UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

EXAMINATION OF HIGH SCHOOL TRANSITION PROGRAM VARIABLES ASSOCIATED WITH SUCCESSFUL STUDENT OUTCOMES

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

Doctor of Philosophy

By

JUAN CARLOS LOVATO PORTLEY
Norman, Oklahoma
2009

Downloaded from SHAREOK. Persistent Handle URL: https://hdl.handle.net/11244/318817

EXAMINATION OF HIGH SCHOOL TRANSITION PROGRAM VARIABLES ASSOCIATED WITH SUCCESSFUL STUDENT OUTCOMES

A DISSERTATION APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

BY

_____
Dr. James Martin, Chair

_____
Dr. Grayson Noley

_____
Dr. Ginger Blalock

_____
Dr. Joyce Brandes

_____
Dr. Maeghan Hennessey

© Copyright by JUAN C.L. PORTLEY 2009
All Rights Reserved.

To my dear Bub and all who have influenced me.

ACKNOWLEDGEMENTS

I am grateful to the educators who took the time to complete my survey and to the New Mexico Transition Cadre who welcomed me into their community and activities with open arms; they continue to be great friends, mentors, and colleagues. A special thanks to the guidance and mentorship of the organizers of the NM Cadre, Dr. Ginger Blalock, Dr. Jim Alarid, Marilyn D'Ottavio, and Sue Gronewold for their professional guidance throughout my career. Thank you to the organizers of the Indicator data collection, particularly Glenn Damian, Dr. Blalock, and the NM PED.

Thank you to Dr. James Martin for his guidance with this project and his willingness to provide me opportunities that have shaped and honed my professional skills. A special thanks to my other committee members, Dr. Grayson Noley, Dr. Ginger Blalock, Dr. Joyce Brandes, and especially Dr. Maeghan Hennessey for her critical input into the survey tool and the analysis. Also, thank you to Linda Gill and Donna Willis who assured the ZC ship stayed afloat and kept business in order, as well as the editing and formatting assistance they provided. Thank you to Chauncey Goff, Vincent Harper, Laurie Sylvester, Penny Cantley, Chenya Juan, Cathy Witten, Brad Mays, Nidal El-Kazimi, and John Graham for your friendship. Thanks especially to those students who kept the bar high when heavy entropy forces continually pulled it down.

To my wife, without her support this short trip across the plains could not have been possible; I am forever thankful for your patience with the long hours of being away from home. Finally, I would like to acknowledge my parents, all three of them, who gave me the space and freedom to wander.

TABLE OF CONTENTS

Page

ACKNOWLEDGEMENTS……. iv

TABLE OF CONTENTS…… v

LIST OF TABLES…….. xi

ABSTRACT…… xii

CHAPTER ONE……. 1

Introduction……. 1

Transition Development and Accountability…..……. 2

Transition Research……. 2

Purpose of Study…..……. 5

Research Questions……...…….. 5

Specific Research Questions..……. 6

CHAPTER TWO……. 12

Review of Literature…….…... 12

Special Education History…….…... 12

Advocacy Influence……..……..…. 13

Judicial and Legislative Influence……..……..… 14

IEP Development……..... 17

Disability Evaluation……..…. 18

Segregated Settings…….. 18

Appropriate Education……..……... 19

Related Services……... 20

Emergence of Transition……..…… 21

Transition Research Influence……...……. 22

Transition IEP Usage Post 1990…….…… 23

Student and Family Involvement….…….. 26

IEP Purpose and Effectiveness……..……..... 26

IDEA 1997: Transition IEP…… 28

IDEA 1997: Academic Rigor…….……..... 30

IDEA 2004: The New member of the Team……... 30

Summary……. 32

Vocational Education Legislation 1862-1984..……..……. 33

Individual Rights…….……... 35

Transition Education Models……..…… 39

Will's Bridges Model……...……...……..... 39

Halpern's Pillars Model….…….. 40

Lifelong Career Development Model……..…… 40

The Vocational Transition Model…… 41

The Brown and Kayser Model……..…….. 42

Adaptability Instruction Model…….…….…. 42

Federal Funding and Legislation……..…….. 43

Federal Response to Outcomes…….. 43

Transition Post 1990…..……. 44

Current Transition Model……..…….. 45

Kohler's Transition Taxonomy……... 45

Student Development…...……... 46

Student Focused Planning…… 47

Interagency Collaboration……...……..... 48

Family Involvement…….……... 48

Program Structure……... 49

Student Outcomes…….…….. 51

National Longitudinal Study…….…….. 51

Transition Education…….…….. 51

Transition Focused Education Redefined…… 51

Federal Legislation Post 1997……..... 52

IDEA 1997…….. 52

Employment Related Legislation…… 53

No Child Left Behind…….. 54

IDEA 1004…….……. 55

Summary……. 56

Student Variables (1960s – 1970s)……..… 67

Focus on Vocational Training…….……..... 67

Student Variables in the 1980s……..... 69

Work Experience..……..…. 69

Student Variable (1990-2007) …… 71

Transition Education……..... 71

Self-Determination…….……..... 73

The Main Student Variable Over the Decades……..……..... 75

Paid Work Experience……. 75

Program Variables…….…….. 76

Work Experience and Vocational Education…….. 76

Transition Education and Quality Personnel..……. 77

Variable Relationship to Transition Education Practice…….……. 78

Vocational Education/Work Experience and Agency Collaboration…….. 79

Transition Education…….. 81

Self-Determination……..... 82

Family Involvement……..……..... 84

Quality Transition Staff……..... 84

National Perspective on Follow-up Data……. 86

Postsecondary Education Outcomes…...……... 86

Minority Postsecondary Outcomes…… 88

Indicator 13…….…… 89

Transition in the IEP……. 90

IDEA 1990: Transition Services…..…….. 91

Transition Planning Prior to IDEA 2004…….. 93

Transition Assessment……..…… 96

Transition Goal Development and Assessment use Post 2004…….. 96

Clarification Necessary……..…… 100

Conclusion……. 101

CHAPTER III: Methodology……. 103

Settings and Participants…….…….... 103

Dependent Variables…… 105

Design…..…….……..…... 107

Measurement Tool..……..……. 108

Procedure..……... 109

Independent Variables...…….…….. 111

Analysis……... 114

CHAPTER IV: Results…… 117

Survey Distribution and Response……..…….. 117

Educator Response……..……... 117

Review of Procedures…….. 118

Research Question One…….. 118

Transition Assessment…….….. 120

Self-Determination…….…… 120

Life-Skills……. 121

Vocational Education…… 121

Interagency Collaboration……. 121

Parent and Student Involvement…… 122

Research Questions Two through Five..…….. 123

Research Question Two.……. 124

Research Question Three……. 125

Research Question Four.……. 125

Research Question Five.…… 126

CHAPTER FIVE: Discussion ……. 128

Transition Components…….……...……...…… 130

Transition Assessment…….…...…….……... 132

Self-Determination Skills…….……..……..... 132

Life Skill Instruction……..……..….. 132

Vocational Education……..……... 132

Interagency Collaboration…..…..…….. 133

Parental and Student Involvement……. 134

Research Questions Two through Five…… 134

Vocational Education (VE)…….. 136

Transition Planning (TP)…….……. 137

Student and Family Involvement (SF)……. 139

Conclusion……..……. 141

Effect Size Implications...…… 141

Limitations…… 147

Future Research……...……. 148

Summary……..…… 149

REFERENCES……. 151

APPENDICES……. 174

Appendix A…….……. 174

Appendix B…….……. 176

Appendix C…….……. 181

Appendix D…….. 183

Appendix E…….. 185

LIST OF TABLES

Table		Page
1-1	Definitions of Variables……..	7
2-1	Legislative History of Special Education..…….	16
2-2	Comparison of Transition in IDEA 1990, 1997 & 2004…….	29
2-3	Vocational Education Legislative History...……	36
2-4	Follow-up Studies (Program/Student Variables)...……..…….	58
2-5	Clustered Student and Program Variables……..…….	85
3-1	Number of Districts Included in Survey with Participant Role Breakdown…	105
3-2	Independent Variables for Research Question #1……	112
3-3	Independent Variables for Research Questions 2, 3, 4, and 5.……	114
4-1	District Transition Program Components: Percentages for Grouped District Means, Median, and Standard Deviations represented for each of the Transition Components……	119
4-2	Estimated Student Performance and Ability Descriptive Statistics for Districts Combined……..	122
4-3	Results of Overall Multivariate Test Among Transition Education Variables	126
5-1	Transition Education Components That Had Meaningful Effect on Outcome Indicators…….	129
5-2	Transition Education Components That Had Small Effect on Outcome Indicators…….	130

ABSTRACT

This dissertation study investigated secondary transition programs throughout New Mexico in order to identify the extent of their services and research suggested best practices within high schools. Educators, including transition personnel, special education teachers, and special education coordinators, from around the state responded to a self-made survey based on transition education and program components. The purpose of this dissertation intended to find both the extent of services, and which of the transition education components most effected student postsecondary education and employment outcomes. The transition related State Performance Plan indicators (1, 2, 13, and 14) served as dependent variables for each of the school districts that responded. The survey consisted of two separate analyses. First, I calculated the extent of transition program components for each district to determine the service level reported by teachers. Second, I tallied the transition education variables that served as the study independent variables by district. I used these independent variables (3 total) in a Multivariate test against the dependent variables to determine overall effects. Results of the analysis show that transition programs that provide instruction and opportunities for students to choose their goals, express their opinions during the transition planning meeting, and provide instruction for vocational related education attain better postsecondary employment and education rates.

CHAPTER 1

INTRODUCTION

This dissertation used a survey and extant student outcome data from individual school districts transition programs to evaluate the extent of their instructional practices, and measure which practices effected specific outcomes. The extant data collected came from state performance reports on student outcomes, including graduation rates, dropout rates, transition planning, and student postsecondary outcomes one year out of high school. Transition planning for postsecondary settings for students with disabilities did not occur initially in the field of special education. Relevant transition education practices for students with disabilities began to evolve throughout the late 1970s and 1980s during the advent of special education. Special education began to explore the life-span for students with disabilities legislatively in 1983 with amendments to P.L. 98-199 (Will, 1984). During the 1980s, the field of special education experienced several follow-up studies that highlighted the dismal plight of students receiving special education services in that the quality of education did not address student postsecondary preparation adequately for successful transition (Edgar, 1975; Fardig, Algozzine, Schwartz, Hansel, & Westling, 1985; Halpern, 1990; Hasazi, Gordon & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985).

The area of transition evolved from early career placement to more sophisticated components that included instruction in self-determination, assessments, along with specific vocational training. When research reports demonstrated the poor student postsecondary employment outcomes (Roessler, Brolin, & Johnson, 1990), accountability measures followed from the federal government. Such accountability measures helped

formulate initiatives that focused on furthering successful transitioning for students with disabilities. The more development of the accountability measures, the more specifically defined the necessary transition components evolved. Not until the Individual Education Plan (IEP) reflected the transition focus post-1990 did federal and state guidance emphasize transition planning with specific requirements that addressed proof of school efforts within the IEP document.

Transition Development and Accountability

From the early transition models for transition planning in special education, preparation for postsecondary pursuits combined components into the education process that expanded beyond academia (Halpern, 1985; Will, 1984). Concepts of living and working environments were included for consideration for comprehensive transition planning and student preparation. Follow-up and follow-along studies demonstrated a low success rates for employment and financial earnings for students transitioning post formal high school education (Hasazi, Gordon & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985). With the advent of the Individual Transition Plan (ITP) into a student's planning process, student preparation for successful transitioning took a specific consideration for vocational components as IDEA 1990 strengthened the transition requirements for schools (Repetto, White & Snauwaert, 1990).

Transition Research

Transition research shed light on the effectiveness of program development for transition plan components (Benz & Halpern, 1993; Cobb & Hasazi, 1988). Results suggested programs include components such as paid work experience and student participation in the planning process within students' educational experience. Other

results demonstrated low employment rates and low agency participation in the student planning process (Neubert, Tilson, & Ianacone, 1989; Roessler, Brolin, & Johnson, 1990). Benz and Halpern (1987) identified living circumstances of students in the postsecondary setting less than desired with the majority living at home with parents. Similar results formulated many of the current transition components instituted in the IDEA mandates of 2004 focusing on four major components encouraged in the current best practice for effective transition planning that include transition education, career technical education, interagency involvement, and work experience. These components are suggested by theoretical and conceptual studies in the field of transition education, yet the federal government authority of the Office of Special Education Programs (OSEP) summates these requirements through the Indicator 13 checklist. This checklist includes 20 Indicators for special education (see Appendix A).

Currently, federal and state accountability transition requirements focus on four indicators that highlight student outcomes and quality of school transition planning. Each school district in every state must report their graduation rate (Indicator 1), dropout rate (Indicator 2), quality of transition planning (Indicator 13), and student postsecondary outcomes (Indicator 14) for all students receiving special education services aged 16 years old and older. These accountability efforts, specifically Indicator 13, verifies the quality of transition planning for students of transition age, yet the Indicator 13 checklist used across the U.S. does not measure the extent of services provided to the individual students. Indicator 13 checklist merely measures how well school personnel fill out the transition IEP rather than help clarify the extent students receive actual services. An IEP

can reflect 100% compliance with the checklist components and yet the student may not receive instruction in research suggested transition components.

The transition components monitored in the Indicator 13 checklist for schools does not verify whether those components actually relate to current success for students in the secondary or postsecondary settings or to what extent students receive the specific services during their high school years. The six major areas of the Indicator 13 cover: (a) measurable postsecondary goals; (b) assessments results used to determine postsecondary goals; (c) annual transition plans; (d) transition services and linkages; (e) evidence that representatives of outside agency(ies) were invited to the IEP meeting; and (f) four-year course of study.

The ultimate goal of transition planning aims to provide the most appropriate preparation for students with disabilities to succeed in the postsecondary living, learning, and working settings. Some progress has occurred since 1990 with successful postsecondary pursuits by students with disabilities improving. The National Longitudinal Transition Study (NLTS) depicts massive gaps in achieving the goal of postsecondary preparation for students with disabilities. Only 6% of students with disabilities enrolled in postsecondary education. In contrast, almost 30% of regular education students enrolled in postsecondary education during the same period (Newman, 2005). The numbers for postsecondary employment indicated a marked improvement with 43% of students with disabilities working for pay. Even though past research demonstrates that schools can achieve high scores on the State Performance Indicators, the reflection of what the student actually receives during their daily educational program remains largely unknown. Several questions remain in the field that link the practices at

the school level from the perception of educators and those scores individual school districts report in correlation to student outcomes. In this case, student employment, education or training pursuits, and living circumstances reported to the state education reporting system. Thus far research results helped formulate the current transition requirements; however, no current indication of what program components exist as providing effectiveness for student postsecondary pursuits. Gaining educator perception of the extent of program components at the school level might reflect an additional and useful perspective on effective components for transition programs.

Purpose of Study

This study examined the extent that school transition program structure exists through educator perceptions and the student outcome data for each school New Mexico state. I used multivariate tests to measure the effects between each of the transition program components from educator responses and the extant database from the State Public Education Department for student outcome data (Indicators 1, 2, 13, & 14) in order to glean the most effective transition program components.

Research Questions

This study used the following five questions as guidance:

1. To what extent do respondents report that transition high school education programs include variables the transition literature identified as contributing to the postsecondary outcomes of students with disabilities?
2. Do high schools that include more transition education programs variables that associated with positive student postsecondary outcomes attain higher Indicator 13 scores?

3. Do high schools that include more transition education program variables associated with positive student postsecondary outcomes attain higher employment, further education, and other Indicator 14 postsecondary outcomes?
4. Do high schools that include more transition education programs variables associated with positive student postsecondary outcomes attain higher graduation Indicator 1 rates?
5. Do high schools that include more transition education program variables associated with positive student postsecondary outcomes attain lower dropout Indicator 2 rates?

Specific Research Questions

Transition Education

- To what extent do respondents report that high school transition education practices provide students with structured transition planning?
- To what extent do respondents report that high school transition programs conduct annual transition assessments to facilitate development transition goals for students with disabilities?
- To what extent do respondents report that high school transition programs provide life-skills instruction and community access for students with disabilities?
- To what extent do respondents report that high school transition programs provide self-determination skill instruction such as self-advocacy, decision-making, and setting goals?

Career Technical (Vocational) Education

- To what extent do respondents report that high school transition programs provide school-site career education opportunities for students with disabilities?

Work Experience

- To what extent do respondents report that transition programs provide student employment skill development, including paid employment opportunities?

Agency Collaboration

- To what extent do respondents report that high school transition programs involve community agencies in student IEP meetings to develop transition plans?

Personnel

- To what extent do respondents report that schools rate the persistence of special education transition staff to encourage students with disabilities?

Table 1-1

Definitions of Independent Variables

Variables	Definition	Source
Vocational or Career Tech Education (CTE)	Instruction focused on career competencies aimed at preparation for successful employment. Competencies can include vocation/career interest inventory, how to search for jobs, apply for jobs, follow the directions and work with co-workers, job shadowing, community job	Collet-Klingenberg, 1998

	placement, and soft skills (show up to work on time and conflict resolution). Vocational education refers to skills that focus on exposing students to work/career possibilities and teaching skills related to such outcomes	
	Employment skills instruction includes work-related behaviors, job seeking skills, occupation-specific vocational skill training.	Kohler, 1996
	Career preparatory experiences are designed to help young people prepare for success in postsecondary education, a career, and/or independent living.	National Alliance for Secondary Education and Transition (NASET)
Transition Focused Education/Planning	Practices that promote and facilitate normalization to postschool life. Instruction focused on life-skills, completing appropriate assessments related to developing transition goals (self-determination and adaptive behavior).	Kohler & Field, 2003
Self-Determination	Self-determination is a combination of skills, knowledge, and beliefs that enable a person to engage in goal directed, self-regulated, autonomous behavior. An understanding of ones strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults. (p. 2)	Division of Career Development and Transition, 1996

	Youth demonstrate the ability to make informed decisions for themselves.	NASET
Transition Assessment	Transition assessment is "…ongoing process of collecting data on the individual's needs, preferences, and interests as they relate to the demands of current and future working, educational, living, and personal and social environments. Assessment data serve as a common thread in the transition process and form the basis for defining goals and services to be included in the IEP.	Sitlington, Neubert, & Leconte, 1997, p. 70-71.
Interagency Collaboration	Entities outside of school institutions that partake, share, or assume responsibilities within the decision making and transition planning process for students with disabilities by linking community services to school practice and planning.	Collet-Klingenberg, 1998
	To include consumers, parents, service providers, and employers, formal interagency agreements, roles of providers clearly articulated, shared student information, single-case management system, and established methods of communication among service providers.	Kohler, 1996
Family Involvement	Includes parents/families exercise decision making and attendance at IEP meetings.	Kohler, 1996
	Family participation in promoting the social, emotional, physical, academic, and occupational growth in youth.	NASET

Quality Personnel	School staff actively cultivate, encourage, and welcome youth and family involvement.	Kohler, 1996
	Includes supportive staff as key to facilitating student achievement.	Collet-Klingenberg, 1998
	Refer to quality staff as having the quality of persistence when dealing with students with disabilities.	Benz et al., 2000
	Refer to quality staff as those who encourage individual students during the education and planning process	Dunn et al., 2004
Life-Skills Instruction	Independent living pertains to the knowledge and skills such as budgeting, home management, and social skills	Halpern & Benz, 1987
	Includes the following components to encompass Life-skills Instruction: leisure, social, self-determination, goal-setting, decision making, independent living, learning strategies and self-advocacy skills.	Kohler, 1996
Indicator 1	Percent of youth with IEPs graduating from high school with a regular diploma compared to percent of all youth in the state with a regular diploma.	State Performance Plan
Indicator 2	Percent of youth with IEPs dropping out of high school compared to the percent of al youth in the state dropping out of high school.	State Performance Plan
Indicator 13	Percent of youth aged 15 and above with an IEP that includes coordinated, measurable, annual IEP goals and transition services that will reasonably enable the student to meet the post-secondary	State Performance Plan

	goals.	
Indicator 14	The percentage of youth who had IEPs, are no longer in secondary school and who have been competitively employed, enrolled in some type of postsecondary school or both within one year of leaving high school.	State Performance Plan

CHAPTER 2

Review of Literature

Special Education History

This review of special education history will not entail an in-depth history of the treatment of individuals with disabilities prior to the establishment of education rights, but rather will focus on the education and training aspects as it pertains to legislation, research, and the evolution of the IEP document and transition components. This paper will not discount the consideration of the detrimental experiences and treatment linked to those individuals with disabilities including undue euthanasia, abandonment, their forceful removal from society, and their discounted life worth from unlawful exclusionary human rights practices throughout history (Winzer, 1993).

Like Europe before it, attention to formal special education in the United States focused heavily on individuals with deafness and gaining functional skills to participate in society through effective communication (Winzer, 1993). Individuals with other disabilities did not receive such educational considerations until much later. Integration of schooling for all students quickly became segregated education for those students who did not learn well or perceived to not learn at all (Reddy, 1999). Not surprising from these early and inadequate attempts at educating students with disabilities, systemic awareness and changes in disability awareness and rights arose out of parent and professional advocacy groups.

The education for students with differences predates recorded time. Treatment practices and expectations of individual exceptionalities throughout history varied greatly from society to society. One of the first recorded instructional practices for individuals

with identifiable disabilities came from Pedro Ponce de Leon in 1578 in teaching deaf students the signs used by monks at the time in Spain (Winzer, 1993). Attention to formal education in Europe gained more prominence later the next century when Bonet expanded on the sign language usage in 1920 when he incorporated letters of the alphabet for teaching deaf mutes to speak (Peet, 1850). However, widely accepted origins of special education note the work of Jean Marc-Gaspard Itard (1775-1838) with Victor, the "Wild Boy of Aveyron" (Humphrey, 1932). The work with sensory handicaps existed more prominently in formal education with the work by Thomas Hopkins Gallaudet during the early 1800s, where teaching methods for word meaning with picture cues assisted individuals with severe hearing loss (Bowen, 1995). Previous work with deaf individuals in 1679 by Nelson proved unsuccessful due to a lack of a community who did not believe in miracles (Winzer, 1993). Education for more severe disabilities developed simultaneously with the work by Samuel Gridley Howe (1801-1876). Alexander Graham Bell helped coin the term special education when he used Montessori methods to train teachers who worked with deaf students in the late 1880s (Winzer, 1993).

Advocacy Influence

One of the first organizations remains the longest standing organization for special education, the Council for Exceptional Children, founded by Elizabeth Farrell in 1922 as an advocacy organization (Kokaska & Brolin, 1979). School systems began receiving attention and direction from outside advocates on how to educate students with disabilities and received little legislative guidance during the early years. In 1930 President Hoover addressed both therapeutic and educational needs for children with handicaps with the creation of the Children's Charter (Winzer, 1993). Following the lead

of professional advocacy groups, such influential groups as the National Association for Retarded Citizens (ARC) in 1950 formed to further advocate for the educational right of individuals with disabilities. It took the judgments of three prominent court cases to effect educational legislation (*Brown v. Board of Education, 1954; PARC v. Pennsylvania,* 1971; *Mills v. The District of Columbia, 1973).*

Judicial and Legislative Influence

The struggle for civil rights sought equal education for marginalized individuals, including those individuals with disabilities, and those realizations developed with the forced racial integration that arose out of the *Brown v. Board of Education* (1954) decision. Individuals with disabilities gained some access to public education through this ruling, yet history showed how integration did not reflect equal educational opportunity or instruction (McMillan & Reschly, 1998). Equal education as it became practiced for students of color did not reflect the necessary components of equal educational opportunities for students with disabilities. Four years later in 1958 the U.S. Congress passed Public Law 85-926 that supported teacher training for children with mental retardation, which stands as the first publicly funded program for special education teacher preparation. The Civil Rights Act of 1964 also provided strong backing for educational opportunities for individuals from marginalized backgrounds; however, the pedagogical practices of educating students did not change with the many issues of segregated instruction for students with disabilities (Stahlecker, 1964). Many students with disabilities suffered segregated settings beyond the educational setting alone. Education instruction practices of the time paid little attention to accommodations specific to ensure students with disabilities benefited academically.

Several pieces of legislation (refer to Table 1-1) touched on the need to allow access toward equal education for students with disabilities following the Civil Rights Act in 1965. The Elementary and Secondary Education Act of 1965 (ESEA) (P.L. 88-164 & P.L. 89-10) addressed the need for educational access. The amendments to this act (P.L. 89-313) also in 1965 provided money to state institutions for the education of students with disabilities. Three subsequent amendments (P.L. 89-750) established a federal grant program for students with disabilities for the school level and placed emphasis on establishing the Bureau of Education of the Handicapped, and P.L. 90-247 in 1968 expanded education to include special education services as well as actual instruction considerations. The last amendment to the Education of the Handicapped Act (EHA) established Title VI, the EHA of 1970 (P.L. 91-230) and provided funds to local education agencies. These educational amendments helped build a foundation for judicial redress upon the educational neglect occurring in schools for students with disabilities because schools remained largely unaware of how to serve students with disabilities. Interestingly, many of the litigation rights for non-discriminatory practices against individuals with disabilities derived from Section 504 of P.L. 93-112, the Rehabilitation Act (Martin, Martin, & Terman, 1996). Judicial proceedings that followed highlighted educational practices and the rights for students and parents for which schools and policy needed to follow.

The first judicial ruling specifically targeted at the mis-education of individuals with disabilities came with the *PARC v. Pennsylvania* (1971), which mandated that students with mental retardation be provided the opportunity to a free public education (343 F. Sup, 1257, E.D. PA, 1972). In 1973, *Mills v. The District of Columbia* extended

the educational rights to those students with emotional behavior problems and hyperactivity (*Mills v. Washington, D.C.,* 1972). With the successful defense of integrating students with disabilities into regular schools, many questions of services arose for districts across the country.

Table 2-1

Legislative History of Special Education

Year	Legislation
1965	The Elementary and Secondary Education Act of (ESEA) (P.L. 89-10)
1965	The Elementary and Secondary Education Act Amendments of (P.L. 89-313)
1966	The Elementary and Secondary Education Act Amendments of (P.L. 89-750)
1968	The Elementary and Secondary Education Act Amendments of (P.L. 90-247)
1970	The Elementary and Secondary Education Act Amendments of (P.L. 91-230)
1974	The Education Amendments (Education of the Handicapped Act) (P.L. 93-280)
1975	The Education for All Handicapped Children Act (P.L. 94-142)
1983	The Education of the Handicapped Act Amendments (P.L. 98-199)
1986	The Education of the Handicapped Act Amendments (P.L. 99-457)
1990	The Education of the Handicapped Act Amendments of (Individuals with Disabilities Education Act (P.L. 101-476)
1992	The IDEA Amendments of (P.L. 102-119)
1997	The IDEA Amendments of (Reauthorized IDEA) (P.L. 105-17)

2001	No Child Left Behind Act (P.L. 107-110)
2004	The Individuals with Disabilities Education Improvement Act (P.L. 108-446)

Source: Test, D. W., Aspel, N. P. & Everson, J. M. Transition methods for youth with disabilities, (Eds), 2006, Pearson Prentice Hall.

IEP Development

Gallagher (1972), inspired by the lack of educational focus for individuals with mild retardation, pushed for a formal contract between families of students and the school for the delivery of education with specific goals and objectives. Gallagher wanted these contracts designed for renewal every few years in hopes of improving yearly progress for students who had been segregated and largely ignored throughout their schooling due to their perceived inability to learn (Gallagher, 1972; Turnbull et al., 2002). This document would serve as an educational framework and safeguard for students with disabilities.

In 1975 the first major legislative action reflected this contract concept in the form of the Individualized Education Program with the Educational of All Handicapped Children Act (EAHCA) (P.L. 94-142). This Act mandated a free appropriate public education for all students with disabilities and established due process rights, use of IEPs, and educational service delivery in the least restrictive environment (Martin, Martin, & Terman, 1986). The conceptualization of the IEP as a document formulated a vision of a student's yearly education plan where all team members collaborated equally to provide input from varying perspectives (Roger, 1995). These new guidelines outlined drastic practice changes for schools nationwide in the development and delivery of program services and training (Hudson, Graham, & Warner, 1979).

Disability Evaluation

Educational pedagogy encountered a steep learning curve with the new mandates for service delivery beginning with identification of disability and the modified instruction required for students with disabilities under the new law. School districts faced difficult challenges and considerations with evaluation, eligibility determination, the interpretation of free appropriate public education, least restrictive environment, and protocol interpretations for procedural safeguards. The authorization of P.L. 94-142 in 1975 did not resolve educational malpractice incidents for students with disabilities. However, the new law did provide guidance for improving procedures of the education process. The growing challenges of the new special education system of evaluation upon discrepancy models of performance IQ and functional IQ left many school districts to misdiagnose students with and without disabilities. Overrepresentation for students of color in California (Flaugher, 1978) led to the *Larry P. v. Riles* (1979) case where the misclassification of disproportionate numbers of Black students led to educational placements for students with mild mental retardation (Prasse & Reschly, 1986). Through this judicial hearing, school practices, policies, and procedures for special education contributed to segregation upon a racial basis and not solely on academic merit as suggested by the test results administered by the schools for disability identification.

Segregated Settings

Several issues with the new legal mandates directly affected both teachers and students within the process of evaluating and labeling a student with a disability. Implementing the new mandates ultimately lead to school based difficulties with regards to service delivery for mainstreaming and inclusion models of instruction (Coleman,

1983; Fogel & Nelson, 1980). Bak, Cooper, Dobroth, and Siperstein (1987) examined regular education student peer expectations of their counterparts with disabilities in the special education class setting. They found that students held less expectation for segregated students than for their peers in the mainstream setting. The willingness of regular education teachers came into question with the new mainstreaming models (Gans, 1987). Mainstream instructional models challenged many regular education teacher preparation programs at the time, thus resulting in educator resistance to integration for students with disabilities (Hudson, Graham & Warner, 1979; Stephens & Braun, 1980).

Appropriate Education

Defining the legal intention of "appropriate" education proved difficult for special education practice in schools. In *Board v. Rowley* (1982), the U.S. Supreme Court helped define "appropriate" in terms of student-centered consideration. The EAHCA defined free appropriate public education with four components: (a) provided at public expense; (b) meets standards of the state education agency; (c) included preschool, elementary, and secondary school education and, (d) provided in conformity with IEP requirements and regulations (Turnbull, 1986). The *Rowley* case informed schools that services identified on the IEP needed to assist students with disabilities with the access to comparable educational opportunities as to their non-disabled peers. In this case, the U.S. Supreme Court ruled the deaf interpreter was not required on the grounds that the student did achieve grade-to-grade progress, thus achieved a comparable education and not necessarily the best education available (Turnbull, 1986). The interpretation of the law held the school provided the student an appropriate education.

Related Services

School districts also struggled with interpreting and providing related services to students with disabilities. Once again the judicial rulings helped clear confusion on such issues. In 1984 *Tatro v. State of Texas*, the U.S. Supreme Court ruled that related services also included minor medical procedures on the basis that such procedures enabled the student to gain benefit and access to education. This decision helped outline two distinct issues in the IEP development. First, it allowed judicial review of the appropriateness of the IEP rather than simply adhering to the EAHCA procedural safeguards. Second, it broadened the educational services provided to allow students with disabilities to gain access to education (Vitello, 1986). The IEP reflected a range of ancillary education service needs for students including speech and language, counseling, mobility training, assistive communication, and other multidisciplinary services allowing students to gain access to education (Gans, 1987).

Through such rulings the intent of the EAHCA became clearer for schools as well as for the merit of professional judgment. The field adjusted through teacher training for special educators, which focused on learning and following the law, delivering individualized instruction, evaluating students' educational placement, and developing and following the IEP. The IEP included student goals and objectives, educational assessment results, and students' progress. Through the development of the IEP over the years, assessment results and instruction began to align more cohesively (Skrtic, Harris, & Shriner, 2005).

Emergence of Transition

Until the passing of the EAHCA Amendments of 1983 (P.L. 98-199) the IEP process remained absent of one of the most important goals of education-postsecondary outcomes. The 1983 amendments included the first wording of preparing students with disabilities for life after formal education. Funding from the U.S. Office of Special Education and Rehabilitation Services (OSERS) toward life-span research for students with disabilities and their family supports exploded with the new legislative emphasis (Will, 1984).

The purpose of special education began to consider a wider range of environments and the necessary linkages for student preparation for their inevitable transition into adult life. The EAHCA Amendments of 1983 included wording that involved early intervention, family input, as well as school-to-work transition (P.L. 98-199). The new law awarded funding to demonstration projects for exploring effective ways to prepare students with disabilities for successful adult lives in the postsecondary setting (Rusch, Kohler, & Hughes, 1992). A significant advancement embedded in the 1983 EAHCA Amendment helped facilitate the preparation of students' transition into adulthood. Initially, transition consisted as functional skill attainment for vocational pursuits (Will, 1984). Much of the focus around the preparation for transition education did not include strong planning components, but rather narrowed the focus to job placement and job coaching (Goodall, Wehman, & Cleveland, 1983; Halpern, 1985). To comply with the working document of the IEP, teams needed to specify goals and the objectives for ensuring students achieve progress toward the goals, so any steps toward preparing students to learn work readiness skills sufficed the mandated requirements. The practice

models suggested in the literature for postsecondary preparation grew from solely a career preparation model (Will, 1984) to slightly more advanced and inclusive models involving supportive systems to assist students in gaining and maintaining a full adult life (Brolin, 1978; Brown & Kayser, 1982; Halpern, 1985; Wehman, Kregel, & Barcus, 1985).

Transition Research Influence

Follow-up studies during the 1980s highlighted the dismal employment outcomes and poor postsecondary education success of students with disabilities (Edgar, 1975; Fardig, Algozzine, Schwartz, Hansel, & Westling, 1985; Halpern, 1990; Hasazi, Gordon & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985). The research agenda targeted by the research branch of the Council for Exceptional Children (CEC) in the mid-1970s focused on the gaps unknown to the field regarding transition preparation and outcomes for students (Bassett, Patton, White, Blalock, & Smith, 1997). By 1976 the CEC established a new division focused on career and transition education, named the Division for Career Development (D'Alonzo, 1996). The initial focus of the Division for Career Development centered on career education and expanded from earlier career placement and work-study programs (Halpern, 1994; Wehman, Kregel, & Barcus, 1985). This change died quickly due to federal attention by the OSERS, which helped define transition as it became reflected in IDEA 1990 (P.L. 101-476). The education preparation for students with disabilities became outcome oriented in a process leading to employment (Halpern, 1994). The legal emphasis still remained on employment as the desired outcome, yet the legislative guidance urged a more comprehensive planning process.

Based on student outcome reports (Hazazi, Gordon, & Roe, 1985a; Liebert, Lutsky, & Gottlieb, 1990; Rusch & Phelps, 1987; Shalock, Wolzen, Ross, Elliot, Werbell, & Peterson, 1986), professional personnel feedback, and other research findings (Wehman et al., 1982), the reauthorization of the EAHCA 1990 strengthened the mandates for transition services under the new name of the Individuals with Disabilities Education Act (IDEA) Amendments of 1990 (P.L. 101-476). IDEA responded to the literature findings as well as many of the conceptual models of transition service delivery from both Will (1984) and Halpern (1985).

Besides the obvious emphasis on new planning components included in the educational process for students with disabilities, the new IDEA also addressed additional IEP document considerations. The status of students themselves became valued in the IEP process through required invitation to the meeting as well as inclusion of their preferences and interests in the planning process (Sitlington & Clark, 2006). This served as a drastic change in both thought and practice in the planning process.

Transition IEP Usage Post-1990

The IDEA of 1990 created more questions than answers for the field, particularly regarding how to implement the new transition mandates. Some states suggested the development of the Individual Transition Plan (ITP) as part of the IEP (Repetto, White, & Snauwaert, 1990). Their results of a nationwide examination of various implementation plans provided valuable insight to the consideration of overall transition planning that many states excluded from their IEP meetings. Only 14 of the 46 states reported using specific transition planning forms (Repetto et al., 1990). Research demonstrated the effectiveness of various guidelines in which to follow for program development in terms

of transition plan components (Benz & Halpern, 1993). For example, Cobb and Hasazi (1988) suggested schools offer instruction in vocational classes with paid work experience and student participation during high school in the transition planning process. The final and most distinct change to the IEP transition process included the addition of student and family input within the planning itself. The IEP document reflected such changes with the additional statement to include: a statement of needed transition services for students beginning no later than age 16 and annually thereafter (and, when determined appropriate) including a statement of the interagency responsibilities or linkages (or both) before the student leaves the school setting (20 U.S.C. 1401 (2)).

This structural improvement in planning procedure increased the responsibility for the multidisciplinary IEP teams to collaborate with set timelines and objectives to achieve goals through a series of logical steps. First, the initial intent of the IEP document to state annual goals with team member responsibilities stated became strengthened by adding short-term objectives, present levels of performance, and projected dates of initiation and duration of services under P.L. 101-476 (Turnbull et al., 1990). The new structure of the IEP helped schools serve students and limited their ability to mis-serve students through a series of small checks and balances. Through the new IEP structure, school personnel, parents, and students could mark progress through quality monitoring according to these new components. However, the transition program development for schools remained slow due to the lack of training and service delivery procedures for such interagency transition planning (Liebert et al., 1990; McAfee & Greenawalt, 2001; Roessler, Brolin, & Johnson, 1990).

The new transition components of the IEP reflected suggestions by research, particularly follow-up research of students in their postsecondary settings (Roessler & Bolton, 1985). Student outcomes one year out of high school showed lagged employment performance with only 40%-50% holding a job 12 months after high school (Roessler et al., 1990). Even more telling of the lapse in transition service delivery prior to the new IDEA 1990 transition focus was the lack of interagency collaboration with only 30%-40% of students receiving services from outside agencies after leaving high school. The new transition components attempted to alleviate such lack of congruence between graduation and working by including the emphasis on stating responsibility and encouraging agency identification (Neubert, Tilson, & Ianacone, 1989). The interpretation of employment data for individuals with disabilities discounted the number of underemployed and those individuals' not meeting minimum wage standards (Edgar, 1987; Hippolitus, 1980).

The more telling indication of student adaptation into the postsecondary environment encompassed the total student including home, training environments, as well as mastering functional living skills. Benz and Halpern (1987) found the majority of students lived at home with their parents after high school and experienced difficulties in both daily living skills and personal/social competencies. These student outcome results helped shape a fuller educational curriculum requirement for special education, one that leaned away from traditional academics to a more mixed curriculum in preparing students with disabilities for postsecondary settings. The IEP development did not exist in a closed framework of solely educators, it also mandated the input and involvement of families as well.

Student and Family Involvement

The field began to understand that building student characteristics meant as much to future success as fulfilling compliance of the transition planning portions of the IEP document (Gerber, Ginsberg & Reiff, 1992). Student input began to take hold of the focus, which helped the field increase students' capacities to make decisions themselves (Martin, Huber Marshall, & Maxson, 1993). The courts also reflected the importance of student participation. In essence, the need for better transition began, in part, with student focused planning. In the case of *Caribou School Department* (2001) the school did not adequately involve the student in their transition planning process. Two main issues arose out of this case. First, student involvement meant more than merely being present at the IEP meeting and signing the document. Second, transition plans needed to reflect more than reaching the goal of graduation (Etscheidt, 2006). The growth in the IEP document began to reflect and redefine the purpose of the IEP in that student input became a new foundation for transition and education planning.

IEP Purpose and Effectiveness: Self-Determination

The movement toward student-centered planning began well before 1990 when student outcomes demonstrated the poor preparation with the existing transition services and the planning process that did not include meaningful student involvement (Vacc, Vallecorsa, Parker, Bonner, Lester, & Richardson, et al., 1985). Existing models of transition (Halpern, 1985; Will, 1984) focused more on efforts to build structures around the student such as community supports and vocational training, which treated students as reactors in their lives rather than full participants who determined their own outcomes. The outcomes data suggest that solely providing an education in an inclusive setting does

not equate to better student outcomes (Edgar, 1987; Hazazi, Gordon, & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985). Thus, the purpose of both special education and the IEP document came into question (Lee-Tarver, 2006).

Many of the existing transition preparation models did not specifically address the student characteristics that helped them seek interests, plan, advocate, and maintain their own goals themselves until the mid-1990s (Van Reusen & Bos, 1994). This shift in student consideration encompassed changing educator and student perceptions of what capabilities students with disabilities could attain. A student's level of self-determination linked strongly to a successful student outcome (Wehmeyer & Schwartz, 1997). Such research findings became the theoretical underpinnings of self-determination. The Office of Special Education and Rehabilitative Services explored these concepts with their self-determination initiative (Ward, 2006). The field began to make strong links between the level student self-determination and their capacity to set goals, plan and self-advocate for themselves in the postsecondary environment (Rasking, Goldberg, Higgins, & Herman, 2002). The Department of Education Office of Special Education Programs (OSEP) recognized these characteristics and funded several major projects to teach self-determination to students with disabilities (Ward, 2005).

By 1997 the field understood and better defined self-determination in terms of student characteristics and skills, as well as its relationship to better outcomes through more comprehensive and systemic planning (Field & Hoffman, 1994; Martin et al., 1993). The premise of the self-determination constructs for special education planning encompassed self-knowledge, assessing, planning or goal setting, self-advocacy, evaluating, and adjustment (Field & Hoffman, 1994; Martin & Huber Marshall, 1998;

Serna & Lau Smith, 1995; Wehmeyer, Agran, & Hughes, 1998). With the encouragement of research and professional organizations like the DCDT, legislation reflected research through the reauthorization of IDEA 1997 (P.L. 105-17) through early student involvement in the IEP planning process, goals and objectives, and transition services (Martin & Huber Marshall, 1995; Van Reusen & Bos, 1994; Wehmeyer, 1992).

IDEA 1997: Transition IEP

IDEA 1997 contained several key modifications to the transition focus of the IEP document itself in that the transition components extended to earlier planning with more specification of existing planning components. For example, the vague requirement included in IDEA 1990 (P.L. 101-476) "statement of needed transition services" changed (see Table 2-2).

These new transition mandates changed the IEP document, in theory, to reflect the increased emphasis on students' preparation for postsecondary pursuits. Another significant change encompassed the starting point of such transition planning. The IDEA 1997 mandated that transition planning begin no later than age 14, a whole two years earlier than the mandate of IDEA 1990. Work from the early planning models that included the entire life-span of the student helped encourage such changes (Blalock & Patton, 1996).

The new mandates placed more accountability measures on the school with regards to the IEP responsibilities and the services provided to students. Clearly, the intent of the new law encouraged the field to use the transition plan as the foundation for the IEP document. As indicated in the IDEA (1997), the evaluation of student preferences and strengths needed to drive the goals and plans, which ultimately lead to the formation

of the student's course of study. Therefore, the new law required schools to design the program of service needs to drive the classes provided to the student for the preparation of their postsecondary pursuits. The IDEA 1997 provided an avenue to strengthened the linkage and cohesiveness from middle to high school planning due to the age change from 16 years old to 14 years old due to research suggesting that age 16 was too late for effective planning (Moore, Agran, & McSweyn, 1990).

Table 2-2

Comparison of Transition in IDEA 1990, 1997, & 2004

Legislation	Definition
IDEA 1990 (P.L. 101-475)	Transition services means a coordinated set of activities for a student that 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 an adult education, adult services, independent living, or community participation. (A) based on the student's needs, taking into account the student's preferences and interests, and shall include (i) instruction, (ii) community experiences, (iii) the development of employment and other post-school objectives, and (iv) when appropriate, acquisition of daily living skills and functional vocational evaluation (20 U.S.C 1401 (19)).
IDEA 1997 (P.L 105-17)	Transition services means 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 post-school 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 student's needs, taking into account the student's preferences and interests;

	(C) Includes instruction, related services, community experiences, the development of employment and other post-school objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation (Section 602)
IDEA 2004 (P.L. 101-110)	Transition services means a coordinated set of activities for a child with a disability that (A) is designed to be within a results-oriented process, that is focused on improving the academic and functional achievement of a child with a disability to facilitate the child's movement from school to post-school activities, including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation; (B) is based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and (C) includes instruction, related services, community experiences, the development of employment and other post-school objectives, and, when appropriate, acquisition of daily living skills and functional vocational evaluation (Section 602)

IDEA 1997: Academic Rigor

The 1997 reauthorization stipulated greater access to the general curriculum with the inclusion of statewide assessments and accountability measures (Flexer et al., 2005). Remediation models of instruction and the increased emphasis on dual or team teaching between special and regular education teachers became elevated in order to provide more rigorous academics for students with disabilities. In 1998 three new vocational supports passed that reaffirmed a more rigorous academic focus.

IDEA 2004: The New Member of the Team

During the eight years between 1997 and the initiation of IDEA 2004, school transition programs became keenly aware of the many pitfalls of inadequate planning. From providing outside services to involving students and families in the transition planning process, judicial rulings and poor student outcomes persisted, which helped revamp the reauthorization of the IDEA (Etscheidt, 2006). Several court cases lead to increased awareness of linking outside services and sharing service delivery responsibilities. In *San Francisco Unified School District and San Francisco Community Mental Health* (1998) the hearing officer ruled the school did not provide adequate transition services. The school stated the student would search for colleges, yet did not provide a plan for achieving a desired outcome that benefited the student (Etscheidt, 2006). The role of the student and their increased perception on their capabilities increased dramatically. Such judicial rulings clarified the concept of a student's meaningful participation in their transition planning process.

Some schools received expensive learning lessons through not adhering to the new transition planning mandates. Such offenses included not inviting students to the IEP meeting (*Caribou School Department, 2001*), or not including them in the assessment of preferences and strengths (*Sheridan School District, 1999*). IDEA (1997) required transition plans based on individualized assessments, yet many schools did not understand what those mandates entailed. In *East Penn School District v. Scott B.* (1999), the school did not provide an evaluation for transition planning resulting in 608 hours of compensatory education (Etscheidt, 2006). Compensatory education meant postsecondary training or education that assists in preparing a student to reach their goals.

Schools began to realize that evaluation and planning required individualized assessments based on student needs and preferences for their postsecondary goals.

Transition research findings suggested improved practices for schools in terms of collaboration (Kohler, 1998), evaluation (Grigal, Test, Beattie, & Wood, 1997), and student and family involvement in their transition planning process (Martin & Huber Marshall, 1995; Van Reusen & Bos, 1994; Wehmeyer, 1992). Based on these recommended practices as well as the judicial decisions, the IDEA 2004 reflected many of the recommendations in terms of the transition planning process and service delivery that schools and inter-agencies needed to comply.

Summary

In theory, the evolution of special education and the development of the IEP document experienced great strides in serving students with disabilities as shown through legislation, judicial rulings, and theoretical practices. The system and intent of the law reflects research findings and judicial rulings into the legislative mandates for schools to adhere. The IEP document grew from a suggested procedure and moved toward a process focused on student outcomes and quality preparation. The IEP document became more inclusive to reflect a true multidisciplinary team approach that established an outcome-oriented process of planning with multiple inputs. As special education and transition practice manifested, the role of vocational legislation and its impact on the growth of transition compliment each other. The next section addresses this unique relationship.

Transition education formed out of a long history beginning with the need for vocational training, the emergence of individual rights regarding individuals with disabilities, and research findings that increased the consciousness of more federal

legislation to address the growing and evolving need to adequately serve and prepare students for successful postsecondary pursuits. No one of these influences consistently lead the other, but rather they each played a role in influencing the other to form the mandates that schools adhere to today.

Vocational-Education Legislation 1862-1984

The evolutionary path of vocational education holds an intertwined relationship with the federal legislation. Through this unique relationship, the advent of transition services emerged based on research findings and later reflected in legislative mandates for schools and states to follow. As the industrial age developed, the attention the education field gave to the training of students in vocational education increased. The attention to allocation of funding became strengthened with the Commission on National Aid to Vocational Education in 1914 to assist with the growing need for workers in the industrial sector of society (Mobley, 1964). This commission later developed the Smith-Hughes Act of 1917 (P.L. 64-347) that formally funded pre-college vocational education. Two additional Smith Acts followed for veterans with the latter extending the definition of war veterans with disabilities to civilians with disabilities (Flexer, Simmons, Luft, & Baer, 2005, p. 24).

Federal legislation did not initially direct its attention toward individuals with disabilities. Instead the focus on individuals with disabilities arose out of need for rehabilitating returning WWI war veterans in 1918. The Vocational Rehabilitation Act (Will, 1984) provided vocational training accessibility for veterans with a variety of physical disabilities including blindness. Vocational training for future employment remained prominent throughout the 1920s and 1930s with the Civilian Conservation

Corps, which focused heavily on the unemployment challenges of the U.S. economic depression (see Table 2-1). The George-Deen Act of 1936 and its preceding George-Barden Act of 1946 substantially increased funding to 29 million dollars for vocational-related education (Mobley, 1964). However, in 1943 the Barden-LaFollete Act (P.L. 77-113) specifically included vocational rehabilitation for all civilians, including those with physical and mental disabilities (Flexer, 2005). This Act initiated a major shift toward the consideration of individuals with disabilities.

In 1943 The Vocational Rehabilitation Act (P.L. 83-565) amendments provided the first proactive federal legislative attention toward individuals with cognitive disabilities. It specifically focused on employment for those individuals with mental retardation (Will, 1984). In 1954 amendments to P.L. 83-565 followed expanding research and training funding. By 1963 the Vocational Education Act (P.L. 88-210) implemented education components into vocational training, which helped to introduce additional services for individuals with disabilities. That same year the Mental Retardation and Facilities and Construction Act (P.L. 88-164) allowed individuals with mental retardation to receive funding attention that helped create community-based programs. This Act served as a first for enabling access to the community for vocational and life-skill learning for individuals with mental retardation. Integration into the community and educational environments occurred simultaneously with the struggle for acceptance of both differences of race and disability in U.S. during the middle and late 1960s.

Individual Rights

The struggle for civil rights sought for equal education for marginalized individuals, including those individuals with disabilities. Those realizations developed with the passage of the 1964 Civil Rights Act. However, equal education as it became practiced for students of color in non-segregated settings did not reflect the necessary components of equal educational opportunities for students with disabilities. In 1966 the government began to address the need for education services for individuals with disabilities by passing the Elementary and Secondary Education Act Amendments (P.L. 89-750), which provided for the creation of the federal Bureau of Education of the Handicapped. In 1973 the Rehabilitation Act of 1973 (PL 93-112) established comprehensive legislation for the development of education for individuals with disabilities with much of the focus for desired outcomes aimed for individuals to attain and maintain employment skills. A significant addition to this Act (Sect. 504) focused on facilitating the training and hiring of individuals with disabilities through mandates for employers discrimination practices based on disability. This section of the American Disabilities Act stood as a landmark piece of legal recourse for individuals with disabilities to attain and maintain viable employment. Also in 1973, the federal Comprehensive Employment and Training Act (CETA; P.L. 93-203) passed with the hopes of supporting the vocational training efforts.

Through this lineage, the law provided training and education options within community and school settings to prepare individuals for adult transitions. The field of special education and transition to this point played a major role in influencing these measures. Follow-up studies provided ample information to many components missing

with transition preparation (Brolin, 1978; Dinger 1961). Congress recognized that funding teacher training and separate vocational training left little accountability to ensuring successful transitions for students with disabilities. Finally, in 1975, Public Law 94-142, the Education of All Handicapped Children Act (EAHCA) secured the rights to academic education for individuals with disabilities (see Table 2-3 for full listing of vocational legislation).

Table 2-3

Vocational Education Legislative History

Year	Legislative Act
1914	Commission on National Aid to Vocational Education
1918	Smith-Sears Act (P.L. 65-178)
1936	George-Deen Act
1943	Barden-LaFollette Act (P.L. 77-113)
1943	George-Barden Act
1954	Vocational Rehabilitation Amendments
1963	Mental Retardation and Facilities and Construction Act (P.L. 88-164)
1963	Vocational Education Act (P.L. 88-210)
1967	Vocational Education Amendments (P.L. 90-99)
1968	Vocational Rehabilitation Amendments (P.L. 90-391)
1968	Vocational Education Amendments (P.L. 90-576)
1973	Rehabilitation Act (P.L. 93-112)

1973	Comprehensive Employment and Training Act (P.L. 93-203)
1976	Vocational Education Amendments (P.L. 88-210)
1982	Job Training Partnership Act (P.L. 97-300)
1984	Carl D. Perkins Vocational and Technical Act (P.L. 98-210)
1988	Technology-related Assistance for Individuals with Disabilities Act (P.L. 100-407)
1990	American with Disabilities Act (P.L. 101-336)
1992	Rehabilitation Act Amendments (P.L. 102-569)
1993	Job Training Reform Act (P.L. 102-367)
1994	National Service Trust Act (P.L. 103-82)
1994	School-to-Work Opportunities Act (P.L. 103-239)
1995	Workforce Development Act (P.L. 104-487)
1998	Workforce Investment Act (P.L. 105-220)
1999	Ticket to Work and Work Incentives Improvement Act (P.L. 106-170)
2004	Technology-related Assistance for Individuals with Disabilities Act Reauthorization

Source: Adapted from *Beyond high school: Preparing Adolescents for tomorrow's challenges,* Rusch, F. R. (2nd Eds), 2008, Pearson Prentice Hall; *Transition planning for secondary students with disabilities,* Flexer, R. W., Simmons, T. J., Luft, P., Baer, R. M. (2nd Eds), Pearson Prentice Hall.

The EAHCA (P.L. 94-142) stipulated that schools evaluate and create educational plans for students with disabilities. The Vocational Education Act of 1976 (P.L. 94-482)

placed the intent of increased funding for linking vocational and education programs together. The 1983 amendment of the Education of the Handicapped Act (EHA) provided legislation specifically focused on students with disabilities to gain access to public schools for the opportunity of a "free and appropriate education." The EHA specifically prioritized initiatives toward coordinated education and support services for students with disabilities with the goal of employment and independent living (Will, 1984). In order for states to receive federal funding for education, the EHA also mandated the assurance for students with disabilities to gain access to appropriate education. The initial provision directed schools to serve students with disabilities with similar education practices as their non-disabled peers. Yet, this goal remained largely absent of transition terms until the 1977 amendments that followed years later. As history illustrates, these initial legislative acts provided accessible opportunity for students with disabilities to gain an education, but essentially left many students with disabilities unprepared for postsecondary endeavors despite direct funding toward vocational education with the passing of the Carl D. Perkins Vocational Education Act of 1984.

The Carl D. Perkins Vocational Education Act of 1984 supported vocational education programs by mandating access for students with disabilities. This Act also encouraged interagency collaboration that helped facilitate the achievement of the IEP goals for students with disabilities (Sitlington & Clark, 2006). As shown from the follow-up studies, lack of interagency collaboration weakened the vocational prospects for students transitioning out of high school. In 1984 Madeline Will, the Secretary of Education, proposed a transition service delivery model for schools and vocational programs for students transitioning out of secondary school (Will, 1984). Existing

practices for transition planning processes in secondary education lacked important components allowing for the facilitation of successful student transitions (Halpern, 1985).

Transition Education Models

Will's Bridges Model

In 1984, Will urged systemic reform and pointed out several barriers that needed remedied in order to overcome the poor student outcomes, including those of accessibility to society, education, and collaboration and communication among all parties involved in the planning process (1984).

The foundation for Will's (1984) model premised that all students should take an independent part in society to lead productive lives. Will took advantage of the new legislation granting and supporting access to vocational training and developed a mode that identified three paths linking school to work outcomes with varying levels of support. The first "bridge" indicated no special services for students primarily with very mild disabilities. The second "bridge" indicated time-limited services for students who needed to link with jobs and minimal training assistance to begin. The third "bridge" indicated ongoing services for students who needed assistance throughout their employment and training.

As with many of the legislative initiatives, Will's model pertained to the structure of interagency collaboration rather than the process of supports and identification of needs for students with disabilities with the sole focus of employment as an outcome. This model existed as one of the first to address links between general and special education, outside agencies, and different government agencies (Will, 1984). The idea behind the legislative push consisted of a supportive structure to assist students and

outside agencies to provide planning components for training that lead to successful postsecondary outcomes. Historically, Dinger (1961) proposed the need for interagency links and more vocational focus in the 1950s during his work with follow-up studies of students with mental retardation. Therefore, approximately 20-30 years lapsed between the perceived need from research and the federal legislative response.

Halpern's Pillars Model

In examining Will's "Bridges" model, Halpern (1985) noticed the insufficient supports and range of postsecondary outcomes, and developed the Halpern "Pillars" model with a wider range of student outcome options. The three pillars included residential environment, employment, and social and interpersonal networks as outcomes under the umbrella of "community adjustment." Thus, Halpern advanced the scope of transition toward more comprehensive and well-rounded focus on the supports for successful student outcomes. The Pillars model still used, but renamed, "no services" to "generic services." The range of the three levels of services provided from high school to community. This theoretical framework of the essential components of transition helped guide the IDEA 1990 conception of transition services (i.e., living, learning, working goals).

Lifelong Career Development Model

Brolin (1973) developed the Lifelong Career Development Model based on the larger competency-based Life-centered Career Education Curriculum (Brolin 1978). One of the most comprehensive models of its time, this model included competencies that covered daily living skills, personal-social skills, and occupational guidance and preparation areas. These competencies infused a career education path that remains a

suggested practice in teaching career vocational competencies and activities for students transitioning into work environments. The four paths include: (a) awareness; (b) exploration; (c) preparation; and (d) placement and follow-up. From early research follow-up studies (Brolin 1975; Dinger, 1961) the student outcomes and their weaknesses in the transition process existed within the lack of preparation and the follow-up support during the employment; therefore, this model specifically addressed both components (Gajar, Goodman, & McAfee, 1993).

The Vocational Transition Model

With support from follow-up study results indicating students with disabilities gained employment at higher rates if they received job placement and training during school (Wehman, Kregel, & Seyfarth, 1985), the Vocational Transition Model proposed career training and placement throughout the educational career of students with disabilities (Wehman, Kregel, & Barcus, 1985). This model emphasized many of the best practices for service delivery in the transition field, particularly with regards to family involvement, multidisciplinary services, and quality planning linking school activities with community competencies. Still, much of the focus viewed the ideal end result within vocational outcomes. This model initiated the basic steps of effective planning, with school instruction, transition planning, and then job placement. Embedded in the structure existed the influence of collaboration with other services outside of school, and family involvement, which remain a deeply rooted intent of current transition programs. Interestingly, this model also urged schools to provide follow-up with students in order to determine missing links in service delivery and student outcomes for program development (Wehman, et al., 1985). Such evaluation structure of a program resembles

the federal indicator checklists that mandate schools to follow-up with students one year after graduation.

The Brown and Kayser Model

The Brown and Kayser model further individualized transition services to meet the specific needs of the student, which differed from other models, Halpern and Will's, that homogenized service delivery toward postschool adjustment (Brown & Kayser, 1982 as cited in Gajar et al., 1993). This model introduced student assessments in order to help individualize the match between student strengths and the vocational postsecondary environment. Brown and Kayser (1982) combined evaluation, training, and placement with ongoing supports within the vocational setting. This model helped introduce the use and increased utilization of student assessments and their importance for individualizing postsecondary placement. The increased use and emphasis on student assessments for individualized transition planning made its way to IDEA legislation in 1990, eight years after this model.

Adaptability Instruction Model

Mithaug, Martin, and Agran (1987) approached transition planning from an angle of instruction, as previous transition models did not address this component specifically. The Adaptability Instruction Model involved problem-solving skills to help students generalize across learning and working environments. The model consisted of four components: (a) decision making, (b) independent performance, (c) self-evaluation, and (d) adjustment. Previous models addressed matching jobs and job skills, while this model sought to overcome many of the problems faced by students while performing the job. The aim of this model promoted student self-management skills in order to increase

student control over their work behaviors.

Federal Funding and Legislation

Federal Response to Outcomes

As follow-up studies demonstrated (Edgar, 1987; Mithaug, Horiuchi, & Fanning, 1985), unemployment and other negative postsecondary outcomes for students with disabilities more than doubled those outcomes of non-disabled peers (Johnson & Rusch, 1993). Existing transition education prior to 1990 reflected a limited range of preparation components to ensure success for individuals with disabilities in the postsecondary environment. With the increased awareness of the poor outcomes and the lack of resources to support the needs of individuals with disabilities achieving and maintaining employment, the Office of Special Education and Rehabilitative Services (OSERS) began the allocation of funds toward exploring self-determination and the decision-making process (Ward, 2006). The Office of Special Education and Rehabilitative Services sought to explore research across a wide range of areas, including transition education, career development, secondary education, and employment (Johnson & Rusch, 1993). The Office of Special Education Rehabilitative Services also set up national centers for transition for research through college settings, particularly the Transition Research Institute at the University of Illinois with efforts targeting variables of family, program, organization, and the community.

Between 1984 and 1990, over 100 projects received federal funding and the outcomes of the projects helped guide research focus and frameworks toward better transition practices. Based on the analysis of the initially funded projects, the identified barriers included student and family issues, goal attainment, personnel issues, and a lack

of collaboration among organizations complicating the effectiveness of the transition programs (Johnson & Rusch, 1993; Rusch & Phelps, 1987). The interpretation of these findings contributed to recommendations to explore dropout prevention, student and parent involvement, transition planning, curriculum and instruction, best practices, transition policy and future research (Johnson & Rusch, 1993; Rusch, Kohler, & Hughes, 1992).

Transition Post 1990

As research projects prior to 1990 demonstrated more positive student outcomes, the effective practices also began to shine. Program components such as paid work experience, parental involvement, and vocational training shared positive commonalities in data analysis from program studies (Kohler, 1993). The link between research findings for effective transition education practices and its reflection in federal legislation clearly stands out. The 1990 Individuals with Disabilities Act (IDEA) (P.L. 101-476) legislation mandates directly correspond with the emphasis of family involvement, extended transition services, interagency linkages to agencies in the community, and work experience based on student preferences.

The Americans with Disabilities Act of 1990 (P.L. 101-336) and the Rehabilitation Act Amendments of 1992 (P.L. 102-569) both helped to provide accessibility to employment opportunities by clearly defining “reasonable accommodations” in the work place and making it illegal to refuse services to individuals with disabilities. Once the research findings suggested transition planning begin earlier (Moore, Agran, & McSweyn, 1990), the Division for Career Development and Transition (DCDT) urged transition planning begin at age 14 rather than at 16 years old.

The continued disconnection between school and work environments that persisted as major barriers for successful employment outcomes received national support in 1994 with the passing of the School-to-Work Opportunities Act. This Act included career awareness and exploration activities during high school and also provided evaluation components. The goal of the program targeted students toward training and work experience. Additional legislation helped establish jobs, social skills, and other vocational community based trainings for individuals with disabilities that linked to vocational rehabilitation services (see Job Training Act of 1993; National Service Trust Act of 1994; The Workforce Development Act of 1995). These new mandates strengthened the link between school, community, and work for individuals with disabilities that all began with the premise of Will's model from 1984. With the research findings of outcome data analysis (Johnson & Rusch, 1993), best practice predictors from demonstration projects (Kohler, 1993), and backing from federal legislation (ADA, Rehabilitation Act, and IDEA 1990), the transition field thus contained all the tools for an effective transition model update.

Current Transition Model

Kohler's Transition Taxonomy

A new model emerged in 1993 Kohler's (1996) Taxonomy for Transition Programming extended previous transition models and identified the areas of focus into five components: (a) Student Development; (b) Family Involvement; (c) Program Structure; (d) Interagency Collaboration; and (e) Student-Focused Planning. The five components do not exist in a hierarchical model, but rather establish a framework of essential planning components for schools to follow with each component affecting the

other. This model initiated a well-rounded approach for school transition programs to follow.

Student Development

Student Development consists of six sub-domains with the intention of fulfilling what research indicated as facilitators to successful student preparation. The first sub-domain, Life Skill Instruction pertains to social and leisure skills training, self-determination, independent living, and learning strategies skills training. The literature suggested students needed more than employability skills, and often lacked social and recreation skills, as well as many of the needed soft skills needed for an engaging life both in and away from work as many students resided at home (Clark, Field, Patton, Brolin, & Sitlington, 1994; Neel, Meadows, Levine, & Edgar, 1987; Sitlington, Frank, & Carson, 1992; Walker & Bunsen, 1995).

The second sub-domain, support services, provided for the identification of environmental adaptations, accommodations, natural supports, assistive technology, ancillary services and mentors. Based on family reports and follow-up findings, students and families suggested a lack of supportive structures that might help in postsecondary environments (Morningstar et al., 1996).

The third sub-domain, employment skills instruction, targets the development of work-related behaviors, job seeking skills, and occupation-specific skill training. The fourth sub-domain, vocational training, received federal attention for decades prior to the development of the Transition Taxonomy beginning with the Vocational Rehabilitation Act and the Carl D. Perkins Act, yet postsecondary pursuits of students reflected consistent difficulty with employability and vocational skills (Benz & Kochhar, 1996;

Kohler, 1993). The taxonomy emphasized assessment, particularly vocational, academic, cognitive, and adaptive behavior assessments in order to examine a wider range of areas indicating student ability across domains. The remaining two areas under the Student Development component consisted of career vocational curricula and structured work experience. Kohler (1993) identified promising practices of transition to target the teaching of vocational skills in a structured manner and also paid work experience.

Student-Focused Planning

The second component of the taxonomy, Student-Focused Planning, addressed the need for individualization and consisted of three sub-domains. The first sub-domain, IEP development, addressed goal and objectives specification across environment (community, vocational, residential, recreation, training, and educational), identification of planning and implementation responsibilities, and the personal needs in planning with the student. These new components reflected an expansion from the IDEA1990 mandates that only contained a statement of needed transition services in the IEP, and the vague concept of postsecondary goals (P.L. 101-476).

The second sub-domain, student participation, addressed the need for earlier planning beginning at age 14, accommodations such as interpreters if necessary, appropriate use of outside agency referral, and planning to include the student, family, school and agency personnel (Kohler, 1996). The taxonomy encouraged beginning the transition planning process earlier, and the focus on the student's needs and input in the planning process. This encouragement proved paramount to better outcome-oriented planning tools for students (Martin & Huber Marshall, 1995; Van Reusen & Bos, 1994; Wehmeyer, 1998).

The third sub-domain, planning strategies, directly linked to the self-determination movement within the transition research field, and directly emphasized self-determination and student centered planning processes with IEP training for students and student self-evaluation (Field & Hoffman, 1994; Martin & Huber Marshall, 1995; Martin, Huber Marshall, Maxson, & Jerman, 1996; Wehmeyer & Lawrence, 1995).

Interagency Collaboration

Much like the supportive systems in Student Development, the third component of the taxonomy, Interagency Collaboration, reflects two sub-domains that elaborate on how systems should coordinate and share services, and how the frameworks for collaboration should work to help students. The first sub-domain, collaborative service delivery, outlines how to identify barriers, and assist, share, and disseminate assessment data with all parties involved in the process. The second sub-domain, collaborative framework, encourages schools to solidify formal agreements that bind service delivery, defines roles of agency personnel, and share client/student information. Roessler, Brolin, and Johnson (1990) identified interagency collaboration as a major indicator of successful employment outcomes for students with disabilities after leaving high school. Other research highlights the need for formal agreements and shared responsibility to eliminate students from falling through the systemic cracks that for so many decades did not align well (Heal, Copher, & Rusch, 1990; Steere, Pancsofar, Wood, & Hecimovic, 1990).

Family Involvement

The fourth component of the taxonomy, family involvement, contains three sub-domains that help outline three aspects of increasing the quality of family engagement in

the transition planning process. The first sub-domain, also entitled family involvement, highlights increasing participation in policy, service delivery, assessment, evaluation, and decision-making, as well as including parents/family members as trainers, mentors, and support networks in the planning process (Kohler, 1996). The procedures for IEP development in schools often alienates families from the initial stages, and rarely takes into account the family needs (Greene, 1996, as cited in Greene & Kochhar-Bryant, 2003). The second sub-domain, family empowerment, includes pre-IEP planning activities, childcare for families, and a structured method for identifying family needs. Parents reported improved participation when school made efforts to share information and collaborate in caring partnerships (deFur, Todd-Allen, & Getzel, 2001).

The third sub-domain, family training, lists trainings aimed at benefiting family members in the areas of self-determination, advocacy, supports, IEP procedures, agencies, and legal issues. In order for families to participate in more meaningful ways, family members must understand and internalize their active roles in the decision making process of IEP transition planning (Everson & Moon, 1987; McNair & Rusch, 1991; Thompson & Fulk, 2000). Low parent involvement with outside agencies after students left high school indicated a severe lack of information about those agencies (McDonnell, Wilcox, Boles & Bellamy, 1985), yet students reported families as their biggest supports (Morningstar, Turnbull & Turnbull, 1996). Students also reported many of their job opportunities derived from parental contacts (Rabren, Dunn, & Chambers, 2002).

Program Structure

The final component of the taxonomy, Program Structure and Attributes, consists of five sub-domains: program, program evaluation, human resource, strategic planning,

and resource allocation. I will only address the concepts in these sub-domains, and I will only list according to domain the next section will explore the concept of program structure more in depth.

Transition models prior to the Transition Taxonomy did not address the structure of the school program itself (Halpern, 1985; Will, 1984). The difficulties ascribed to student outcomes emphasized essential components missing in the schools and the links away from the school setting (Johnson & Rusch, 1987). The first sub-domain, program, consists of curricula, life-long teaching, supportive structures, and defined program values that guide instruction and interaction for students, families, and service providers. The second sub-domain, program evaluation, considers ongoing program data evaluation and program needs assessments that help facilitate accurate direction of the transition programs. The third domain, human resource, pertains to ensuring the hiring of quality staff, adequate pre-service training in transition, the allocation of personnel and related competencies, as well as ongoing staff development (Kohler, 1996). The fourth sub-domain, resource allocation, relates to human resource in that it targets the creative use of resources, using both students and families and community-based resources in the planning process. The fifth domain, strategic planning, outlines diverse environmental considerations including community, regional, and state level issues and services in the planning process.

The five components of the Taxonomy outline a comprehensive approach to transition program development with the emphasis on individualized planning. Currently numerous states and national organizations utilize the Taxonomy as their framework for state and regional transition planning.

Student Outcomes

National Longitudinal Transition Study

In 1996 a federally funded project, The National Longitudinal Transition Study (NLTS), released its 1988-1996 nation-wide findings on the outcomes of recent high school graduates (Wagner & Blackorby, 1996). The findings indicated that students with disabilities received lower pay and maintained employment less than their non-disabled peers. Thirty-six percent of students with disabilities reported not working three to five years out of high school compared to 69% of their non-disabled peers (NLTS). Reaffirming past assumptions about student employment and vocational experience during high school, the NLTS found students who experienced such activities during high school achieved greater employment by almost 40 percent and earned about $4,000.00 per year more (Wagner & Blackorby, 1996). This new outcome data helped paint the picture for legislation and research on the needs of students and the performance report card of school programs from a national sample specifically reaffirming the emphasis on work experience, vocational education, and parental support within transition planning (Blackorby & Wagner, 1996).

Transition Education

Transition Focused Education Redefined

Based on student outcome and follow-up data and professional feedback, several key components to transition became clearly defined. Research supported the need for vocation-related skills, paid work experience, family involvement, and interagency collaboration (Hasazi et al., 1985; Mithaug et al., 1985; Morningstar et al., 1995;

Sitlington, Frank, & Carson, 1993). Attention to the individualization of student-focused planning emerged to encompass successful student characteristics (Wehmeyer & Schwartz, 1997), as well as essential program components that provide adequate education, assessments, training and placement (Kohler, 1996; Wehman et al., 1982). According to Kohler and Field (2003), effective transition education entails enhancing student abilities both in school and out of school with appropriate supports in order for them to successfully utilize those tools and skills after exiting high school.

To examine the relationship and development between research and legislation, one only needs to view the program and student suggestions gleaned from Sitlington, Frank, and Carson (1985). The suggestions include the enhancement of student self-advocacy, early education in career and vocational education instruction, interagency collaboration to facilitate smoother transition from high school, and increased family and student involvement by infusing the transition plan into the IEP. Twelve years later, the field and legislation reflected many of those components and regard them as best practice for effective transition education (Kohler et al., 1994; Kohler & Field, 2003; Johnson & Rusch, 1993; Martin, Huber Marshall, & Maxson, 1993).

Federal Legislation Post-1997

IDEA 1997

The federal reauthorization of the IDEA 1997 (P.L. 105-17) realized many of the effective planning component improvements identified by research (Johnson & Rusch, 1993; Kohler, 1993), and in turn reflected those suggestions into the new law. New changes included self-determination components, beginning planning at an earlier age, participation in the general education curriculum, including state-wide academic assessments, and a more diverse representation of professionals at the IEP meeting

(Section 614 (d)). The law reflected many of the research findings from the field, particularly with program structure (Kohler, 1996), team planning process (Blalock, 1996), and beginning to plan earlier than age 16 years old (Moore, Agran, & McSweyn, 1990).

The new reauthorization of IDEA 1997 addressed the capabilities of students with disabilities in terms of assessments, general education inclusion, and input regarding their goals. The IEP planning process also required regular education, local education agency representatives, interagency staff, and diagnosticians' input into the transition planning process. Accountability measures helped strengthen the new transition plan with the addition of the statement of needed services, postsecondary goals, related services, vocational evaluations (when appropriate), and the course of study (Section 602).

Employment Related Legislation

In 1998 two pieces of employment related legislation passed, the Workforce Investment Act (WIA) (P.L. 105-220) and the Carl D. Perkins Vocational and Technical Education Act (P.L 105-332). The WIA organized a career center that modeled a one-stop shop for a career where participants received intensive training and search tools for employment. The program served individuals between ages 14 and 21 from lower economic backgrounds and those students who fit into some category of hardship such as school dropout, teen pregnancy, homeless, or an offender (Test, Aspel & Everson, 2006). The reflection of literature and research for this legislation came directly from the NLTS that demonstrated individuals in lower income brackets achieved the worst postsecondary outcomes (Wagner & Blackorby, 1996).

The Carl D. Perkins Vocational and Education Act of 1998 reauthorized funding

for quality vocation education programs. The two main goals of the act focused on teaching work skills and providing equal access opportunities (P.L. 88-210). This act clearly reflects the outcome data of the NLTS because students with the highest employment ratings received vocational education during high school and also had paid work experience prior to graduation (Wagner & Blackorby, 1996).

No Child Left Behind 2001

In an attempt to assess the U.S. educational system against Goals 2000 and address the academic achievement gap between individuals with disabilities and those who traditionally achieved well on standardized measurements, the No Child Left Behind Act (NCLB) tried to improve student and school accountability measures, and increase research-based teaching methods. This new legislation held all students to the same academic rigor of achievement standards that mandated schools to meet on state-wide assessment measures (P.L. 107-110). The NCLB used an accountability measure for each school, annual yearly progress (AYP), which schools could receive penalty or reward based solely on homogenous state test scores. The reasoning behind this legislation in terms of special education did not necessarily adhere to IDEA 1997 with the emphasis on vocation education and accommodations in general education. Further, the component of NCLB 2001 required all special education educators to receive a rank of highly qualified to teach their core content only placed undue pressure on the already under-staffed field of educators (Brownell, Sindelar, Bishop, Langley, & Seo, 2005).

NCLB 2001 took steps toward focusing school programs on student preparation for a variety of real-world postsecondary settings by placing such a strong emphasis on academics. Because of the narrow focus of legislation, the research field relied on a

foundation of core characteristics associated with successful student postsecondary achievement such as self-determination skills (Algozzine, Browder, Karvonen, Test, & Wood, 2001; Field & Hoffman, 2002). Research in this area focused on student directed (Field & Hoffman, 2002; Martin & Marshall, 1995; Wehmeyer & Lawrence, 1995) and student centered planning processes for IEP transition plan development and implementation (Schwartz, Jacobson & Holburn, 2000). Due to the breadth of self-determination research for more effective transition planning components, the reauthorization of IDEA 2004 reflected many of the advanced practices suggested by the previous findings (Field & Hoffman, 2002; Martin & Marshall, 1996; Wehmeyer & Lawrence, 1995).

IDEA 2004

The 2004 release of the Individuals with Disabilities Education Improvement Act (P.L. 108-445) stated the ultimate purpose of special education as preparing students with disabilities for postsecondary environments including "further education, employment, and independent living." IDEA also advanced the definition of transition services to change "outcome-oriented process" to "results-oriented process" and added the wording of both academic and functional achievement. Transition services expanded to include vocational education as well as mandated schools to consider students' strengths, preferences, and interests for needed transition services (P.L. 108-445). However, the new law placed a limitation to the early planning age from 14 years old to beginning no later than 16 years old despite the research field's encouragement to remain at the younger age (Moore et al., 1990).

One of the most impactful requirements of IDEA 2004 pertained to the inclusion

of initial quality assurance benchmarks, such as transition-focused goals "appropriate measurable postsecondary goals" based on age appropriate transition assessments (Sect. 614 (d)). Lastly, IDEA required schools to provide graduates with a summary of performance of their transition needs and school/vocational accomplishments (Test, Aspel & Everson, 2005). These new mandates directly reflect transition research findings on the weakness of the previous system where interagency linkages caused major barriers in postsecondary service delivery for students with disabilities (Benz, Johnson, Mikkelsen & Lindstrom, 1995; Hasazi, Gordon & Roe, 1985), as well as research demonstrating the effectiveness of student involvement and self-determination in the planning process (Allen, Smith, Test, Flowers & Wood, 2001; Snyder, 2002; Van Reusen & Bos, 1994; Wehmeyer & Lawrence, 1995).

Summary

With the passing IDEA 2004 a great deal of research and judicial findings indicate directions for the next reauthorization of IDEA, which remains unknown until the legislative release. Johnson, Strodden, Emanuel, Luecking, and Mack (2002) reported on current challenges facing education and transition services. The barriers stated in 2002 resemble the similar barriers stated in the early 1980s when career education took center stage and the earliest models evolved. The barriers consist of accessibility to quality transition education components, making graduation decisions based upon meaningful evaluations, ensuring access to postsecondary environments, and supporting student and family involvement in the decision-making process. Based on identified barriers that persist across time, an examination into the program and student characteristics based on longitudinal studies seems appropriate. Numerous follow-up studies examining both

student and program variables for successful transitioning identify many factors that will continue to influence legislative policy and school practice.

The evolution of special education's purpose throughout its history laid the foundation for preparing students with disabilities for postsecondary settings. The Individuals with Disabilities Education Act of 2004 states a purpose to prepare students with disabilities for postsecondary environments. The question of how best to achieve this goal remains as one of the most critical to the continued evaluation of school and student progress. Follow-up studies remain a pillar of progress assessment for the state of transition programs nation-wide. These studies provide useful information into effective program components that provide students with useful tools for successful postsecondary results. The education field began self-evaluating its performance with the initial follow-up studies in the 1930s for students with disabilities well before politically correct language and people-first language began, with terms such as morons, retards, and the mentally deficient (Baller, 1936; Fairbanks, 1933). These studies aimed at similar objectives as do most follow-up studies, a comparison between those individuals with disabilities and their non-disabled peers along community adjustment. The follow-up studies reviewed for this question range from 1961 to 2007 and suggest several program and student variables for successful transitioning (see Table 2-4).

As the earlier studies through the 1960 to the mid-1980s suggest, a major focus for the measurement of success for students with disabilities derived from the ability to attain and hold a job. From the mid-1980s though the mid-1990s vocational and career education and experience expanded into a large indicator of transition education, vocational experience, and program development with interagency collaboration. As the

variables expanded, they combined into terms such as transition education that encompassed self-determination curriculum and instruction. Similar to the student variables, the program variables reflected identical aspects with only a few slight exceptions, particularly with the use of transition teams, assessments, planning process, curriculum, and quality of staff (Collet-Klingenberg, 1998; Doren, Lindstrom, Zane, and Johnson, 2007; Frank & Sitlington, 2000; Lindstrom & Benz, 2002). Overall, three major student variables arose out of the literature review (receiving vocational training/work experience, transition education, and self-determination instruction). The program variables of student success mirror these with only a few slight exceptions and include vocational education/work experience, self-determination instruction, transition education, interagency collaboration, and transition staff/curriculum (see Tables 2-4 and 2-5). I chronologically identified and sectioned these studies to discuss each clustered student and program variables that emerged as trends over time. Student variables consisted of the skills, experiences, characteristics, and aptitudes students possess.

Table 2-4

Follow-up Studies (Program/Student Variables)

Citation	Method Details	Type	Variables Associated with Success
Dinger, J. (1961)	n = 333 274 employed, 43 unemployed 16 unknown Location: PA.	Qualitative: -Interview Demographic Questionnaire	<u>Student:</u> Occupational placement/training. <u>Program:</u> Interagency collaboration and connection between elementary and secondary levels.

Brolin, Durand, Kromer, & Muller, 1975	n = 80 EMR graduates Years left school: 1966-1972	Qualitative: -Student survey 3questionnaires: parents, employers, & administration	<u>Students:</u> Vocational education and follow-up program support. <u>Program:</u> Vocational trainings, interagency collaboration
Sitlington, Frank, & Carson, 1985	n = 737 graduates with mild disabilities Location: Iowa Years Graduated: 1985-1986 Five year follow-up	Mixed Methods Qualitative: -Interview (student & parents) -Document review Quantitative: Survey demographics	<u>Student:</u> Early planning, need more self-advocacy, must integrate transition planning into the IEP. <u>Program:</u> Career/vocational education, interagency collaboration.
Mithaug, Horuchi, & Fanning, 1985	n = 234 Location: CO. Years Grad. 1978-1979	Qualitative: -Interview Document review	<u>Program:</u> Vocational/social/living skills, parent involvement, work experience.
Wehman, Kregel, & Seyfarth, 1985	n = 300 parents Location: VA. rural/urban Years Graduated: 1979-1983	Qualitative: -Survey modified from Hasazi et al., 1985 and piloted	<u>Student:</u> Job seeking skills and social skills training. 58% employment rate for MR/EMR students. Few had formal voc. training. 75% earned less than 500/month. Family located most of the jobs for the students.
Hasazi, Gordon, Roe, Hull, Finch, & Salesmbier, 1985	n = 243 graduates with MR Location: Vermont Years Graduated:	Qualitative: -Phone interviews Document reviews	<u>Student:</u> Vocational education, previous employment experience, interagency agreements with schools, and family support

	1981-1983		
Hazasi, Gordon, Roe, 1985	n = 462 n = 301 interviews Location: VA Years Graduated: 1979-1983	Qualitative: -Interview Quantitative: -Self-made survey student, family, administrator -Document reviews	Student: Self-advocacy levels, gender, exit from high school, vocational education, work experience, services used. Program: Employment during school Family support 55% of students were in paid jobs, 83% of students used family/friends to find jobs. 65%-96% of student reported no contact with service agencies.
Schalock, Wolzen, Ross, Elliot, Werbel, & Peterson, 1986.	n =108 graduates from rural settings with (mod.-severe) Years Graduated: 1979-1983	Mixed methods Quantitative: -Questionnaires -Stepwise multiple regression analysis Qualitative: Interviews	Student: Age, IQ, disability, gender, days absent, family involvement. Program: Percent of time in resource room, number of hours enrolled in vocational program.
Edgar, 1987	n = 1,292 Location: WA	Qualitative: -Parent phone Interview for 11 school dist.	Student: Vocational education with placement, work experienced needed and family involvement Sixty percent of students worked. Less than 20% earned minimum wage.
Hasazi, Johnson, Gordon, & Hull, 1989	n = 133 67 with disabilities 66 without disabilities	Qualitative: -Two sets of phone interviews a yr. apart	Student: Gender Program: Vocation education during school.

	Location: VT Years Graduated: 1984-1985		
Liebert, Lutsky, & Gottlieb, 1990	n = 106 graduates with severe disabilities Location: VA Years Graduated: 1967-1984	Mixed Methods Qualitative: -Phone interview (68 questions) Quantitative: -Mail survey Document review: Student file form	Student: Family support, self-determination, paid work experience in school, type of transportation, age, VR contact, level of education.
Frank, Sitlington, Cooper, & Cool, 1990	n = 318 high school graduates with MR, 1 yr. post high school	Quantitative: -Document reviews -Self-made survey (63% with student, 18% phone with student, 19% with parent of student) Chi-square tests	Student: Support services and transition education/training. Two thirds of graduates were employed, 37% full-time. No significant difference between employment and vocational program participation during high school.
Roessler, Brolin, & Johnson, 1990	n = 36 graduates with LD & MR graduates 1 yr. post high school Location: CA, MN, AR Year Graduated: 1989	Qualitative: -Phone interview with students and parents	Program: Need more transition education/planning, better agency contact, more family involvement in planning process, more vocational training, 50% employed, most in part-time work. Students used family networks for jobs, and had minimal contact with agencies.
Haring & Lovett, 1990	n = 58 Location: CA Years	Qualitative: Interviews from parents, verbal subjects, employers,	Student: Life-skills attainment (driver's license, etc.), independent living skills. Program: Interagency

	Graduated: (1983-1985)	and adult vocational/residential services.	collaboration, employment opportunities, social interaction, daily living skills, family involvement.
Fourqurean, Meisgeier, Swank, & Williams, 1991	n = 175 graduates with LD Location: Texas Years Graduated: 1986-1989	Qualitative: -Structured phone interviews	Student: Employment during high school, family support/participation.
Gerber, Ginsberg, & Reiff, 1992	n = 25 LD adults Nation-wide retrospective interviews n = 71 current interviews	Retrospective interviews Causal comparative design Thematic analysis	Student: Decisions making, goal orientation, attitude, efficacy, awareness, sense of control
Wagner, Blackorby, Cameto, & Newman, 1993	n = Excess of 250,000 Nationwide	Qualitative: -Phone, mail survey	Student: Parental involvement and social skill development Program: Vocational education
Heal & Rusch, 1995	n = 3,357 (Used NLTS extant data)	Qualitative: -Document review, interviews with school personnel and parents Hierarchical regression analysis of the questionnaire	Student: gender, ethnicity, living skills, academic skills, and family characteristics Program: Vocational training did not predict postsecondary employment differences in the sample.
Halpern, Yovanoff, Doren, & Benz, 1995	n = 315 Oregon graduates n = 107 Nevada	Quantitative: -Survey	Student: Transition education, social skills, family involvement.

	gradutaes n = 565 Arizona graduates 2 year follow-up		Program: Transition education
Wagner & Blackorby, 1996	n = 8000 youth with disabilities nation-wide NLTS data set	Quantitative: -National interview of a long questionnaire (parents and students if available).	Student: Socio-economic status, vocational training, academic setting Program: Academic preparation, vocational program, and employment Post-sec. education rate comparison: 37% for graduates with disabilities v. 78% of regular ed. graduates.
Dunn & Shumaker, 1997	Location: Alabama	Mixed methods Qualitative: -Telephone interview Quantitative: Survey	Student: Employment experience during high school.
Wehmeyer & Schwartz, 1997	n = 80 graduates with cognitive disabilities, Location: VA, CT, AL, TX. Years Graduated: 1994-1995	Mixed Methods Qualitative: -Follow-up self-made survey (phone, mail, and personal contact) completed by parent and student when available. -Document reviews Quantitative: -Arc's Self-Determination Scale Chi-square analysis	Students: Self-determination factored into increased independence, paid work, and preference to live away from parents

		used for Self-determination scores and IQ/disability	
Collet-Klingenberg, 1998	n = 6 multiple disabilities Location: Wisconsin	Qualitative: -(Case Study) interview, document reviews, and observations Analyzed by a constant comparative analysis	Program: Vocational/work experience programs, self-determination instruction, school-based and community-based transition teams, interagency collaboration.
Fabian, Lent, & Wills, 1998	n = 2,258 multiple disabilities Maryland/D.C.	Qualitative: -Questionnaire	Student: Internship during high school. Use of structured internship program.
Rasking, Goldberg, Higgins, & Herman, 1999	n = 50 Nationwide	Quantitative: Survey	Student: Awareness/perseverance/goal setting, advocacy, coping strategies.
Rojewski, 1999	NLTS data base Nationwide 1988-1994	Log-linear analysis used to examine interactive effects of gender, disability status on the graduation and postsecondary education/occupational aspirations. Predictive Discriminate Analysis used to classify the participants based on predictor variables.	Student: Aspiration of occupation, Program: Education program.
Benz, Lindstrolm & Yovanoff, 2000	n = 709 (study 1) n = 45 (study 2)	Study 1: Logistical regression to examine student and program factors of	Student: Self-set transition goals (self-determination), employment during high school, graduated with regular

	Oregon (2 studies)	predicting graduation and employment. Study 2: Six focus groups Mixed: regression analysis/interview	diploma. Program: Supportive staff, paid vocational opportunities.
Frank & Sitlington, 2000	Class 1985 n = 322 Class 1993 n = 84 Iowa	Mixed Methods Qualitative: -Interviews Quantitative: - Survey	Program: Structured transition instruction/vocational education.
Whitney-Thomas & Moloney, 2001	n = 11 Northeastern U.S.	Qualitative: - Interview	Student: Self-awareness, use of supportive network, level of self-definition.
Rabren, Dunn, & Chambers, 2002	n = 1,393 graduates with disabilities. Location: Alabama	Quantitative: -Survey 1yr/postsch. (Employment) Regression analysis	Student: Work during high school, use of adult agencies. Program: Outside agency collaboration, offer work experience/training.
Dickinson & Verbeek, 2002	n = 97 graduates with disabilities. Location: Arizona	Quantitative: -Survey Regression analysis	Student: Level of educational attainment.
Raskind, Goldberg, Higgins, & Herman, 2002	National sample of adults with LD graduated from the Fostig Center in CA.	Qualitative: Evaluation of successful attributes from previous longitudinal study.	Student: Self-awareness, proactivity, perseverance, goal-setting, support systems, and coping mechanisms.
Lindstrom & Benz, 2002	n = 6 adults with LD Location: Northwestern	Qualitative: -Interviews with 5 key informants per individual participant	Student: motivation/personal determination, family relationships, opportunities in school and workplace, development of career goals,

	state	Case study interviews and observations	and vocational training. Program: Teach self-determination, vocational training, work experience
Wehmeyer & Palmer, 2003	n = 94 graduates with disabilities. Location: AL, CA, CT, KS, NC, TX, VA.	Extension of Wehmeyer and Schwartz, (1997). 3-year follow-up with Self-Determination score and survey.	Student: Higher self-determination scoring students achieved more successful outcomes.
Goldberg, Higgins, Raskind, & Herman, 2003	n = 41 Location: Five U.S. States	Qualitative -Interviews	Student: Self-awareness, proactivity, goal-setting, perseverance, social support, emotional stability/emotional coping strategies, family differences, and social relationships.
Dunn, Chambers, & Rabren, 2004	n = 228 students with LD or MR n = 228 students without disabilities Location: Alabama state Years Graduated: 1996-2001	Quantitative: State tracking system -Survey: Adaptation of the Vermont's Post-school indicators follow-up questionnaire. Logistical regression	Student: Level of student perception that high school preparation was meaningful, belief in teacher's level of care, helpful classes. Program: Promote decision-making, transition assessment in students' interests and preferences (transition planning), connect curriculum to future plans.
Gerber, Price, Mulligan, & Shessel, 2004	n = 29 adults with LD Canada and U.S.	Qualitative: -Case study interviews	Students: Family/friends support, self-efficacy, self-disclosure, requesting accommodations (self-advocacy).
Skinner, 2004	n = 20 college graduates with LD Location:	Qualitative: Semi-structured interviews (5 personal and 15	Student: Self/disability awareness, self-advocacy, accommodations, support systems, perseverance, goal-

	Southeastern U.S.	phone)	setting skills
Wagner, Newman, Cameto, Garza, & Levine, 2005	n = +250,000 Location: Nationwide	Qualitative: - Survey	Student: Social skills
Madaus, 2006	n = 170 college graduates with LD Nationwide	Qualitative: -Open-ended interviews	Students: Self-understanding and workplace accommodations Program: Internships, mentoring, knowledge of rights, and follow-up support.
Wehmeyer, Palmer, Soukup, Ganer, & Lawrence, 2007	n = 180 students with disabilities	Quantitative: -Questionnaire Multiple regression analysis Arc's Self-Determination Scale, 20 item questionnaire (Whose Future Is it Anyway?	Student: self-determination (specifically, self-regulation and realization) contributed to planning knowledge and skills.
Doren, Lindstrom, Zane, & Johnson, 2007	n = 71 adults with LD, parents, school staff, employer, and vocational rehabilitation counselor Location: Northwestern state	Mixed Methods Qualitative: -Case study interviews Quantitative: -Questionnaires	Student: Active and Passive Career Orientation (active career orientation aligns directly with self-determination constructs). Program: Targeted and Restricted services (accurate assessments, individualized planning and services, work experience, etc.)
Fabian, 2007	n = 4,571 students with disabilities Location: San Francisco,	Mixed Methods Qualitative: -Interviews Quantitative:	Student: Work experience during high school. Program: Vocational/Career Opportunities

	Los Angeles, Chicago, Atlanta, Philadelphia, and Washington, DC.	Extant data base from the Marriott Foundation at each city for school records

Student Variables from the 1960s – 1970s

Focus on Vocational Training

Because many of the disability categories addressed identifiable disabilities of the era, most studies included data on individuals with mental retardation. Dinger (1961) conducted a follow-up study via mail and a personal visits with 333 adults who previously attended special education programs in Pennsylvania. He found 274 of the student held jobs and 43 of them did not hold jobs. Those students with jobs commonly experienced work related activities during school hours. His recommendations resemble present day recommendations, highlighted by occupational placement/training, interagency collaboration between elementary and secondary schools, and collaboration with job related entities (Dinger, 1961).

Brolin, Durand, Kromer, and Muller (1975) used a qualitative follow-up study of 80 graduates with educable mental retardation (EMR) between the years 1966-1972. They reported those students who experienced employment training attained better employment outcomes. Even a decade later than Dinger's work, the recommendations highlighted more interagency collaboration and support in the postsecondary environment (Brolin et al., 1975). Studies in the 1980s reflected the same importance of vocational education, job placement, interagency collaboration, and family involvement in the transition process.

Student Variables in the 1980s

Work Experience

Mithaug, Horiuchi, and Fanning (1985) noted the limitations of past follow-up studies, which primarily sampled graduates with mental retardation with small geographic representation. Mithaug et al. interviewed 234 graduates across a wide geographic range in Colorado and found strengths in employment (69%) and identification of parental supports. The study accounted for community adjustment of the participants by documenting those with car insurance (33%), those who drove to work (50%), were socially inactive (42%), lived with parents (64%), lived alone (8%), and used vocational rehabilitation services (63%). This survey indicated a general satisfaction in the quality of life with the majority (64%) reporting being very satisfied with their life (Mithaug et al., 1985). Many of the participants reported they needed more specific vocational training and social/independent living skills. These early indications of student need suggest the level of student qualities that contribute to successful postsecondary adjustment for students with disabilities. This scope took a broader view by including wages earned, previous studies did not account for low wage earnings (Brolin et al., 1975; Dinger, 1961). Mithaug et al. (1985) found the most promising variable of student success remained work experience prior to graduation.

Results from three studies conducted in the 80s (Hasazi, Gordon, Roe, Hull, Finch, & Salesmbier 1985; Shalock, Wolzen, Ross, Elliot, Werbel, & Peterson, 1986; Wehman, Kregel, & Seyfarth, 1985) found family involvement in the transition process assisted students with variables of success in the form of locating employment and

housing. Many of these studies utilized self-report survey methodology. Findings from Hasazi et al. (1985a) also found vocational education and previous employment as other indicators to postsecondary success. Additionally, this study reported interagency agreements between school and adult agencies assisted students with employment success.

Wehman, Kregel, and Seyfarth (1985) utilized a modified survey from Hasazi et al.'s survey (1985a) for parents who specifically stated the need for job seeking skills and social skills training. The data suggested two critical points for student predictors. First, parents reported more soft skills training needs for their children and even with 58% employment rate for the MR sample, approximately 75% earned below minimum wage. The relatively low number of employed individuals further discounted the disparity in low wage occupations.

Hasazi, Gordon, and Roe (1985a) conducted a mixed methods interview and survey study that included school document reviews in Vermont and suggested four student variables similar to the other studies (Edgar, 1987; Mithaug et al. 1985). Hasazi et al. (1985b) also found vocational education and work experience as their highest student predictor variable. This study represents one of the first follow-up studies to examine variables unique to the student rather than focusing on training the student received while in school. The researchers interviewed students, family members, and administrators and found the students' level of self-advocacy influenced their successful employment and adjustment in the postsecondary setting. The positive student outcomes related to work experience during high school, vocational training, family involvement, and whether the student graduated or dropped out of high school (Hasazi et al., 1985a). Hasazi et al.

(1985a) reported 84% of the students working located their jobs either through their own search or through their family networks. One major student variable emerged from this study that later became a prominent staple in student skills for positive outcomes. This finding indicated an initial support for the quality of self-advocacy for student preparation—the importance of students learning to become self-advocates.

Edgar (1987) interviewed 368 parents of students receiving special education across a variety of adjustment indicators including employment, wages earned, and community involvement and found similar data to the Mithaug et al. (1985) study. Data indicated 30% of dropouts secured employment, and only 10% engaged in additional education/training within a year of leaving school. This group reported similar poor community adjustment, with 61% of students reporting no activity in community or other social activities. The data interpretation questioned the school programs preparing these students and supports similar follow-up analyses suggesting employment experience during school or summer exists as a strong indicator of employment after leaving school. Similar to previous data that reflected high percentages of employment, fewer than 15% of the employed earned above minimum wage (Mithaug et al., 1985). Thus, the vocational skills learned in school did not meet the demand of the real world setting to secure sustainable employment.

Student Variables (1990-2007)

Transition Education

Until 1990, the follow-up studies regularly identified vocational training as a prominent program variable for students to experience in order to achieve positive postsecondary outcomes (see Tables 2-4, 2-5). With the passing of IDEA 1990, the term

transition emerged in practice specifically in student and program development. Frank, Sitlington, Cooper, and Cool (1990) mentioned this term as a suggested variable of student and program success. The researchers expanded from vocational education to actual transition training, which encompassed more than simply gaining skills to initially attain employment. They found no significant difference between employment and vocational program participation during high school. Much like vocational education in the early 70s, transition education remained vague (Halpern, 1990).

Liebert, Lutsky, and Gottlieb (1990) conducted a follow-up study for Vermont graduates from 1967-1983. They suggested both program and student predictor variables from their mixed method study involving document reviews, individual surveys, and interviews. The students, all with physical disabilities, relied on personal networking for their jobs, and few relied on outside employment agencies for help. The program components found reinforced previous findings; (Mithaug, Horuchi, & Fanning, 1985; Roessler, Brolin, & Johnson, 1990) that vocational training and paid work experience in school assisted successful employment after school (Hasazi et al., 1985a, 1985b). The authors suggested the utilization of family networks and personal determination to be proved high indicators of postsecondary adjustment. Transition education and student involvement in the planning process, indicated by numerous other studies in the 1990s (Collet-Klingenberg, 1998; Halpern, Yovanoff, Doren, & Benz, 1995; Roessler, Brolin, & Johnson, 1990) developed into specific components of curriculum that melded into the building of student characteristics such as self-advocacy and decision making skills, typically categorized under the term self-determination.

Self-Determination

By the mid-1990s, special education literature defined self-determination in different ways with common themes (Field & Hoffman, 1994; Martin, Huber-Marshall, & Maxson, 1993; Mithaug, 1994). This link between self-advocacy, awareness, and decision-making to self-determination levels in students with disabilities received specific attention in follow-up studies from Gerber et al. (1992) and Wehmeyer and Schwartz (1997).

Gerber et al. (1992) conducted a prominent follow-up study that emphasized student self-advocacy from a national sample and helped affirm student self-determination and its link to positive outcomes. This mixed methods study examined patterns of successful individuals with learning disabilities in two groups--highly successful and moderately successful individuals. Participants in this study attributed their success to their sense of control over their environment and decision making abilities. The emergent themes derived from the participant responses facilitated their ability to overcome barriers such as the links between their self-awareness and self-advocacy to their level of self-confidence and sense of control (Gerber et al., 1992). Based on a long history demonstrating the benefits of teaching self-determination skills, the Division on Career Development and Transition released a position statement on the topic (Field, Martin, Miller, Ward, & Wehmeyer, 1998). This statement helped synthesize the role of self-determination into the transition planning process, including assessments, specific skills, family roles, educator roles, and both pre-service and in-service training implications (Field et al., 1998). DCDT Self-determination position statement:

> Self-determination is a combination of skills, knowledge, and beliefs that enable a person to engage in goal directed, self-regulated, autonomous behavior. An understanding of ones strengths and limitations together with a belief in oneself as capable and effective are essential to self-determination. When acting on the basis of these skills and attitudes, individuals have greater ability to take control of their lives and assume the role of successful adults. (p. 2)

To measure the direct link between student self-determination levels and their postsecondary outcomes, Wehmeyer and Schwartz (1997) used mixed methods including interviews and survey data. This study explored levels of employment, independence, and living arrangements with students' levels of self-determination as measured by the ARC self-determination scale. The study results support the premise that higher self-determination skills assist with more positive outcomes. Wehmeyer and Palmer (2003) later examined self-determination with adult outcomes for students with cognitive disabilities three years out of high school using similar instrumentation. They found that higher rates of self-determination helped produce better adult outcomes, including a higher indicator of financial independence and full-time employment. Rejewsky (1999) found that occupational aspiration, a trait similar to self-determination, and academic achievement predicted vocational success from an extant NLTS-1 database that spanned from 1988-1994.

The importance of self-determination continued in follow-up studies through the new millennium with results from Benz, Lindstrom, and Yovanoff (2000) indicating students who self-set their own transition goals achieved better outcomes. Participants in this study who self-identified and set their own transition goal experienced improved graduation and employment rates. Likewise, Raskind, Goldberg, Higgins, and Herman (1999, 2002) found the positive impact of self-efficacy and self-understanding linked directly to self-determination.

Raskind et al. (1999) conducted a 20-year follow-up study using questionnaires for graduates with LD to compare outcomes of employment, education, independence, family relationships, community relations, crime/substance abuse, physical health, and psychological health. Their analysis reaffirms the results of Gerber et al. (1992) study that suggesting levels of self-awareness, proactivity, perseverance, goal setting, emotional stability, and use of supports related to their factors of successful adult outcomes. The authors later analyzed their predictor variables through further qualitative analysis and determined self-awareness positively affected successful individuals more than all other factors (Raskind, Goldberg, Higgins, & Herman, 2002, 2003). Goldberg, Higgins, Raskind and Herman (2003) determined proactivity in one's environment existed as a high predictor stating that efficacy in decision-making and other self-determination constructs increased adult outcomes. This claim supported similar findings in Lindstrom and Benz (2002), and Whitney-Thomas and Moloney (2001) studies.

These follow-up results began a series of studies examining self-determination much closer. From 2004-2007 several follow-up studies explored adult outcomes of students with disabilities and found self-determination constructs as high predictors for positive outcomes, specifically a student's level of self-awareness (Gerber, Price, Mulligan, & Shessel, 2004; Skinner, 2004; Madaus, 2006), self-advocacy (Gerber, et al., 2004; Skinner, 2004), goal-setting (Wehmeyer, Palmer, Soukup, Garner, & Lawrence, 2007), and use of social skills/networks (Wagner, Newman, Cameto, Garza, & Lavine, 2005).

The Main Student Variables Over the Decades

Paid Work Experience

Across the decades from Brolin et al. (1975) to the follow-up study by Fabian (2007), the one constant student variable across the decades for better student postsecondary outcomes remains work experience for students prior to graduation. Adjustment issues arose throughout the studies during the 1980s with social skills (Wehman et al., 1985), interagency collaboration (Brolin et al., 1975; Hasazi et al., 1985a), self-determination (Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997), but paid work experience covered the full range of studies (Benz, Lindstrom, & Yovanoff, 2000; Dunn & Shumaker, 1997; Fabian, 2007; Fourqurean, Meisgeier, Swank, & Williams, 1991; Leibert et al., 1990; Rabren, Dunn, & Chambers, 2002). Many of the student variables pair directly with the program variables associated with successful postsecondary outcomes (see Table 2-4).

Program Variables

Work Experience and Vocational Education

Nearly all of the studies analyzed for this question recommended or suggested alterations and additions to critical elements of transition programs. However, the disaggregation of the follow-up study results indicated very few studies specifically predicted program variables. Several studies suggested vocational education and work experience as key elements of effective transition programs. From the five studies that clearly indicated program variables (Benz, Lindstrom, & Yovanoff, 2000; Collet-Klingenberg, 1998; Doren, Lindstrom, Zane, & Johnson, 2007; Dunn, Chambers, & Rabren, 2004; Frank & Sitlington, 2000), the results included vocational education/work experience, self-determination and transition education instruction, caring and trained staff, and effective planning components (i.e., assessments and curriculum).

Benz et al., (2000) sought to evaluate a school-based transition program on the outcomes of graduation, goal achievement, and employment for students in their last two years of high school. The program provided student-centered planning, collaborations with outside transition services, career education, and applied community learning. Those students who participated in the transition program for the full two years graduated with regular diplomas and held paid jobs at higher rates than those students who did not participate in the program the full two years of high school (Benz et al., 2000). The authors attributed the specific instruction in vocational education, goal-setting, and community-based work experience as highly predictive of student outcomes up to two years post-high school. Study results indicated transition education, which included self-determination components, student involvement in the planning process, and real-world experience predicted better student outcomes. This study combined program components suggested from previous research (Dunn & Schumaker, 1997) and extended more instructional facets of effective transition programs.

Transition Education and Quality Personnel

Dunn, Chambers, and Rabren (2004) also examined program structures and variables affecting dropout and identified transition planning, including assessments, decision-making, and use of an appropriate transition curriculum predicted student graduation. Interestingly, Dunn et al. (2004) reported high correlations with the quality and care of the transition staff to student performance. Collet-Klingenberg (1998) noted the importance of quality professionals with a diverse range of transition team members who represented school, family, and community entities as a significant component of successful programs. These qualitative findings reflect other research that stresses the

importance of transition teams that combine a wide range of stakeholders (Blalock, 1996).

Understanding components of effective programs requires data from a range of perspectives involved in the planning process. Doren, Lindstrom, Zane and Johnson (2007) conducted a mixed methods follow-up study of students, staff, adult agency personnel, and parents to evaluate effective programs. Based on the triangulation of survey, interview and document data, they identified effective programs as targeted services, which included accurate student assessments, individualized planning and services, and work related experiences. These findings support previous program variables and highlight the overlap of indicators for program and student variables. Within the same study, they evaluated student characteristics and suggest self-determination as a strong correlated predictor of successful students.

Once the program variables align with the student variables, several cancel each other out (work experience/vocational education, transition education, and interagency collaboration). Transition education becomes more defined through the program variables with clear indications of student-centered planning (Doren et al., 2007), quality of transition staff (Dunn et al., 2004), and appropriate assessments and curriculum, including both self-determination and future oriented curriculum (Benz et al., 2004; Doren et al., 2007).

Variable Relationship to Transition Education Practice

Based on the review of follow-up studies assessing program components for successful transitions, three major components arise: (a) vocational education/work experience during school and interagency collaboration/support; (b) transition education

curriculum (including student centered planning strategies); and (c) program and personnel qualities (including caring and supportive staff). The review of student variables focused on three main components: (a) work experience/vocational education & agency collaboration/support; (b) transition education/ level of self-determination (self-awareness/advocacy, goal-setting, & use of support networks); and (c) family support (see Table 3-2). These variables closely resembled those identified transition components supported by empirical evidence from previous research (Kohler, 1993) that suggested vocational training, parent involvement, paid work, and social skills training as essential to transition education (Kohler & Field, 2003).

The variables identified in the follow-up studies included under these headings vocational education/work experience and agency collaboration, transition education, family involvement, self-determination, and quality staff. Beginning with the early follow-up findings (Baller, 1936; Dinger, 1961; Fairbanks, 1933) vocational opportunities arose as the benchmark for successful outcomes. One's capacity to gain a job existed as the initial status of achieving "normalcy" for society (Nirje, 1972). However, as time passed, the reality of the vocational outcomes revealed less than desirable economic and sustainable results with many of the working individuals earning minimal wages (Brolin et al., 1975; Dinger, 1961; Hasazi, 1989). The vocational interest within the field aligned well with the vocational legislation through the 1970s and 1980s (see Table 2-1), which encouraged work-based training as well as the education models focused on vocational outcomes for students with disabilities (Brown & Kayser, 1982; Halpern, 1985; Wehman, Kregel, & Barcus, 1985; Will, 1984). However, with funding conflicts between vocational legislation and school programs, many funding streams

began to close. The initial term of career education melded into vocational education during the 1980s and career-technical education in1990s to present (Gajar et al., 1993). The staying power of student work experience during their secondary educational experience remains a staple for successful students and programs (Doren, Lindtrom, Zane, & Johnson, 2007; Fabian, 2007; Fourqurean & LacCourt, 1991; Mithaug et al., 1985).

Vocational Education/Work Experience & Agency Collaboration

Recent frameworks outlining effective components for transition planning and positive student outcomes indicate the combination of work experience with job placement and follow-up services create more seamless transitions toward gaining the necessary experience and maintaining employment (Phelps & Wermuth, 1992). Research reviews suggest the full range of vocational education with job placement as a critical component of effective programs and student competencies upon exiting high school (Johnson & Rusch, 1993; Kohler, 1992). The follow-up studies indicated a significant variable of student and program success provided students with work experience, preferably paid work experience (Benz et al., 2000; Dunn & Shumaker, 1997; Fourqurean et al., 1991; Hasazi et al., 1985a; Hasazi, Johnson, Gordon, Roe, & Hull, 1989; Lindstrom & Benz, 2002; Mithaug, et al., 1985; Rabren et al., 2002; Wagner & Blackorby, 1996; Wehmeyer & Schwartz, 1997). Many of the studies shared the emphasis of interagency collaboration that supported successful transitions (see Table 2-5).

The expansion on the education and instruction aspect of vocational education illuminates exactly what the instruction entails. Vocational education can include job-

seeking skills, vocational assessment and placement, as well as mentoring. The follow-up studies reviewed stress the inclusion of a strong transition education component that aligns with curricular components (Collet-Klingenberg, 1998; Frank et al., 1990). These curricular components lead to the next variable of postsecondary success for both students and programs, transition education.

Transition Education

Kohler (1993) included community-based instruction, and community referenced curriculum, which later developed into a school transition program curriculum that linked school and community entities and activities together. Many of the follow-up studies indicated a series of skills and supports needed for successful outcomes including social skills and transition education. Brolin and Kokaska (1984) developed a widely known model for career development and comprehensive transition education curriculum, Life-Centered Career Education (LCCE) Curriculum, that outlines daily living skills, personal-social skills, and occupational guidance and preparation along a series of lessons and activities to achieve competencies to better attain positive postschool outcomes. Effective planning components, such as assessments, play a significant role in this curriculum, which reflect what many of the follow-up studies suggested (see Table 2-4).

Through assessments individuals can identify their interests and preferences to better self-identify transition goals (Benz et al., 2000). The quality of increased self-awareness does not only adhere to increased self-determination but also can adhere to appropriate transition education. Knowing one's vocational interests and preferences helps align the student's role in successful vocational choices as well (Benz et al., 2000). Part of effective assessments entails the students knowing themselves through vocational

exploration and job placement. The finding that increased self-awareness and participation in decision-making lead to better outcomes (Raskind et al., 1999; Raskind et al., 2002; Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997) corresponds with the IDEA 2004 requirement that mandated student involvement in the planning process.

Self-Determination

As Gerber et al. (1992) identified in the comparison of highly successful and moderately successful adults with learning disabilities, several essential components of self-determination elevated as the highest common factors among their successful student group. The importance of decision-making, goal orientation, efficacy, and awareness all highlighted the need for early instruction and opportunities to practice self-determination for students with disabilities. The significance of self-determination in special education follow-up study research increased immediately after IDEA 1997 and the Division for Career Development and Transition position statement on self-determination for persons with disabilities (Field et al., 1998). Fifteen studies in this review identified self-determination as a key component to students' successful outcomes (Benz, Lindstrom, & Yovanoff, 2000; Dikinson & Verbeek, 2002; Doren et al. 2007; Dunn et al., 2004; Gerber et al., 2004; Goldberg et al., 2003; Lindstrom & Benz, 2002; Madaus, 2006; Raskind et al., 2002; Rojewski, 1999; Skinner, 2004; Wehmeyer & Palmer, 2003; Wehmeyer et al., 2007; Wehmeyer & Schwartz, 1997; Whitney-Thomas & Moloney, 2001). Although different studies identified the manifestation of self-determination components slightly differently, they all identified the quality in the student (Raskind et al., 2002; Rojewski, 1999).

Self-determination specifically targets many skills shown to facilitate more positive outcomes for students in the postsecondary setting, like self-advocating, self-awareness, and goal-setting (Woods & Martin, 2004). For students with disabilities, teaching these skills in a school setting meant addressing their participatory engagement in their IEP meetings, specifically through increasing students' levels of self-awareness of their strengths and limitations (Allen, Smith, Test, Flowers, & Wood, 2001; Arndt, Konrad, & Test, 2006; Martin, Marshall, Maxson, & Jerman, 1996; Van Reusen, Shumaker, & Deshler, 1989). IDEA 2004 encourages schools to provide students opportunities for attaining self-determination capacity through their transition plans and goal setting.

Several curricula materials teach student self-determination attainment in the educational setting (Field & Hoffman, 1996; Martin, Huber Marshall, & DePry, 2001; Van Reusen, Bos, Schumaker, & Deshler, 1994; Wehmeyer & Sands, 1998). Many of the available instructional programs include multiple steps and activities for students to engage to learn the necessary self-determination skills. In a national survey of 1,219 educators across the U.S. 60% indicated their familiarity with self-determination (Wehmeyer, Agran, & Hughes, 2000). When schools have implemented self-determination for their students, increases in academics occurred (Konrad, Fowler, Walker, Test & Wood, 2005). Student levels and capacity for building and practicing self-determination does not exist alone. Family roles play a major part of the student planning process from both student and program success (see Table 2-5).

Family Involvement

As the follow-up studies suggest, family involvement and support played a significant role in successful student outcomes. From the 12 studies that indicated family involvement and support, many conducted qualitative interviews and determined either by correlation or thematic analysis that the support and involvement from family members correlated for some of the successful student outcomes (see Table 2-5). A few of the studies indicated the supportive role that families created with finding jobs as well as housing, with many students residing at home immediately out of high school (Blackorby & Wagner, 1996; Haring & Lovett, 1990; Leibert et al., 1990; Wehman et al., 1985).

Quality Transition Staff

The full array of transition services and program structures hinges on the available components of the program, how those components get carried out, and the quality of the transition personnel. Only three follow-up studies indicated program variables different from the student variables (Benz et al., 2000; Collet-Klingenberg, 1998; Dunn et al., 2004). These studies identified the level of teachers' care (Dunn et al., 2004), supportive staff (Benz et al., 2000), and community-based transition teams (Collet-Klingenberg, 1998). These few variables could stand out due to the survey instrument used in these studies by the design of the survey questions directed at qualities of transition personnel. However, the field of special education does understand that quality staff that care can facilitate effective transition team building and service implementation (Collet-Klingenberg, 1998) and highlights the importance of transition teams, specifically community transition teams (Blalock, 1996). IDEA 1997 mandated transition teams

represent individuals from a variety of perspectives and the quality of that team can enable productive or non-productive collaboration.

Caring transition staff can facilitate a vital connection with students, families, the transition program, and the community agencies involved in comprehensive student-focused planning. Quality personnel can help the collaborative efforts for implementing the transition services necessary for student benefit. Six follow-up studies indicated or implied the importance of interagency collaboration (see Tables 2-5), which also implies the relationships between the program personnel and the community agencies, and ultimately the quality of the transition goals for the student.

Table 2-5

Clustered Student and Program Variables

Student and Program Variables	**Studies**
Work Experience/Vocation Education (26 studies)	Benz et al., 2000; Brolin et al., 1975; Dinger, 1961; Dunn & Shumaker, 1997; Edgar, 1987; Fabian, 2007; Fourqurean et al., 1991; Hasazi et al., 1985a; 1985b; Hasazi, 1989; Leibert et al., 1990; Lindstrom & Benz, 2002; Mithaug et al., 1985; Rabren, et al., 2002; Roessler et al., 1990; Sitlington et al., 1985; Wagner, 1995; Wagner & Blackorby, 1996; Wehman et al., 1985; Wehmeyer & Schwartz, 1997.
Self-Determination (18 studies)	Benz, 2002; Benz et al., 2000; Doren et al., 2007; Dunn et al., 2004; Gerber et al.,1992; Gerber et al. 2004; Goldberg et al., 2003; Hasazi et al., 1985b; Leibert et al., 1990; Madaus, 2006; Lindstom & Benz, 2002; Raskind et al., 1999; Raskind et

	al., 2002; Rojewski, 1999; Sitlington et al., 1985; Skinner, 2004; Wehmeyer et al., 2007; Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997; Whitney-Thomas, 2001.
Family Support (12 studies)	Fourqurean et al., 1991; Gerber et al., 2004; Halpern et al. 1995; Haring & Lovett, 1990; Hasazi et al., 1985a; 1985b; Heal & Rusch, 1995; Leibert et al., 1990; Lindstrom & Benz, 2002; Roessler et al., 1990; Shalock et al., 1986; Wagner, 1995.
Interagency Agency Support (9 studies)	Benz et al., 2000; Brolin et al., 1975; Collet-Klingenberg, 1998; Doren et al., 2007; Frank & Sitlington, 2000; Hasazi et al., 1985a; Shalock et al., 1986; Sitlington et al., 1985; Wagner & Blackorby, 1996.
Transition Education (3 studies)	Collet-Klingenberg, 1998; Lindstrom & Benz, 2002; Sitlington et al., 1985.
Program/Personnel Qualities (3 studies)	Benz, 2002; Collet-Klingenberg, 1998; Dunn et al., 2004.

National Perspective on Follow-up Data

Postsecondary Education Outcomes

Overall, 28% of students with disabilities exit high school without a diploma or certificate of completion (Newman, 2005). The discrepancy of notice comes with the 61% of parents who expected their children to continue education after high school and the 31% of students who took a postsecondary class within 2 years after high school. Only 6% of students with disabilities reported current enrollment in postsecondary

education during the NLTS-2 data collection while 28% of regular education students reported current enrollment. These low numbers contrast staff reports that 77% of student plans stated postsecondary education goals. The discrepancy between stated goals and student outcomes brings into question the action steps and preparation provided by schools for students to achieve their desired outcomes.

Large differences existed between parental employment expectations for students and actual student employment outcomes. According to the NLTS-2 data, 90% of parents expected their children to gain paid employment upon exiting high school. Despite 70% of the transition goals stating employment goals, only 43% of the students worked for pay during wave 2 data collection (Wagner et al., 2005).

The variables identified in this review highlight the interconnectedness between the program variables and their relationship with the student variables. Specifically, in order for the student to gain the necessary skills and experiences to both develop and implement their postsecondary goals, the transition program must include and ensure certain facets linked to successful student preparation. As suggested by research on best practice, programs must include a supportive structure that enable academic, functional, and vocational exploration and placement for students, families, and transition professionals to appropriately and accurately assess students to ensure a full range of preparation needs. The program structure and instruction must enable collaboration with family and community to effectively teach self-determination and soft vocational skills, and provide opportunities for students to explore and practice such skills to achieve their goals in a postsecondary environment.

Minority Postsecondary Outcomes

The worst postsecondary outcomes of students with disabilities are found with minority student populations, particularly African-American, Hispanic, and American Indian students. The most comprehensive reflection of national statistics for students with disabilities is demonstrated through the National Longitudinal Study (NLTS). According to the NLTS2 Wave 3 results those students currently working a year or more out of high school 34.6 % of African American, and 45.3% of Hispanic students are employed (NLTS2 did not report employment for American Indian). These numbers fall far below employment rates of White student with 62.4% currently employed.

The most recent numbers from the NLTS2 for enrollment in a 4-year institution by ethnicity signify 8.8% of White students enroll in comparison to 5.5% of Hispanic, and only 1.9% of African American. Again, NLTS2 results did not include American Indian representation. Instead, the National Center for Educational Statistics (NCES) reveals some disturbing overall numbers for minority students, particularly with regards to American Indian graduation rates, dropout rates, and unemployment rates. The 2002 NCES data indicates that 75% of the American Indian sophomores graduated with a standard diploma in 2006. This group recorded the lowest percentage of all minority groups with Hispanic showing 81%, Black 82%, and White 91% graduated with a standard diploma. The overall recorded dropout rate for 2006 showed Hispanics with the highest number at 21%, American Indians at 16%, and White students at only 7%. The unemployment rates for youth 16 years and older with no diploma showed American Indian students leading the category with 29% unemployed, Black youth indicated 19%, and White youth indicated 12% unemployed. These numbers pail in comparison to the overall unemployment rates where again American Indians lead the category with 12%,

while White rated only 5% unemployed overall (NCES, 2007). These numbers highlight the disparity both between the secondary outcomes among minority students as well as the long-term effects for employment rates and postsecondary outcomes.

Indicator 13

The U.S. Department of Education, Office of Special Education Programs developed a state-performance plan with which states must comply. The plan consists of a series of indicators relative to student performance and activity. According to the National Secondary Transition Technical Assistance Center, a federally funded organization, Indicator 13 is: "The percent of youth aged 16 and above with an individualized education program (IEP) that includes coordinated, measurable, annual IEP goals and transition services that will reasonably enable the student to meet the post-secondary goals" (www.nsttac.org). Refer to Appendix A for Indicator 13 document.

This literature review (a) documents the path that the field of special education traveled to develop meaningful postsecondary goals that prepare students with disabilities for future settings and (b) reviews the literature addressing school performance on student goal development and transition assessment. Determining student success as merely vocational attainment evolved to the clearer understanding that supports and develops student skills necessary to achieve the overall adult adjustment. The special education field broadened the essential transition framework of components to include self-determination, family involvement, interagency collaboration, and work education and experience (Kohler & Field, 2003). The IDEA 2004 (P.L. 105-17) legislative response concurred with this determination and mandated three postsecondary goals for the transition IEP plans to include employment, postsecondary education and training, and

independent living goals based on transition assessments (Morningstar & Liss, 2008; Shaw, 2006). The law provides this mandate without mentioning instruction for how schools and transition teams must accomplish this task. However, the research literature does provide guidance for appropriate transition assessment tools that meet the legal mandate as well as suggested best practice along all three goal components (Clark, 1996; Miller, Lombard, & Corbey, 2007). Goal identification for students begins with their postsecondary vision. The federal mandates now reflect an opportunity to plan for that living, learning and working vision. For the sake of this question, I will cover strategies that exist to determine student postsecondary living, learning, and working goals, and how school transition programs fare with transition planning for students with disabilities.

Transition in the IEP

The initial utilization of assessments for students with disabilities and planning primarily focused on employment outcomes. As follow-up studies demonstrated, the career education models of the 1960s allowed for job placement but did not incorporate planning aspects that individualized needs to match the placement, as shown with the poor vocational outcomes (Edgar, 1987; Hasazi et al., 1985a; Mithaug et al., 1985; Roessler et al., 1990). The 1970s brought about the career-education or school-to-work programs that began to link vocational education to community job placement. Research recommended that career assessments begin in elementary school as an ongoing process through adulthood transition (Sitlington, Brolin, Clark, & Vacanti, 1985). This movement did adhere to other research recommendations regarding the need for structured interagency agreements, but funding issues hampered the progress, and by the 1980s the

movement evolved into transition education based largely in the secondary school (Sitlington, Frank, & Carson, 1992). As early as the 1970s, the special education field understood the transition planning process needed to address a wider range of postsecondary environmental adjustments instead of only career placement and experience (Brolin, 1978; Brown & Kayser, 1982; Halpern, 1985; Wehman, Regel, & Seyfarth, 1985). Transition planning based on disability education mandates held schools to the responsibility of individualizing education and setting appropriate goals for students based on "present levels of performance" (Clark, 1996).

IDEA 1990: Transition Services

The field interpreted present levels of performance to primarily concern academic and vocational levels; however, the reauthorization of IDEA 1990 clarified this by specifically stating the domains to include living, learning, and working goals (Shearin et al., 1999; Sitlington, 1996). To this point in transition practice, vocational assessments predominated the postsecondary goal assessment for student planning (McMahan & Baer, 2001). Vocational assessment primarily pertained to the role of worker for the student (Sitlington et al., 1997). In contrast, career assessment broadened the scope to include information on various domains a student would embrace including citizenship, leisure, and recreation (Sitlington et al., 1985). IDEA 1990 defined transition services to include postsecondary living, learning, and working goals, and the actual activities to take into account preferences and interests. The law did not tell schools how to determine student preferences and interests until the requirement for transition assessment appeared in IDEA 2004. Clark (1996) proposed transition assessment with the idea of including it in the IEP process. Roughly eight years later, the need from the field became reflected in

the legal educational mandate, as IDEA 2004 required transition assessments to formulate postsecondary goals.

IDEA 2004 first mentioned transition assessment and implied the assessment results drive the determination for postsecondary goal development. The legal initiative for transition assessments derived from a long history of research and practice findings. Prior to the IDEA 2004, the field of special education research determined the need and purpose for transition planning and the vital use of transition assessments (Repetto, White, & Snauwaert, 1990). Accurate transition planning to cover living, learning, and employment goals required the use of both formal and informal assessments (Flexer & Luft, 2001). Sitlington and Clark (1996) explained the transition assessment to include the full age range from early childhood through adult life for career and vocational assessment. The transition process should identify individuals' strengths, needs, preferences, and interests in all areas necessary to facilitate a productive and individualized transition (Greene, 2003). The Division for Career Development and Transition formally defined transition assessment in 1996.

> Transition assessment is the ongoing process of collecting data on an individual's strengths, needs, preferences, and interests as they relate to the demands of current and future working, educational, living, and personal and social environments. Assessment data serve as the common thread in the transition process and form the basis for defining goals and services to be included in the Individualized Education Program (Sitlington, Neubert, & Leconte, 1997).

Sitlington et al. (1997) recommended developing a transition assessment plan, which suggests multiple assessments for each component relative to the student. Dunn (1996) proposed using transition checklists to help formulate postsecondary goals. Schools searched for viable strategies to conduct transition assessments. Leconte (2006) suggested transition assessment formulated from educational diagnostic evaluation;

however, the law (IDEA 2004) broadened this thought tremendously by including a course of study, which implies traditional characteristics of functional assessments that require on-going processes of student evaluation (Leconte, 2006). DCDT endorsed assessment methods that took place in natural settings with the use of employer, family, teacher, and student input for a more comprehensive conception of the student's preferences, strengths, and interests (Sitlington et al., 1997). The goal of individualizing assessment remains student-focused and tailored to facilitate student needs, preferences, interests, and strengths (Sitlington, Neubert, Begun, Lombard, & Leconte, 2007). Promising transition planning practices in some follow-up literature showed students who self-set their transition goals achieve more positive postsecondary outcomes (Benz et al., 2000; Wehmeyer, 2003). These results imply best practice for student centered planning and involvement (Halpern, 1994; Kohler, 1993; Lohrmann-O'Rourke & Gomez, 2001).

Transition Planning Prior to IDEA 2004

The transition assessment methods used to set goals across domains varied greatly and remains largely unidentified in schools (Thoma, Held, & Saddler, 2002). Several studies examined transition practice as it applied to IEP development prior to IDEA 2004 (Grigal, Test, Beattie, & Wood, 1997; Shearin, Roessler, & Schriner, 1999). Shearin et al. (1999) evaluated IEPs (n = 68) from two high schools in the mid-southern U.S. for mandated transition items. They reported 78% of the IEPs absent of postsecondary education goals, 43% of the IEPs did not contain employment instruction or action steps, and 66% of the IEPs reviewed did not address living options. In terms of suggested best practice, their review of the IEPs found that an astonishing 91% of the transition plans did not address self-determination (self-advocacy). When addressing parent and student

participation in the planning meeting, fewer than 30% of parents and students attended the meetings. Similarly, Defur, Gretzel, and Kregel (1994) reported fewer than half of the students attended their IEP meetings. These results bring into question the reality of school practices for preparing students with the legal mandate and suggested best practice for transition planning.

Similarly, Grigal et al., (1997) evaluated 94 IEPs solely for transition components and determined the legal mandate for compliance did not equate to quality transition plans according to suggested best practice. They found most of the plans contained vague goal statements and timelines and lacked long-range planning activities (Grigal et al., 1997). The student's vision of where a student wants to go and what they want to do after high school should serve as the beginning point for their goal determination. Grigal et al. (1997) reported only 4.3% of the IEPs included a statement reflecting the student and family vision. More alarming, only 42.6% of the IEP goal sheets received an annual revision, which meant over half of the transition plans remained unchanged from the year before. For the quality of the goals stated, 53.1% of the employment goals received a rating of adequate, while only 48.9% of the education goals received equal rating (rating of adequate meant the goal stated action steps).

Transition IEP plans can adhere to the legal mandate and yet miss the quality action steps to carry out the minimal requirement to actually assist students to meet their postsecondary goals. Everson, Zhang, and Guillory (2001) investigated transition plans in Louisiana both for the legal mandate adherence and quality assurance. Of the 390 transition plans reviewed, none contained a student vision statement, which indicates from the onset the lack of student-centered planning. On the positive side, 62% of the

transition pages contained action steps for the desired student outcomes, and 85% of the transition planning meetings were held on the same day as the IEP meeting, demonstrating a clear link between the plans. Also, 88% of the plans reported post-school outcomes--more than 60% pertained to postsecondary education, vocational training, and independent living. Unfortunately, fewer than half of the plans addressed employment. As with other findings regarding the participants at the meetings, this study indicated only 4% to 7% of the transition plans included outside agencies. This study did not examine the methods for determining goals, evaluating only the content of the plans. Examining the methods for determining goals provides the level of individualization with student goal development.

Thoma et al. (2002) specifically examined the use of transition assessments. In a multi-state examination of transition assessments, the researchers surveyed 84 special educators' knowledge about transition assessments. When presented with a list of assessment strategies, the three highest strategies used by teachers included student survey, student interviews, and observations. The majority of the survey responses indicated teachers encouraged student involvement with the highest indicator stating an invitation to the meeting. However, 75 of the 84 teachers did not respond to what method or strategy they used for involving the student (Thoma et al., 2002). Clearly, as one of the only studies assessing educator knowledge of available assessments for determining appropriate goals, these results demonstrate a severe lack of effective data gathering for selecting goals. Asking a student their interest and preference signifies very little to the extent of their aptitudes and abilities. Therefore, upon the reauthorization of IDEA 2004, mandates for assessments and postsecondary goals came as no surprise to the special

education research field.

Transition Assessment

Transition Goal Development and Assessment Use Post 2004

Post IDEA 2004 scant literature exists demonstrating the practices regarding school performance for administering and using transition assessments to determine student transition goals. Zhang et al. (2005) conducted a program study in South Carolina that assessed professional staff beliefs on program compliance mandates and suggested best practice for transition planning. Not surprising, the largest rating discrepancy for transition practice components among educators existed with assessment and transition education for compliance to the new legislation. In this study, the lead teachers rated the area of assessments as one of the weakest components of their program. This finding did not adhere to the 92% rating that transition personnel reported regarding their belief that the use of assessments took place for planning transition services (Zhang et al., 2005). These findings bring to question the reliability in both personnel definition and application of transition assessments with regards to the quality of the postsecondary goals stated on their IEPs.

Determining how schools achieve accurate goals for students requires an examination of the content of goals as well as their relevance to the postsecondary pursuits of students with disabilities. In an evaluation of 399 IEPs, Powers et al. (2005) reported approximately 63% of the goals did not include specific details or no action steps. The study also indicated vague goal statements, which matched previous results from studies prior to the transition assessment mandates of 2004 (Grigal et al., 1997). Compliance for IDEA monitoring mandates requires schools to state a measurable goal

without stating the actual assessment used to determine the goal. Without effective planning components in transition plans that match student and family needs, students with disabilities will continue to struggle in postsecondary pursuits.

Effective planning requires accurate planning components that adhere to individualized considerations for goal development (Leconte et al., 2007; Powers et al., 2005). In a follow-up student interview study, Thompson, Fulk, and Piercy (2000) compared student outcomes to corresponding transition plan goals to determine the disparity between the goals stated on the transition document. Many of the supports necessary to facilitate the transition goals did not match the goals stated. For example, eleven of the 12 upper-classman students hoping to pursue some form of postsecondary education or training did not complete a college entrance exam and none contacted a college disability service center (Thompson, Fulk, & Piercy, 2000). Another missing piece between goals and supports existed in the expectations of the family and the actual transition plan goals. The major discrepancy between student and family expectations for supports needed and the actual transition plan document contents showed only 9% of the plans included a service provider despite the fact that most families wanted assistance from service providers (Thompson et al., 2000). These studies provide small but specific samples of transition practice in secondary schools. Actual practice of goal development sheds less than favorable light on the field. McMahan and Baer (2001) indicated just over 60% of the schools involved in their survey did not have interagency transition team in place, thus limiting the scope of input during the planning development.

The National Longitudinal Study, waves 2 and 3, provide the broadest sweeping scope for determining the state of transition planning with well over 250,000 participants

represented in each wave. The initial study (wave 1) began in 1984 to evaluate how the Education for All Handicapped Children Act accomplished the education of students with disabilities (Blackorby & Wagner, 1996). From a variety of parent, student, and professional interviews and survey responses, the data provides glimpses into many aspects of special education. Wave 2 data indicate 54.3% of students reported involvement in the transition planning process, and teachers reported 74.7% of the plans contained a course of study (NLTS Wave 2). Involvement in the planning process signifies only one aspect of appropriate planning. The physical representation of team members other than the school personnel and family showed the vocational service provider as the highest participant with attendance at 25% of the meetings. More indicative to the content of the transition plans in wave 2, 44.1% of the primary goals stated postsecondary education, 35.2% stated vocational education, 53.1% stated competitive employment, and 43.9% addressed independent living. This data represents a large sample of the country and their poor performance of stating the three main postsecondary goals for student transition plans. According to the wave 2 data, 88.3% of the students reside with their parents or guardians and only 55.1% held a job at the time of data collection (Wagner et al., 2005). Wave 2 data also indicates a discrepancy between postsecondary goals and the reality of student outcomes. Seventy seven percent of the students' transition plans stated a postsecondary education goal, and only 31% of the students had taken a course within two years of graduating.

The actual representation in wave 3 for those students in wave 2 plans indicates 30.7% of the students received some form of vocational service in the last year. This data could correlate to the 29.4% of vocational programs contacted by schools in wave 2. A

significant problem with this data consists of the lack of direct correlation of participants and content of the transition plans. Issues of importance to make a clearer judgment of quality would entail quality assurance of the actual transition goals (i.e., measurable, based on an appropriate assessment, individualized, and steps to progress the student toward the goals). Lohrmann-O'Rourke & Gomez (2001) expanded on existing literature that supported poorly stated transition goals that lacked quality. Indicator 13 does not determine whether goals are measurable or based on a specific age-appropriate assessment, but rather if the transition plans state goals based on any assessment.

Specific to the more detailed questions regarding the use of transition assessment, Morningstar and Liss (2008) conducted a survey to 36 educational agencies to determine how they interpreted and used transition assessments. Only five of the 36 state respondents indicated they established new policies that either define or clarify transition assessment. The survey results also indicated the use of specific assessments. Forty-two percent of the states recommended specific assessments and of those, career and occupational interest inventories ranked highest for professional preference (Morningstar & Liss, 2008). Thoma, Held, and Saddler (2002) suggest many special educators learned about transition assessment through self-study. The majority of the respondents chose not to answer when asked to identify the assessment they use for their students (Thoma et al., 2002). McMahan and Baer (2001) noted transition personnel rated lowest on educating themselves on transition practices and requirements. These research findings indicate the lack of both compliance of Indicator 13 as well as with the use and understanding of strategies to determine goals for students with disabilities.

Clarification Necessary

The field of special education must clarify the terminology of transition assessments in order for schools to appropriately determine and use effective tools for goal setting purposes. Because assessments related to transition in the IDEA 2004, many schools interpreted it to mean evaluation similar to diagnostic evaluation (Shaw, 2006). As indicated by Morningstar and Liss (2008) approximately one-fourth of the states surveyed interpret transition assessment as a special education evaluation or tri-annual evaluation. This data shows alarming misinterpretation to the intent of the special education best practice that transition assessments should be both individualized based on the particular student and ongoing. Further, the intent of best practice for assessments misaligns with actual practice in the field, particularly with student involvement and student-centered planning. Both NLTS-2 data and literature findings indicated the majority of meetings involve active participation when reality from the field shows a different practice (Cameto et al., 2004; Thoma et al., 2002). Schools and transition professionals require more identification and instruction on useful assessments that range across all domains, functional, academic, self-determination, vocational, and adaptive behavior to properly explore the development of student goals.

Ineffective or incomplete transition practices and procedures effects more than student postsecondary outcomes for the schools. In *East Penn School District v. Schott B.* (1999) the school only provided vocational education. The hearing officer determined the school did not individualize the planning and transition services and did not address personal needs or recreation opportunities. Parents received 608 hours of compensatory education for their child (Etscheidt, 2006). Due process cases exist in every realm of transition best practice signifying the dismal misuse of transition planning and services

for servicing students with disabilities. The field requires an inquiry to determine whether schools performance in transition component evaluations incorporate quality goals based on age-appropriate transition assessments on their transition plans.

Conclusion

The basic premise of educating students with differences changed little from the initial work of Itard and Howe, because their work provided a value to individuals not previously valued in the society at large. Whether history is deconstructed by legislation, judicial findings, research, school practice, or legal mandate, the premise of valuing students with differences guides our work today. History shows a path of sincere consideration that values enough to individualize, deem worthy of learning and functioning in society, and respects the varying abilities for all students. The field advanced enough to expand the consideration to include a student's choice and voice in decisions, to find components necessary to prepare to the best of a school's ability and resources for future settings, and to develop IEPs and transition plans based on individual needs, strengths, preferences, and interests in order to discover the best avenue for future goals.

The field of transition research demonstrated direction for suggested best practice based on sound student outcome data of student outcomes, which continues to influence legislative, judicial, and educational practices. Based on the diverse array of follow-up data indicating the pulse of educational transition practice, the student outcomes show improvement on postsecondary adjustment. However, there remain significant barriers to fulfilling best practices in transition planning and service delivery for students with disabilities. Many barriers identified in the literature impede effective transition

assessment in order to determine appropriate student goals. A remaining question to the field does not deal with the results of current practices, but rather how the structure of transition programming effectively carries out best practices for their students with disabilities.

In essence, the transition field needs to better clarify which of the transition education components effects student outcomes. States measure student outcomes upon four distinct State Performance Plan (SPP) Indicators: (a) indicator one measures student graduation rate; (b) indicator 2 measures student dropout; (c) indicator 13 measures quality of the transition plan; and (d) indicator 14 measures the student postsecondary education, employment, and living outcome one year after exiting high school. This study aims to examine this very issue. Chapter three will describe the methods and procedures used in this dissertation.

CHAPTER 3

Methodology

This dissertation study involved assessing high school transition programs serving students with disabilities across New Mexico using transition education program variables associated with positive student postsecondary outcomes. In order to assess these program variables and student outcomes, a pool of special educators, transition personnel, and special education coordinators at high schools from across the state received a program variable evaluation on-line survey to complete. I compared each school's indicators 1, 2, 13, and 14 data results to the transition program variable survey results (see Tables 3-1, 3-2).

Settings and Participants

This study contained a pool of 66 New Mexico public school districts. The exclusions to the pool included charter schools, private schools, and Bureau of Indian Education schools due to the lack of access to their state performance plan data and educator contact information. I contacted each district special education coordinator in the state by email to determine the names of the transition personnel and special education staff. From the State Public Education Department contact list of special education coordinators, only 16 responded to my email enquiry for staff contacts. Nine coordinators declined participation due to time constraints of their teaching staff, and seven coordinators offered email lists for their special education staff. I accessed an existing email list serve for the state Transition Cadre for current email contacts for known transition personnel across the state from Dr. Ginger Blalock. Dr. Blalock serves a prominent role for the New Mexico State Transition Planning Council, and leads

numerous teacher education and staff training efforts related to transition program development. I gained another 117 special educator emails from the Public Education Department individual school websites for special education staff. Lastly, I accessed the email sign-in sheet from a regional transition Cadre held in early 2009.

The targeted survey participants included secondary transition personnel, special education teachers, and department chairs or coordinators. The first category, transition personnel consist of special educators, transition specialists, special education coordinators, and/or service providers who served as case managers in charge of implementing transition plans for their high school students with disabilities. Some schools did not employ a transition specialist on a staff due to the small size of the school, so the survey data went through their secondary education case manager who usually worked as a classroom educator. The third demographic category for survey responders included special education department chairs or coordinators. Twenty-two school districts did not disclose education staff contact emails listed on their school websites.

Of the 89 total school districts in New Mexico, this study pool represented 66 of those districts. The individual survey respondents represented 36 districts of the 66 districts in the total represented district pool in New Mexico. The size of schools districts varied between a high of 95,965 students to as small as 110 students. The individual survey response rate achieved 40% with 83 special education professionals directly involved with secondary transition education efforts. The total individual participant breakdown consisted of 22 transition specialists, 48 special education teachers, and 13 special education coordinators (see Table 3-1).

Table 3-1

Number of Districts Included in Survey with Participant Role Breakdown

Number of District	(n)	Participant Role	(n)
Total districts in NM	89	Transition Specialist	22
Districts in Pool	66	Special Education Teacher	48
Districts Represented	36	Special Education Coordinator	13

Dependent Variables

I gathered individual school demographics through state internet data for total school district student population, ethnicity population, overall dropout rate, number of students on free and reduced lunch, and the State Performance Plan (SPP) indicators 1, 2, and 13 data derived from two separate sources. Indicators 1 (Graduation Rate with Standard Diploma) and 2 (Dropout Rate) data were collected via Student and Teacher Academic Reporting System (STARS) by each public school district in the state to the Public Education Department (PED), Special Education Bureau (refer to http://www.ped.state.nm.us/).

For the past three years, the state contracted duties to conduct Indicator 13 reviews for one – third of the districts each year. Therefore, school year State Performance Plan (SPP) district data for 2005/2006, 2006/2007, and 2007/2008 received examination to verify accurate data for academic years 2005 and 2006 as well as 2006 and 2007 academic years were publically accessibly via the state department website (http://www.ped.state.nm.us/). The New Mexico Public Education Department (PED) did

not publish school year 2007 and 2008 Indicator 13 data. I collected 2007 and 2008 Indicator 13 data through Dr. Blalock's data collection in February 2009. Indicator 13 data collection SY 05/06, 06/07, and 07/08 used the O'Leary Transition Requirements Checklist (TOP) measurement tool (see Appendix D). The state used a trainer-of-trainer model for assuring data collection across the state for this Indicator. To determine the level of compliance with transition IEP paperwork the TOP tool used four questions pertaining to postschool and annual goals, based on age-appropriate transition assessments: (a) training; (b) education; (c) employment; (d) where appropriate, independent living skills. These four goal areas could be marked with a simple "Yes," "No," or "N/A." To receive a "Yes," only one of the four questions needed a satisfactory goal statement. Therefore, an IEP could pass the measurement with only one out of four goal statements. The full criteria for achieving a "Yes" consisted of the IEP containing a postsecondary goal, measureable transition services/course of study, and an annual goal. These three areas of transition competencies listed on the TOP tool got evaluated in the IEPs for these three years, but did not get reported to the Office of Special Education Programs.

For the purposes of Indicator 14, (postsecondary student outcomes) the data gathered for this project included the number of students currently employed either part-time or full-time, as well as enrolled in some sort of post high school or training. The NM Public Education Department (PED) did not publish the 2007-2008 SPP data for Indicators 1 (graduation rates), and 2 (dropout rates); instead, I collected 07-08 district Indicator 1 and 2 data via personal visit to the state's PED in February 2009.

Each district collected Indicator 14 (Student Postsecondary Outcomes) 2007/2008 data for the state high schools through student or parent/guardian interview. Individual high schools assigned staff personnel to make subject contacts via phone, face-to-face, or paper and pencil survey to complete the Indicator 14 data collection. The survey tool used for this state involved numerous questions regarding the students' living, learning, and working experiences over past year since the student exited high school. This collected data was forwarded to the Northeast Regional Education Cooperative (NEREC) for data analysis. For school year 2007/2008 Indicator 14 data, the NEREC was contacted for access to the data for this project. I reported all Indicator and individual district data on district data sheets that also recorded representative emails in the pool of survey participants.

Design

This survey study evaluated transition program components and student outcomes based on extant data for Indicators 1, 2, 13, and 14. The SurveyMonkey services through Center for Educational Development and Research (CEDAR) in the Jeannine Rainbolt College of Education at the University of Oklahoma distributed and collected the educator surveys. I sent three rounds of the survey from the end of January to the end of February. I matched survey responses with each respective school district location and SPP Indicator scores reported from the state STARS data for comparison. The self-made survey reflected theoretical research components of effective transition components (see Appendix B).

Measurement Tool

I developed The Transition Program Practices Survey through analysis of program variables identified in the professional literature associated with successful postsecondary outcomes of students with disabilities (refer to Chapter 2). The specific questions followed the five program components found directly in the research literature: (a) transition education; (b) career technical (vocational) education; (c) work experience; (d) agency collaboration; and (e) personnel (see Appendix B for the complete program variable survey tool).

The process of developing the program survey tool questions began with obtaining the exact language that described the program variables used in the identified studies. At times these studies did not clearly identify or describe the program variable and used vague terms such as transition instruction (Frank & Sitlington, 2000). After advisement from committee members, I used the theoretical literature to obtain clarity for program variables (see Table 2-5).

The self-made survey tool underwent 14 drafts with revising and review suggestions from my committee members. After drafts 6 and 13, I sent the survey tool to eight New Mexico transition professionals for feedback on length, clarity, comprehension, and asked for specific suggestions to improve survey questions. The survey received the following changes upon the first round of feedback: (a) consistent word choice needed; (b) clarify the directions; (c) distribute the survey on-line; (d) make answer choices an estimation out of the total rather than an open ended estimation percentage number; (e) delete school identification to ensure confidentiality; and (f) use the word estimate versus approximately.

Ten New Mexico transition professionals provided second round feedback on the thirteenth draft of the survey. These transition educators provided the following suggestions:(a) shorten the length; (b) clarify IEP meetings attended or IEP meetings for student case-load; (c) use bold to denote annual and postsecondary goals; (d) add the word “estimate”; (e) add the word “your” to indicate who’s students; (f) eliminate the vocational counselor from survey participant; (g) ask percentages; (h) ask for approximate numbers in the directions; (i) expand the directions for Part II to clarify specifics. The Dissertation Committee Chair reviewed the pilot suggestions and I made the modifications. One committee member wanted me to place the annual goals questions before postsecondary goals.

The construction of each survey question aligned with the transition components found in the literature (see *Independent Variables* section later in this chapter). The survey respondents answered the individual questions by stating the estimated number of students they chose for each question out of the total number of students their case load consisted of. My committee and I chose this estimation process because it allowed for more accurate information of raw student numbers instead of estimating the single percentage number.

I submitted draft # 15 of the survey to OU’s Institutional Review Board (IRB). The IRB approved this study in late Fall of 2008 (see Appendix C), and I immediately began recruiting transition and special educator staff to complete the survey.

Procedure

Once the University of Oklahoma Institutional Review Board approved the study, data collection and recruitment commenced. Each educator in the participant pool

received an invitation to the program survey tool via personal email. The initial invitation email contained general information including an introduction to the researcher, the purpose of the study, and an invitation to participate in the study (see Appendix E). I used three email follow-up contacts to prompt completion of the program survey tool. For the first two consecutive weeks, I resent reminders to the entire pool of educators and encouraged survey completion. After the entire pool received two reminders preliminary results from the SurveyMonkey system reported the educators' computer IP address rather than their email, which made it difficult to identify non-responders from responders. I used previous statewide surveys obtained from the Northeast Educational Regional Cooperative contact data to match school IP addresses with the responder list for this project from SurveyMonkey results. Several responders were not identified after the list matching, at which time, another email was sent to the entire educator pool to request their IP address using the web site www.whatismyIPaddress.com. Simultaneously, the website www.ip2location.com was used to locate each IP address of all respondents who completed the survey as well as cross-check each IP address match made from NEREC data. Only 3 IP addresses did not get identified to a specific town location, so they were discarded from data-analysis.

I matched the educators of the IP addresses to the survey responder list using the demographic information of educator role and location. All identified survey non-responders received a third email reminder to complete the survey promptly. After three email notices, I called the school districts that did not respond to the survey in the initial pool of districts to further encourage survey completion. I left phone messages at all but one school location. A second call was not made due to the high number of respondents

for the first two distribution waves of the survey. When the third survey distribution wave results showed three of the seven respondents declined participation, I felt the survey pool reached exhaustion.

Tabulation of the respondent school locations occurred using the SurveyMonkey service in order to score the evaluation. The SurveyMonkey service sent me all survey respondent data and I converted to SPSS spreadsheets for further study calculations.

Access to the schools' State Performance Plan Indicator data occurred through either the New Mexico Public Education Bureau (refer to http://www.ped.state.nm.us/) or directly with the school site via state agency website information (also refer to http://www.ped.state.nm.us/). For example, the National Secondary Transition Technical Assistance Center website contains the indicator 13 data for all states. I gathered the Indicator 13 district data from Dr. Blalock's data-base from the New Mexico collection for 2007-2008. The Northeast Regional Education Cooperative in the state (NEREC) contained all the New Mexico 2007-2008 Indicator 14 data (44% overall response rate).

Independent Variables

For research question one, the following survey questions served as the independent variables by survey question number: (a) transition planning (Q2); (b) transition assessment (Q3, 4); (c) self-determination (Q 5, 7, 9); (d) life skills (Q11, 13); (e) vocational education (Q 15, 16, 17, 18, 19); (f) interagency collaboration (Q20); (g) student and family involvement (Q 21, 22, 24, 25). For research questions 2-5, the survey questions aligned with the three independent variables differently due to the focus of transition education (e.g., transition planning (Q2, 3, 4, 5, 7, 9, 11, 13), vocational education (Q15 -19), interagency collaboration (Q20), and student and family

involvement (Q21, 22, 24, 25). See Table 3-2 for further clarification of transition program components.

Table 3-2

Independent Variables for Research Question #1

Transition Components	Survey Questions
Transition Planning	Survey Question #2
Transition Assessment	Survey Question #3, 4
Self-Determination	Survey Questions #5, 7, 9
Life-Skills	Survey Questions #11, 13
Vocational Education	Survey Questions #15, 16, 17, 18, 19
Interagency Collaboration	Survey Questions #20
Student and Family Involvement	Survey Questions #21, 22, 24, 25

Because research questions numbers 2, 3, 4, and 5 asked for "transition education components," I split the 25 survey question responses into three education variables for analysis for research questions 2-5. I combined the grouped district mean responses to survey questions 2, 4, 5, 7, 9, and 11 to form transition planning education (TP) variable because they all related to transition planning. I combined the grouped district mean responses to survey questions 15 through 18 to form the vocational education (VE) variable because of their vocational education focus. I combined the grouped district mean responses to survey questions 21, 24, and 25 combined to form the student and family involvement (SF) variable because all four questions focused on the involvement

of the parents and students during the IEP meeting. The distinction for the student and family involvement variable comes in the discussion of the variable. Survey question 21 required the education personnel to estimate the number of IEPs that parents attended, the number of students on their caseload who received specific instruction to express their opinion about goals, and number of students who expressed their opinions about goals at the IEP meeting (see Table 3-3). Throughout the discussion of the SF variable, the family involvement (Q21: "Of the IEP meetings that you attended in the last year, how many had at least one parent or guardian present?") component will use (FI) to discuss family, and the student involvement (Q24: "How many of your students with IEPs received formal instruction on how to express their opinions in their IEP meetings?": Q25: "When the student attended the meeting, how many expressed their opinion about their goals during transition meeting discussions?") components will use (SI) to discuss implication of results regarding the student directly. The research literature focuses on "family involvement" as a major transition program component; however, for transition education, the student involvement component achieves more accurate portrayal of actual education components.

Because the range of district survey response means ranged from 0-100 estimated percentages, I split the responses into three categories of percentages. The distribution of splitting the district means into three categories (high, medium, and low) by using a full standard deviation did not allow for even distribution of scores among the three categories. The categories consisted of high, medium, and low by subtracting and adding the grouped district standard deviations to the district mean scores. In all three cases I used half of the standard deviations of the total means in order to have comparable

numbers in each of the three level categories. The high category resulted from adding a half standard deviation to the district mean scores. The low category resulted from subtracting half a standard deviation of the district mean scores. The medium scores existed as all district means that fell between the high and low category scores. I used a half standard deviation in order to help ensure even distribution of the three categories of scores. I used a multivariate test in order to answer the research questions 2-5 for all three independent variables against the four independent variables (Indicators 1, 2, 13, and 14).

Table 3-3

Independent Variables for Research Questions 2, 3, 4, and 5

Transition Education Components	Survey Questions
Transition Planning (TP)	Survey Questions #2, 4, 5, 7, 9, 11
Vocational Education (VE)	Survey Questions #15, 16, 17, 18
Student and Family Involvement (SF)	Survey Questions #21, 24, 25

Note: For discussion purposes, variable (SF) is split into two components (Student involvement (SI), and Family involvement (FI)).

Analysis

Each survey respondent reported raw numbers (e.g., ___ number of student out of the total of ___) for each of the 25 survey questions linked to the four transition components. I calculated these raw scores for each respondent into percentage scores for each of the 25 survey questions. When respondents indicated “don’t know,” the score received a report as missing data. I averaged the scores for individual survey questions across all participants representing that district, which I then entered into the SPSS

spreadsheet showing each survey participant. For comparison purposes each district needed a combined mean so that each district carried the same calculating weight for the multivariate tests. Therefore, each of the school district personnel responses got averaged into one mean for each of the survey questions so that each district had one score for each of the 25 questions per district.

For research question one, district means got averaged together for each of the 25 questions in order to determine the extent schools in this state scored on the survey components. The first 14 survey questions measured the extent of transition planning (TP). I grouped the first 14 survey questions into four sub-sections: (a) transition planning; (b) transition assessment; (c) self-determination; and (d) life-skills.

Research questions 2, 3, 4, and 5 called for a multivariate analysis to compare the difference between the dependent variables (Indicators 1, 2, 13, and 14) and the independent variables (transition education program variables). The independent variables (i.e., TP, VE, SF), determined by combining selected survey answers into three categories (i.e., low, medium, and high groups), represented the three overall transition education components (transition planning, vocational education, and parental/student involvement).

Transition planning (TP) scores combined questions 2, 4, 5, 7, 9, and 11 for mean and standard deviation scores to find the three level categories (low, medium, and high groups). Vocational education (VE) scores combined questions 15, 16, 17, and 18 for mean and standard deviation scores in order to find the three level categories (low, medium, and high). Student and family involvement scores combined district mean scores of questions 21, 24, and 25 for mean and standard deviation scores in order to find

the three level categories (low, medium, and high). For transition education variables matrix, refer to Table 3-2. To see the separated proportional variance for each variable I used the partial eta squared on the dependent variable without an overall interaction effect.

Together, I used these three transition program components (TP, VE, and SF) in the multivariate analysis to compare the dependent variables (Indicators 1, 2, 13, and 14). Because district Indicator 14 rates contained three questions associated with it (postsecondary education, employment, and living rates), I created a grouped mean for the district postsecondary education and employment student rates to determine a single Indicator 14 score. Thus, I averaged all district student rates for postsecondary education and employment rates into a single score representing each district Indicator 14 score. I excluded the post-secondary living scores collected through the post-secondary outcomes project in the state due to the extremely high number of students living with parents.

Chapter 4

Results

Survey Distribution and Response

I initially sent emails to 237 educators asking them to complete the SurveyMonkey transition education survey. Within a week I received notice of twenty-eight blocked emails and ten undelivered emails that had misspellings or some other address errors. This left 209 useable email addresses. Within the a week I also received 83 submitted surveys with 28 blank and five repeats for a total 53 completed surveys, which calculated to 24.2% response rate.

Educator Response. A week after I sent the first wave of email requests I sent a second wave using the 209 useable email addresses. Forty educators responded, which included thirteen blanks for an additional 27 completed surveys, and when added to the 53 Wave 1 responders, I had 80 completed surveys after the second wave of email requests for a 36.65% response rate. Wave 3 obtained seven more responses with three declining participation, one blank survey, and 3 fully completing the survey. After three weeks and three waves of surveys I had 83 useable surveys that equated to a 40% response rate.

Before closing the survey, I placed a call to each of the school districts that did not respond to the survey due to time constraints. I talked to transition educators at four schools and all declined my invitation to complete the survey. I then closed the survey and ceased phone calls for further survey distribution. Overall, 209 surveys were sent with 83 usable surveys completed for a 40% response rate after wave 3.

Review of Procedures

The distribution of surveys throughout the state covered 66 districts out of the 89 total districts in the state, and obtained 81 completed surveys, for a useable response rate of 40% from the state's school districts. Three completed surveys did not get identified due to a lack of computer IP address confirmation, which disqualified them from the overall survey count because I needed the IP address to match the district with their Indicator data. The electronic survey underwent three distribution waves of distribution to all 209 possible participants in the 66 districts. Across three waves, I received a total of 83 useable surveys representing 36 districts, which equated to a 40% response rate from the 209 identified secondary transition education related educators.

Research Question One

To what extent do district transition education programs include variables the transition literature identified as contributing to the postsecondary outcomes of students with disabilities?

Research question one asked educators to identify the extent their transition programs use transition education components associated with better student postsecondary outcomes. Table 4-1 depicts each of the survey response percentages related to program components as estimated by the educators for their representative case-loads. District educators estimated that 89% of parents attended IEP meetings more than any other transition education component (M = 88.62, SD = 15.87). Educators also estimated that 47% of parents provided one-on-one assistance to enable their children to pursue postsecondary goals (M = 47.14, SD = 29.09). Educators estimated that completed transition planning requirements on the IEP paperwork for their students across the state

with a mean of 80.42 percent (SD = 24.95). As indicated in Chapter 3, the individual survey questions will be presented by transition component groupings.

Table 4-1

District Transition Program Components: Percentages for Grouped District Means, Medians, and Standard Deviations represented for each of the Transition Components

Program Components	District (n)	Mean %	SD %
Transition Planning	35	80.42	25.95
Adaptive Behavior Assessment	35	38.08	34.34
Career Assessment	34	55.45	33.82
Instruction of Annual Goals	33	43.81	35.69
Instruction of Post-Sec. Goals	33	46.89	37.56
Instruction for Asking Help	36	61.56	33.98
Instruction to Manage Money	33	50.76	33.27
Instruction in Life-Skills	34	52.56	36.62
Instruction in Career Exploration	34	62.66	31.79
School Offered Exploration	33	63.93	32.11
Instruction to Find Job	34	51.43	31.78
School Opportunities to Find Job	34	39.40	32.34
Parent Attend IEP	36	89.00	16.00
Instruction to Express Opinion	35	49.22	35.14

Transition Assessment

Indicator 13 in New Mexico requires either formal or informal transition assessments for every student 16 years old or older. Survey questions 3 and 4 assessed how many students received adaptive behavior assessments and career interest assessments, respectively. The educators reported their districts provided adaptive behavior assessments (M = 38.08%, SD = 34.35%) 17.37 percentage points less than career assessments (M = 55.45%, SD = 33.82%). The combined district mean for the two transition assessment questions averaged 46.77%. This suggests that in New Mexico about half of the students with IEPs of transition age received some form of transition assessments over the past school year.

Self-Determination

Indicator 13 does not require schools to provide self-determination instruction, but best practice suggests that students with higher self-determination skills do have more positive postsecondary outcomes (Gerber et al., 2004). The survey gauged the extent New Mexico's transition programs taught self-determination by asking if students received instruction in choosing annual goals (Q5), postsecondary goals (Q7), and in how to ask for academic help (Q9). Of the three self-determination scores, instruction directed at students to ask teachers for academic help rated the highest (M = 61.56%, SD = 33.98%). The results suggest very slight district differences between instruction for choosing annual goals (M =43.81%, SD = 35.69%), and instruction for choosing postsecondary goals (M = 46.89%, SD = 37.56%).

Life Skills

The survey asked two questions pertaining to life-skills. Survey question 11 asked about money management instruction, and question 13 directly asked about life skill instruction (i.e., formal instruction in daily cooking, cleaning, etc.). Overall, the educators suggested that about 50% of their transition aged students received life-skills instruction. Only two percentage points differed between the two questions (Q11, *M* = 50.76%, SD = 33.27%) and (Q13, *M* = 52.56%, SD = 36.62%).

Vocational Education

Four survey questions sought information about vocational education (Q15, Q16, Q17, and Q18). The literature suggests that students who receive vocational education instruction during high school increase the likelihood of vocational success in the postsecondary setting (Benz et al., 2000; Dunn & Shumaker, 1997; Rabren et al., 2002). Combined district means suggests that about 63% of the students received career education instruction (*M* = 62.66%, SD = 31.79%), and an equal number received school sponsored career exploration opportunities (*M* = 63.93%, SD = 32.11%).

Questions 17 and 18 determine the extent that districts provided instruction to students on how to find a job, and to what extent the districts provided opportunities to find a job. The combined district means averaged for the instruction (*M* = 51.44%, SD = 31.78%) rated 12.04 percent higher that the rate that educators estimated their programs actually provided opportunities for students to find a job (*M* = 39.40%, SD = 26.59%).

Interagency Collaboration

One question (Q20) pertained to interagency collaboration suggested that students who utilized adult service agencies attained more positive postsecondary results (Benz et

al., 2000; Liebert et al., 1990; Roessler et al., 1990). Question 20 asked educators to estimate how many students used community agencies in the last year. Just over 47% of the educators felt their students used community agencies to help achieve postsecondary goals. This survey question had the most number of districts who left it blank as six districts chose not to answer the question. I speculate that responders could not estimate student use of outside agencies upon leaving school.

Parental and Student Involvement

In order to gauge parental and student involvement in the IEP, the survey asked for percent of parental attendance at IEP meetings (Q21), percent of one-on-one assistance the parents provided the student on reaching their goals, and whether students received instruction on how to express their opinion at the meeting (Q24). The combined district mean percentages indicated that a very high percentage of parents attended meetings (M = 88.62%, SD = 15.87%), about half of the parents assisted children to attain their goals (M = 47.14%, SD = 29%), and about half of the programs specifically instructed students on how to express their opinion at the IEP meeting (M = 49.23%, SD = 35.14%). The educators indicated a much higher percentage of students who expressed their opinions during the meeting (M = 64.9%, SD = 68%) than they taught how to do this (see Table 4-2 for results of student performance survey questions).

Table 4-2

Estimated Student Performance and Ability Descriptive Statistics for Districts Combined

Student Survey Items	District (n)	Mean %	SD %
Q6: Selected Annual Goals	33	43.92	32.86
Q8: Selected Post-secondary Goals	31	54.96	37.33

Q10: Asked for Help	31	61.21	27.92
Q12: Managed Money	32	46.06	23.28
Q14: Performed Life-skills	32	63.84	31.73
Q19: Held Paid Job	33	39.29	26.59
Q20: Student Used Adult Agency	30	47.13	32.40
Q22: Parent Assisted Student	36	47.14	29.09
Q23: Student Attended IEP	36	89.69	17.82
Q25: Student Expressed Opinion at IEP	36	64.96	27.50

Research Questions Two Through Five

To answer questions two through five, I conducted a MANOVA test with the three transition education variables (TP, VE and SF) as independent variables and the four Indicator scores (1, 2, 13, and 14) as dependent variables. The Transition Planning variable (TP) consisted of district responses to survey questions (2, 4, 5, 7, 9, and 11). The Vocational Education variable (VE) consisted of district responses to survey questions (15 through 18). The Student and Family variable (SF) consisted of district responses to survey questions (21, 14, and 25). I conducted the multivariate analysis (MANOVA) to determine the impact of the transition education components Indicator scores on the district mean response percentages on the transition education variables (i.e., transition planning (TP), vocational education (VE), and student and family involvement (SF)) upon the Indicator variables.

The data met the assumption of independence due to the nature of the survey distribution to each individual educator with the instructions to complete the survey at their own convenience and requested their own perception. The test for normality of the

independent variables resulted in the following results: (a) transition planning: skewness = -.491, kurtosis = -.522; (b) vocational education: skewness = .334, kurtosis = -1.091; (c) student and family: skewness = .335, kurtosis = -1.206. The Levene's test of equality of error variances for all four dependent measures confirmed somewhat equal variance between dependent variables. I used Fischer's least significant difference (LSD) post hoc procedure to compare the three levels (high, medium, and low) of the independent variables. (see Table 4-4 for significance and effect sizes). The Wilks' Lambda tested each pairwise comparison at the .05 level. Refer to the method section in Chapter 3 regarding the three level category splits for all independent variables. The overall result of the multivariate analysis test showed the following non-significant results with large effect sizes: (a) transition planning $F(8,30) = 1.064$, $p < .439$, $\eta^2 = .1$; (b) vocational education $F(8,30) = 1.808$, $p <= .222$, $\eta^2 = .508$; and (c) student and family $F(8,14) = 2.324$, $p < -08$, $\eta^2 = .570$.

Research Question Two

Do districts that include more transition education program variables associated with positive student postsecondary outcomes attain higher graduation Indicator 1 rates?

Indicator 1, the percentage of students graduating on a standard diploma, served as the dependent measure in the MANOVA test with three independent variables as the combined mean scores for the transition components (transition planning (TP), vocational education (VE), and students and family involvement (SF)).

The impact of these three independent variables separately on the Indicator 1 graduation rates did not reach statistical significance, but did approach a medium partial eta squared effect size. Transition planning (TP) had the least effect ($p < .84$, $\eta^2 = .019$).

Vocational education components (VE) calculated results indicated non-significance ($p < .225$, $\eta^2 = .153$), but did obtain a very large partial eta squared effect size. Student and family involvement education component (SF) variable results also did not indicate significance on the Indicator 1 dependent variable ($p < .571$, $\eta^2 = .06$), but did result in a medium effect size.

Research Question Three

Do districts that include higher percentages of the transition education program variables associated with positive student postsecondary outcomes attain lower Indicator 2 dropout rates?

None of the three transition education independent variables found significant statistical effect from the Indicator 2, dropout rates for students with IEPs. However, the transition planning variable (TP) did not have a statistical significant effect on this dependent variable ($p < .841$, $\eta^2 = .019$), but it did produce a large effect size. Similar findings were derived with the vocational education dependent variable (VE) in that it did not have a significant effect on Indicator 2 ($p < .753$, $\eta^2 = .031$), and the results suggested a small to medium effect size. The variable SF (student and family attendance to the IEP, percentage of students received instruction to express opinion, and percentage of students who expressed opinion at the meeting) did have practical significance as it did produce a large partial eta squared effect size ($p < .141$, $\eta^2 = .196$).

Research Question Four

Do districts that include higher percentages of the transition education program variables associated with positive student postsecondary outcomes attain higher Indicator 13 scores?

The results suggest that none of the transition education independent variables produced a statistically significant result on the Indicator 13 dependent variable. The multivariate test for the independent variable transition planning (TP) variable found non-significant results ($p < .628$, $\eta^2 = .05$), but the TP variable did produce a medium to large effect size. The multivariate test for vocational education (VE) for Indicator 13 found non-significant results ($p < .807$, $\eta^2 = .023$) and a small effect size. The multivariate test for the independent variable of student and family involvement (SF) found non-significant results ($p < .256$, $\eta^2 = .141$), but these results suggest a moderate to large effect size.

Research Question Five

Do districts that include more transition education program variables associated with positive student postsecondary outcomes attain higher employment, further education, and other Indicator 14 postsecondary outcomes?

The significant mean difference this study found indicated the difference the SF variable made on Indicator 14 ($p < .007$, $\eta^2 = .420$) and VE ($p < .036$, $\eta^2 = .308$). Both of these variables also produced a very large partial eta effect size. The transition planning (TP) variables found non-statistically significant differences for the univariate test (TP: $p < .358$, $\eta^2 = .108$), yet the results suggest practical significance with large to very large partial eta effect sizes (see Table 4-3).

Table 4-3

Results of Overall Multivariate Test Among Transition Education Variables (IV)

IV	DV	F	Sig.	Partial Eta Squared

TP	Ind. 1	.177	.840		.019*
	Ind. 2	.175	.841		.019*
	Ind. 13	.477	.628		.05**
	Ind. 14	1.089	.358	`	.108***
VE	Ind. 1	1.621	.225		.153***
	Ind. 2	.288	.753		.031*
	Ind. 13	.216	.807		.023*
	Ind. 14	4.008	.036■		.308***
SF	Ind. 1	.578	.571		.060**
	Ind. 2	2.188	.141		.196***
	Ind. 13	1.473	.256		.141***
	Ind. 14	6.526	.007■		.420***

Note: (■) signifies statistical significance; (*) signifies low effect size;
(**) signifies moderate effect size; (***) signifies large effect size.

Chapter 5

Discussion

The results of this study shed light on the extent that district transition programs in New Mexico implement transition education practices that the research literature has identified as achieving better student postsecondary outcomes. The relevant research literature guided the framework from which the transition components formed the foundation for the survey used for this study. The literature enabled me to identify and define six transition program components overall (see Table 2-5); (a) paid work experience (Benz et al., 2000; Fabian, 2007; Dunn, & Chambers, 2002): (b) self-determination (Wehmeyer & Palmer, 2003); (c) transition education (Dunn et al., 2004); (d) family involvement (Blackorby & Wagner, 1996); (e) interagency collaboration (Benz et al., 2000); and (f) personnel qualities (Collet-Klingenber, 1998). The 25-question survey tool asked special education professionals to estimate the percent of their students who received instruction in identified transition components, and the extent that the educators' transition programs complied with best-practice transition education practices.

I grouped the survey responses by the transition components targeted to represent the best-practice findings from the literature (see Table 3-2) to determine the extent that district transition programs practiced the components for research question one. For research questions two through five, I used a multivariate test to determine which of the components had notable effects on the student outcomes as indicated by the dependent variables (Indicators 1, 2, 13, and 14). Table 5-1 depicts the moderate and large effect

sizes for research questions 2, 3, 4, and Table 5-2 shows the small effect sizes for research questions 2, 3, 4, and 5.

Overall, this study found several important findings. First, teaching students how to become actively involved in their IEP meetings and discuss their postsecondary goals had the only statistically significant positive difference on postsecondary employment and enrollment in post high school educational programs (η^2 = .420). Second, student involvement instruction also produced a moderate to large effect on high school graduation rates (η^2 = .060), reduced dropout rates (η^2 = .196), and helped to achieve quality transition planning (η^2 = .141). Third, providing vocational educational opportunities had a large impact on graduation rates and postsecondary employment (η^2 = .308), graduation rates (η^2 = .153). Fourth, the transition planning process had a large effect on postsecondary employment rates (η^2 = .108), and moderate effect on quality transition plans (η^2 = .50).

Table 5-1

Transition Education Components that had Meaningful Effect on Outcome Indicators

Transition Ed. Components	Outcome Indicators	Partial Eta Sq.
Transition Planning (TP)	Indicator 13	.05**
	Indicator 14	.108***
Vocational Education (VE)	Indicator 1	.153***
	Indicator 14	.308*** ■
Student and Family Inv. (SF)	Indicator 1	.060**
	Indicator 2	.196***

	Indicator 13	.141***
	Indicator 14	.420***■

Note: (**) signifies moderate effect size,
(***) signifies large effect size
(■) indicates a statistically significant positive difference

Table 5-2

Transition Education Components that had Small Effect on Outcome Indicators

Transition Ed. Components	Outcome Indicators	Partial Eta Sq.
Transition Planning (TP)	Indicator 1	.019*
	Indicator 2	.019*
Vocational Education (VE)	Indicator2	.031*
	Indicator 13	.023*

Note: (*) signifies small effect size

Transition Components

From research question one very few surprises existed in the district mean scores for the survey questions. The data suggests that districts provide some type of transition education program to 55% of their students. Only the estimated percentage of students receiving adaptive behavior assessments (M = 38%) and the estimated percentage of students who received opportunities to find a job (*M* = 39%) fell below 50%. The first major contrast existed in the number of parents attending IEP meetings (*M* = 89%) and the percentage of educators that reported that parents helped students achieve postsecondary goals (*M* = 47%), a difference of 41 percentage points between the two

questions. From these results the educators' perception of parental assistance and involvement ceased dramatically from the compliance of attending IEP meetings.

Educators estimated that 80% of their IEP files' transition sections had been accurately written. In contrast, direct evaluation of IEP files from the participating districts using the Indicator 13 checklist found that only 66% of the IEPs had been correctly written. Educator perception of correctly written transition plans obviously differed from actual assessment of the plan by independent evaluators. I do not believe that many educators and people in general know what they do not know.

Transition assessment. Educators perceived their compliance with IEP transition components to be greater than the actual IEP Indicator 13 reviews revealed. According to state Indicator 13 data educators estimated that half (M = 47%) of the students received transition assessments over the past school year. This result signifies a deficit in transition planning and compliance, as the federal law requires every student's postsecondary goal should be based on a transition assessment. Perhaps one reason for the educators' over estimates is that many educators do not understand that transition assessments need to occur at least annually or have accurate awareness of available assessments, as supported in previous research (Thoma et al., 2002; Zhang et al., 2005). This finding suggests the need for additional in-service to align educators' practice to the existing requirements.

Self-determination skills. The New Mexico educators estimated that their schools taught about 45% of the students to choose their postsecondary and annual transition goals, and that the same number of students actually choose their own postsecondary and annual transition goals. This suggests that if educators and parents want students to choose their postsecondary and annual goals, students need to receive explicit instruction

and be provided opportunities to do so. This finding suggests the need for additional educator in-service to provide opportunities for more educators to learn how to teach students goal setting and attainment skills.

Only one of the three questions about self-determination (Q5, 7, 9) attained a mean over 50% (Q9), which asked if students received instruction to ask for academic help. This question derived from the self-advocacy literature, and indicates the fourth highest mean scores of the survey (M = 62%). Still, many questions remain to clarify what type of instruction educators referred in answering the question. Did they consider mere encouragement to students to ask teachers for help would count as a formal instructional event that helped students learn how to ask for help? Clearly, more research needs to be done in this area.

Life skill instruction. School district transition programs should include life skills instruction for students who require such instruction. Educators estimated that about 50% of their students received life-skills instruction for daily living skills and more functional skills like money management. The district mean difference for those students who received instruction for life skill components and those students who performed the life skills only differed slightly in percentage (see Table 4-2). The number of students who require life skills instruction could be less than those students who educators presume perform life skills already without explicit instruction due to the functional level. The survey answers did not indicate whether the educators perceived the same students for both questions, nor clearly defined the term “life skills”.

Vocational education. The vocational education exploration instruction and opportunities scored a combined mean of 63.9%, which means 64% of the educators

estimated their students received career exploration instruction and opportunities. Half of the educators indicated that their students received instruction locating a job (*M* = 51%). This contrasted with the educators' low estimate on how many of their transition programs actually provided opportunities for students to gain a job and hold a job (M = 39%). Unlike the Frank, et al. (1990) study that did not find a firm link between vocational education during school and employment rates in the postsecondary setting, the data from this study show that vocational education had a large effect on postschool employment (η^2 = .308). Because of the large effect size that vocational education components had upon postschool outcomes, this study suggests that more emphasis be placed upon providing vocational educational opportunities to students while they are still in school. This is an educational practice issue that school leaders and IEP team needs to think deeply about.

Interagency collaboration. Interagency collaboration is often measured by the IEP paperwork that reflects whether schools and IEP teams invite outside adult agencies. The new Indicator 13 checklist asks this very question; however, previous literature makes the link to better outcomes as to whether students use this resource more than whether the agency participates in the IEP meeting (Roessler, Brolin, & Johnson, 1990). Question 11 directly addresses this action of the educators in the survey pool. The combined district mean for this enquiry indicates about half of the students utilized the outside agency upon graduation (*M* = 47.13%). It remains unclear how to interpret missing data; however, this question was the most unanswered question of all completed surveys for individual personnel and districts (n = 6).

Parental and student involvement. Previous literature indicates that parental assistance in the postsecondary setting exists as one of the more influential variables to student success. As discussed earlier, parents attended IEP meetings at very high rates (M = 89%), yet this attendance did not seem to translate into assistance with goals in the postsecondary setting according to the educators who responded to this survey. Forty-seven percent of the educators estimated that parents assisted their students after high school in reaching their goals (see Table 4-2). Educators estimated that 49% of students received some form of instruction on how to express their opinions about their goals during the IEP meetings, yet the educators indicated that 65% of the students expressed their opinions during the IEP meetings. This result begs the question of how much instruction do students need or receive in order to naturally express their opinion about their goals, and what action constitutes expressing opinions about goals? Further, more questions arise in terms of what constituted student expression as well as what type of instruction students received regarding how to express their opinions during the IEP meetings.

Research Questions Two through Five

Statistically, two of the variables found significance in this study (SF and VE on Ind. 14). The student and family involvement variable (SF), which combined the district means of the percentage of parents attending the IEP meeting, percentage of students who received instruction to express their opinions at the IEP meeting, and the percentage of students who expressed their opinions at the IEP meetings. For discussion purposes, this variable will be split into two separate components because only Q24 and Q25 related to actual student involvement for (SI), while Q21 refers to parental involvement (FI). This

(SF) variable as a whole had statistical main effect significance when examined with the Indicator 14 (postsecondary outcomes) as the dependent variable. In addition, student and family involvement variable (SF) of the percentage of students who received instruction to express their opinions at the IEP meetings and the percentage of students who expressed their opinions at the IEP meetings produced large partial eta squared effect sizes with both Indicators 2 (drop out) and 13 (transition planning process) as well.

These findings provide support for emerging beliefs in transition education that students who are more involved in their IEP development and planning, particularly in choosing their goals and expressing their views about their goals, have higher rates of postsecondary employment and education, as well as lower dropout rates and more complete transition IEPs during their high school years. One could infer that students who are more involved in the planning process are also more engaged in their academic process, which relates to lower dropout rates. Expressing one's opinion is heavily related to self-advocacy and other self-determination components (Martin et al., 2004). If a clear link could be made of students' abilities to self-advocate within the educational planning process and better academic progress, then these findings would support previous research that demonstrated students who had higher levels of self-advocacy skills attained more productive postsecondary outcomes (Raskind et al., 1999, 2002).

Increased student engagement in the IEP meetings could empower them to engage more in the academic learning process as well, which would increase their engagement in decision-making, as demonstrated by the high percentages of educators that reported students expressed their opinions regarding their postsecondary goals. Previous research helps support this claim that students with higher levels of self-determination attained

more productive secondary and postsecondary outcomes (Benz et al., 2000; Raskind et al., 2002; Wehmeyer et al., 2007).

Vocational Education

The independent variable for vocational education (VE) did show a significant result on the Indicator 14 variable with also a large effect size ($\eta^2 = .308$) not have a statistical significant effect on students graduating with a standard diploma (Indicator 1), but an important note exists in the obtained very large effect size ($\eta^2 = .153$). The large effect size points out the critical importance of providing vocational education and opportunities to facilitate high school graduation. The educators in this survey estimated that 64% of their students had received employment and career exploration opportunities through the school. If school leaders, parents, and educators want higher postschool employment and education rates, the results of this study certainly suggest that increased vocational educational opportunities may yield increased employment rates.

Vocational education (VE) also did not show a significant effect on Indicator 2 (dropout rates), but did produce another small effect size ($\eta^2 = .031$). Similar to the Indicator 1 data, the effect that VE had on the dropout rate appears vitally important. These results also reflect in the New Mexico postsecondary outcomes project (Ind. 14 results) in that more students who graduated with a diploma took vocational related classes. Thus, the more students who took vocational related classes stayed in school and dropped out less than those students who did not receive vocational classes. According to National Longitudinal Transition Study-2 only 30.7% of students received some form of vocational service within the last year (Wagner et al., 2005).

When tested against the independent variable Indicator 13 (transition IEP components), vocational education (VE) resulted in a non-significant difference and only a small effect size ($\eta^2 = .023$). I suspected this result from the study since the quality of the transition IEP (Ind. 13) does not contain a specific requirement for any vocational education components.

Transition Education

The multivariate results of the variable TP (transition planning) mirrored those of the vocational education (VE) on all Indicator scores. For Indicator 1, the TP variable did not result in a statistically significant effect, approached a small effect size ($\eta^2 = .019$), which does suggest a relative link that the completed components of a student's transition plan did make a positive difference with graduation rates. It makes sense that better IEP transition planning creates a more appropriate education plan for a student to reach graduation. This said, Indicator 1 only measures the number of students who graduate with a standard diploma, and it does not measure students graduating on either the Career Readiness or Ability Pathways.

New Mexico offers three different pathways to a diploma, standard, career readiness, and ability (NMPED, 2005). The standard pathways diploma requires that all students with IEPs meet the state's minimum requirement on the high school exit exam and achieve the same number of credits as students in regular education. The career readiness pathway allows IEP teams to modify students' course of study to accommodate more career related interests, as well as set appropriate target scores for the high school exit exam. The ability pathway allows students with more severe and profound disabilities to achieve functional IEP goals and benchmarks in order to meet the state

graduation requirements. Therefore, the survey results do not reflect those students who graduated on an alternative pathway.

The state's mean score for Indicator 1 resulted in 52%, which is almost 30% lower than the state minimum requirement for the acceptable rate of students graduating with a standard diploma (80-100%). This overall mean does not include those students who dropped out over the school year and, therefore, might lower the actual percentages of students who graduated on the standard pathway.

Similar to Indicator 1 results, the TP variable did not have a statistically significant effect on Indicator 2 (dropout rates); however, the small effect size ($\eta^2 = .019$) does indicate that quality transition education minimally influences student engagement in school and lessens the dropout rates for students with disabilities. Comprehensive transition education can help develop and organize a student's education plan in order to facilitate more relative instruction in courses and activities that assist the student with future preparation. This means the individual transition planning, such as receiving career assessments for understanding long-term interests, receiving instruction on the importance of self-advocating, selecting goals, and better understanding of life-skills effects students' engagement and persistence to finish school and not exit programs early. We could presume that the effects of explicit long-term planning for students that assists them in gaining self-awareness can effect the educational relevance in the secondary settings since the overall TP variable achieved large to moderate effect sizes on both graduation and dropout rates.

The non-significant result found for the Indicator 13 and transition planning variables in the multivariate test underscore some important notes. First, the TP variable

had a moderate effect size ($\eta^2 = .05$) on the Indicator 13 dependent variable. Second, the method of measuring the Indicator 13 variable for the state used a less rigorous criteria for quality transition plans in the IEP. The O'Leary TOP evaluation tool measured whether IEPs had at least one postsecondary goal. The criteria did not need to verify if the goal derived from a transition assessment, if the IEP contained a course of study, or contained annual goals. The loose criteria provided higher overall Indicator 13 scores than expected if the full TOPS measurement tool had received rigor for evaluating the district transition programs.

Consistent with the other TP results, its effect on Indicator 14 also found non-significant results, yet the results suggest a large partial eta effect size ($\eta^2 = .108$). This result demonstrates a clear link between quality transition planning, specifically instruction related to self-awareness, self-advocacy, future planning, and relevant life-skill instruction, and more positive postsecondary employment for students with disabilities.

Student and Family Involvement

The results from the multivariate test using SF and Indicator 14 indicate a statistically significant effect ($p < .007$). From the three questions related to the variable SF (Q21, 24, & 25), all scored very high for the survey. The combined district mean for parental attendance at the IEP meetings showed the highest score of the survey with 93%. The district combined mean for percentage of students who received instruction to express opinions about their goals ($M = 49\%$), and percentage of students who expressed their opinions about their goals ($M = 65\%$) both rated high for the survey results in comparison to the percentage distribution for results. I feel these high scores did assist in

gaining a significant effect in the test for Indicator 14. The downfall of these high scores exists in the unknown details of the type of instruction and what type of expression students indicated during the IEP meetings. In other words, the survey results could overestimate the extent and quality of the transition components. Realistically, a student could answer the typical question of stating their goal (format of the IEP) asked by the teacher and comply with expressing their opinion without demonstrating the extent of their involvement in the planning process. Another example exists in the very low estimated percentage for district means on Indicator 14 (M = 38%), which does not suggest high employment rates in the state among students with disabilities, well below the 55.1% from national representation (Wagner et al., 2005).

The independent variable SF (student and family involvement) had a moderate to large effect on all four dependent variables. Like Indicator 1, Indicator 2 results with SF showed no significance, yet the partial eta squared value (η^2 = .196) does indicate a very large effect size on dropout rates. Thus, parental attendance and the opportunity for students to receive instruction about their opinions, and their ability to express themselves at the meeting regarding their goals had a strong impact on improving dropout rates for students with disabilities.

The results for Indicator 13 and SF also did not find statistical significance at a .05 confidence level, yet the results again suggested a large effect size (η^2 = .141). These positive effect sizes associated with SF highlight the importance of involving all members of the IEP team, students and family included, into the planning process. When students add input into decision-making, transition plans have the opportunity to reflect the reality of immediate expectation for the individuals' future. The state combined

district mean for Indicator 13 (M = 65%) suggests many of the transition plans failed a weaker evaluative process, thus, limiting the inference capability on the effect SF truly had on the quality of transition planning. From preliminary results of the new NSTTAC Indicator 13 checklist for this state, the new scores suggest much lower rates than prior years. Therefore, the quality of transition plans in this state raises the doubt in connecting the SF variable and the most recent Indicator 13 scores.

Conclusion

Effect Size Implications

Questions of transition program efficacy based on educators' perception will always vary from actual practice, yet when we utilize student outcome numbers, such as the dependent variables used for this study, the truth of program effectiveness and their long-term impacts come to light. These findings unearth a resounding picture of the overall landscape of transition practice in New Mexico and where programs self-identify their limitations and highlight their strengths with major focuses on relevance of instructional components and student and family involvement in the planning process.

The unique aspect of this study differs from other statewide assessments of transition program compliance because educators responded on aspects that they actually teach or do not teach students. A transition IEP can comply with all Indicator 13 mandates and never truly reflect the extent that those written components are taught to students. We can now make clear suggestions to districts on what components need instructional attention, more resources, and extensive focus in the attempt to raise graduation rates, lower the dropout rates, increase transition IEP quality, and most of all,

positively effect the postsecondary employment and education rates of students with disabilities.

The impacts of the findings for this study show notable partial eta effect sizes on all four of the dependent variables. As often hypothesized in research based literature, and emphasized in conceptual literature, student and family involvement in the IEP process receives a great deal of attention for suggested practice (Field et al., 1998; Martin et al., 2004; Zhang & Stecker, 2001). We know that by the end of elementary school parental involvement lessens and frequently receives the blame for student struggles, and by secondary school those struggles grow exponentially (Jimerson, Egeland, Sroufe, & Carlson, 2000). However, the long-term effects of parental involvement are rarely so clearly linked to the questions posed in this survey. The three questions that combined to form the SF variable consisted of parental IEP meeting attendance, instruction students received for expressing their opinions during the IEP meeting, and number of students who expressed their opinions at the meeting. Survey questions 24 and 25 really focused on the student involvement (SI) aspect within the IEP meeting, specifically relying on aspects of student self-awareness and self-advocacy skills. Obviously, more educators reported students expressed their views than received instruction to express their views, but the critical note exists in that students and families engaged in the future planning process had a direct effect on students' postsecondary employment (see Table 5-2).

The student (SI) and family involvement (FI) components showed the most impactful effects across all four dependent variables. The study results indicated very large effect sizes for compliance with the quality of transition IEPs ($\eta^2 = .141$) as measured by the Indicator 13 checklist. We can infer that the same involvement and

student feedback represented in the planning process directly impacts the quality of the transition plan from these results. Perhaps the input of the student expression during the meetings, not only helps guide the future planning process, but also empowers the student and increases relevance to the high school academic environment and design of the plan. I pose this because the study results suggest that students who engage directly with the transition planning process (IEP meeting) also remain in high school until they graduate.

The student involvement questions of the SF variable heavily influenced the very large effect size on overall dropout rates ($\eta^2 = .196$) according to Indicator 2. The importance of student involvement is further cited when looking at the graduation rate ($\eta^2 = .6$). Even with this moderate effect size, the important note comes from the overall effect that the SF variable had on both in-school components (Indicator 1, 2, 13), as well as the postsecondary component (Indicator 14). Without a doubt we can now begin a strong argument for the importance of involving the student within the planning process, particularly with respect to the IEP meeting, based on outcome data.

The link of involvement is further emphasized when examining the transition planning (TP) results. This variable combined survey questions 2, 4, 5, 7, 9, and 11. Transition assessments (Q2) allow both students and educators to view where interests lie and where both strengths and limitations may exist. Both of these aspects provide critical feedback for all parties involved in the planning process.

The results for vocational education variable did not surprise me, as I predicted providing students with work-related instruction to explore career interests and school-based opportunities to search for jobs would effect Indicator 14. Research demonstrates that work experience and work-related instruction help students achieve employment in

the postsecondary setting (Doren et al., 2007; Fabian, 2007; Fourqurean & LacCourt, 1991; Wagner & Blackorby, 1996). According to the results of this survey, a powerful link connects vocational education during high school and postsecondary employment rates. Educators reported that students who received school based vocational instruction and work-related opportunities to explore their interests achieved higher employment rates one year after leaving high school with a very large effect size ($\eta^2 = .308$).

The conclusions we can draw from the results of such a large effect size for the VE variable on postsecondary employment emphasizes the need for relevant education for students with disabilities. As funding sources for vocational education in New Mexico and other states fall further away from the realistic demand of students' postsecondary employment goals, and toward a more rigorous academic curriculum, these results raise the question regarding relevance of such a change. Follow-up studies throughout the history of special education stress the importance of vocational education, and several make the link to better postsecondary employment rates (Benz et al., 2000; Dunn & Shumaker, 1997; Fourqurean et al., 1991; Rabren et al., 2002; Wagner & Blackorby, 1996). Yet, few recent inquiries demonstrate such a strong sense of importance for reviving curriculums that relate directly to postsecondary employment, as do the results of this study. Students with disabilities who largely focus on work related goals require and benefit from programs that include vocational instruction and opportunities to research, explore, and secure work experiences. As the literature review stated, the most constant student and program variable found existed in work related experience (Fabian, 2007).

Another major find of this project suggests and supports the more relevant curriculum related to vocational education effects student graduation rates as VE largely effected Indicator 1 rates ($\eta^2 = .153$). To my knowledge, few if any quantitative research endeavors identified a strong link between vocational education for students with IEPs and increased student graduation rates. These results suggest the more vocationally relevant the curriculum, the more likely students with disabilities will graduate high school. Since Indicator 1 only tabulates students on the Standard diploma pathway, a question arises in how much vocational education effects graduation rates for those students on the Career and Ability pathways.

Some indication of this inquiry comes in the small effect sizes that VE reached with Indicator 2, however, further study calls for more examinations into this aspect directly. Even when the small effect that VE attained with the quality of transition plans (Indicator 13), many questions remain due to previous study evaluating the substance of transition plans. Powers et al. (2005) found 63% of the goals stated on the IEP did not include action steps. Other research indicated only 35.2% of the goals stated targeted vocational education (Wagner et al., 2005). In fact, the NLTS-2 found only 30.7% of the students received some form of vocational service in the last year. The long-term outcomes of higher dropout rates and lower graduation rates for students with disabilities must include the components of the types of courses and plans students receive during high school, due to the outcome data that indicates low employment rates. The findings for variable VE add fuel to the burning discussion needed surrounding the ultimate long-term cost students face for non-individualized instruction, because clearly vocational education helps students remain in school and achieve employment outcomes.

The last variable, transition planning (TP), consisted of the most combined survey questions and spanned the most subjects, from planning itself (Q2), assessments (Q4), self-determination (Q5, 7), to life-skills, (Q11), which created a great range of answers. However, even with this wide range of related topics, the combination of these questions suggests that same complexity exists both within and how transition planning effects long-term student outcomes. The results indicate that TP reached a large effect size with students' postsecondary employment and education rates ($\eta^2 = .108$). When we breakdown the TP variable, several important aspects emerge regarding the individual instruction students receive. For instance, transition assessments (Q4) results indicated over half of the students received some form of career assessment. We can assume that the assessment provided valuable information to further individualize the students' transition plan and better shape their postsecondary goal, yet we cannot verify if this occurred. We know that students who received transition assessments increased their levels of self-awareness, which helped target and focus individualized transition planning. The results of this study support similar findings where programs structures such as identified transition planning, assessments, decision-making, and related instruction effected student outcomes (Dunn et al., 2004).

As expected, TP also approached a moderate effect size ($\eta^2 = .05$) for the quality of the transition plan, in this case whether or not the plan contained postsecondary goals. I interpret the results to suggest comprehensive and deliberate planning that includes not only self-awareness, but also instructing self-advocacy skills in order for students to make decisions, and increasing life-skill capacity directly effects the quality of the transition plan itself. The more students can drive that process and gain introspection in

the process, the better plans will develop. One downfall of the interpretation of these results exists within the Indicator 13 procedure for the past three academic years. As previously stated, the O'Leary TOP measurement tool only required one postsecondary goal for determining the quality of transition planning for IEP reviews. Within the year the new NSTTAC Indicator 13 checklist will provide a more in-depth understanding of comprehensive transition planning for the state of New Mexico (see Appendix A). This tool evaluates six distinct components of the transition plan.

Limitations

The initial limitation to the survey methodology remains in the subjectivity of the participant responses. Because this study relied mostly on state data under the Students Teacher Accountability Reporting System (STARS) completed by each school, the survey responses attempted to gauge educator perceptions and feedback on their individual practices for transition services.

Extant data collection for districts created many lapses in data alignment between the educator responses and the overall district data as current school year responses do not align with students' who graduated one year ago. The most glaring aspect of this point comes in the Indicator 13 data collection. As previously stated, the new Indicator 13 data collection tool assesses many more aspects of a comprehensive transition plan and will provide more accurate feedback into the planning practices for the districts in the state.

Also, the Indicator 14 data for New Mexico reported very low numbers for both postsecondary education enrollment, as well as independent living, with very few students participating in education and almost all reported living with their parents. The

other extant data collection of the Indicator 14 also uses personal interviews of either the student directly or a guardian of the student one year after high school. Therefore, the reliability of whether they worked or participated in postsecondary education exist as subjective reports that do not get verified. However, even with this fault in the data, Indicator 14 remains the only student outcome report available to individual states.

Future Research

Future examinations into the quality of transition programs in New Mexico and other states require a direct examination into the IEP transition plan for the next year. This dissertation provided a glimpse into several aspects of transition planning not yet explored. Educator responses showed a candid view into what instruction they felt their students received. More current research into teacher knowledge about transition assessments should follow since many of the research findings are four or more years old. This same study should be repeated next year to gain accurate district data using the NSTTAC Indicator 13 checklist that will provide the following data: (a) direct IEP report of assessments; (b) all three domains of postsecondary goals; (c) annual transition goals; (d) course of study; (e) transition services; and (f) interagency collaboration. Most importantly, the field needs to better understand what types of formal instruction students receive in order to choose goals and express themselves at the IEP meetings. This point is critical to interpreting the major findings of this study because the measurement of a quality transition plan does not include student involvement and participation in IEP meetings.

A similar study to this one should be done in order to gain more equal representation per district in order to represent size differences more accurately. Also,

this study only viewed aspects of transition education. These results do not account for major outcome influences such as rural versus urban environments, economic factors, number of students on alternative pathways, types of student disabilities, ethnicity, language, and cultural factors. These factors complicate student and district performances as suggested by both postsecondary outcomes as well as academic performances. Future research should include several of these factors in consideration for examining the effects of program structure and student outcomes.

Summary

No panacea will ever exist for how to best prepare students for postsecondary pursuits because no child exists or develops in a set cognitive or behavioral pattern. Transition education merely attempts to cover the bases and narrow down the trials and errors with best practices approaches. Research and interpretations of research help pull together what works based on both overall outcome statistics, as well as small classroom samples, and from these research data provides the field a wealth of tools for schools to choose. Yet, the number of students with disabilities who experience positive outcomes for work, school, and living remain far behind those of regular education peers.

For the past three decades the field of special education continues to struggle the to marry relevant instruction with rigorous academic standards for the full intent of appropriately educating students with disabilities. Research will continue to address the idiosyncratic nature of program structures, instructional practices, and student characteristics in order to reveal ways of honing school experiences that best prepare students. Legal mandates, often guided by research, will remain the defining parameter

that schools must operate and meet individual needs that help students become self-aware and confident enough to seek a productive path that they choose.

REFERENCES

Algozzine, B., Browder, D., Karvonen, M., Test, D. W., & Wood, W. M. (2001). Effects of interventions to promote self-determination for individuals with disabilities. *Review of Education Research, 71,* 219-277.

Allen, S. K., Smith, A. C., Test, D. W., Flowers, C., & Wood, W. W. (2001). The effects of the "Self-Directed IEP" on student participation in IEP meetings. *Career Development for Exceptional Individuals, 24,* 107-120.

Arndt, S. A., Konrad, M., & Test, D. W. (2006). Effects of the self-directed IEP on student participation in planning meetings. *Remedial and Special Education, 27,* 194-207.

Bak, J. J., Cooper, E. M., Dobroth, K. M., & Siperstein, G. N. (1987). Special class placements as labels: Effects of different placements on children's attitudes toward learning handicapped peers. *Exceptional Children, 54,* 151-155.

Baller, W. R. (1936). A study of the present social status of a group of adults, who, when they were in elementary schools, were classified as mentally deficient. *Genetic Psychology Monographs, 18,* 165-244.

Bassett, D. S., Patton, J. R., White, W., Blalock, G., & Smith, T. E. C. (1997). Research issues in career development and transition: An exploratory survey of professionals in the field. *Career Development for Exceptional Individuals, 20,* 81-100.

Benz, M. R., Johnson, D., Mikelsen, K., & Lindstrom, L. (1995). Improving

collaboration between schools and vocational rehabilitation: Stakeholder identified barriers and strategies. *Career Development for Exceptional Individuals, 18,* 133-144.

Benz, M. R., & Halpern, A. S. (1987). Transition services for secondary students with mild disabilities: A statewide perspective. *Exceptional Children,* 507-514.

Benz, M. R., & 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., & Kochhar, C. A. (1996). School-to-Work opportunities for all students: A position statement of the Division on Career Development and Transition. *Career Development for Exceptional Individuals, 19,* 31-48.

Benz, M. R., Lindstrom, L., Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predicting factors and student perspectives. *Exceptional Children, 66,* 509-529.

Blackorby, J., & Wagner, M. (1996). Longitudinal postschool outcomes of youth with disabilities: Findings from the National Longitudinal Transition Study. *Exceptional Children, 62,* 399-413.

Blalock, G. (1996). Community transition teams as the foundation for transition services for youth with learning disabilities. *Journal of Learning Disabilities, 29,* 148-159.

Blalock, G., & Patton, J. R. (1996). Transition and students with learning disabilities: Creating sound futures. *Journal of Learning Disabilities, 29,* 7-16.

Board v. Rowley, 45 U.S. 176, 102 S Ct.3034, 73 L.Ed. 2d 690 (U.S.S.S.CT. 1982).

Bowen, A. R. (1995). *A World of Knowing: A Story about Thomas Hopkins Gallaudet.*

Minneapolis: Carolhoad Books.

Brinkerhoff, J., & Vincent, L. (1986). Increasing parental decision-making at the Individualized Educational Program meeting. *Journal of the Division for Early Childhood, 17,* 97-106.

Brolin, D.E. (1978). *Life centered career education: A competency based model for infusing career education approach.* Reston, VA: Council for Exceptional Children.

Brolin, D.E., Durand, R., Kromer, K., & Muller, P. (1975). Post-school adjustment of educable retarded students. *Education and Training of the Mentally Retarded, 10,* 144-149.

Brown, J. M., & Kayser, T. F. (1982). *The transition of special needs learners into post-secondary vocational education.* Minneapolis: University of Minnesota, Department of Vocational and Technical Education, Minnesota Research and Developmental Center for Vocational Education. (Retrieved at: http://eric.ed.gov:80/ERICWebPortal/custom/portlets/recordDetails/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED217298&ERICExtSearch_SearchType_0=no&accno=ED217298 on July 18th, 2007).

Brownell, M. T., Sindelar, P. T., Bishop, A. G., Langley, L. K., & Seo, S. (2005). Special education teacher supply and teacher quality: The problems, the solutions. In T. M. Skrtic, K. R. Harris, & J. G. Shriner (Eds.), *Special Education: Policy and Practice* (pp.103-128). Denver, CO: Love Publishing Company.

Cameto, R., Levine, P., and Wagner, M. (2004). *Transition Planning for Students with Disabilities. A Special Topic Report of Findings from the National Longitudinal*

Transition Study-2 (NLTS2). Menlo Park, CA: SRI International. Caribou School Department, 35 IDELR 115 (SEA WI 2003).

Caribou School Deartment, 35 IDELR 58 (SEA ME 2001).

Coleman, J. M. (1983). Handicapped labels and instructional segregation: Influence on children's self-concepts versus the perceptions of others. *Learning Disability Quarterly, 6,* 3-11.

Clark, G. M. (1996). Transition planning assessment for secondary-level students with learning disabilities. *Journal of Learning Disabilities, 29,* 79-92.

Clark, G. M., Field, S., Patton, J. R., Brolin, D. E., & Sitlington, P. L. (1994) Lifeskills instruction: A necessary component for all students with disabilities. A position statement of the division on Career Development and Transition. *Career Development for Exceptional Individuals, 17,* 125-134.

Collet-Klingenberg, L. L. (1998). The reality of best practices in transition: A case study. *Exceptional Children, 65,* 67-78.

D'alonzo, B. J. (1996). A historical analysis of the division on career development and transition: Introspective and retrospective viewpoints. *Career Development for Exceptional Individuals, 19,*121-128.

Damian, G., & Nelson, C. (2009). *New Mexico Post-School Outcomes Study 2007-2008 Dropout Analysis,* Las Vegas, NM: The Northeast Regional Education Cooperative #4.

deFur, S. H., Getzel, E. E., & Kregel, J. (1994). Individual transition plans: A work in progress. *Journal of Vocational Rehabilitation, 4,* 139-145.

deFur, S. H., & Taymans, J. M. (1995). Competencies needed for transition specialists in

vocational rehabilitation, vocational education, and special education. *Career Development for Exceptional Individuals, 62,* 38-51.

deFur, S. H., Todd-Allen, M., & Getzel, E. E. (2001). Parent participation in the transition planning process. *Career Development for Exceptional Individuals, 24,* 19-36.

Dickinson, D. L., & Verbeek, R. L. (2002). Wage differentials between college graduates with and without learning disabilities. *Journal of Learning Disabilities, 35,* 175-184.

Dinger, J. C. (1961). Post-school adjustment of former educable retarded pupils. *Exceptional Children, 27,* 353-360.

Doren, B., Lindstrom, L, Zane, C., & Johnson, P. (2007). The role of program and alterable personal factors in postschool employment outcomes. *Career Development for Exceptional Individuals, 30,* 171-183.

Dunn, C. (1996). A status report on transition planning for individuals with learning disabilities. *Journal of Learning Disabilities, 29,* 17-30.

Dunn, C., Chambers, D., & Rabren, K. (2004). Variables affecting students' decisions to drop out of school. *Remedial and Special Education, 25,* 314-323.

Dunn, C., & Shumaker, L. (1997). A follow-up study of former special education students from a rural and urban county school system. *Career Development for Exceptional Individuals, 20,* 43-54.

East Penn School District v. Scott B., 29 IDELR 1058 (ED PA 1999).

Edgar, E. (1987). Secondary programs in special education: Are many of them justifiable? *Exceptional Children, 53,* 555-561.

Etscheidt, S. (2006). Issues in Transition Planning: Legal Decisions. *Career Development for Exceptional Individuals, 29,* 28-47.

Everson, J., & Moon, S. (1987). Transition services for youth adults with severe disabilities: Defining professional and parental roles and responsibilities. *Journal of the Association for Persons with Severe Handicaps, 12*, 87-95.

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. (2007). Urban youth with disabilities: Factors affecting transition employment. *Rehabilitation Counseling Bulletin, 50,* 130-138.

Fabian, E., Lent, R., & Willis, S. (1998). Predicting work transition outcomes for students with disabilities: Implications for counselors. *Journal of Counseling & Development, 76*, 311-316.

Fairbanks, R. (1933). The subnormal child seventeen years after. *Mental Hygiene, 17,* 177-208.

Fardig, D., Algozzine, R., Schwartz, S., Hensel, J., & Westling, D. (1985). Postsecondary vocational adjustment of rural mildly handicapped students. *Exceptional Children 52*, 115-121.

Ferguson, P. M. (2002). Notes toward a history of hopelessness: Disability and the places of therapeutic failure. *Disability, Culture and Education, 1*, 27-40.

Field, S., & Hoffman, A. (1996). *Steps to self-determination: A curriculum to help adolescents to learn to achieve their goals.* Austin, TX: PRO-ED.

Field, S., & Hoffman, A. (2002). Preparing youth to exercise self-determination. *Journal*

of Disability Policy Studies, 13, 113-118.

Field, S., Martin, J., Miller, R., Ward, M., & Wehmeyer, M. (1998). Self-determination for persons with disabilities: A position statement of the division on Career Development and Transition. *Career Development for Exceptional Individuals, 21*,113-128.

Flexer, R. W. (2005). History and Transition legislation. In R. W. Flexer, T. J. Simmons, P. Luft, & R. M. Baer, (Eds.), *Transition Planning for Secondary Students with Disabilities*, Columbus, OH: Pearson Merrill Hall.

Flexer, R. W., & Luft, P. (2001). Transition assessment and post-school outcomes. In R. W. Flexer, T. J. Simmons, P. Luft, & R. M. Baer (Eds.), *Transition Planning for secondary students with disabilities* (pp. 112). Upper Saddle River, NJ: Merrill/Prentice Hall.

Flexer, R. W., Simmons, T. J., Luft, P., & Baer, R. M. (2005). *Transition planning for secondary students with disabilities*, (2nd Ed), Upper Saddle River, NJ: Pearson Prentice Hall.

Flaugher, R. (1978). The many definitions of test bias. *American Psychologist, 33,* 671-679.

Fogel, L. S., & Nelson, R. O. (1983). The effects of special education labels on teachers' behavioral observations, checklist scores, and grading of academic work. *Journal of School Psychology, 21,* 241-251.

Fourqurean, J., & LaCourt, T. (1990). A follow-up of former special education students: A model for program evaluation. *Remedial and Special Education, 12,* 16-23.

Frank, A., & Sitlington, P. (2000). Young adults with mental disabilities – Does

transition planning make a difference? *Education training in mental retardation and developmental disabilities, 35*, 119-134.

Frank A., Sitlington, P., Cooper, L., & Cool, V. (1990). Adult adjustment to recent graduates of Iowa mental disabilities programs. *Education and Training in Mental Retardation, 25*, 62-75.

Gajar, A., Goodman, L., & McAfee, J. (1993). *Secondary schools and beyond: Transition of individuals with mild disabilities.* Upper Saddle River, NJ: Merrill/Prentice Hall.

Gallagher, J. J. (1972). The special education contract for mildly handicapped children. *Exceptional Children, 38,* 327-335.

Gans, K. D. (1987). Willingness of regular and special educators to teach students with handicaps. *Exceptional Children, 54,* 41-45.

Gerber, P. J., Ginsber, R., & Reiff, H. B. (1992). Identifying alterable patterns in employment success for highly successful adults with learning disabilities. *Journal of Learning Disabilities, 25,* 475-487.

Gerber, P. J., Price, L. A., Mulligan, R., & Shessel, I. (2004). Beyond Transition. *Journal of Learning Disabilities, 37,* 283-291.

Gilliam, J. E., & Coleman, M. C. (1981). Who influences IEP committee decisions? *Exceptional Children, 47*, 642-644.

Goldberg, R. J., Higgins, E. L., Raskind, M. H., & Herman, K. L. (2003). Predictors of success in individuals with learning disabilities: A qualitative analysis of a 20-year longitudinal study. *Learning Disabilities Research & Practice, 18,* 222-236.

Goldstein, S., Strickland, B., Turnbull, A. P., & Curry, L. (1983). An observational

analysis of the IEP conference. *Exceptional Children, 46,* 278-286.

Goodall, P. A., Wehman, P., & Cleveland, P. (1983). Job placement for mentally retarded individuals, *Education and Training of the Mentally Retarded, 18,* 271-286.

Greene, G. (2003). Transition assessment. (In Pathways to Successful Transition for Youth with Disabilities, (Eds), Greene, G., & Kochhar-Bryant, C. A. (2003), Chapter 7, Upper Saddle River, NJ, Merril Prentice Hall.

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.

Guy, B., Goldberg, M., McDonald, S., & Flom, R. A. (1997). Parental participation in transition systems change. *Career Development for Exceptional Individuals, 20,* 165-177.

Halpern, A. S. (1985). Transition: A look at the foundations. *Exceptional Children 51,* 495-486.

Halpern, A. S. (1990). A methodological review of follow-up and follow-along studies tracking school leavers from special education. *Career Development for Exceptional Individuals, 13,* 13-27.

Halpern, A. S. (1992). Old wine in new bottles? *Exceptional Children,* 58, 202-212.

Halpern, A. S., Yovanoff, P., Doren, B., & Benz, M. R. (1995). Predicting participation in postsecondary education for school leavers with disabilities. *Exceptional Children, 62,* 151-164.

Haring, K., & Lovett, D. (1990). A study of the social and vocational adjustment of

young adults with mental retardation. *Education and Training in Mental Retardation, 25*, 52-61.

Hasazi, S. B., Gordon, L. R., & Roe, C. A. (1985). Factors associated with the employment status of handicapped youth exiting high school from 1979 to 1983. *Exceptional Children, 51,* 455-469.

Hasazi, S. B., Gordon, L. R., Roe, C. A., Hull, M., Finch, K., & Salembier, G. (1985). A statewide follow-up on post high school employment and residential status of students labeled, "Mentally Retarded." *Education and Training of the mentally Retarded, 20,* 222-235.

Hasazi, S., Johnson, R., Gordon, L., & Hull, M. (1989). Employment of youth with and without handicaps following high school: Outcomes and correlates. *The Journal of Special Education, 23*, 243-255.

Heal, L. W., Copher, J. I., & Rusch, F. R. (1990). Inter-agency agreements (IAAs) among agencies responsible for the transition education of students with handicaps from secondary schools to post-school settings. *Career Development for Exceptional Individuals, 13*, 121-127.

Heal, L., & Rusch, F. (1995). Predicting employment for students who leave special education high school programs. *Exceptional Children, 61*, 472-487.

Hippolitus, P. (1980). Mainstreaming: The true story. *Disabled America, 3*, 11-15.

Hudson, R., Graham, S., & Warner, M. (1979). Mainstreaming: An examination of the attitudes and needs of regular classroom teachers. *Learning Disability Quarterly, 2,* 58-62.

Humphrey, G. (1932). *The Wild Boy of Aveyron.* The Century Co. Cambrige MA.

Irving Independent School District v. Tatro, 104 S. Ct. 3371 (U.S. Sup. Ct. 1984).

Jimerson, S., Egeland, B., Sroufe, L. A., & Carlson, B. (2000). A prospective longitudinal study of high school dropouts examining multiple predictors across development. *Journal of School Psychology, 38,* 525-549.

Johnson, J. R., & Rusch, F. R. (1993). Secondary special education and transition services: Identification and recommendations for future research and demonstration. *Career Development for Exceptional Individuals, 17,* 1-18.

Johnson, R. A., Stodden, E. J., Emanuel, R., Luecking, R., & Mack, M. (2002). Current challenges facing secondary education and transition: What research tells us. *Exceptional Children, 68,* 519-531.

Kohler, P. D. (1993). Best practices in transition: Substantiated or implied? *Career Development for Exceptional Individuals, 16,* 107-121.

Kohler, P. D. (1996). *A taxonomy for transition programming: Linking research and practice.* Champaign: University of Illinois, Transition Research Institute.

Kohler, P. D. (1998). Implementing a transition perspective of education: A comprehensive approach to planning and delivering secondary education and transition services. In F. R. Rusch, & J. G. Chadsey, (Eds.), *Beyond high school: Transition from school to work* (pp.159-205). Belmont, CA: Wadsworth.

Kohler, P. D., DeStefano, L., Wermuth, T. R., Grayson, T. E., & McGinty, S. (1994). An analysis of exemplary transition programs: How and why are they selected? *Career Development for Exceptional Individuals, 17,* 187-201.

Kohler, P. D., & Field, S. (2003). Transition-focused education: Foundation for the future. *The Journal of Special Education, 37,* 174-183.

Kokaska, C. J., & Brolin, D. E. (1985). *Career education for handicapped individuals* (2nd ed). Columbus, OH: Merril.

Konrad, M., Fowler, C. H., Walker, A., Test, D., & Wood, W. M. (2005). Effects of self-determination interventions on the academic skills of students with learning disabilities. *Learning Disabilities Quarterly, 42*, 270-285.

Larry P. v. Riles, 495 F. Supp. 96 (N.D. Cal. 1979) (9th Cir. 1984) EHLR DEC.

Leconte, P. A. (2006). The evolution of career, vocational, and transition assessment: Implications for the summary of performance. *Career Development for Exceptional Individuals, 29,* 114-124.

Lee-Tarver, A. (2006). Are Individualized Education Plans a good thing? A survey of teachers' perceptions of the utility of IEPs in regular education settings. *Journal of Instructional Psychology, 33*, 263-272.

Liebert, D., Lutsky, & Gottlieb, A. (1990). Postsecondary experiences of young adults with severe physical disabilities. *Exceptional Children, 57,* 57-63.

Lindstrom, L. E., & Benz, M. R. (2002). Phases of career development: Case studies of young women with learning disabilities. *Exceptional Children, 69*, 67-83.

Lohrmann-O'Rourke, S., & Gomes, O. (2001). Integrating preference assessment within the transition process to create meaningful school-to-life outcomes. *Exceptionality, 9*, 157-174.

MacMillian, D. L., & Reschly, D. J. (1998). Overrepresentation of minority students. *Journal Special Education, 32,* 15-24.

Madaus, J. W. (2006). Improving the transition to career for college students with

learning disabilities: Suggestions from graduates. *Journal of Postsecondary Education and Disability, 19, 85-93.*

Martin, J. E., & Huber Marshall, L. (1995). ChoiceMaker: A comprehensive self-determination transition program. *Intervention in School and Clinic, 30,* 147-156.

Martin, J. E., Huber Marshall, L., & DePry, R. L. (2001). Participatory decision-making: Innovative practices that increase student self-determination. In R. W. Flexer, T. J. Simmons, P. Luft, & R. M. Baer (Eds.), *Transition planning for secondary students with disabilities* (pp. 304-332). Columbus, OH: Merrill/Prentice Hall.

Martin, J. E., Huber Marshall, L., Maxson, L., & Jerman, P. A. (1996). *The Self-Directed IEP*. Longmont, CO: Sopris West, Inc.

Martin, J. E., & Marshall, L. H. (1996). *The Choice-Maker Self-Determination Assessment*. Longmont, CO: Sopris West.

Martin, J. E., Marshall, L. H., & Maxson, L. L. (1993). Transition policy: Infusing self-determination and self-advocacy into transition programs. *Career Development for Exceptional Individuals, 16,* 53-61.

Martin, E. W., Martin, R., & Terman, D. L. (1996). The legislation and litigation history of special education. *The Future of Children, 6,* 25-39.

McAfee, J. K., & Greenawalt, C. (2001). IDEA, the courts, and the law of transition. *Preventing School Failure, 45,* 102-107.

McDermott, D. E. (1994). Jean Itard: The first child and youth counselor. *Journal of Child and Youth Care, 9,* 59-71.

McDonnell, J. J., Wilcox, B., Boles, S. M., & Bellamy, G. T. (1985). Issues in transition

from school to adult services. A survey of parents of secondary students with severe handicaps. *The Journal of the Association for Persons with Severe Handicaps, 10,* 61-65.

McMahan, R., & Baer, R. (2001). IDEA transition policy compliance and best practice: Perceptions of transition stakeholders. *Career Development for Exceptional Individuals, 24,* 169-184.

McMillan, D. L., & Reschly, D. J. (1998). Overrepresentation of minority students: The case for greater specificity or reconsideration of the variables examined. *Journal of Special Education, 32,* 15-25.

McNair, J., & Rusch, F. R. (1991). Parent involvement in transition programs. *Mental Retardation, 29,* 93-101.

Miller, R. J., Lombard, R. C., & Corbey, S. A. (2001). *Transition assessment: Planning transition and IEP development for youth with mild to moderate disabilities,* (Eds). Boston, MA: Pearson Allyn and Bacon.

Mithaug, D. E., Horiuchi, C. N., & Fanning, P. N. (1985). A report on the statewide follow-up survey of special education students. *Exceptional Children, 51,* 397-404.

Mithaug, D. E., Martin, J. E., & Agran, M. (1987). Adaptability instruction: The goal of transitional programming. *Exceptional Children, 53,* 500-505.

Mobley, M. D. (1964), The new look in vocational education. *Theory into Practice, 3,* 167-170.

Moore, S. C., Agran, M., & Mcsweyn, C. A. (1990). Career education: Are we starting early enough? *Career Development for Exceptional Individuals, 13,* 129-134.

Morningstar, M. E., & Liss, J. M. (2008). A preliminary investigation of how states are responding to the transition assessment requirements under IDEA 2004. *Career Development for Exceptional Individuals, 31,* 48-55.

Morningstar, M. E., Turnbull, A. P., & Turnbull, H. R. (1996). What do students with disabilities tell us about the importance of family involvement in the transition from school to adult life? *Exceptional Children, 62,* 249-260.

National Longitudinal Study (data retrieved at: www.nlts.org on July 22, 2008).

National Secondary Transition Technical Assistance Center (Information retrieved at: wwww.nsttac.org on July 23, 2008).

Neel, R. S., Meadows, N., Levine, P., & Edgar, E. (1987). What happens after special education: A statewide follow-up study of secondary students who have behavioral disorders. *Behavioral Disorders, 13,* 209-216.

Neubert, D. A. (2003). The role of assessment in the transition to adult life process for students with disabilities. *Exceptionallity, 11,* 63-75.

Neubert, D., Tilson, G., & Ianacone, R. (1989). Postsecondary transition needs and employment patterns of individuals with mild disabilities. *Exceptional Children, 55,* 494-500.

Newman, L. (2005). Postsecondary education participation of youth with disabilities. In Wagner et al., (2005). *After high school: A first look at postschool experiences of youth with disabilities. A report from the National Longitudinal Transition Study-2* (NLTS2). Menlo Park, CA: SRI International.

Nirje, B. (1972). The right to self-determination. In W. Wolfensberger, (Ed.),

Normalization: The principle of normalization. Toronto, Ontario, Canada: National Institute on Mental Retardation.

Pennsylvania Association for Retarded Children v. Commonwealth of Pennsylvania, 343 F. Supp. 279 (E.D. Pa. 1972).

Phelps, L. A., & Wermuth, T. R. (1992*). Effective vocational education for students with special needs: A framework.* Berkeley: University of California, National Center for Research in Vocational Education.

Powers, K. M., Gil-Kashiwabara, E., Geene, S. J., Powers, L. E., Balandran, J., & Palmer, C. (2005). Mandates and effective transition planning practices reflected in IEPs. *Career Development for Exceptional Individuals, 28,* 47-59.

Prasse, D. P., & Reschly, D. J. (1986). Larry P.: A case of segregation, testing, or program efficacy? *Exceptional Children, 52,* 333-346.

Rabren, K., Dunn, C., & Chambers, D. (2002). Predictors of post-high school employment among young adults with disabilities. *Career Development for Exceptional Individuals, 25,* 25-40.

Raskind, M. H., Goldberg, R. J., Higgins, E. L., & Herman, K. L. (1999). Patterns of change and predictors of success in individuals with learning disabilities: Results from a twenty-year longitudinal study. *Learning Disabilities Research & Practice, 14,* 35-49.

Raskind, M. H., Goldberg, R. J., Higgins, E. L., & Herman, K. L. (2002). Teaching "Life Success" to students with LD: Lessons learned from a 20-year study. *Intervention in School and Clinic, 37,* 201-208.

Repetto, J. B., White, W. J., & Snauwaert, D. T. (1990). Individualized transition plans

(ITP): A national perspective, *Career Development for Exceptional Individuals, 13,* 109-119.

Roessler, R., & Bolton, B. (1985). Employment patterns of former vocational rehabilitation clients and implications for rehabilitation practice. *Rehabilitation Counseling Bulletin, 28,* 179-187.

Roessler, R. T., Brolin, D. E., & Johnson, J. M. (1990). Factors affecting employment success and quality of life: A one year follow-up of students in special education. *Career Development for Exceptional Individuals, 13,* 95-107.

Roger, S. (1995). Individual Education Plans Revisited: A review of the literature. *International Journal of Disability, Development and Education, 42,* 221-239.

Rojewsky, J. W. (1999) Occupational and educational aspirations and attainment of young adults with and without LD 2 years after high school completion. *Journal of Learning Disabilities, 32,* 533-552.

Rusch, F. R. (2008), *Beyond high school: Preparing adolescents for tomorrow's challenges,* (2nd Ed.), Upper Saddle River, NJ: Pearson Prentice Hall.

Rusch, F. R., Kohler, P. D., & Hughes, C. (1992). An analysis of OSERS-sponsored secondary special education and transitional services research. *Career Development for Exceptional Individuals, 15,*121-143.

Rusch, F. R., & Phelps, L. A. (1987). Secondary special education and transition from school to work: A national priority. *Exceptional Children, 53,* 487-192.

San Francisco Unified School District and San Francisco Community mental Health, 29 IDEIR 153 (SEA CA 1998).

Serna, L. A., & Lau-Smith, J. (1995). Learning with purpose: Self-determination skills

for students who are at risk for school and community failure. *Intervention in School and Clinic, 30,* 142-146.

Shalock, R. L., Wolzen, B., Ross, I., Elliott, B., Werbell, G., & Peterson, K. (1986). Post-secondary community placement of handicapped students: A five-year follow-up. *Learning Disability Quarterly, 9,* 295-303.

Shaw, S. (2006). Legal and policy perspectives on transition assessment and documentation. *Career Development for Exceptional Individuals, 29,* 108-111.

Shearin, A., Roessler, R., Schriner, K. (1999). Evaluating the transition component in IEPs of secondary students with disabilities. *Rural Special Education Quarterly, 18,* 22-35.

Sheridan School District, 32 IDELR 75 (SEA OR 1999).

Sitlington, P. L. Brolin, D. E., Clark, G. M., & Vacanti, J. M. (1985). Career/vocational assessment in the public school setting. The Position of the Division on Career Development. *Career Development for Exceptional Individuals, 8,* 3-6.

Sitlington, P. L., & Clark, G. M. (1996) Career/vocational assessment: A critical component of transition planning. *Assessment for Effective Intervention, 26,* 5-22.

Sitlington, P. L., Frank, A. R., & Carson, R. (1992). Adult adjustment among high school graduates with mild disabilities. *Exceptional Children 59,* 221-233.

Sitlington, P. L., Neubert, D. A., & Leconte, P. J. (1997). Transition assessment: The position of the Division on Career Development and Transition. *Career Development for Exceptional Individuals, 20,* 69-79.

Skinner, M. E. (2004). College students with learning disabilities speak out: What it takes

to be successful in postsecondary settings. *Journal of Postsecondary Education and Disability, 17*, 91-104.

Skrtic, T. M., Harris, K. R., & Shriner, J. G. (2005). *Special Education Policy and Practice: Accountability, Instruction, and Social Challenges*, Denver, CO: Love, Publishing.

Snyder, E. P. (2002). Teaching students with combined behavioral disorders and mental retardation to lead their own IEP meetings. *Behavioral Disorders, 27*, 340-357.

Stahlecker, L. V. (1964). High school graduation for slow learners. *Peabody Journal of Education, 42*, 166-172.

Steere, D., Pancosofar, E., Wood, R., & Hecimovic, A. (1990). The principles of shared responsibility. *Career Development for Exceptional Individuals, 13*, 143-154.

Stephens, T. M., & Braun, B. L. (1980). Measures of regular classroom teachers' attitudes toward handicapped children. *Exceptional Children, 46*, 292-294.

Tatro v. State of Texas, 481, F. Supp 1724 (1979).

Tatro v. State Texas, 625 F. 2ndd 557 (1980).

Test, D. W., Aspel, N. P. & Everson, J. M. (2006). *Transition methods for youth with Disabilities.* Upper River Saddle, NJ: Pearson Prentice Hall.

Thoma, C. A., Held, M. R., & Saddler, S. (2002). Transition Assessment Practices in Nevada and Arizona: Are they tied to best practices? *Focus on Autism and Other Developmental Disabilities, 17*, 242-250.

Thompson, J. R., Fulk, B. M., & Piercy, S. W. (2000). Do Individualized Transition Plans match the postschool projections of students with learning disabilities and their parents*? Career Development for Exceptional Individuals, 23*, 3-25.

Turnbull, R. H. (1986). Appropriate education and Rowley. *Exceptional Children, 54,* 347-352.

Vacc, N. A., Vallecorsa, A. L., Parker, A., Bonner, S., Lester, C., Richardson, S., &

Yates, C. (1985). Parents' and educators' participation in IEP conferences. *Education and Treatment of Children, 8,* 153-162.

Van Reusen, A. K., & Bos, C. S. (1994). Facilitating student participation in individualized education programs through motivation strategy instruction. *Exceptional Children, 60,* 466-475.

Van Reusen, A. K., Bos, C. S., Schumaker, J. B., & Deshler, D. D. (1994). *The self-advocacy strategy for education and transition planning.* Lawrence, KS: Edge Enterprises.

Vitello, S. J. (1986). The *Tatro* Case: Who gets what and why? *Exceptional Children, 52,* 353-356.

Wagner, M. & Blackorby, J. (1996). Transition from high school to work or college: How special education students fare. *The Future of Children: Special Education for Students with Disabilities, 61,* 103-110.

Wagner, M., Blackorby, J., Cameto, R., & Newman, L (1993. *What makes a difference? Influences on postschool outcomes of youth with disabilities. The third comprehensive report from the National Longitudinal Transition Study of Special Education Students*. Menlo Park, CA: SRI International.

Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities. A*

report from the national longitudinal Transition Study-2 (NLTS2). Menlo Park, CA: SRI International.

Walker, R., & Bunsen, T. D. (1995). After high school: The status of youth with emotional and behavioral disorders. *Career Development for Exceptional Individuals, 18,* 97-107.

Ward, M. J. (2005). An historical perspective of self-determination in special education: Accomplishments and challenges. *Research & Practice for Persons with Severe Disabilities, 30,* 108-112.

Wehman, P., Hill, M., Goodall, P., Cleveland, P., Brooke, V., & Pentecost, J. H. (1982). Job placement and follow-up of moderately and severely handicapped individuals after three years. *The Journal of the Association for the Severely Handicapped, 7,* 5-16.

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., Kregel, J., & Seyfarth, J. (1985). Employment outlook for young adults with mental retardation. *Rehabilitation Counseling Bulletin, 29,* 90-99.

Wehmeyer, M. L. (1992). Self-determination and the education of students with mental retardation. *Education and Training in Mental Retardation, 27,* 302-314.

Wehmeyer, M., & Lawrence, M. (1995). Whose Future is it anyway? Promoting student involvement in transition planning. *Career Development for Exceptional Individuals. 18,* 69-84.

Wehmeyer, M. L., & Palmer, S. B. (2003). Adult outcomes for students with cognitive

disabilities three-years after high school: The impact of self-determination. *Education and Training in Developmental Disabilities, 38,* 131-144.

Wehmeyer, M. L., Palmer, S. B., Soukup, J. H., Garner, N., & Lawrence, M. (2007). Self-determination and student transition planning knowledge and skills: Predicting involvement. *Exceptionality, 15*, 31-44.

Wehmeyer, M. L., & Sands, D. J. (1998). *Making it happen: Student involvement in education planning, decision-making, and instruction.* Baltimore: Brookes.

Wehmeyer, M. L., & Schwartz, M. (1997). Self-determination and positive adult outcomes: A follow-up study of youth with mental retardation or learning disabilities. *Exceptional Children, 63,* 439-453.

Whitney-Thomas, J., & Moloney, M. (2001). "Who I Am and What I Want": Adolescents' self-definition and struggles. *Exceptional Children, 67*, 375-389.

Will, M. C. (1984). Let us pause and reflect – but not too long. *Exceptional Children 51*, 11-16.

Winzer, M. A. (1993*). The history of special education: From isolation to integration.* Gallaudet University Press: Washington DC. (Retrieved at http://books.google.com/books?hl=en&lr=&id=sXFaytRNneUC&oi=fnd&pg=PP10&dq=history+ of+special+education&ots =eLdOf1cxwA&sig=A1A62_WTncepc63YN9kyQRy_qAI#PPA19,M1 on July 3, 2008).

Woods, L. L., & Martin, J. E. (2004). Improving supervisor evaluations through the use of self-determination contracts. *Career Development and Exceptional Individuals, 27,* 207-220.

Zhang, D., Ivester, J. G., Chen, L., & Katsiyannis, A. (2005). Perspectives on transition practices. *Career Development for Exceptional Individuals, 28,* 15-25.

Zhang, D., & Stecker, P. M. (2001). Education and training in mental retardation and developmental disabilities. *Division on Mental Retardation and Development Disabilities, 36,* 293-303.

APPENDIX A

NSTTAC Indicator 13 Checklist Form B

NSTTAC Indicator 13 Checklist Form B

Reviewer_____ District/School_____

Student No._____ Age at IEP____ Student Initials_____

Birthdate_____ Disability____ Grade Level____ IEP Date_____

Questions	Postschool Category Educ/Trg	Emplmt	IndepLiv
1. Is there a measurable postsecondary goal(s) that covers education or training, employment, and, as needed, independent living?	**Yes No**	**Yes No**	**Yes No**
Can the goal(s) be counted (by someone)? Will the goal(s) occur *after* the student graduates from H.S.? • If yes to both, then circle Yes. • If a postsecondary goal(s) is not stated, circle No.			
2. Is(are) there annual IEP goal(s) that will reasonably enable the student to meet the postsecondary goal(s)?	**Yes No**	**Yes No**	**Yes No**
Is (are) an annual goal(s) included in the IEP that will help the student make progress towards the stated postsecondary goal(s)? If *yes*, then circle Yes.			
3. Are there transition services in the IEP that focus on improving the academic and functional achievement of the child to facilitate their movement from school to post-school?	**Yes No**	**Yes No**	**Yes No**
Is a type of *instruction, related service, community experience, development of employment and other post-school adult living objectives, and if appropriate, acquisition of daily living skills, and provision of a functional vocational evaluation* listed in association with meeting the post-secondary goal(s)? If *yes*, then circle Yes.			
4. For transition services that are likely to be provided or paid for by other agencies with parent (or child once of the age of majority is reached) consent, is there evidence that representatives of the agency(ies) were invited to the IEP meeting?	**Yes No N/A**	**Yes No N/A**	**Yes No N/A**
For the current year, is there evidence in the IEP that representatives of any of the following agencies/services were invited to participate in the IEP development: postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult education, adult services, independent living or community participation for this post-secondary goal? Was consent obtained from the parent (or child, for a student of the age of majority)? • If yes to both, then circle Yes. • If it is too early to determine if the student will need outside agency involvement, or no agency is likely to provide or pay for transition services, circle N/A. • If parent or individual student consent (when appropriate) was not provided, circle N/A. If no invitation is evident and a participating agency is likely to be responsible for providing or paying for transition services and there was consent to invite them to the IEP meeting, circle No.			
5. Is there evidence that the measurable postsecondary goals were based on an age-appropriate transition assessment?	**Yes No**	**Yes No**	**Yes No**
Is the use of a transition assessment(s) for the postsecondary goal(s) mentioned in the IEP/file? If *yes*, then circle Yes.			
6. Do the transition services include courses of study that focus on improving the academic and functional achievement of the child to facilitate their movement from school to post-school?	**Yes No**	**Yes No**	**Yes No**

APPENDIX B

Transition Program Practices Evaluation

Transition Program Practices Evaluation

Part I: Demographic

1. Primary Job Position: (Circle only one)
    a. Transition Specialist
    b. Special Education Teacher
    c. Special Education Chair or Coordinator

Part II: Transition Program Questions

Please answer the following questions by stating the **approximate number** of students on your caseload who have completed the following activities in the last year. This survey is designed to reflect approximate numbers of students, not exact numbers.

Transition Planning

2. In the last year, how many of your students with IEPs have completed IEP transition sections?

    ____ number of students out a total of _____

3. In the last year, how many IEP meetings in which you participated discussed results from adaptive behavior assessment, such as the Transition Planning Inventory or Casey Life-Skills?

    ____ number of students out a total of _____ Don't know ____

4. In the last year, how many of the IEP meetings in which you participated discussed results from recently completed career interest assessment?

    ____ number of students out a total of _____ Don't know ____

5. In the last year, how many of your students with IEPs received formal instruction in how to select their **annual** transition goals?

    ____ number of students out a total of _____ Don't know ____

6. In the last year, how many of your students with IEPs selected their own **annual** transition goals?

    ____ number of students out a total of _____ Don't know ____

7. In the last year, how many of your students with IEPs received formal instruction in how to select their **postsecondary** transition goals?

    ____ number of students out a total of _____ Don't know ____

8. In the last year, how many of your students with IEPs selected their own **postsecondary** transition goals?

____ number of students out a total of _____ Don't know ____

9. In the last year, how many of your students with IEPs received formal instruction in how to ask teachers for academic help?

____ number of students out a total of _____ Don't know ____

10. In the last year, how many of your students with IEPs asked their teachers for academic help?

____ number of students out a total of _____ Don't know ____

11. In the last year, how many of your students received formal instruction in how to manage their own money (e.g., budgeting, balancing checkbooks, and comparing prices)?

____ number of students out a total of _____ Don't know ____

12. In the last year, how many of your students managed their own money (e.g., budgeting, balancing checkbooks, and comparing prices)?

____ number of students out a total of _____ Don't know ____

13. In the last year, how many of your students with IEPs received formal instruction in daily living skills (e.g., cooking, washing clothes, and buying their own groceries)?

____ number of students out a total of _____ Don't know ____

14. In the last year, how many of your students with IEPs performed daily living skills (e.g., cooking, washing clothes, and buying their own groceries)?

____ number of students out a total of _____ Don't know ____

Vocational Education

15. In the last year, how many of your students with IEPs received formal career exploration instruction?

____ number of students out a total of _____ Don't know ____

16. In the last year, how many of your students with IEPs had school sponsored career exploration opportunities?

____ number of students out a total of _____ Don't know ____

17. In the last year, how many of your students with IEPs received formal instruction in how to find a job?

____ number of students out a total of _____ Don't know ____

18. In the last year, how many of your students with IEPs had school-sponsored opportunities to find a job?

____ number of students out a total of _____ Don't know ____

19. In the last year, how many of your students with IEPs who had a paying job?

____ number of students out a total of _____ Don't know ____

Interagency Collaboration

20. Of the IEP meetings that included agency involvement, how many students used those community agencies in the last year?

____ number of students out a total of _____

Student and Family Involvement

21. Of the IEP meetings that you attended in the last year, how many had at least one parent or guardian present?

____ number of students out a total of _____

22. How many of your students do you think received one-on-one assistance from their parents or guardians in working toward their postsecondary goals?

____ number of students out a total of _____

23. Of the IEP meetings that you attended in the last year, how many had the student present?

____ number of students out a total of _____

24. How many of your students with IEPs received formal instruction on how to express their opinions in their IEP meetings?

____ number of students out a total of _____

25. When the student attended the meeting, how many expressed their opinion about their goals during transition meeting discussions?

____ number of students out a total of _____

APPENDIX C

IRB Approval

The University of Oklahoma
OFFICE FOR HUMAN RESEARCH PARTICIPANT PROTECTION

IRB Number: 12331
Category: 2 & 4
Approval Date: November 05, 2008

November 06, 2008

Juan Portley
Dept. of Educational Psychology
510 S. University Blvd, #31
Norman, OK 73069

Dear Mr. Portley:

RE: Examination of Transition Program Variables

On behalf of the Institutional Review Board (IRB), I have reviewed the above-referenced research project and determined that it meets the criteria in 45 CFR 46, as amended, for exemption from IRB review. You may proceed with the research as proposed. Please note that any changes in the protocol will need to be submitted to the IRB for review as changes could affect this determination of exempt status. Also note that you should notify the IRB office when this project is completed, so we can remove it from our files.

If you have any questions or need additional information, please do not hesitate to call the IRB office at (405) 325-8110 or send an email to irb@ou.edu.

Cordially,

Donald Baker, Ph.D.
Vice Chair, Institutional Review Board

Ltr_Prot_Fappv_X

660 Parrington Oval, Suite 316, Norman, Oklahoma 73019-3085 PHONE: (405) 325-8110 FAX:(405) 325-2373

Appendix D

O’Leary Transition Requirement Checklist

APPENDIX D

OLeary Transition Requirement Checklist

Transition Requirements Checklist
August – 2001 Revised for New Mexico
Jan. '06

12. Does the IEP include appropriate measurable postschool <u>and</u> annual goals, based on age-appropriate transition assessment, related to:

A. training	Yes __ No __ N/A__
B. education	Yes __ No __ N/A__
C. employment	Yes __ No __ N/A__
D. where appropriate, independent living skills?	Yes __ No __ N/A__

(Reference—Are **goals** for <u>after</u> high school recorded for the areas above? Does the <u>transition services</u> plan include measurable strategies that help the student reach those specific **goals,** and do the transition services include a course of study that aligns with the student's postsecondary goal(s)? Are <u>annual goals</u> present that will help the student reach those specific postschool **goals?**)

Comments:

APPENDIX E

Initial Email Invitation

Initial Email Invitation

Greetings educators!

You have been invited to participate in an important state-wide study that I am conducting for my dissertation in special education. My name is Juan Portley and this study will briefly assess transition programs across the state to gain insight into the extent of services for every high school.

Please take just a few minutes to read the consent form to accept or decline participation and complete the short survey. Your email will be entered into a drawing for a Pendleton blanket that I will deliver upon the completion of this study.

Thank you so much for your time and efforts.

Juan Portley, M.Ed
University of Oklahoma
NEREC 4 Transition Consultant

The University of Oklahoma is an equal opportunity institution.
The OU IRB has approved the content of this message, but not the method of distribution.
The OU IRB has no authority to approve distribution by mass email.