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Postsecondary Inclusion for Individuals with an Intellectual Disability: A Comparative Case Study

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Abstract

Postsecondary education programs for individuals with intellectual disabilities have emerged exponentially in the United States over the last decade. Research regarding these programs has largely been descriptive, and thus there exists a need for qualitative, outcome-based research. In this comparative case study, graduates from two types of postsecondary education programs for individuals with intellectual disability are surveyed regarding employment outcomes and other personal developments. The results from each program are compared with one another and also with a comparison group of individuals with intellectual disabilities who did not attend a postsecondary program (utilizing the 2009 National Longitudinal Transition Study-2). This case demonstrates significant positive employment-related outcomes for individuals with intellectual disabilities who attend postsecondary programs compared to those who do not attend such programs and highlights similarities and differences regarding outcomes of the two program types under consideration.

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Chapter One: Introduction

Problem Statement

The rapid emergence of postsecondary education (PSE) programs for individuals with intellectual disabilities (ID) has met a pragmatic and philosophical need in the past ten years, but the programming has exceeded the research. Social and philosophical shifts toward fundamental equality and universal rights at the end of the 20th and beginning of the 21st century created a fertile environment for PSE programs for individuals with ID to develop; this development was spearheaded by a three-fold movement of initiatives, legislation, and litigation (Taylor, Richards, & Brady, 2005).

The novelty of these rapidly expanding programs has created an influx of descriptive literature regarding what is being done in these various programs in order to promote awareness of their existence and also to provide a means to begin comparing different programs around the country. Recent literature indicates that one of the critical next steps in the research of PSE programs for individuals with ID is to provide quantitative data to demonstrate outcomes for individuals with ID who attend such PSE programs and highlight the limited amount of such data which has been published to date (Grigal, Hart, & Weir, 2012a; Hart, Grigal, & Weir, 2010; Moon & Neubert, 2006).

Importance of the Problem and Rationale for the Study

The importance of quantitative outcome data regarding PSE programs for individuals with ID is hard to overstate. A report documenting a 2012 convention of many of the top scholars, teachers, and researchers in the emerging field of PSE programs for individuals with ID demonstrates two primary points of importance: (1) justification

for financial support and (2) the development of best practices and program types (Thoma, 2012).

Justification of financial support. As for the first point, justification of financial support, Thoma's (2012) report suggests that the participants of the convention were unified in their belief that these programs provided a positive return on investment for the young adults and their families who participate, but they acknowledged that until they had evidence to prove that this was the case, programs would be "in danger of budgetary cuts in times of fiscal constraints" (p.1126). This lack of evidence speaks to the fact that university and government-sponsored programs, which use public and grant-based funding, need to be held accountable. In the case of PSE programs for individuals with ID: employment, social engagement, and independence are the primary goals (Thoma, 2012). Therefore, outcome data is needed to demonstrate that such programs are generating positive outcomes in terms of these primary goals. While this study focuses primarily on employment, it is *a priori* that employment, an enterprise that is both social and individual, is intrinsically connected to both social engagement and independence (to varying degrees, determined by the type of employment). As such, employment data is perhaps the most pertinent as a topic of focus, inasmuch as it demonstrates the proficiency and serves as a pragmatic implication of the other two goals.

Without the provision of outcome data within a reasonable time frame, it is likely to become increasingly difficult for program directors and universities to justify the use of public and/or grant-based funding for their programs. If funding is diminished or completely eliminated, available programs will need to find alternate sources of funding, which will almost certainly mean some programs closing their doors and/or significantly

increasing costs to families, which in turn will prevent lower-income families of individuals with ID from benefiting from PSE programs.

Development of archetypes and best practices. Thoma's (2012) report also speaks of the second point: the need for the development of program archetypes and best practices. The constructive discussion at the aforementioned convention (Thoma, 2012) demonstrated divergent opinions of self-determination and program development. Indeed, the acknowledgement of different program types and different priorities in the field were freely recognized, as there was a simultaneous recognition that in terms of best practices it is not yet known which program types are the most effective. To this end, Thoma noted, "future research needs to be broad and comprehensive, with studies that include comparisons across program types, identification of program participants, both external and internal supports that are needed for success, and establishment of program goals" (p. 1127).

When these two research needs are taken together, a thorough response to the call to research would be a study that allows for comparison across program types and which measures efficacy in terms of stated program objectives. This two-fold investigation is precisely that to which this study is intended to contribute. While this report is not "broad and comprehensive," it is designed to provide a case study that can later be synthesized with other case studies to reach the comprehensive review for which Thoma calls.

Background of the Problem

A long history of abuse and exclusion of individuals with intellectual disabilities in American society (Taylor et al., 2005) has gradually given way to full and commonplace inclusion for such individuals in public education as a result of legislation and litigation,

such as the Individuals with Disabilities in Education Act, 2004. This inclusion initiative has enabled individuals with intellectual disabilities to graduate from high schools alongside their non-disabled peers, which has led to the promotion of opportunities for postsecondary education to meet the growing demand created by these graduates.

As is often the case in any domain of human endeavor, success has a way of begetting success. As more and more students with impairments are succeeding at the secondary and postsecondary level, there is a gradual increase in awareness of the potential, social value, capabilities, and importance of these individuals and the unique role that they can play in our social systems (Carroll, Blumberg, & Petroff, 2008). The research team for Think College, a leader in the post-secondary education movement for individuals with ID eloquently reflect on this trend, saying: "As students with labels of autism or intellectual disabilities pursue their educational dreams of attending college, they shatter previously held assumptions of what is possible" (Hart et al., 2010, p. 145).

This deep and far-reaching social revolution is exciting and highly rewarding for stakeholders ranging from the individuals with ID themselves to society at large. However, this zealous promotion of integration in diverse areas of society has caused the practices to extend beyond the research. As such, while currently published literature is replete with descriptive content of integrative programs (programs in which individuals with intellectual disabilities are included among students without intellectual disabilities in postsecondary settings), there is a severe paucity of research documenting the outcome of these programs or isolating best practices (Grigal, Hart, & Weir, 2012a; Hart et al., 2010; Moon & Neubert, 2006).

There is opportunity for quantitative, outcome-based research that would promote and develop the emerging postsecondary programs for individuals with intellectual disabilities. The following research questions were constructed with the intent of addressing this opportunity.

Research Question

How do the employability, type of employment, and income levels among students with intellectual disabilities who graduated from an integrated program and a specialized program[1] compare? Further, are there any differences in employability and income that may exist between students with intellectual disabilities who attended any postsecondary education program and those who have not, as measured by available national data[2]?

Hypothesis

I hypothesize that there will be substantial improvement in terms of employability, type of employment, and level of income among individuals with intellectual disabilities who graduated from either of the postsecondary programs under investigation compared to individuals with similar disability classification among the general populace who did not attend postsecondary programming. I further hypothesize that the degree of success (in terms of employment) will be positively correlated with the degree to which the postsecondary program is integrated. That is, that the individuals who graduated from the integrated program will have a higher degree of present employment and income compared to the graduates of the specialized program.

[1] Defined in the "Definition of Terms" section below.
[2] Specifically: the National Longitudinal Transition Study - 2 (2009)

Design, Data Collection and Analysis

Two groups of individuals from two PSE programs participated in this study. The two participant groups are (1) program directors (hereinafter used interchangeably with "administrators") and (2) individuals with intellectual disabilities who have graduated from the postsecondary programs. Data were collected through a triangulation of three sources:

Administrator interviews. A structured interview was conducted to collect information from special education administrators of PSE programs at one point in time. This component is hereinafter referred to as the "administrator interview".

Student surveys. A cross-sectional web-based survey was administered to collect information from individuals who have graduated from one of the two PSE programs. This component is hereinafter referred to as the "student survey".

Public data. Data were collected from the National Longitudinal Transition Study-2 (NTLS-2, 2009), as well as from the participant PSE programs' websites and from the thinkcollege.net database regarding the program objectives, claims, recruitment practices, etc. Data from the latter source were used for further corroboration with what I learned from the administrators.

Analysis. The two components of the data collection (administrator interview and student survey) were individually assessed before a synthesis of data was developed as per the qualities of a case study.

The administrator interview questions are mostly qualitative in nature, and thus the responses are summarized for key themes, which are presented with quotations drawn as appropriate. Three questions did deal with quantitative facts that allowed for a

quantitative comparison between the two schools under investigation. These were integrated into the data tables populated otherwise by the data from the student survey.

The student survey formed the core quantitative component of the data collection. The data collected from this survey were designed to match the data that were collected through the National Longitudinal Transition Study-2. All relevant comparative data from NTLS-2 is presented in the form of frequency distribution tables. Thus, this study uses the same type of data tables for all comparative data generated from the student survey.

Definition of Terms

Comprehensive transition program. A comprehensive transition program (CTP) is a government designation given when a PSE program meets the following guidelines:

- serve students with intellectual disabilities;
- provide individual supports and services for the academic and social inclusion of students with intellectual disabilities in academic courses, extracurricular activities, and other aspects of the institution of higher education's regular postsecondary program;
- with respect to the students with intellectual disabilities participating in the model program, provides a focus on —
    1. academic enrichment;
    2. socialization;
    3. independent living skills, including self-advocacy skills; and
    4. integrated work experiences and career skills that lead to gainful employment;

- integrate person-centered planning in the development of the course of study for each student with an intellectual disability participating in the model program;
- participate with the coordinating center established under section 777(b) in the evaluation of the model program.
- partner with one or more local educational agencies to support students with intellectual disabilities participating in the model program who are still eligible for special education and related services under the Individuals with Disabilities Education Act, including the use of funds available under part B of such Act to support the participation of such students in the model program;
- plan for the sustainability of the model program after the end of the grant period; and
- create and offers a meaningful credential for students with intellectual disabilities upon the completion of the model program. (Transition and Postsecondary Programs, 2013).

Integrated program. (Also known as the inclusive, individual support model[3]) The Integrated program is a program in which "students with ID receive individualized services (e.g., educational coach, tutor, technology, peer mentors, natural supports) in order to access college courses, certificate programs, and/or degree programs, for audit or credit" (Grigal, Hart, & Weir, 2012a, p. 224).

Specialized program. (Also known as substantially separate model) The specialized program is a program in which "students with ID receive services in a

[3] I have modified the terminology for these programs in an attempt to minimize potential, unintentional linguistic bias due to the negative connotations of "substantially separate" and contrasting positive connotations of "inclusive, individual support." Nevertheless, I have kept the published definition of these terms.

postsecondary setting, but participate only in classes with other students with disabilities" (Grigal, Hart, & Weir, 2012a, p. 224).

There are many characteristics of PSE programs. While I am concerned primarily with employment outcomes from three divergent programs, the various other factors added to the richness of comparison of the two programs, and being able to examine these allowed for a more in-depth analysis and consideration of how these characteristics were potentially influential toward the discovered outcomes.

Delimitations and Limitations of the Study

The format of this study involved the judgment sampling (Marshall, 1996) of candidate school participants that fit the program types being investigated in this case study. This form of sampling is useful for exploratory studies (such as this one) in that it allows for the researcher to use a logical selection of experiment groups that meet the required variables under consideration. However, the act of hand-selecting programs to study may reduce the extent to which the outcome analysis can be generalized.

Nevertheless, I appeal to the perspective of Gerard Piel, who writes: "The better generalizations often are those more parochial, those more personal" (Piel, 1978, p.7) and "A case is often thought of as a constituent member of a target population… Often, however, the situation is one in which there is a need for generalization about a particular case or generalization to a similar case rather than generalization to a population of cases" (p. 7). In other words, the conclusions of this study may not be able to be generalized to individuals with ID who attend PSE programs in general, but may be generalizable to some degree to the similar demographics of individuals who attend similar types of PSE programs.

This approach corresponds well with the reality of research in this emerging field of PSE programs for individuals with ID wherein more classically generalizable sampling methods (e.g. random sampling) are not yet practical for the reasons that (1) there is a paucity of subjects available for research given the recent emergence of such programs and (2) the not unrelated issue that those programs that are further developed have been the target of so much research that many are experiencing research participant burnout. Furthermore, the programs selected for research in this case study are selected as representatives of similar types of programs available elsewhere, and thus the study maintains an ability for some intentional, conscious generalization, even if not for broad, systematic generalization.

Within that scope, the results of this study may suggest trends for PSE programs for individuals with ID as a whole as well as for those that fit the specific profiles of being integrated or specialized. However, for systematic generalization, other case studies and/or more large-scale quantitative studies will need to be completed. In this case, the research from this case study may contribute to the overall knowledge base.

Organization of the Thesis

The thesis study is organized according to traditional conventions whereby the following chapters (2-5) will each focus on one major component of the thesis project.

Chapter two presents the result of a review of existing research related to outcomes for PSE programs for individuals with ID. There is some analysis of this information and how it relates to and informs the direction of my own research.

Chapter three explicates the design of my research including non-identifying details related to the participants in the study, an description of the instruments utilized in the

gathering of data, and the methods used to analyze the collected data.

Chapter four presents the results of the data analysis and the findings of the study. I address the extent to which the hypothesis of the study was verified.

Chapter five offers the conclusions that I found to emerge from my research. I additionally highlighted information and questions that came to light over the course of this study as well as opportunities for further research.

Chapter Two: Literature Review

Introduction and Theoretical Framework

For this chapter, I focused on the research on employment data for individuals with intellectual disabilities in general, framing a background for the need for intervention/action, and then moved into an investigation of research that demonstrates outcome for students with ID who have attended a PSE program. In the attempt to narrow the scope of my inquiry, I quickly discovered both through experience and through the claims of researchers before me that there is a very limited amount of research currently available regarding outcome data for PSE programs for individuals with ID. This point is manifest in the research in three ways: (1) direct statement (Grigal, Hart, & Weir, 2012a; Hart et al., 2010; Moon & Neubert, 2006), (2) blending of ID with other disability categories for the formulation of generalizations (Smith, Grigal, & Sulewski, 2012; Zafft, Hart, & Zimbrich, 2004); and (3) attempts to provide specific outcome data for students with ID who attend(ed) PSE programs, utilizing small sample sizes (Grigal, Dwyre, Weir, 2010; Migliore & Butterworth, 2009; Zafft et al., 2004).

This paucity of information is not surprising given the recent-emergence of PSE programs for individuals with ID; indeed, the existence of this issue is one of the reasons for the importance of this study. Nevertheless, the lack of existing, focused research currently available is worth noting at the outset, as it has an immediate effect on the volume of this chapter.

In order to expand the issue and further frame the research, I approached the topic by investigating the issue of employment of individuals with ID in general, focusing on the content of my baseline data: the National Longitudinal Transition Inventory-2 (2009).

Following this, I explored literature that demonstrated the connection of PSE programming to the goal of employment for individuals with ID, which forms the bridge to my main focus and brings up the final component of this section: literature that demonstrates the degree of success that has been experienced in terms of employment for individuals with ID who have attended PSE.

One final point to make here is that despite the limited quantity of information regarding program outcomes, the Higher Education Opportunities Act of 2008 (HEOA 2008) has already demonstrated preferential treatment for some program types over others. Based on the HEOA 2008, federal funds are made available for the development of PSE programs for individuals with ID in 23 states and has enabled federal grants for students attending a recognized Comprehensive Transition Program (CTP). CTPs represent a specific set of values for PSE programs. According to the HEOA 2008, CTPs are degree, certificate, or non-degree programs that meet specific qualifications, including:

- Are offered by a college or career school and approved by the U.S. Department of Education;
- Are designed to support students with intellectual disabilities who want to continue academic, career, and independent living instruction to prepare for gainful employment;
- Offers academic advising and a structured curriculum; and
- Requires students with intellectual disabilities to participate, for at least half of the program, in:
    1. Regular enrollment in credit-bearing courses with nondisabled students,

2. Auditing or participating (with nondisabled students) in courses for which the student does not receive regular academic credit,
3. Enrollment in noncredit-bearing, non-degree courses with nondisabled students, or
4. Internships or work-based training with nondisabled individuals.

In this regard, the HEOA demonstrates preferential treatment for programs that meet requirements of program objectives, structure, affiliation, and integration practices. Put another way: theoretically, individuals with ID should experience greater success after graduating from a CTP than those who did not attend a CTP. Additionally, CTPs are here implied to have better outcome expectations than PSE programs that are not CTPs. Finally, integrated programs are given higher value than specialized programs.

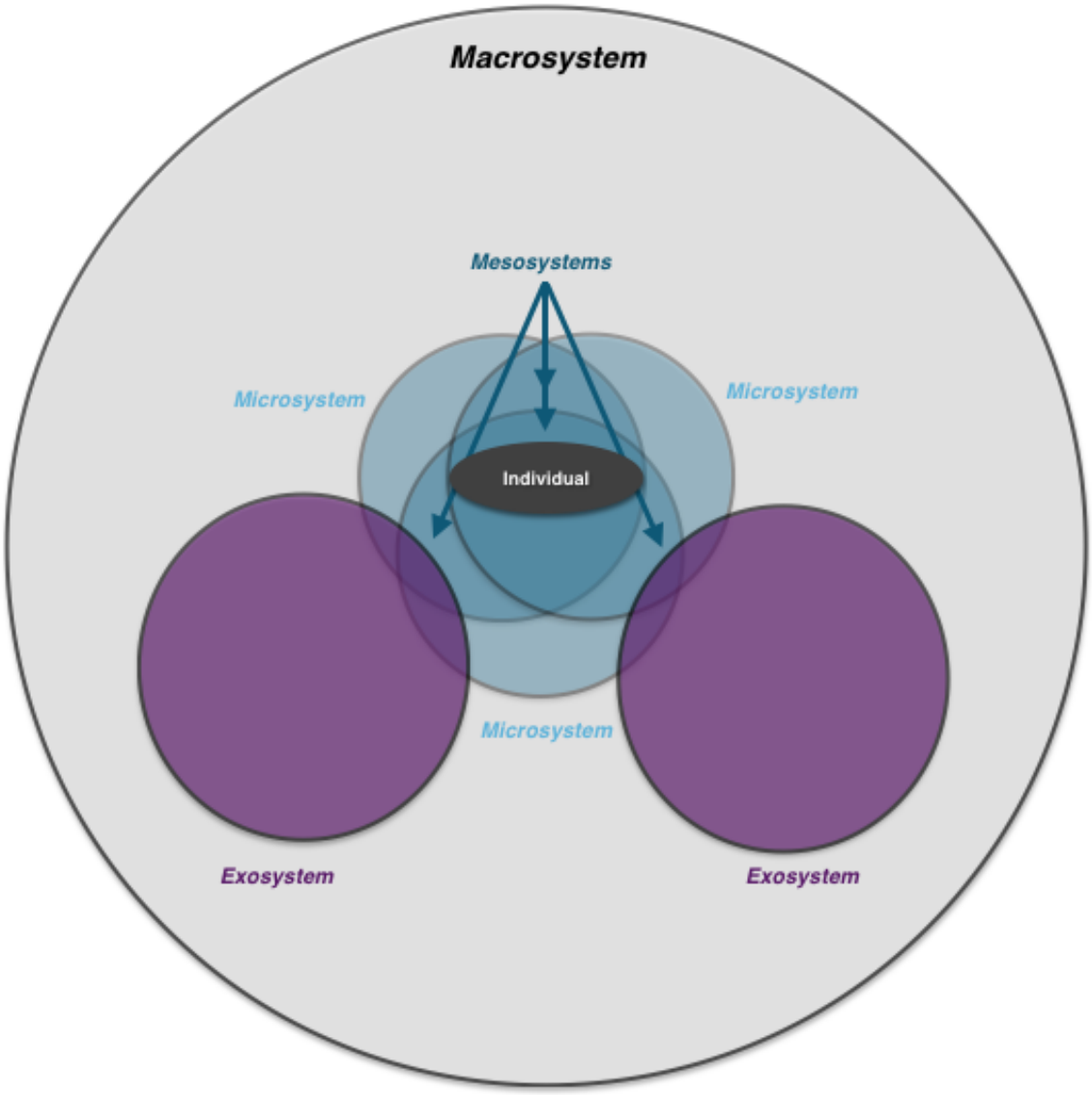
The three groups (two test groups, one comparison group) represented in this current case study include individuals with ID who are graduates from a CTP, graduates from a PSE that is not a CTP, and those who did not attend any PSE program. Comparisons of these three groups thereby allow me to explore the theoretical propositions implied by HEOA 2008.

Theoretical framework. Bronfenbrenner's (1979) book The Ecology of Human Development presented a groundbreaking insight into human behavior and development that has become seminal for other theories and practices in anthropology and education alike. Bronfenbrenner's model suggests that humans simultaneously occupy multiple social ecosystems that maintain dynamic interactions; human development, therefore, must be understood through a holistic lens of these hierarchical ecosystems (1979). According to Bronfenbrenner, there are 4 ecological levels that can be investigated:

- *Microsystem*: “a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics” (p. 22).
- *Mesosystem*: “the interrelations among two or more settings in which the developing person actively participates (such as, for a child, the relations among home, school, and neighborhood peer group: For an adult, among family, work, and social life)” (p. 25).
- *Exosystem*: “one or more settings that do not involve the developing person as an active participant, but in which events occur that affect or are affected by, what happens in the setting containing the developing person” (p. 25)
- *Macrosystem*: the larger cultural world or society surrounding the developing person.

This might be understood graphically as follows. In this design, the *microsystems*, in which the individual is a part, overlap in places creating the *mesosystems.* The *exosystems* affect the *microsystems* and *mesosystems*, but the individual him/herself is not part of the exosystems. All systems are part of the larger *macrosystem*.

Figure 1: Graphic of Bronfenbrenner's Ecological Levels



This concept is salient for discussion of pedagogical theory in special education perhaps to an even greater extent than general education. The reason for this is that special education - by its nature - puts a high degree of focus on the developing individual him or herself. For example, this point could be demonstrated through the use

of individualized education plans (IEPs). However, Bronfenbrenner theory seems to suggests that this microscopic view of the student's needs may ultimately be of disservice to the student if we are not considering how they interact in other roles beyond the microsystem of the classroom. A pertinent question may be not just 'how are we helping students develop,' but more specifically, 'how are we helping the student develop *in the context* of the social systems to which they belong?'

PSE programs for individuals with IDs have emerged to explicitly facilitate the migration from one microsystem (or one set of microsystems) to another (e.g. from high school to workplace, and/or from living with caregivers to living independently) through the use of hands-on experience, training, and both direct and indirect instruction. However, there is apparent theoretical disagreement in how the PSE program's own *microsystem* should be designed to facilitate student navigation of their other current and future *microsystems, mesosystems*, *exosystems* and *macrosystems.*

Because Bronfenbrenner's model underscores the impact of environment on the individual's development, this is a question of great importance.

Employment of Individuals with ID Compared to General Populace

Because this thesis is concerned with employment outcomes for individuals with intellectual disabilities, it is necessary to establish the baseline for employment expectations. The National Longitudinal Transition Study-2 (NTLS), which was funded by the U.S. Department of Education, provides data specific to employment of individuals with intellectual disabilities (and other disability types) regardless of any other variables. As such, it represents the general body of individuals with intellectual disabilities, of whom few or none would have graduated from PSE programs at the time

of the data collection (2009). Therefore, the NTLS-2 provides an excellent baseline/comparison group for this study.

According to the NTLS-2, young adults (aged 21-25) with disabilities of any kind had a 59% rate of employment outside the home (National Center for Special Education Research, 2009). More useful, however, are the subcategorizations in the NTLS-2, which demonstrate discrepancy among the subgroups of individuals with disabilities. For example, whereas 66.7% of individuals with learning disabilities were employed at the time of the survey, only about 35% of those with an intellectual disability or autism were likewise employed. By means of comparison during the same period, the US Bureau of Labor Statistics shows average employment rates of 90.2% for 2009 (2009).

Additionally telling are the average wages of individuals with intellectual disabilities compared to other groups. The NTLS-2 reports individuals with intellectual disabilities earning a mean (average) hourly income of $7.80/hour in 2009, when the minimum wage was $7.25/hour. It further demonstrates that among those who were employed, 40.3% made less than the minimum wage $7.25/hour, and 91.7% made less than $10.50/hour. By way of contrast, the mean hourly income for the general population in America was $20.90 in 2009 (Bureau of Labor Statistics, 2009). In summary, a contrast of employment statistics between individuals with intellectual disabilities and the general populace demonstrates gaps of 55% in terms of overall employment and 65.5% in mean income.

Though a critical analysis of the reasons for this fact is beyond the scope of this thesis, it is worthwhile to note briefly that other researchers have summarized the cause of this discrepancy as being due to both external/social issues and an internal/personal

lack of motivation among many individuals with intellectual disabilities. As reported by Leslie Francis in the Journal of Gender, Race, and Justice: "[Barriers to employment for individuals with intellectual disabilities] include negative attitudes among employers, separation between special education and vocational programs, lack of supportive services, and a tendency to segregate people with cognitive disabilities into sheltered work arrangements" (Francis, 2004). It may appear, therefore, that segregation begets segregation.

PSE Programs Designed for Increasing Employment of Individuals with ID

Attempts have been made to remedy the issue of lack of employment among individuals with ID through the provision of PSE options.

Recent paradigm shifts have led to awareness of the fundamental similarities of individuals with ID and those without, and thereby an assumption has emerged that that which benefits the general populace may also benefit individuals with ID. By extension, PSE attendance could increase the employability of individuals with ID as it does individuals without (Wehman & Yasuada 2005; Gilmore, Bose, & Hart, 2001; Migliore & Butterworth, 2009).

Researcher Dr. Meg Grigal states this point explicitly as: "Going to college is and always has been connected to greater rates of employment and higher wages. It is likely given the opportunity, and the means to document the outcomes, that students with intellectual disabilities would mirror these trends" (Grigal & Hart, 2010, p. 2) and is also made manifest in literature documenting reflections of pilot programs such that of The College of New Jersey (Carroll et al., 2008). In 2003, the administrators anticipating the development of a PSE program for individuals with ID at The College of New Jersey

sought to use integrative methods of programming in order to promote outcomes for students with ID that were hoped to be similar to the outcomes of students without ID (Carroll et al., 2008).

Though there are many purposes for attending college including practical skill development (Grigal & Hart, 2010); social development (Thoma, 2012); self-determination skills (Grigal, Hart, & Weir, 2012b); etc, employment outcomes remain the pragmatic focal point of the vast majority of PSE programs for individuals with ID (Papay & Bambara, 2011; Thoma, 2012). Indeed, the movement toward provision of PSE programming for individuals with ID is based on the presupposition that postsecondary education correlates strongly with employment and income (Migliore & Butterworth, 2009) as well as that attaining some PSE is becoming an "increasingly important prerequisite to independent adult living" (Zafft et al., 2004, p. 45).

The focus on provision for increased employment outcomes of individuals with ID was demonstrated early in the development of inclusive PSE programming as a 2004 study showed that among 11 pilot programs in the Maryland area "Almost all students (87%) were involved in employment training in the community or on a college campus" (Neubert, Moon, & Grigal, 2004, p. 22). During the same time, student enrollment in college courses was limited to just 36% (Neubert et al., 2004). A follow-up, expanded national survey of transition programs in 2011 confirmed the primary focus on employment outcomes saying that "almost all program coordinators [of the 52 programs surveyed in this study] responded that the purpose of students [with an ID] being on a college campus was for opportunities for employment or vocational training" (Papay & Bambara, 2011, p. 90). Course enrollment continues to be low (25% in the Papay

survey), which further underscores the employment-based focus of PSE programs for individuals with ID.

Employment of Individuals with ID Who Have Attended a PSE Program

Given the poor employability of individuals with ID (National Center for Special Education Research, 2009) and the explicit attempt by PSE programming to rectify this issue (Grigal, Hart, & Weir, 2012b), it follows to investigate the level of improvement in terms of employability for individuals with ID who have graduated from the said PSE programs. However, this is an area in which current literature is significantly lacking, as the overwhelming majority of the literature available regarding PSE programs for individuals with ID is descriptive in nature (Gaumer, Morningstar, & Clark, 2004; Grigal, Hart, & Weir, 2012a; Grigal, Neubert, & Moon, 2001; Hart & Grigal 2008; Hart, Mele-McCarthy, & Pasternack, 2004; Neubert et al., 2004; Papay & Bambara, 2011; Zafft et al., 2004).

Some of the most recent literature directly expounds on this present issue. For example, Thoma, et. al., comment in a thorough 2012 review of literature:

> The majority of research studies are descriptive in nature. Most research in this area describes specific programs at institutions of higher education or an individual student's experience. Overall, studies reported positive experiences for individual students with ID who participated in PSE; however there is little empirical evidence to support claims that the same kind of improved outcomes exist for other groups of students who go on for PSE. (p. 1123)

Researchers Grigal, Hart, and Weir concur suggesting that "there is a need for further research to understand how PSE impacts employment outcomes for people with

an ID, and to fully understand how the various characteristics and practices used by PSE initiatives impact employment outcomes" (2012a, p. 232).

That being said, there have been some reports regarding outcome of individuals with ID who have attended PSE programs. Data collected from these different studies show wide variation in the degree to which PSE programs are successful in providing for employment-based outcomes of students, but nevertheless consistently demonstrate increased success compared to those without postsecondary experience.

For example, a 2012 analysis of American Community Survey Data revealed some justification for the promotion of PSE as a means of increasing employment in that 43% of individuals with ID who attended college without earning a degree and did not have Social Security income were employed in 2010, compared to 31% of the same demographic who had attained only a secondary school diploma and 19% who had attended, but not completed, secondary school (Smith et al., 2012).

Likewise, a 2009 study following individuals with ID who employed the services of Vocational Rehabilitation showed that where 32% of individuals who did not attend any PSE were employed; this number moved up to 48% of those who did attend, but did not earn a degree, and 58% of those who attended a PSE and did earn a degree (Migliore & Butterworth, 2009).

A 2010 case study of two transition-program schools in Connecticut and Maryland, respectively, demonstrated even higher degrees of success as 83% and 72% of respective graduates earned paid employment upon exiting the program (Grigal et al., 2010).

In addition to positive correlation between employment and level of education, other employment-related benefits have been chronicled. For example, a 2004 case study

of 40 youths with significant disabilities who did and did not attend PSE revealed that

> (a) students with postsecondary education experience were more likely to be employed in competitive work than in sheltered employment[4] and (b) students who participated in postsecondary education and who were engaged in competitive employment were less likely to need employment supports, compared to their counterparts without postsecondary education. (Zafft et al., 2004, p. 50)

These reports, though few and limited in nature, begin to provide a pattern whereby the original assumption that postsecondary education may increase the employability of individuals with ID appears to be correct. Nevertheless, the limitation of available data does justify the call for further and more comprehensive quantitative studies present in recent literature (Grigal, Hart, & Weir, 2012a, Thoma, 2012).

Summary and Chapter Conclusion

Individuals with intellectual disabilities are substantially less likely to be employed and earn substantially less than those who do not have an ID. The vast majority of literature related to PSE for individuals with ID is dedicated to the description of emerging PSE programs. The National Longitudinal Transition Study-2 (2009) offers data that may be used as a baseline indicator of the degree to which this is true. The study demonstrates a 35% employment rate for individuals with ID in 2009, which contrasts with 90.2% overall employment for the general adult population in the same year, according to the US Bureau of Labor Statistics.

Substantial discrepancy was also noted in hourly rate for those who are employed. There was a $7.80/hr mean for employed individuals with ID in 2009 (National Center

[4] A type of employment for individuals with ID whereby an employer may pay employees wages below the minimum wage, reflecting the outcome of work performed.

for Special Education Research, 2009) compared with $20.90 mean income for the average American in the same time period (Bureau of Labor Statistics, 2009).

Postsecondary programs designed to accommodate individuals with ID began emerging in the early 21st century with the explicit purpose of combating this discrepancy by providing the means to higher education, which has traditionally correlated with positive employment outcomes for people with and without disabilities (Hart et al., 2010; Wehman & Yasuada 2005; Gilmore, Bose, & Hart, 2001).

Given the relative newness of this initiative, the significant majority of literature regarding PSE for individuals with ID is descriptive in nature (Grigal, Hart, & Weir, 2012a; Hart et al., 2010; Moon & Neubert, 2006). However, a few surveys and studies have been published to date. While sample sizes are consistently small, which prevents generalization of the data, there is an emerging pattern that demonstrates increased educational attainment correlates positively with employment outcomes. (Smith et al., 2012; Migliore & Butterworth, 2009; Grigal et al., 2010; Zafft et al., 2004).

More (and more comprehensive) quantitative outcome research is needed.

Conclusion. Given that PSE programs have emerged for the explicit purpose of increasing the employment of individuals with ID, the lack of quantitative studies demonstrating the efficacy of the programs in meeting this purpose is problematic. Some of the most recent and most comprehensive literature reviews focus on quantitative studies as a critical next step for research in this emerging field. This study, therefore, is designed to step into that current gap to help provide a case study in response to the call for research to help "understand how PSE impacts employment outcomes for people with an ID, and to help develop understanding of how the various characteristics and practices

used by PSE initiatives impact employment outcomes" (Grigal, Hart, & Weir, 2012a, p.232).

Chapter Three: Research Design

Introduction to the Research Design

The purpose of this study is to provide quantitative and qualitative data demonstrating employment outcomes for individuals with intellectual disabilities who have attended post-secondary programs compared to individuals with similar qualities who have not. Specifically, the research questions under investigation are:

How do the employability and income levels among students with intellectual disabilities who graduated from an integrated program and a specialized program compare? Further, are there any differences in employability and income that may exist between students with intellectual disabilities who attended any postsecondary education program and those who have not, as measured by available national data[5]?

This chapter will be divided into the following sections:

1. Participants/Subjects: including a non-identifying description of the participants of the study and how they were selected.
2. Instrumentation: including description of the various instruments used to collect data and the process used to develop these instruments.
3. Data Collection: including description of when, where, and how data was obtained.
4. Data Analysis: including the methods used to organize, tabulate, and analyze data.
5. Summary: including a brief summary of the research design.

Participants/Subjects

Two postsecondary schools, including two program directors and 27 total graduates with mild to moderate intellectual disabilities participated in the study. An informal

[5] Specifically: the National Longitudinal Transition Study - 2 (2009)

invitation to participate in this study was sent out to 32 schools selected from the database of 210+ on the Think College website (thinkcollege.net). The 32 schools were pre-filtered according to those that met the requirements of the study. Included in this filter were the following three elements:

- Had graduated 2 or more classes of students (10 total students at minimum)
- Were independent post-secondary programs, not extensions of secondary programs or run by public school districts
- One of the participant programs needed to be an integrated program and recognized as a Comprehensive Transition Program (CTP). The other would need to be a specialized program.

After initial contact was made, nine schools expressed willingness to participate. The low level of willingness was frequently attributed to lack of time and, for some, research burnout. Of those who were qualified for this study and willing to participate, two that represented the most diametric opposition to one another in terms of program type, geographic location (rural vs. urban), university association (major university association vs. no such association), and other (potentially identifying) elements were selected in order to facilitate a richer qualitative exposition of the research question. In short: if gains were noted for students who attend both of these programs, such data would be more meaningful in terms of the universal benefit of PSE programs for individuals with disabilities than would be the same data from two similar institutions, which would support only that that type of institution had such effect.

Initially, three programs were selected for the study, but low graduate participation from the third school led to their being dropped from the study at this time.

Instrumentation

Two instruments were utilized for the collection of data in this study. (a) A structured interview was conducted to collect information from program directors of the PSE programs involved. This component is mentioned elsewhere in this study as the *administrator interview*. (b) A cross-sectional web-based survey was administered to collect information from individuals who have graduated from one of the two PSE programs involved in this study. This component is referred to elsewhere in this study as the s*tudent survey*. Further details regarding these instruments follows.

Administrator interview. An introduction to the study and informed consent document was sent to the two administrators of the two PSE programs, which represent the characteristic defined as *integrated* and *specialized* respectively, inviting them to participate in a structured interview. The interview contained 11 structured questions focusing on program development, objectives, integration, and steering. A list of interview questions was sent in advance to the participating administrators.

The interview questions were designed to provide qualitative data that may be used to provide context for the quantitative data that emerged later in the study. Ideas for questions to ask in the administrator interview were generated from the necessity of contextualizing the student survey questions (e.g. ensuring that employment outcomes were goals of the schools being considered framed questions of employment in the student survey) as more general qualitative questions that were recommended in part by Meg Grigal, researcher affiliated with Think College, a national leader of research in this field. A complete list of the questions asked of the administrators may be found in Appendix A.

Student survey. The student (graduate) survey targeted **all** individuals who have graduated from the PSE schools under consideration. Original contact of these study participants was arranged through the participating PSE administrator, who acted as an intermediary to initiate communication. This approach allowed the privacy of the graduates to be maintained until such a time as they expressed willingness to participate and had opportunity to review the informed consent letter.

The graduates completed the survey either independently or with the assistance of their parents/guardians or another competent advisor as necessary.

The survey itself was generated and disseminated through an online survey provider, surveymonkey.com. It contained three sections, dealing with questions of background information, community experience, and employment/financial status. There were between 13 and 17 questions, depending on student responses. A complete list of questions included in the survey may be found in Appendix B.

Many of the items in this survey correlated with items in the National Longitudinal Transition Study - 2, which was used as the comparison group in this study. The validity of the study was investigated first by my thesis committee, including oversight by the special education department chair of Grand Valley State University, Dr. Amy Schelling, and then tested (self-administered) by program directors at both schools involved in the study.

Public data. Additionally, I used public data from the participant PSE programs' websites and from the thinkcollege.net database to triangulate information regarding the program objectives, claims, recruitment practices, and other relevant information with the other two sources of data.

Data Collection

The administrator interview. The administrator interview was completed on 12/18/2013 with the program director of the integrated program and on 1/28/2014 with the program director of the specialized program. The interview was conducted through an online phone service (skype) and the conversation was recorded with permission for use in this study. The interviews mostly maintained fidelity to the structured questions, with follow-up questions being used only for further clarification as needed.

The student survey. The student survey was more complicated to conduct. Though every attempt was made to ensure that the content of the survey was reasonable for the anticipated ability-levels of the students involved, it was clear that some would require assistance of a trusted person. I began by working with the program director at both schools to work out a plan that would likely lead to the most, and most accurate, responses from the graduates, and followed through with the proposals that they suggested. The method for obtaining responses was slightly different at the two schools.

The integrated program. The administrator of the integrated program invited the graduates to a reunion event at which all of the attending students were given opportunity to complete the surveys together. Nine out of twelve (9/12) of the graduates from this program attended the event and submitted their responses thereby. Two other students completed the survey at home, independently. This meant that only one student of twelve graduates (1/12) did not complete the survey. No further contact was made with this student regarding completion of the survey.

The specialized program. Graduates of the specialized program had dispersed to a larger geographic area since graduation compared to graduates of the integrated

program. Many of the graduates who remained local completed the survey in paper form, and these were collected by a school administrator and sent on to me for analysis. Some of the students who had left the state since graduation submitted their responses via the online survey format.

Letters of invitation to participate and letters of informed consent. A letter accompanied the invitation to participate that was sent from the program administrator inviting the graduates to participate. It was also sent in an audio file format for those who would benefit from this form of communication. The full transcript of the recommended letter from the administrator and the attachment that I requested may be found in Appendix E.

Likewise, informed consent letters for both the administrator and the students may be found in Appendix C and D respectively.

National longitudinal transition survey-2 (NTLS-2). Data collected from the NTLS-2 provided the basis of the comparison group. Because the relevant tables for the NTLS-2 provided information based on several divergent disability groups (e.g. intellectual disabilities, hearing impairment, speech impairment…) I sought to utilize only the data regarding individuals with intellectual disabilities. Both of the programs that formed the test groups for this study recruit only students with intellectual disabilities, thus making this condition the common factor. Some of the graduates involved have other classifications in addition (e.g. autism spectrum disorder, multiple disabilities). However, due to the low sample size of this study, it was more efficient, practical, and potentially accurate to focus only on the characteristic shared by all student participants: intellectual disability.

Data for the NTLS-2 are collected in a series of separate data tables from which I selected relevant content for the exploration of the research question of this study.

Data Analysis

I assessed the administrator interview and student survey before synthesizing the information into an overall discussion and conclusion.

The administrator interview. The administrator interview questions were almost uniformly qualitative in nature. Rather than using strict coding methodology for the analysis of the interview data, which would convert the data into a quantifiable format, I sought to embrace the qualitative nature of this data to frame the quantitative aspects of the student survey.

The student survey. The student survey forms the core quantitative component of the data collection. The data being collected from this survey are designed to match the data that were collected through the National Longitudinal Transition Study-2 (NTLS-2, 2009). All relevant comparative data from this study is presented in the form of frequency distribution tables. The design of the questions allowed for direct comparison between my research and that of the NTLS-2.

A more detailed breakdown of how data collected from each question is presented as follows. The question numbers used below reference the student survey, which can be seen in entirety in Appendix B.

- 3: prerequisite to taking the survey. No data collection was necessary here except to report in raw terms how many students opted to take the survey according to the conditions compared to those who did not (reported as a raw %). This can also be

used to report raw % of graduates who took the survey / total number of graduates to date.

- 4-5: used to populate the columns for frequency distribution tables, within comparative categories of integrated program, specialized program and national-averages.
    1. The rows of the same tables were formulated by questions 11-20. That is to say, the data were first examined independently for these three categories, and then the most significant components were compared across the three categories, continuing the use of the frequency distribution.
    2. Some of these tables match with the content in the tables from NTLS-2, and others added additional information that was factored into the analysis of the case study.
        a. 6-10, for example, will form comparison questions for the two school types only; these data are not to be compared to national averages (for which there is no data). Meanwhile, questions 11-20 will compare outcomes of students with an ID who attend PSE programs to published national averages in the NTLS-2.
- 6-7 is presented as the quotient of (# of responses to items in #7 / # of responses by the same respondent of the items in #6) and then compared across the two school categories using frequency distribution. For example, if twelve students say that they wanted to earn a competitive job in #6 and, of those twelve, eight of them say that they achieved earning a competitive job in #7, this would result in a

ratio of 8/12 or 66%. This % will then be compared for the same item ratio for the other school in a frequency distribution table.

- 8-10 are presented in in a comparison of the two schools using a frequency distribution table.
- 11-20 represent quantitative data, which is presented as a frequency distribution comparing students of each school type to the other as well as to the NTLS-2 national averages. This data is further tabulated according to other subjective qualities identified in the research, as relevant.
    1. Furthermore, a synthesis and analysis of questions 11-13 compared to the students' graduation date (Q4) was used to generate knowledge as to how many have gained employment since graduating from their PSE program (or how long they have been unemployed thereafter).
- 21 is a subjective, qualitative response. I thereby summarized and drew out themes from these responses for each school type.
- 22-23 were reachable only for respondents who have not worked at all since high school. None of the respondents qualified for these questions, so they were dropped from the analysis.

Chapter Summary

The research was designed to be focally quantitative with qualitative components to offer means for better contextualization and interpretation. The administrator interview provided the vast majority of the qualitative data, and the student survey provided the vast majority of the quantitative data.

Holistically, there was a focus on the survey maintaining correlation to the NTLS-2 which offered ability to use the NTLS-2 data as a comparison group in the analysis. To this end, tables were arranged in such a way as to make comparison clear and overt, with the NTLS-2 tables providing the model.

Frequency distribution was used as the primary tool of tabulation and analysis, as this is the tool that was used primarily for the NTLS-2, which - again - forms the comparison group for this study.

Chapter Four: Results

This chapter is divided into three main sections:

1. Administrator interview: thematic analysis
2. Student Survey Data
    a. Demographics of participants
    b. Goals and self-reported outcomes
    c. Employment outcomes
    d. Qualitative responses: job preparedness
3. Summary of findings

Administrator Interview: Thematic Analysis

The administrator interview provides some context with which to understand the responses collected in the student survey. Highlights from the interviews are presented in parallel format, below. For each theme, there is a brief introduction of the theme followed by a discussion of the responses from the administrator (program director) at the integrated school and the specialized school.

Student admission. Student admission was an important variable to consider when comparing the programs involved in this study. It is important to recognize that the outcomes ought to be framed in comparison to where the students "started" when they entered the program. It follows that more advanced students should correlate with more advanced outcomes. There were some commonalities between the admissions procedures of the two programs as well as some important differences to highlight.

Both programs had both target minimum and maximum expectations for participants. The admissions boundaries have been enacted in order to enable targeting

students who are most likely to benefit and succeed while enrolled in the programs that each school offered. Despite substantial differences in the programs themselves, however, the criterion deemed appropriate for student admission was similar.

The integrated program. The integrated program involved three major components for admissions: a "lengthy online application that must be downloaded and completed in entirety," an interview with four individuals connected with the integrated program (faculty member, staff member, graduate student of the university, and a special education teacher), and a "trial day" campus visit. Through these instruments, potential students are filtered according to the minimum and maximum expectations for students involved in the program. The administrator of the integrated program wished to stress the importance of the trial day for the purpose of admissions. On this day, prospective students interact with members of the staff and current students and visit the different environments in which they would be part. Prospective students are observed for such things as awareness of surroundings (for safety), stamina and mobility (for independent campus navigation). Additionally, this visit provides another opportunity for bilateral interviewing to ensure that the prospective student would be a proper fit for the program and vice versa. This experience also adds to the data being collected in other means regarding the prospective student's behavior and self-management skills. The integrated program puts a high emphasis on this domain.

In terms of achievements that would exclude students by virtue of being too advanced, students who are deemed to be able to pursue a degree (with accommodations) are not accepted to the integrated program, which is non-degree seeking. Determination of the student's ability to pursue a degree is reached through analysis of disability type

and level as well as prior achievements and the testimony of the student themselves, former teachers, and parents. Though the majority of students in the integrated program have earned an alternative high school diploma, approximately one quarter of those admitted to the program earned a standard high school diploma. In all cases, the admissions team of the integrated school contacts the former teachers to determine levels of support needed for the achievements that the prospective students accrued in high school.

In terms of minimum, all students involved must have left high school having been enrolled therein with an IEP (Individualized Education Plan). Students are expected to have an alternate high school diploma (awarded to students who do not complete the standard graduate mandates of the high school, but who do achieve modified academic results customized to their abilities). Students must also have a diagnosed label for their disability.

Based on the interview, a holistic judgment is used, with emphasis placed upon three categories: pragmatics, motivation, and ability. Pragmatically, students accepted to the program must be able to safely navigate the campus and community independently. A good deal of emphasis is placed on student motivation. Students must desire a college education and, critically for this study, desire to be competitively employed. Further desire for independence and social skill development is strongly encouraged. The administrator suggested a necessity for the students to be able to "articulate or demonstrate their personal desire or motivation. [Not just doing what their parents want them to do, etc.]."

The specialized program. The specialized program likewise has an involved process. At this school the admissions process begins with an application that the prospective student completes with help as necessary. The focus of the application process is about establishing that the school and prospective student is a "good match". This is determined based on factors of academic/intellectual ability, behavioral issues, pragmatic skills/ability, and motivation.

Like the integrated school, the specialized school refers some students to other programs due to being more advanced than the program is designed to serve. Students who desire to- and are able to- attend academic-centric courses or could be degree-seeking, for example, are referred elsewhere. The desire and ability for students to pursue such goals is determined through the interview process.

In terms of minimum expectations, the specialized school targets students with at least a 3rd grade reading and math level, though there are some exceptions of students who are "just below" this level of skill. Those who are below the minimum skill level may be accepted on the condition of one-on-one tutoring in the deficit area, which incurs an additional tuition fee.

Because the specialized program is a residency program as well (students live on campus), additional attention is given to the degree to which the student is able to acclimate to campus life. This is tested through trial stays on campus without parents/guardians. Depending on the prospective student, this may be one or more visits.

Every effort is made to assess the prospective students individually and holistically.

Table 1

Summary of Minimum and Excluding Qualities for Students Being Considered for Admission in the Integrated and Specialized Programs

	Integrated	**Specialized**
Minimum Academic Qualities	• Alternative *or* Standard HS diploma • ~3rd grade reading level	• 3rd grade reading level (or tutoring) • 3rd grade math level (or tutoring)
Other Minimum Qualities	• Articulated motivation to attend college • Articulated motivation to earn employment • Desire to improve social skills and independent living skills • Behavioral self-management skills. • Ability to navigate campus and community safely and independently.	• Articulated motivation to be part of the school's community • Articulated motivation to earn employment • Good behavior, ability to manage self with some independence/apart from parents. • Ability to safely navigate campus and manage self
Positive Excluding Academic Qualities	• Earned a "regular" high school diploma • Could be degree-seeking with accommodations	• Earned a "regular" high school diploma • Desires to be and could be degree-seeking with accommodations

In reflection, there is a striking similarity between the minimum and maximum expectations for the specialized and integrated programs, despite the substantial differences in other aspects of the program design.

Program objectives. I felt it was important to have a clear understanding of what the programs held to be their guiding objectives. This would provide a basis for evaluation (i.e. to what degree have these objectives been met?). Again, assessing the programs based on the employment of its alumni is far more sensible if this objective is

included in the program's design. Furthermore, analysis of program objective allowed for a cross-reference to the graduates' stated objectives (i.e. to what extent did the graduates' objectives match with the program's objectives?).

The integrated program. The administrator of the integrated program suggested three primary objectives of the programs:

1. The earning of competitive employment
2. The development of social skills and social networks that are sustained upon graduation
3. The development of self determination skills

The program is designed with these objectives continually in mind. In light of the research question for this project, I pursued the first objective with an inquiry into what structures the program has erected to facilitate employment outcomes. The administrator pointed out that there are several ways in which students are prepared for employment, chief among which are internships and skill-based coursework and learning opportunities.

Internships begin the first semester and continue throughout the 2-year program, with a minimum of 4 internships. Internships are typically for 4 hours/week for the first year and expand to 6-8 hours/week the second year of the program.

Curriculum and coursework, meanwhile, lends to direct or indirect employment training. For example, all students are required to take a career technology class each semester (for a total of 4 classes) in which they develop or sharpen practical computer skills useful for employment in many settings including office work, in which many of the graduates are employed (see *Table 13*). Much of the training, however, is dictated by the career in which students demonstrate interest. The administrator provided an example

of a student who is interested in radio broadcasting and thus received direct training and internships related to radio broadcasting.

One additional important aspect of the program's design in this regard is the commitment to training not only the students, but the employers in the community for how to work with people with disabilities such that the benefit is mutual.

The specialized program. The administrator of the specialized program highlighted three primary objectives for the program:

1. Independence (relative to the student)
    a. Employment independence
    b. Residential independence
2. Social Skills
3. Articulation and development of religious faith

Like the integrated program, the specialized program has built the program with these objectives in focus. Students are provided both classroom and hands-on experiences in relation to each of these goals. For example, students graduate through a series of scaffolded living arrangements working toward independent or semi-independent living. For the purpose of this investigation, however, I focused my inquiry on the employment preparation.

Students are involved in an extensive internship program wherein they log a minimum of 1000 hours of internship training over the course of the 3-year program. Like the residence program, these internships are built on a "scaffolding" model such that the students gradually increase the amount of time they spend on the internship and the degree to which they receive assistance/coaching. The third year of the program is given

almost exclusively to structured internship. Internships are in the "field" of the student's declared "major" area (from a limited set of options). Additionally, as much as practically possible, students are matched with community businesses that match student interest, ability, and desires.

To provide a clearer picture, the three year program generally looks like:

Table 2

Specialized Program Framework

Year	Coursework	Internships	Living
1	Basic and general skill development	Limited internship training.	Supported. Dorm-like.
2	Career-targeted skill training and general training	Increased time and responsibility.	Semi-Supported. Group home-like.
3	Minimal. Career-focus.	Main focus. Independence and volume student-dependent.	Lightly supported. Apartment or apartment-like.

Again, there was a great deal of similarity between the two programs. Both, with somewhat different wording, make the development of employment, social skills and self determination as focal points of the respective programs and both provide an additional goal related to the worldview enhancement of the students as a third goal (self-advocacy and faith-based education, respectively).

Integration themes. One of the central variables in this study was that of the level of integration that students experience as part of their education in the two PSE programs under consideration. The question was directly addressed in the interview with focus on what kinds of integrative experiences students have, and how often.

The integrated program. The administrator of the integrated program stressed that they indeed strive in manifold ways to be inclusive as possible in practice. Inclusion experiences are provided through natural inclusive opportunities, structured inclusive opportunities, and academic inclusive opportunities.

Natural inclusion is facilitated by the fact that the students take classes and meals and have social engagements on a major university campus, which is a naturally integrated setting. On average, students of the integrated program spend 32 hours/week in this setting. Some students have reported developing natural relationships with non-disabled peers through this experience. Included in the ~32 hours/week, each student has about 6-8 hours in which they must be on campus, but are "on their own". Students spend time in the student union, library, etc. This time is intended for natural social learning and integration to occur without "programming."

Structured integration occurs in a multitude of ways in a web of social relationships. Each student of the integrated program has 6-10 peer mentors assigned them; these peer mentors come from a range of major areas including special education, psychology, engineering, leadership and development, etc. Peer mentors offer friendship-based support the students and interact with them in natural settings such as for lunch, exercise, tutoring, etc. Additionally, students in the integrated program are invited to participate in inclusive activities such as sports. This system is designed to encourage the student with an ID to be included in campus events and social activities through their peer mentors, thereby emulating natural social networking. The administrator of the integrated program stressed how integral this aspect of the program is to the success that the students experience.

Academic inclusion takes the forms of internships as well as auditing three non-specialized university courses with non-disabled peers. The courses are chosen by the students with some guidance as necessary.

Taken on the whole, students in the integrated program spend approximately 75% of their time in activities, classwork, etc. with non-disabled peers.

The specialized program. The administrator of the specialized program stressed the variety of ways in which the students who attended the school were involved with non-disabled people, despite the specialized setting of the campus. However, whereas the integrated program had potential for more "natural" integration, the specialized program utilized planned or structured integration more extensively, though some opportunities for natural integration do occur when the students are involved in the community. There were four ways in which structured integration takes form, according to the program administrator:

1. Internships (especially the third year internship): these are focused on placements in the general community working for and with people without intellectual disabilities.
2. Interaction with non-disabled peers on a local college campus[6]
3. Involvement and active participation in local religious institutions (e.g. churches)
4. Interaction with college-aged, non-disabled peers who volunteer to spend time with the students of the specialized school.

[6] This occurs approximately semi-weekly as students attend sporting events, concerts, theatre productions, etc. This is not considered a "formal" program of the specialized school.

The administrator of the specialized program stressed that the program is designed to ensure opportunities for the students to grow and be equipped for integration. The administrator suggested that students are being trained to impact their community through service, training, etc. with methods and settings that are designed to be effective for the demographic attending the program.

Student Survey Data

Demographics of participants. This section briefly tabulates responses to demographic questions from the survey. All responses are self-reported.

Table 3

Participation in Student Survey

	Integrated	**Specialized**	**Overall**
Number of graduates to date	12	23	35
Number of participants in the study	11	15 (23)*	26 (34)*
% of potential participants / actual participants	92%	65% (100%)*	74% (97%)*

*While only 15 graduates actually took the study, the school provided records regarding the employment status of all 23 of their graduates. The 15 participants in the survey corroborated with the school's data. As such, I decided to use the data collected from the school to augment the data collected from the survey. This only affects table 13. In that table, I provide the data from the surveys, and then add the data from the school's provision in parenthesis.

The relative newness of PSE programs for individuals with ID and the small class sizes resulted in an expected low number of overall participants, but the relatively high percent of potential participants from the integrated school to actual participants was encouraging and increased the viability of data collected. The relatively lower percent of

participation from the specialized program may have occurred because the participants in this program come from a much wider geographic range, and thus a lack of physical proximity prevented opportunity for collective completion of the survey.

Table 4

Participant Self-identified Disability Type

	Integrated	**Specialized**
Mild Intellectual Disability (ID)	9	12
Autism Spectrum Disorder (ASD)	1	2
Multiple Disabilities (ID + Physical)	1	1
Other Disability	0	4[7]

Table 5

Survey Participant Graduation Date

	Integrated	**Specialized**
2011	6	5
2012	3[8]	7
2013	3	3

The integrated program had its first graduating cohort in 2011. Cohorts have intentionally begun small, though there is intention to bring in 8 students per cohort beginning next fall. The specialized program also had its first graduating cohort in 2011.

[7] Six graduates selected the "other" category. Two of these offered specific conditions that fell under the broader term of "Mild Intellectual Disability" and thus.
[8] There initially were 5 in this cohort, but 2 of the students in this cohort did not complete the program.

Also similar was the small original class size (5). However, the specialized program has expanded each year since, graduating seven in 2012 and eleven in 2013. Eight students 2013 chose not to participate.

Self-reported goals and outcomes. This section provides tabulated data collected from the student's responses to questions in the survey that dealt with contextualizing their employment outcomes.

Table 6

Student-Identified Goals - "Which of the following were PERSONAL GOALS - things that you WANTED for yourself - when you were attending your college program? Choose all that apply."

	Integrated	**Specialized**
Earn a competitive job.	75%	87%
Increase my social skills.	100%	87%
Gain more independence.	92%	100%
Make new friends.	100%	93%
Improve my basic academic skills (like reading, writing, and math)	66%	87%
Take higher-level academic classes.	58%	33%[9]
Other	0%	6%[10]

[9] There was some discrepancy in what was meant by "higher-level academic classes." Certainly the classes that students attended in the specialized program were higher-level than the students' previous experiences. I intended this to mean standard college courses, which are not offered in the specialized program.

[10] Two graduates selected "other." One stated "to earn a better job," but also responded affirmatively to the first checkbox ("Earn a competitive job"), so I removed this response. The other graduate stated that he or she wished "to learn more about [his/her] faith."

Understanding what the students wanted when they attended PSE programs was critical to the analysis of the data. Targeting employment outcomes as a measurement of success would not be sensible if the students themselves were targeting this goal. The relatively high percentage of graduates who claimed to attend the PSE for the purpose of earning competitive employment renders the test groups useful for this study.

Table 7

Student Identified Outcomes Based on Goals (and Comparison to Target) - "Whether they were your goals or not, which of the following goals do you feel you ACCOMPLISHED during your time at your college program? Choose all that apply."

	Integrated	**Specialized**
I earned a competitive job.	100% **(133%)**	87% **(100%)**
I increased my social skills.	92% **(92%)**	87% **(100%)**
I gained more independence	100% **(109%)**	93% **(93%)**
I made new friends	100% **(100%)**	93% **(100%)**
I improved my basic academic skills (like reading, writing, and math)	66% **(100%)**	87% **(100%)**
I took higher- level academic classes.	75% **(130%)**	33% **(100%)**[11]
Other	0% **(n/a)**	13% **(210%)**[12]

The first % in each box is the raw % of student-declared outcome achievement. The emboldened % in each cell is calculated in comparison to the % of students who had

[11] Again, this is an error in terminology use. Higher-level courses as I intended in this survey are not offered at the specialized school, and thereby none of the graduates participated in such courses. In this sense, this should be "0%"

[12] There were two responses here. The first matched with the respondent to the "other" box in the previous table. This student offered that he/she "learned more about God." The second said that he/she "learned more about measurement."

identified this area as a personal goal. For example in the first column ("I earned a competitive job"), 66% of respondents made this claim, which was 88% of the total number who said they were seeking to earn a competitive job. The latter number, in this regard, is perhaps the more significant.

Table 8

Student-identified Interaction Tendencies - "To what extent did you feel you were able to get to know people in the community WITH disabilities?"

	Integrated	**Specialized**
Not at all	0%	0%
A little	8%	7%
Some	42%	20%
A lot	50%	73%

Tables 7 and 8 were used to seek to identify a potential significant difference in terms of the two program types under consideration. The degree to which individuals in these programs interact with others with disabilities and others without disabilities was included for its potential usefulness in the qualitative analysis of other social outcomes.

These data demonstrate a predictable trend whereby students in a more specialized setting have more opportunity to develop relationships with other peers with disabilities, but both groups shared an approximately equal number of participants who agreed that they came to know others with disabilities some or more, with participants in both groups sharing a 92-93% response rate in these two options. As such, both programs appear to afford significant opportunity for this type of relationship.

Table 9

Student-identified Interaction Tendencies - "To what extent did you feel you were able to get to know people in the community WITHOUT disabilities?"

	Integrated	**Specialized**
Not at all	0%	0%
A little	0%	7%
Some	33%	13%
A lot	67%	80%

The data collected in this table were somewhat less expected. The setting of the integrated program lends itself more toward relationship building with the non-disabled community, though there was a higher self-proclaimed achievement of relationships with the non-disabled community in the specialized program. Nevertheless, both programs share a high percentage of those who stated development in the top two tiers (100% and 93% respectively for the integrated and specialized programs).

Further, it is likely that the subjective nature of this question affected student responses. It does not differentiate, for example, between faculty and employees who serve the PSE program and develop relationships with the students from non-disabled peers or community members without affiliation to the program. A distinction of this form would be helpful to make in future surveys.

Table 10

Student-identified Community Preparation - "How well do you feel your college program helped prepare you for life in the general community, after graduation?"

	Integrated	**Specialized**
Not at all - I don't feel any more prepared for community life than I did before attending my college program.	0%	0%
A little - I feel a little bit more prepared for community life than I did before attending my college program.	8%	0%
Some - I feel a quite a bit more prepared for community life than I did before attending my college program.	17%	20%
A lot - I feel much more prepared for community life than I did before attending my college program.	75%	80%

This question somewhat indirectly assesses the confidence that the students are experiencing upon graduation from the program, which may influence the graduate's ability to gain competitive employment (though more research to demonstrate the relationship between confidence and employment levels needs yet to be done).

Employment outcomes. This section presents the data most immediately relevant to the research question. It is also here in which data collected from the NLTS-2 becomes useful as a comparison group.

Table 11

Self-reported Employment Since Leaving Secondary School – "Have you been employed at any time, for any length of time since leaving high school? Also say "yes" if you are currently employed."

	Integrated	**Specialized**	**NTLS-2 (ID Only)**
Yes	100%	100%	88.9%
No	0%	0%	11.1%

These numbers are encouraging, but may reflect internships or school-organized employment. The nature of the question also allows for possible employment between high school and admissions to the PSE program.

Table 12a

Self-reported Employment in Past 2 Years - Have you been a paid employee (other than working at home) at any time in the past 2 years, specifically?

	Integrated	**Specialized**	**NTLS-2 (ID Only)**
Yes	100%	100%[13]	53.5%
No	0%	0%[10]	46.5%

Here begins the first major positive deviation from the NTLS-2 comparison group. However, one contextual note helps provide clearer perspective of this data: Graduates

[13] Two graduates reported "no" to this question, and the following (*table 12b*), but "yes" to being currently employed (*table 13*). Upon closer investigation, it is clear that the two in question are currently employed by their former school, which they also consider "home". For the purpose of this question, I modified their responses for accuracy.

from 2013 (7 total, or 27% of all survey participants) have only been out of school for one year. It is possible, therefore, that this question is being answered in such a way that any number of these 7 are reflecting on employment that was structured or provided by the schools.

Table 12b

Self-reported Employment in Past 2 years, Sans School or Home- "Have you been a paid employee (other than working at home OR for your former school) at any time in the past 2 years, specifically?"

	Integrated	**Specialized**	**NTLS-2 (ID Only)**
Yes	91%	87%	53.5%
No	9%	13%	46.5%

There was potential for the data in *Table 12a* to be skewed by students who became employed by the PSE program upon graduation. I felt it important to differentiate between employment by the program and employment in the larger community. The question corresponding with *Table 12b* was developed to isolate employment in settings other than the home or the former school. I kept the NTLS-2 data "as is".

It became evident that this differentiation was worthwhile, as there were, in fact, some graduates employed by their alma mater. Even if these students (three total: one from the integrated school and two from the specialized school) were to be filtered out, the employment rate is still markedly higher here than in the comparison group.

Table 13

Self-reported Current Employment- "Are you currently employed?"

	Integrated	**Specialized**	**NTLS-2 (ID only)**
Yes	73%	100% (91%)[14]	37.2%
No	27%	0% (9%)	62.8%

This table has a smaller scope of time than the preceding table, and thus lower rates of employment are to be expected (which is also reflected in the NTLS-2 data). The data shows a drop to 73% employment (or 8/11 students) for the integrated program from 91% employment (or 10/11) in the past two years. The specialized program participants show current employment rate (100%) equal to that presented in *Table 11*. In both cases, the rate of employment is substantially higher than that of the NTLS-2 comparison group.

Table 14

Self-reported Hours of Employment- "How many hours do you normally work per week currently (if you are employed) or previously (if you are not, but have been)."

	Integrated	**Specialized**	**NTLS-2 (ID only)**
< 20 hours/week	64%	20%	24.8%
20-34 hours/week	36%	73%	34.2%
35-40+ hours/week	0%	7%	41%

In order to more completely understand the employment trend, recognizing the fact of employment and also the conditions of employment is important. Tables 14-16 provide some of these conditional factors.

[14] The parenthetic number reflects data collected from the specialized school directly, rather than from the surveys, and reflects all 23 graduates to date in order to ensure as thorough and accurate data representation as possible.

Table 14 demonstrates that though employment rates are very high for the graduates of both programs, the mean hours of employment are relatively low compared to the comparison group. 100% of the integrated program and 93% of the specialized program graduates are (or were) employed on a part-time basis (below 35 hours/week) compared to 59% of the comparison group participants.

In order to calculate the mean hours of employment, I represented a constant number of hours for each band and then collected the average. For the purpose of comparative estimation, 15 hours was substituted for the first band, 27.5 for the second band, and 40 for the third. A sum of the three bands' constants multiplied by the frequency was used to calculate a raw estimate of average hours of employment per week. For example, the integrated program was calculated as: 15 * .64 + 27.5 * .36 + 40 * .0 = 19.5). The raw results cannot be considered accurate mean hours worked by the students from these programs (which would require more specific data), but allows for a rough estimate for comparison. Raw results (rounded to nearest half hour) were:

- Integrated: 19.5 hours/week
- Specialized: 26 hours/week
- NTLS-2: 29.5 hours/week

Table 15

Self-reported Employment Position – "Which of the following categories best describes what you do or did at your current or most recent job?"

Occupation Category	**Integrated**	**Specialized**	**NTLS-2 (ID only)**
Food Preparation	8%	47%	26%
Janitorial/Custodial	0%	33%	13.8%
Office Support	58%	0%	10.6%
Production (e.g Factory)	0%	7%	18.9%
Transportation/ delivery	0%	0%	8.7%
Teaching/ Training/ Librarian	17%	13%	2.3%
Personal Care	0%	0%	3.1%
Sales	17%	0%	5%
Construction and Excavation	0%	0%	2%
Healthcare Support	0%	0%	1.2%
Other	0%	0%	5.4%

Table 15 was truncated to include only the options that had responses (< 0%) in at least one column. Other options, which all received 0% response from all three groups were: Science/ Engineering/ Computer, Programming/ Mathematician, Art, design, entertainment, sports, and media (newspaper, news stations...), Healthcare practitioner (e.g. nurse, doctor), Protective Services (e.g. police, firefighter), Installation/ maintenance/ repair (e.g. window installation, heating and cooling, plumbing, mechanic), and Military-specific.

The above table demonstrates that there are many areas of employment in which people with ID have not traditionally been employed (e.g. protective services), and the current sample does not demonstrate any "broken ground" according to the categories surveyed (i.e. where there is a 0% frequency in the NTLS-2 comparison group, there remains a 0% frequency for the graduates of the PSE programs.

A substantial deviation exists between the integrated program and the specialized program. Where the specialized program graduates are employed at high frequencies in the two areas that are also the high frequencies "traditionally" for individuals with ID (Food preparation and Janitorial/Custodial work), the graduates of the integrated program showed highest frequencies in Office Support (58%), and then a split (at 17%) for Sales and Teaching/Librarian work. Only one graduate (8%) from the surveyed graduates of the integrated program is (or was) employed in a Janitorial/Custodial capacity and none are employed in food preparation or production (a third, common place of employment for individuals with ID according to the NTLS-2). This trend will be analyzed more fully in the next section in conjunction with other aspects of the programs.

Table 16

Hourly Wage - "What is your hourly wage?"

	Integrated	**Specialized**	**NTLS-2 (ID only)**
Less than $7.25/hour	9%	26%	40.3%
$7.25-8.50/hour	27%	60%	31.8%
$8.51-10.50/hour	36%	13%	19.6%
$10.51-14.50/hour	27%	0%	6.4%
$14.51+/hour	0%	0%	1.9%

The NTLS-2 was conducted in 2009, shortly after the federal minimum wage was set at $7.25/hour. Because the NTLS-2 is being used as the comparison group, the same wage "bands" (e.g. $8.51 - 10.50/hr) were used for this study. The federal minimum wage remains at $7.25/hr today, though some states have higher state minimum wage. Depending on where the graduates are geographically employed, they may be earning "minimum wage" even if they are reporting income in the higher bands. Neither PSE program, however, is based in a state with a minimum wage higher than the federal minimum wage.

It should be noted that those earning below minimum wage in the NTLS-2 are most likely representing individuals with ID who are employed in "sheltered workshops" which invoke Section 14(c) of the Fair Labor Standards Act, which allows certain certified employers employ persons with disabilities at a rate less than the minimum wage ("National Council on Disability" 2012).

This table demonstrates higher estimated mean hourly rate for graduates of the integrated program compared to the specialized program group and comparison group.

As with the hours of employment, I estimated a mean hourly rate by summing the highest hourly rate in each band (e.g. $8.50 for the $7.25-$8.50) group multiplied by the frequency of that band, for each group. The raw results are not accurate mean hourly rates, but allow for a rough estimate understanding for comparison. Raw results (rounded to nearest .25¢ were):

- Integrated: ~$10.50
- Specialized: ~ $8.50
- NTLS-2: ~ $8.75[15]

Qualitative responses: job preparedness. The final question of the survey was a brief text response question for which students were asked "Do you feel like your college program helped prepare you for your current job? If so, how? If not, why not?"

The integrated program. Of the eleven (11) participants from the integrated school, nine (9) chose to respond to this question. All nine responded affirmatively to the primary question. In their extension responses, three (3) of the respondents supplied that their experience in the PSE program increased their confidence, six (6) suggested that the program increased their skill levels in academic, practical, or work-related areas, one (1) focused on the experience of internships, and one (1) discussed the role that the job developer played in helping him/her find work.

The specialized program. Of the fifteen (15) participants from the specialized school, fourteen (14) responded to this question. Thirteen (13) responded affirmatively to

[15] Note: actual mean, according to the NTLS-2, was $7.80/hr

the primary question. In their extension responses, those who responded affirmatively pointed toward specific skill development (9), assistance in applying and acquiring work (3), and general independence (1). The one graduate who responded in the negative said that he/she was working outside the area for which he/she trained.

Chapter summary

Despite overt difference in terms of setting and program type (e.g. integrated vs. specialized/CTP vs. non-CTP), there was a great deal of commonality between the two programs, as presented by the respective administrators. The admissions process follows similar expectations (though the process of application and review is different), there is a shared desire for students to achieve relative independence (though this is expressed in different terms), and a shared explicit focus on employment training (though the methods of preparation are somewhat divergent). The common factors are of significance to this study, as it allows the comparison of the efficacy of the programs to be more justifiable.

However, some of the differences between the programs did become clearer through the interview, as well. While students in the integrated program have access to "regular" college courses (limited selection), the students of the specialized school do not. Students in the integrated program additionally have a greater variety of opportunities to interact with non-disabled peers, including frequent "natural" opportunities. Meanwhile, the specialized program's residential program allowed for an additional non-academic curriculum that is designed to meet a different type of need for the students (residential independence). In both cases, the administrators stressed that the program has been created to accommodate a certain type of student with specific needs and aspirations. Though the "formal" elements of the admissions process are similar, it is

clear that the extensiveness of the interviews and visits are designed to ensure the right "fit" for incoming students.

It is worth noting, further, that the administrators interviewed for these programs were both "original" to their program (e.g. they began the program as directors) and demonstrated an extensive commitment to the program's development and success. Both have surrounded themselves with other professionals in their team who are collaborating with the directors to continue to improve and expand the programs moving forward.

More detailed analysis and discussion is presented in the following chapter.

Chapter Five: Conclusion

Summary of the Study

This study was designed to address the need for outcome-based research to explore the results of emerging post-secondary education programs for individuals with intellectual disabilities in terms of employment and conditions of employment, especially in comparison to individuals with intellectual disabilities who have not attended any kind of post-secondary education.

The research questions devised to explore this problem were: How do the employability, employment type, and income levels among students with intellectual disabilities who graduated from an integrated program compare to those who graduated from a specialized program? Further, are there any differences in employability and income between students with intellectual disabilities who attended any postsecondary education program and those who have not, as measured by available national data?

A mixed methods quantitative/qualitative case study was conducted using two test groups (two PSE schools, one of either type mentioned in the research question, and their respective graduates) from whom data was collected and triangulated from a graduate survey, an administrator interview, and from data published publicly on their respective websites. The focus of the inquiry was on employment outcomes, with some additional qualitative exploration to contextualize these outcomes.

The resulting data suggested that there were positive experiences and positive outcomes associated with attending PSE programs for individuals with intellectual disabilities, despite substantial differences in the two program types utilized for the study. Especially positive were the graduates' sense of confidence in their involvement in the

community and their rates of employment. Most impressive was the sharp increase in rates of employment for PSE programs compared to national averages. There was some substantial divergence in the job-type prevalence and the levels of income reported for graduates of the respective programs.

One less positive outcome was noted in the total hours of employment, wherein employed individuals with intellectual disability who sampled in the NTLS-2 worked for a higher average number of hours than those in either test group. It was also worth noting again that no new ground in terms of types of employment was broken for graduates of the PSE programs.

Holistically, the evidence from the case studies supports a moderate efficacy of the PSE programs in terms of the positive outcomes that the respective graduates experienced personally, socially, and in terms of their employment.

Conclusions

The hypothesis of this study was confirmed in that graduates of both PSE programs explored in this study demonstrate higher rates of employment in all three time scopes ("since high school", "in the past two years", and "currently") than those in the NTLS-2 comparison group. These gains were statistically substantial in all three cases.

- 11.1% (maximum) increase for both programs compared to the comparison group in the "since high school" category,
- 46.5% (maximum) increase for graduates of both programs compared to the comparison group in "the last two years" category,
- ~36%/~54% increase for graduates of the integrated/specialized programs respectively for the "currently employed" category.

The hypothesis was challenged on other regards, however. In contrast to the sharp distinction between the test groups and the comparison group, there was no discrepancy in terms of rate of employment between the two test groups themselves (integrated vs. specialized), as was hypothesized.

The surveyed graduates of both the integrated and specialized program worked for a lower approximated median number of hours than those surveyed in the NTLS-2, which was also contrary to the hypothesis. Also contrary was the fact that graduates from the specialized program worked more hours (approximate average) than those in the integrated program.

The findings in the study suggest that the discrepancy between the two programs may be less substantial than hypothesized. In other words, attendance in an employment-focused PSE program may have similar benefits for individuals with ID, regardless of the degree of integration that the program offers.

There were, however, some distinctions between the two programs that are worth noting in the conclusion. (a) The average hours of employment were higher for the graduates of the specialized program compared to the integrated program, which was opposite to the hypothesis. (b) Graduates of the integrated program did demonstrate employment outside of "traditional" settings for individuals with ID[16] (food preparation, production, janitorial) than those of the specialized program, in which a higher

[16] In the comparison group, 58.9% of the employed respondents were employed in the top three categories: Food preparation, production (e.g. factory), and janitorial work. The prevalence of individuals with ID who work in these fields (as supported by the NTLS-2) underscores that these positions are "traditional" places of employ for individuals with ID. 87% of the employed graduates from the specialized school are employed in "traditional" settings. This contrasts sharply to only 8% of the employed graduates from the integrated school.

prevalence of "traditional" placement was observed. (c) Graduates of the integrated program achieved a higher hourly rate than either those of the specialized program or the NTLS-2 national averages.

Discussion

The mixed method qualitative/quantitative nature of this study provides many opportunities for further discussion and analysis in this section.

1. I provide some synthesis that explores the relationships between different components of the investigation,
2. I explore the conclusions in light of the theoretical framework employed for this investigation, and
3. I frame the study's conclusions in comparison to the studies reviewed in the literature review section for the purpose of corroborative review.

Synthesis of details. The administrator interview provided necessary justification for the comparison of the graduates from the two programs inasmuch as the programs shared several key similarities in terms of entry expectations, program objectives, and employment training opportunities. Though many other variables do exist in this comparative study, these were key in assuring that a discussion of comparative employment outcomes for the graduates of these programs could be reasonably done.

This information was also useful in that, for both programs, the program objectives coincided with the graduate survey question tabulated in Tables 6 and 7 (graduate-identified goals and outcomes). For example: administrators of both programs stated that articulated desire for competitive employment was a prerequisite to entry into their programs. As such, one would expect to see this reflected in the graduates' declared

goals. It was reported as such by 75% of the integrated program graduates and 87% of the specialized program graduates. Being less than 100% here is not necessarily a cause for concern; after all, many people change their goals after their first or second year in college. But the relatively high prevalence of these stated goals indicates a correlation between program objective and student objective, which is important for motivation and development.

Some discrepancy was noted in the graduate responses presented in *table 7* from those gathered later in tables 11-13. Where only 66% of the integrated program graduates claimed to have "earned a competitive job" in table 12, 100% report having been employed "in the past 2 years" and, more tellingly, 91% having been employed "outside the home or former school," which would suggest competitive employment. The numbers were more consistent for the graduates of the specialized program. Based on some of the comments from the surveys of students whose answers contributed to the discrepancy, it may be that some of the students who did not answer affirmatively in table 7 (but did later in tables 11-13) simply felt that they have not yet achieved being hired in an ideal job. It may be useful to offer heightened clarity in future surveys to prevent this kind of confusion.

The expectation that is put on employment in both programs suggests that employment outcomes for the students can be used as an assessment of the efficacy of the programs, much as how alumni employment is often used to measure the success of other university programs for the general population.

The information gained from the administrator interviews also provides insight into some of the details of the survey responses. For example, the relatively high

representation of graduates from the specialized program in the food preparation industry (47% of specialized program graduates) reflects the fact that culinary arts is one of the "majors" for which students attend the school. In this light, the high percentage of graduates working in food preparation may actually reflect a positive development, as this would suggest that the students who attended the program are now working in their "major" field. It would be worth following up on these responses for more detail regarding where the graduates are employed. There is a substantial difference between working the line in a fast food restaurant and working as a sous chef in a fancy hotel kitchen, for example.

Further, some of the identifying features of the two programs, which were removed for the purpose of preserving the anonymity of the participants, provide some insight into some of the survey responses. For example, the integrated school is set in a more urbanized, wealthier area than the specialized school. This may have substantial impact on the types of employment and hours of employment that the graduates experience. The high prevalence of office jobs for the graduates of the integrated program, for example, in comparison to the lack thereof for the specialized school, may be partially attributed to the setting of these programs and therefore the potential internships and local employment opportunities available to the graduates. In this sense, some contextual understanding is necessary in the interpretation of the data from this study. In future studies, this issue can be alleviated by focusing on programs that share more commonalities of geography, socioeconomic status, etc. or by providing a very large sample size of test subjects.

Higher Education Opportunities Act of 2008. The HEOA (2008) provided federal funding to programs that met requirements of program objectives (focused on employment, independence skills), structure (well structured with advising), affiliation (with a US DOE recognized post-secondary institution), and integration practices (spending 50% or more of the time in the program with people who are non-disabled). Those who meet the qualifications are recognized as "Comprehensive Transition Programs" (CTPs) and are offered federal grants for the program and the students in attendance. This study sought to investigate if biases innate to HEOA 2008 are well founded in the experiences and outcomes of graduates who attended CTP and non-CTP post-secondary education programs in comparison to one another and to individuals with ID who did not attend any PSE at all.

In this study, the "integrated program" is considered a certified CTP, whereas the "specialized program" is considered a non-CTP PSE program. The comparison group (made up of the respondents of the 2009 NTLS-2) can be holistically assumed to have not attended any PSE program.

The fact that there was a wealth of commonality in terms of structure, objectives, and outcomes for individuals who graduated from the two different types of PSE programs (integrated and specialized, or CTP and non-CTP) offers some questions about the veracity of the assumptions being levied by the HEOA 2008. This is especially true given the substantially different geographic and socioeconomic locations of the two programs, for which some variability was anticipated.

In effect, PSE programs that have structured, employment-focused programming for individuals with ID may be worthy of public funding, etc, regardless of the level of

integration or university affiliation of the program. Certainly, more research would need to be done to justify this point sufficiently, but the findings of this study begin, at least, to raise some suspicion as to the criterion being used to determine eligibility for federal funding. Just as different types of intensities and degrees of college programs are the right "fit" for people of the general population, so different types of programs may be worth encouragement in the PSE program initiative for individuals with ID.

Reflection on theoretical framework. Bronfenbrenner's seminal research on the influence of contexts on the development of the individual was highly pertinent when considering the differences between the contexts in which graduates were given opportunity to grow at their respective PSE programs. Information collected from the interviews revealed explicit attempts to modify the higher levels (e.g. *macrosystem, exosystem)* of the now-graduates' social environment while empowering and enabling them to be independently successful in their *microsystems* and in navigating *mesosystems*.

For example, the administrators from both programs spoke of the work that they and their team are doing to help change the local culture (*macrosystem* and *exosystem*) through direct education of business owners, etc. regarding how to work with someone with an intellectual disability, through community service projects and other forms of community involvement designed in part to help reshape the way people in the community view individuals with ID.

Both programs, to different degrees and in different ways, also sought to develop how students deal with *mesosystem* interactions of academic, social, and community settings. Finally, both programs sought to develop students' ability to adapt to the

microsystem of a place of employment (etc.) through direct training and hands-on-experiences.

This approach (utilized by both programs) is far more holistic (contextual) and far more developmentally-focused than that of attempting to push individuals with ID directly from high school into the workforce. Such a direct, high school-to-workforce approach seems to often result in an individual with an ID who is unprepared for employment meeting an employer who is unprepared to work with an individual with an ID, and thus failure becomes the expectation. On the contrary, the PSE transition programs guide the student through the complex skills and knowledge necessary for successful employment (etc.) so as to enable them to meet with success. Simultaneously, such programs work with the larger contexts of their local society to educate and enable people in the community to be ready to successfully receive individuals with ID, to the benefice of all.

Despite the clear positive outcomes for the individuals involved in this case study, which confirm Bronfenbrenner's theory, however, the limited sample size prevents generalization at this point. The study was also inconclusive regarding the complex effects of the different *microsystems* presented by the two programs on the graduates. The former will require more comprehensive quantitative data whereas the latter would benefit from a more comprehensive qualitative study.

Connection to the literature review. The literature review began by highlighting the problem of discrepancy between the statistical employment and income of individuals with ID and members of the general population. The research collected in this study for the comparison group was drawn from the same source as that presented in the literature

review (i.e. the NTLS-2). As was mentioned earlier gaps of 55% existed in terms of overall employment and 65.5% in mean income between individuals with ID and the general population in 2009. Though these issues were mitigated to some degree, the discrepancy is clearly not abolished for individuals with ID who graduated from PSE institutions in this case study. The below tables present the changes.

Table 17a

Comparative Data in Terms of Employment Rate and Hourly Rate in Raw Form

Category	**General populace**	**Comparison group**	**Integrated**	**Specialized**
Currently Employed	90.2%	37.2%	73%	91%
Hourly Rate	$20.90	$8.75[17]	$10.50[17]	$8.50[17]

Table 17b

Comparative Data in Terms of Difference Compared to General Populace.

Category	**General populace**	**Comparison group**	**Integrated**	**Specialized**
Currently Employed	N/A	-53%	-17.2%	+0.8%
Hourly Rate	N/A	-59%	-50%	-60%

Individuals with ID who graduated from PSE programs closed the gap between individuals with ID and the general population substantially (in the case of the integrated program) and completely (in the case of the specialized program) in terms of current employment rates. However, there is little demonstrated change in terms of the gap

[17] High-estimate figures drawn from the data presented in *table 16.*

between the general populace and individuals with ID in terms of hourly rate, even for graduates of PSE programs.

Nonetheless, the steep gains in rates of employment may support the notion that as "segregation begets segregation," "integration begets integration." That is, the experience of training and immersion in internship situations with non-disabled people may be one of the contributing factors that led to the experience of competitive employment among PSE program graduates in this case study.

The data collected from this case study generally compliment trends already occurring in the studies reviewed in Chapter Two (Migliore & Butterworth, 2009; Grigal et al., 2010; Zafft et al., 2004). In all three studies, marked improvement was demonstrated in employment rates for individuals with ID who attended a PSE program, though the degree to which this growth was experienced differs based on the study in question, as demonstrated below.

Table 18

Comparison of Studies Related to Employment Rates for Individuals with ID who Attended PSE Programs.

	Migliore (2009)	**Grigal (2010)**	**This Study**
% of PSE graduates with ID who attained employment post-graduation	58%	83%/73%[18]	73%/91%[19]

[18] Respective to the two schools that were the subject of Grigal's case study
[19] Respective to the integrated and specialized program of this case study. Data taken from "currently employed" as this is the only data that is definitively requesting data from after graduation

In this way, the data collected for this study corroborate the pattern of increased employment for individuals with ID who attended PSE programs that has already been demonstrated in existing literature.

Recommendations for further research. Several opportunities for further research emerged from this investigation. Foremost is the need for more quantitative data regarding employment outcomes for individuals with ID who attend PSE programs. The limited number of graduates from these programs to date provides a mandatory limitation to the scale of any investigation, but as more case studies and small-scale reports are published, the more the patterns that have begun to emerge can be corroborated and generalized.

Several other, more detailed questions also arose. For example, this study briefly noted the degree to which graduates of the participant PSE programs felt prepared for employment and community life, but the question lacked specificity to allow for exploring the correlation between confidence and employment. As the administrator interviews revealed, developing confidence in the students who attend the programs in this case study was an objective, it would be interesting to be able to recognize the effect of such confidence on employment and other areas of independent living.

The relatively low hours of employment/week also presents a question for further investigation. So far, most of the outcome studies have focused simply on whether graduates of the PSE programs for individuals with ID are earning paid employment, but have not offered much detailed inquiry into the details of that employment. Understanding the conditions that result in majority of the graduates in this case study working part time (Is it because they only wish/need to work part time? Because of

disincentive of losing social security benefits? Because of local economic factors? Do the graduates lack the requisite skill or ability to maintain full time jobs? Or is there still an employer bias being levied on the graduates because of their disability?) would be helpful.

Both of the programs utilized for this case study, as well as the majority of those that I encountered in the early research stages of this study have tuition rates that are parallel to that of many college and university programs for individuals without disabilities. It would be interesting to explore the socio-economic status of families who have been able to send their adult children to PSE programs and how these socio-economic factors may also influence the positive outcomes of graduates. There is also a need for research into methods of financing these PSE programs and, relatedly, development of scholarship and grant programs to help fund potential PSE students from lower income families who may not be able to pursue PSE options due to prohibitive costs.

Finally, I noted the challenges of comparing the different program types utilized in this case study, especially given the number of variables that existed between them. Distinctions between the programs currently in existence are manifold and this will continue to make comparison between programs, as well as generalization of data, a challenge. The establishment for PSE programs that serve individuals with ID is crucial to allow for clearer comparison. This would also help begin to provide recognition that certain program "types" are better fits for certain individuals in terms of goals, abilities, etc.

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Appendix A

Transcript and Interview Questions Asked of Administrators

Thank you for taking the time to participate in this study! This interview is intended to take approximately 30 minutes – 1 hour, depending on the length of your responses.

I will be recording your answers for use in my writing, though I will never use your name or the name of your school if and when I quote or paraphrase you. Whenever using your answers, I will make every effort to use them as intended and in the context that they were used. You are free to express that you would like to refrain from answering any of my questions. During the interview, I would ask that you please do not share any confidential or sensitive information due to the insecurity of this line of communication. If there is anything that you would like to share which is confidential in nature, please let me know, and I will arrange a way for that communication to occur.

Consent + Introduction

1. Have you read through the informed consent document, and – if so – do you consent to participate in this study under the terms provided?
2. Any questions before we begin?

Program Development

3. Please briefly describe when and for what purpose your program began.
4. Please describe if and how you screen students for admission.
5. How many students currently attend your program?
6. How many total students have graduated from your program to date?
7. How do students fund their education with you?

Program Objectives

8. What would you say are the main outcome objectives of your program?
9. Do you have structures in place to explicitly promote employment outcomes?
10. How successful do you feel the program has been in allowing the students who have graduated to accomplish the outcome objectives stated?

Integration

11. To what extent and in what ways do your students interact with the non-disabled community?
12. How does this level of integration represent your program philosophy?

Steering

13. What do you see as the "next step" for your program as it develops?

Conclusion

14. Do you have any questions for me?

Appendix B

Graduate Survey Questions

1. Please enter the 3-digit SURVEY ID NUMBER you were assigned.

2. Have you read and understood the "informed consent" letter?

3. What year did you graduate from your college program?

4. Which of the following classify your disability most accurately? Select more than one if applicable.

- Mild intellectual disability
- Autism Spectrum disorder
- Multiple disabilities (please specify)
- Other (please specify)

5. Which of the following were PERSONAL GOALS - things that you WANTED for yourself - when you were attending your college program? Select all that apply.

- I wanted to earn a competitive job
- I wanted to increase my social skills
- I wanted to gain more independence
- I wanted to make new friends
- I wanted to improve my basic academic skills (like reading, writing, and math)
- I wanted to take higher-level academic classes
- Other (please specify)

6. Whether they were your goals or not, which of the following goals do you feel you ACCOMPLISHED during your time at your college program? Choose all that apply.

- I earned a competitive job
- I increased my social skills
- I gained more independence
- I made new friends
- I improved my basic academic skills (like reading, writing, and math)
- I took higher-level academic classes
- Other (please specify)

7. To what extent did you feel you were able to get to know people in the community WITH disabilities? (Scaled, choose one)

- Not at all
- A little

- Some
- A lot

8. To what extent did you feel you were able to get to know people in the community WITHOUT disabilities?

- Not at all
- A little
- Some
- A lot

9. How well do you feel your college program helped prepare you for life in the general community, after graduation? (Scaled, choose one.)

- Not at all - I don't feel any more prepared for community life than I did before attending my college program.
- A little - I feel a little bit more prepared for community life than I did before attending my college program.
- Some - I feel quite a bit more prepared for community life than I did before attending my college program.
- A lot - I feel much more prepared for community life than I did before attending my college program.

10. Have you been employed at any time, for any length of time since leaving high school? Also say "yes" if you are *currently* employed.

- yes
- no*

*If "no", please skip to question #23, if "yes," please continue to question 11.

11. Have you been a paid employee (other than working at home) at any time in the past 2 years, specifically? Also say "yes" if you are *currently* employed outside of your home.

- yes
- no

12. Have you been a paid employee (other than working at home **OR** for your former school) at any time in the past 2 years, specifically? Also say "yes" if you are *currently* employed outside of your home or former school.

- yes
- no

13. Are you currently employed?

- yes
- no

14. How many hours do you normally work per week currently (if you are employed) or previously (if you are not, but have been).

- Less than 20 hours per week.
- 20-34 hours per week
- 35-40 hours per week
- More than 40 hours per week

15. Which of the following categories best describes what you do at your current or most recent job?

- Food Preparation!
- Janitorial/Custodial work (e.g. school janitor, groundskeeper, lawn mower, etc...)!
- Office support (e.g. secretary, clerk)!
- Production (e.g. factory)!
- Transportation and delivery (e.g. UPS, USPS, Pizza delivery, etc.)!
- Teaching, training (you as trainer), or library work!
- Personal Care (e.g. hair stylist, manicurist, etc)!
- Sales (e.g. retail associate, telemarketer)!
- Construction and extraction (e.g. carpenter, mason, excavation)!
- Science, engineering, computer-programming, mathematician!
- Art, design, entertainment, sports, and media (newspaper, news stations...)!
- Healthcare practitioner (e.g. nurse, doctor)!
- Healthcare Support (e.g. phlebotomist, x-ray technician, etc)!
- Protective Services (e.g. police, firefighter)!
- Installation, maintenance, repair (e.g. window installation, heating and cooling, plumbing, mechanic)!
- Military-specific!
- None of the above (please specify) _____!

16. What is your job title?

17. What is your HOURLY wage?

- Less than $7.25 per hour
- $7.25 - $8.50 per hour
- $8.51 - $10.50 per hour
- $10.51 - $14.50 per hour
- $14.51 or more per hour
- N/A, Salary-based... Gross (before tax) monthly salary: $ _____

18. Do you feel like your college program helped prepare you for your current job? If so, how? If not, why not?

19. Are you currently looking for work? (If currently employed, say “no” unless you are looking for a second or a better job).

- yes
- no

20. What, if anything, has been difficult for you in finding employment?

21. Do you feel there is anything your school could have done to better prepare you for earning a job?

Appendix C

Informed Consent Letter: Administrator Version

Title of Study: Postsecondary Program Outcomes for Students with a Cognitive Impairment – A Comparative Analysis Case Study

Researcher: Mr. Eric J. Moore, Special Education Masters Candidate, Grand Valley State University

Grand Valley State University Advisory Committee: Dr. Amy Schelling, Professor of Special Education, Chair; Dr. Mary Bair, Foundations Associate Professor, Advisor; Dr. Paula Lancaster, Professor of Special Education, Advisor

You have been invited to participate in a research project titled "Postsecondary Program Outcomes for Students with a Cognitive Impairment – A Comparative Case Study". This consent document will explain the purpose of this research project and will go over all of the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions via email to Eric Moore (mooree@gsis.sc.kr) if you need additional clarification.

Purpose
The rapid emergence of postsecondary programs for individuals with intellectual disabilities has rapidly expanded in the last decade. There is a very limited amount of quantitative research demonstrating outcomes for such programs, and several recent research publications have called for research of this kind to help provide guidance for program development, the provision of best practices in the field, and the justification of public and institutional funding for such programs.

Reason for Invitation
You have been invited to participate in this study because the investigator wishes to examine how the characteristics of your program facilitate success for students with intellectual disabilities. You have demonstrated willing communication in the preliminary investigation and fit the requirements that have emerged for participating schools.

Procedures
This study requires the participation of both an administrator (as yourself) and the majority – or all – of the students who have graduated from the program. The more graduates that can be accounted for, the more useful the data will become.

The study includes an interview with you, the administrator, and a survey for the graduates. This survey may be completed by the students and/or their legal guardians (if

applicable) online (preferred) or on paper, if internet access is not available or if the person completing the survey prefers paper form. The online version will be completed through the use of a secure web-based survey link, called SurveyMonkey. Potential participants will be contacted via email and invited to participate in the study. The link to the questionnaire will be included in the invitation email.

A copy of the questions on the student survey can be supplied to you upon request.

The administrator interview as well as the student's surveys are expected to take ~30 minutes to complete. A number will be assigned to all student participants in advance, which they will use in lieu of any self-identification (e.g. name) on the survey itself. The researcher will maintain the key such that he may identify whose responses he is reading, but the key will be kept secure and names will never be published or made available to anyone beyond the researcher himself. There are no questions on the survey that will personally identify respondents or their school. Please do not put your name, the name of your school, or the name of anyone related to your school anywhere in the text boxes provided on the survey.

You, the administrator, are asked to voluntarily provide specific information questions in the interview. You may ask to skip any question or stop participating at any time. In this interview, I will ask for details about the program's objectives, philosophy, and steering, and will request your opinion about outcomes witnessed thus far. Please DO NOT share any information that would be considered sensitive or confidential during this interview. If there is such information that you would like to share with me during the interview, I would request that you first alert me by asking to go "off the record."

The information collected will be used for the stated purposes of this research project only and will not be provided to any other party for any other reason at any time except and only if required by law.

If you choose not to participate in this study, please inform me within 2 weeks of initial contact.

If you choose to accept the invitation to participate in this study, after reading the informed consent letter, please contact me to set up an interview time at your convenience. I will send you the questions I will be asking you, and will further ask you to begin sharing the invitation for your graduates to participate.

Risks

I do not believe there is any risk to you from participating in this research. Information is not harmful in nature, and every precaution to protect the identity of individuals and schools participating is being made. There are no costs associated with participation in this study.

Potential Benefits to You
I believe that by documenting and sharing outcome data regarding employment for your graduates will help demonstrate the benefits of postsecondary programs for individuals with intellectual disabilities. The research may also help provide you and your own researchers with usable data that may assist in the development of your program.

Potential Benefits to Society
As a result of this study, I hope to contribute useful information to researchers who are investigating and promoting postsecondary programs for students with an ID. I further hope that sharing the results of this case study may reveal opportunities for others to do likewise, and to expand on my research, as well as to identify barriers in quantitative research in this field, so that they may begin to be dealt with.

Voluntary Participation
Your participation in this research study is completely voluntary. You do not have to participate. You may quit at any time without any penalty to you.

Privacy and Confidentiality
Your name and the name of your school will not be given to anyone other than the research team. All the information collected from you or about you will be kept confidential to the fullest extent allowed by law. In very rare circumstances specially authorized university or government officials may be given access to our research records for purposes of protecting your rights and welfare.

Mr. Eric Moore and his advisory committee, Dr. Amy Schelling, Dr. Paula Lancaster, and Dr. May Bair will be the only individuals that will have access to the raw data collected.

Research Study Results
Upon completion of the study, a summary of the results may be published in a thesis, and/or a journal article, and/or presented at a conference. Due to the fact that the survey is completed under numeric pseudonym, and your school is never mentioned, there is no potential for your identity or the identity of your school to be definitively recognized. If you wish to learn about the results of this research study you may request that information by contacting: Mr. Eric Moore at mooree@gsis.sc.kr.

AGREEMENT TO PARTICIPATE
· The details of this research study have been explained to me including what I am being asked to do and the anticipated risks and benefits;

- I have had an opportunity to have my questions answered;
- I am voluntarily agreeing to participate in the research as described on this form;
- I agree to allow the interview to be recorded in audio and/or text form for review by the interviewer.
- I may ask more questions or quit participating at any time without penalty.

Your consent will be stated at the beginning of the interview.

If you have any questions about this study you may contact the researcher as follows:
NAME: Eric Moore E-MAIL: *********

If you have any questions or concerns about your rights as a research participant, please contact the **Research Protections Office** at Grand Valley State University, Grand Rapids, MI

PHONE: ********* E-MAIL: *********

Date of HRRC Approval for Thesis Research: _____

Appendix D

Informed Consent Letter: Graduate Version

(This was also be sent in audio form. The admin version will also be included for those who are able to understand that version including any students able as well as anyone who may be helping them make an informed decision)

If you have trouble understanding this document, please ask someone you trust to help you understand.

Information about the researcher: This project is being completed by Mr. Eric Moore, a graduate college student at Grand Valley State University in Grand Rapids, Michigan.

Eric is getting help from his teachers, who are advising him. They are:

Dr. Amy Schelling, Professor of Special Education
Dr. Mary Bair, Foundations Professor
Dr. Paula Lancaster, Professor of Special Education

You have been asked to participate in Eric's research. This document is here to help make sure you understand what I am asking for you to do and to make sure you understand what I am doing and why I am doing it. Before you answer the questions I am emailing you, please read or listen to this and make sure you understand. If there is anything you don't understand, please ask a trusted person or email Eric with questions. You can email him at mooree@gsis.sc.kr.

Reason for the Project
To learn about how students who graduate from colleges like yours are doing after college. Do they have jobs? Are they doing better than people with disabilities who do not go to college? I will use this information to help make college programs better.

Tasks
This study asks you to answer a series of questions by going to a website to answer them. If you would like, you can also answer the questions on paper. You just have to let Eric know, and he will send you a paper copy.

There will be about 15 questions for you to answer. You don't have to answer all of them, but to earn the Starbucks gift card, it is important that you do complete the whole thing.

I will make sure to keep your name and school's name secret so no one other than me will know that you responded the way you did. To help with this, please **do not** write

your name or you school name anywhere in the answers part.

If you choose not to participate in my research, please just let Eric or your college leader know so that Eric isn't wondering.

If you DO agree to participate, you will click the link to the questions in your email after finishing this letter. That link will bring you to the questions, which you will answer and then click "submit" at the end. By clicking "submit" at the end, you are saying that you are okay with giving that information to me to use for my research.

Research Study Results
Eric plans to publish a summary of the results of everyone's answers in his graduate school research paper. He may also publish the results in a magazine for other teachers and researchers.

If you wish to learn about the results of this research study you may request that information by contacting Eric at mooree@gsis.sc.kr.

Required Disclaimer for E-Survey:

"You are asked to voluntarily provide specific information to this web site. You may skip any question, or stop participating at any time. The information collected will be used for the stated purposes of this research project only and will not be provided to any other party for any other reason at any time except and only if required by law. You should be aware that although the information you provide is anonymous, it is transmitted in a non-secure manner. There is a remote chance that skilled, knowledgeable persons unaffiliated with this research project could track the information you provide to the IP address of the computer from which you send it. However, your personal identity cannot be determined."

Additional Information:
If you would like a more detailed copy of this information to be sent to someone you trust, please let Eric know!

AGREEMENT TO PARTICIPATE
· I understand what is being asked of me if I choose to participate in this survey and know the risks and benefits of participating;

- I have had an opportunity to have my questions answered;
- I am choosing to participate in the research as described above;
- I may ask more questions or quit participating at any time.

Your agreement to help is given when you submit the your answers, by clicking the submit button at the end of the web-based survey or when you mail the results back

to Eric.

If you have any questions about this study you may contact the researcher as follows:
NAME: Eric Moore E-MAIL: *********

If you have any questions or concerns about your rights as a research participant, please contact the **Research Protections Office** at Grand Valley State University, Grand Rapids, MI

Phone: ****** e-mail: ********

Appendix E

Invitation for Graduate to Participate in the Study

Dear *Graduate's name*,

After reading this email, please read the attached letter from Eric Moore, a person who is studying schools like ours and who would like to know about your life since graduating from *school name*. *School name* is helping him in his studies because he is trying to learn more about schools like ours. Please email **me** back to tell me whether you would be willing to help with Eric's study or not.

If you are willing to help, I will give your email address and phone number to Eric, and he will contact you to explain the next steps. If you are unsure if you should or would like to help, you may wish to talk about this with someone you trust before getting back to me.

No one has to participate if they don't want to.

If you do choose to participate, Eric will thank you by sending you a $10 gift card to Starbucks.

Thank you for thinking about this. Please tell me if you would like to participate or not by one week from today, (Enter day, date).

You may also contact Eric with questions by emailing him at mooree@gsis.sc.kr.

Sincerely,

Administrator's Name
School Name

Attachment in text and audio form:

Dear College Graduate,

Congratulations on graduating from college! That is a wonderful achievement!

I am in college myself, right now, and I am studying to learn more about schools like yours. I am writing this letter to ask you to help with a research project I am doing to better know how things have been going for you since graduating from college.

I really want to know about if you have been able to get a job, and more details about that. I will also be asking questions about how much money you have been earning through your job.

If you choose to help me collect this information about your life since college, I will try to use it to help make college even better for other people with disabilities.

If you want to help, please write back to the person who sent this to you, and then I will contact you and give you some questions to respond to. It will take you about 30 minutes, but you don't have to do it all at one time. If you want to have someone else there with you, to help you with your answers, like a parent or someone else that you trust, that would be fine!

Remember, you don't have to do this if you don't want to, but if you are not going to, please reply to the email and say so, anyway, so that I know.

If you decide you DO want to help, I would really be thankful for that. And to thank you after you finish the questions, I will send you a $10 gift card to Starbucks!

Yours Sincerely,

Eric J. Moore
Masters Candidate
Grand Valley State University

Despite the lack of volume regarding program outcomes, the Higher Education Opportunities Act of 2008 (HEOA 2008) has already demonstrated program-based incentives. Based on the HEOA 2008, federal funds are made available for the development of PSE programs for individuals with ID in 23 states and has enabled federal grants for students attending a recognized Comprehensive Transition Program (CTP). CTPs represent a specific set of values for PSE programs. According to the HEOA 2008, CTPs are degree, certificate, or non-degree programs that meet specific qualifications, including:

- Are offered by a college or career school and approved by the U.S. Department of Education;
- Are designed to support students with intellectual disabilities who want to continue academic, career, and independent living instruction to prepare for gainful employment;
- Offers academic advising and a structured curriculum; and
- Requires students with intellectual disabilities to participate, for at least half of the program, in:
    - Regular enrollment in credit-bearing courses with nondisabled students,
    - Auditing or participating (with nondisabled students) in courses for which the student does not receive regular academic credit,
    - Enrollment in noncredit-bearing, non-degree courses with nondisabled students, or
    - Internships or work-based training with nondisabled individuals.

In this regard, the HEOA demonstrates preferential treatment for programs that meet requirements of program objectives, structure, affiliation, and integration practices. Put another way: theoretically, individuals with ID should experience greater success after graduating from a CTP than those who did not attend a CTP. Additionally, CTPs are here implied to have better outcome expectations than PSE programs that are not CTPs. Finally, integrated programs are given higher value than specialized programs.

The three groups (two test groups, one comparison group) represented in this case study include individuals with ID who are graduates from a CTP, graduates from a PSE that is not a CTP, and those who did not attend any PSE program. These three groups thereby allow me to explore the theoretical propositions implied by HEOA 2008.

GRAND VALLEY STATE UNIVERSITY
www.gvsu.edu

DATE:	October 17, 2013
TO:	Eric Moore, B.S
FROM:	Grand Valley State University Human Research Review Committee
STUDY TITLE:	[486351-1] Exploratory Case Study in Employment Outcomes for Students with Intellectual Disabilities who Attend Post-Secondary Education Programs
REFERENCE #:	14-061-H
SUBMISSION TYPE:	New Project
ACTION:	EXEMPT
EFFECTIVE DATE:	October 17, 2013
REVIEW TYPE:	Exempt Review

Thank you for your submission of materials for your planned research study. It has been determined that this project: *IS COVERED* human subjects research* according to current federal regulations and meets eligibility for exempt determination under category 45 CFR 46.101(b)(2).

You state that the names of the 2 collaborating institutions are being withheld for the "purpose of confidentiality". Please clarify how this is an issue of confidentiality or identify the schools and their locations who have verbally agreed to participate in the interviews.

Exempt protocols do not require formal approval, renewal or closure by the HRRC. Any revision to exempt research that alters the risk/benefit ratio or affects eligibility for exempt review must be submitted to the HRRC using the *Change in Approved Protocol* form before changes are implemented.

Exempt research studies are eligible for audits.

If you have any questions, please contact the Research Protections Program, Monday through Thursday, at (616) 331-3197 or rpp@gvsu.edu. The office observes all university holidays, and does not process applications during exam week or between academic terms. Please include your study title and reference number in all correspondence with our office.

*Research is a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge (45 CFR 46.102 (d)).