecticut Health Center. Retrieved December 2, 2005, from <http://www.uconnced.org/policy.PDF>.

Richards, A. M. (2000). The role of undergraduate programs in preparing students with learning disabilities for professional school enrollment. *Learning Disabilities: A Multidisciplinary Journal*, 10(2), 57-64.

Rojewski, J. W. (1992). Key components of model transition services for students with learning disabilities. *Learning Disability Quarterly*, 15, 135-150.

Rusch, F.R., Chadsey-Rusch, J.B., & Szymanski, E.M. (1982). Validating entry-level

survival skills for service occupations: Implications for curriculum development. *Journal of the Association for the Severely Handicapped*, 7(3), 32-41.

Ryan, A. G. (1994). Life adjustments of college freshman with and without learning disabilities. *Annals of Dyslexia*, 44, 227-249.

Ryan, A. G., Nolan, B. F., Keim, J., & Madsen, W. (1999). Psychosocial adjustment factors of postsecondary students with learning disabilities. *Journal of College Student Psychotherapy*, 13(3), 3-18.

Ryan, A. G., & Price, L. (1992). Adults with LD in the 1990s. *Intervention in School and Clinic*, 28(1), 6-15, 18-20.

Salvador v. Bell. 622 F. Supp. 438 (N.D. Ill. 1985), affd, 800 F. 2d 97 (7<sup>th</sup> Cir. 1986).

Saracoglu, B., Minden, H., & Wilchesky, M. (1989). The Adjustment of Students with Learning Disabilities to University and Its Relationship to Self-Esteem and Self-Efficacy. *Journal of Learning Disabilities*, 22(9), 590-592.

Schumaker, J., Deshler, E., Alley, T., & Warner, D. (1983). Toward the development of an intervention model for learning disabled adolescents: The university of Kansas Institute. *Exceptional Education Quarterly*, 4(1), 45-74.

Serebreni, R., Rumrill, J., Mullins, K., & Gordon, M. (1993). Project excel: A demonstration of higher education transition model for high-achieving students with disabilities. *Journal of Postsecondary Education and Disability*, 10(3), 15-23.

Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 as amended, 29 U.S.C. §794. (1973).

Sharpe, M.N., & Johnson, D.R. (2001). A 20/20 analysis of postsecondary support



- characteristics. *Journal of Vocational Rehabilitation*, 16, 169-177.
- Shaw, S. F. (2005). IDEA will change the face of postsecondary disability documentation. *Disability Compliance for Higher Education*, 11(1), 7.
- Shaw, S., McGuire, J., and Brinkerhoff, L. (1994). College and university programming. In P. Gerver & H. Reiff (Eds.) *Learning disabilities in adulthood: Persisting problems and evolving issues* (pp. 141-151). Boston: Andover.
- 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.
- Sitlington, P.L., & Frank, A.R. (1990). Are adolescents with learning disabilities successfully crossing the bridge into adult life. *Learning Disability Quarterly*. 13(2), 97-111.
- Sitlington, P. L. (2003). Postsecondary education: The other transition. *Exceptionality*, 11(2), 103-113.
- Slemon, J. C., & Shafrir, U. (1997). Academic self-efficacy of post-secondary students with and without learning disabilities. Presented at the annual meeting of the American Educational Research Association (Chicago, IL, March 24-27, 1997).
- Stage, F.K. (1996). Setting the context: psychological theories of learning. *Journal of College Student Development*, 37(2): 227-235.
- Stodden, R., Jones, M., & Chang, K. (2002). *Services, supports and accommodations for individuals with disabilities: An analysis across secondary education, postsecondary education, and employment* (White paper). Manoa, HI:

University of HI at Manoa, National Center on Secondary Education and Transition. Retrieved April 23, 2007, from, <http://ncset.hawaii.edu/>

Szelenyi, K., Bryant, A. N., & Lindholm, J. A. (2005). What money can buy:

Examining the effects of prepaid monetary incentive on survey response rates among college students. *Educational Research and Evaluation*, 11(4), 385-404.

Tabachnick, B. G., & Fidell, L. S. (1996). *Using Multivariate Statistics* (3rd ed.). New York: Harper Collins.

Timmerman, A. (2002). Introduction to the application of web-based surveys.

Retrieved April 10, 2004, from

[http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content\\_storage\\_01/0000019b/80/1a/da/55.pdf](http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/1a/da/55.pdf)

Tinto, V. (1993). *Learning college: Rethinking causes and cures of student attrition* (2<sup>nd</sup> ed.). Chicago: University of Chicago Press.

Tinto, V. (2006). Most colleges are not like Kerek Bok's. *Academe*, 92(5), 114–118.

United States General Accounting Office. (2003). *Special education federal actions can assist states in improving postsecondary outcomes for youth* (GAO, 03-773). Washington, DC: Author. Retrieved May 5, 2003, from

<http://www.gao.gov/new.items/do3773.pdf>

Vogel, S., & Adelman, D.B. (1992). The success of college students with learning disabilities: Factors related to educational attainment. *Journal of Learning Disabilities*, 25, 430-441.

Vogel, S., & Adelman, P. (1993). *Success for college students with learning disabilities*. New York: Springer-Verlag.

- Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *Afterhigh school: A report from the National Longitudinal Transition Study-2(NLTS-2)*. Menlo Park, CA: SRI International. Retrieved June 8, 2008, from: <http://www.nlts2.org>
- Wagner, M., Newman, L., Cameto, R., Levine, p., and Marder, C. (2007). *Perceptions and Expectations of Youth With Disabilities. A Special Topic Report of Findings From the National Longitudinal Transition Study-2 (NLTS2)* (NCSE 2007-3006). Menlo Park, Ca: SRI International.
- Warriner, K., Goyder, J., Gjertsen, H., Hohner, P., & McSpurren, K. (1996). Charities, no; lotteries, no; cash, yes: Main effects and interactions in a Canadian incentive experiment. *Public Opinion Quarterly*, 60, 542-562.
- Watkins, D. (1978). A note on student satisfaction with university: A case study. *Education Research and Perspectives*, 5, 45-53.
- Wehman, P., Kregel, J., & Barcus, J. M. (1985). From school to work: A vocational transition model for handicapped students. *Exceptional Children*, 52, 25-37.
- Wehman, P. (2006). *Life beyond the classroom: Transition strategies for young people with disabilities (4<sup>th</sup> ed.)*. Maryland: Brookes Publishing Company.
- Wehmeyer, M. & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation or learning disabilities. *Exceptional Children*, 63(2), 245-255.
- Whiteley, J. H. (1982). Effects of the freshman year. In J.M. Whiteley, B.D. Bertin, J.S. Jennings, L. Lee, H.A. Magana, & A. Resnikoff (Eds.), *Character development in college students: Vol 1. The freshman year* (pp. 129-172). Schenectady, NY: Character Research Press.

- Will, M. (1985). Bridges from school to working life: OSERS programming for the transition of youth with disabilities. *Rehabilitation World*, 9(1), 4-42.
- Yeaworth, R. C., (2001). Use of the internet in survey research. *Journal of Professional Nursing*, 17(4), 187-193.
- Yuan, F. (1994). Moving toward self-acceptance: A course for students with learning disabilities. *Intervention in School and Clinic*, 29, 301-309.
- Zigmond, N. (1990). Rethinking secondary school programs for students with learning disabilities. *Focus on Exceptional Children*, 23(1), 1-21.