

EVALUATION OF A SCHOOL-TO-WORK INTERNSHIP PILOT PROGRAM
FOR HIGH SCHOOL SENIORS WITH SPECIAL NEEDS

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ABSTRACT

Students with disabilities face a variety of challenges that extend beyond the classroom, as they are often behind their peers in social and life skills. As they exit their secondary education programs they are often ill prepared to meet the multi-dimensional demands of the work place. According to the United States Department of Labor (2011), only 34% of adults with disabilities ages 18–64 years work full time, when compared with 82% of those without disabilities. The current study examined a specialized School-to-Work Internship Pilot Program designed for high school seniors with disabilities that was developed and implemented by a school district in central New Jersey. Twenty four students from the 2009-2010 and 2010-2011 graduating classes participated in this study. Of those 24 participants, 10 participated in the School-to-Work Internship Pilot Program and 14 participated as the matched control group in this quasi-experimental study. Participants reported on their post-high school experiences of employment and post-high school education enrollment. In addition, these participants self-appraised their job knowledge/skills, socialization/emotional coping skills, task flexibility, dependability, motivation, and job satisfaction on a questionnaire pertaining to their employment experiences. These participants also appraised their life satisfaction, feelings of competence, empowerment, and social belonging on a questionnaire pertaining to their quality of life. Results indicated that the School-to-Work and Case Control participant groups did not statistically differ with respect to securing or maintaining employment, or the measures of employment experiences or quality of life. However, participants in the School-to-Work group enrolled in post-secondary education at a statistically significant higher rate when compared to the Case Control group. The School-to-Work Internship

Pilot Program may have empowered these student participants to gain the necessary insight that further training would be necessary to obtain a full time job that is both rewarding and provides full time benefits. Furthermore, although there were no statistical group differences due to small sample size, the School-to-Work Internship Pilot Program appeared to have generally positive influences on quality of life for participants as indicated by consistently favorable outcomes.

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CHAPTER 1

Introduction

Entering the labor force is a central transition of young adulthood (Wiesner, Vondracek, Capaldi, & Porfeli, 2003). Secondary school seniors are faced with choosing between applying for admission to college and/or joining the work force upon their graduation from high school. For students with disabilities, this choice may not be as clear as it is for their non-disabled peers. It is widely recognized that the transition to adult roles is a complex process that all youths must navigate, and that a myriad of factors work together to influence students' lives after high school graduation (Benz, Lindstrom, & Yovanoff, 2000). Students with disabilities not only demonstrate learning difficulties in the classroom, but may be behind their peers in social and life skills, and are often ill prepared to meet the multi-dimensional demands of the work place.

For instance, individuals with educationally-based disabilities have difficulty processing information and may find what they have learned in the classroom difficult to apply to work-related settings. As early as childhood, persons with learning difficulties may have unique challenges in establishing routines, generalizing learned skills across different contexts, as well as accurately observing and effectively imitating the work habits of non-disabled role models (Levinson & Ohler, 1998). Students with learning difficulties have also been found to be passive learners who might not engage in exploratory extracurricular activities or obtain part time jobs during high school, putting them at an employment disadvantage when compared to their non-educationally-disabled peers (Cummings, Maddux, & Casey, 2000).

The Responsibility of Public Schools

As part of the requirement of providing an education free of charge to all students under compulsory education laws, public schools are given the responsibility of addressing the educational needs of an educationally diverse student population. As students with complex learning needs have traditionally been segregated or denied opportunities to be educated with their non-disabled peers, reform laws have since been enacted to mandate that school districts not only identify this population, but provide an appropriate, least restrictive education program in order to eliminate barriers to their educational success. Under the Individuals with Disabilities Education Act (IDEA, 1990, 1997) and the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), public schools must provide a continuum of educationally supportive programs as well as prepare students with disabilities for life after high school, starting from age 14 or younger.

However, despite evidence showing that IDEA has had a positive impact on the education of students with disabilities by reducing the dropout rate, many studies indicate that a great number of people with disabilities still do not achieve post-school success (Finn & Kohler, 2009). Relative to people without disabilities, individuals with disabilities still experience higher rates of unemployment, underemployment, higher dropout rates, lower rates of postsecondary school enrollment, higher arrest rates, more restricted participation in community and leisure activities, more dependency on parents and Federal or State welfare programs, lower life time earnings, lower rates of home ownership, and higher rates of out-of-wedlock parenting (Cummings et al., 2000; Finn &

Kohler, 2000; Turnbull, Turnbull, Wehmeyer, & Park, 2003; Wagner, Newman, Cameto, & Levine, 2005).

Aside from their disabilities, these adolescents often face additional obstacles to post-high school success. Students from culturally diverse backgrounds, lower income homes, and urban communities are at an even greater risk for these negative outcomes (Turnbull et al., 2003). The literature is unequivocal in that young persons with disabilities are often members of marginalized cultural or economic groups that encounter a variety of barriers over the course of their lifetimes. They tend to have fewer family resources or live in poverty, and have parents who had low school achievement (Shandra & Hogan, 2008). This population may also lack access to the necessary comprehensive transition services within school, including training and exposure to vocational services related to employment outcomes (Fabian, 2007).

Shandra and Hogan's (2008) landmark National Longitudinal Transition Study (NLTS; NLTS-2), the largest study of school transition practices to date, found that cultural minority youth and youth who report low socioeconomic status (SES) are significantly less likely to work for pay and work full time, and more likely to have lower hourly wages. Shanahan and Bauer's (2005) research echoes these findings, which provide evidence that these youth have compounded challenges that exceed the typical stressors associated with typical child and adolescent development. These findings are not surprising, considering the growing recognition that the individual is enmeshed within the context of a greater ecological network where all influences are interrelated.

The Evolution of Federal Legislation

The IDEA and its predecessor statutes (i.e., Education for All Handicapped Children Act, Americans with Disabilities Act) were created to ensure the civil liberties for all individuals with educationally disabling conditions by prohibiting school districts from engaging in discriminatory practices against them. School districts are required by law to provide a Free and Appropriate Public Education (FAPE) to disabled students from ages 3 through 21 to ensure integration and equal access to services that prepare them, not only for continuing post-high school education, but also independent living and employment. While equal access may have been achieved, outcomes for youth with disabilities have continued to diverge from youth without disabilities. As the public began to recognize that youths with disabilities were not achieving success in these areas relative to typically-developing youth, an increased focus on enhancing special education transition programs and its service elements has since been promoted.

During the past few decades several prominent policy changes have been initiated: 1) The revision and development of new Federal legislation aimed at promoting academic success for students with disabilities; 2) Increased Federal, State, and local accountability measures in the role of transition planning, services, and funding; and 3) Grant-funded transition research and outcome evaluation. IDEA 1990 was the first Federal legislation that defined transition services and mandated that a statement of needed transition services be included in the Individualized Education Program (IEP) for each student with a disability. IDEA 1990 also delineated public school personnel roles and responsibilities with respect to the transition process (Finn & Kohler, 2009).

Since the inception of IDEA 1990, public schools have been authorized to identify typical and desirable outcomes that high school graduates with a disability may be able to achieve, including entering postsecondary education, receiving vocational training, gaining employment, and living independently. However, transition policy shifted considerably in the 1990s due to educational research that identified a disconnection between transition services and the curriculum that was being taught to students (Stodden & Leake, 1994, as cited in Baer, Flexer, & Dennis, 2007). IDEA was revised again in 1997 to address this shift.

The 1997 reauthorization of IDEA introduced several changes to improve planning and create linkages between youth, families, and service providers. These changes placed a premium on developing coordinated transition services for school-aged individuals. These changes included lowering the age when youth would begin receiving transition planning, from 16 to 14 years of age, involving post-high school agencies in transition planning, and improving the coordination of linkages between supporting community agencies (i.e., Division of Vocational Rehabilitation Services, Departments of Developmental Disabilities, Independent Living Counsels, Social Security Administration, etc.) and student outcomes. However, another revision of the IDEA shortly followed in a few years.

The new IDEA, the IDEA of 2004, contains new language and establishes a more data-driven approach to transition by emphasizing the importance of transition assessment and evaluation in developing appropriate transition goals and in assisting students seeking eligibility for services post-high school. The 2004 reauthorization focused on strengthening further accountability and aligned it with the data-driven focus

of the No Child Left Behind (NCLB) Act of 2001. This legislation was results-oriented, where transition-related activities for students with disabilities were linked to available data, and further held districts accountable for lowering dropout rates and raising standardized test scores for these students.

Each reauthorization and amendment of IDEA extended its predecessor legislation by ensuring that the set of activities outlined in students' Individualized Education Program (IEP) aligned with their individual needs and outlined the appropriate supports. In addition, it mandated that their educational goals were both measurable and achievable. It pointed to the need to coordinate the transition from high school to post-high school outcomes, and to identify the appropriate services and liaisons of those services. It also identified the need for increased funding and resources in order to meet these requirements.

Defining Disability in This Study

The term 'disability' can be far-reaching in its definition. There is considerable variability within this population, and more significant disabilities tend to affect the individual across multiple domains or contexts. It is implicit that individuals with disabilities with more significant challenges are facing considerably greater odds of securing post-secondary employment and independent living than those individuals with less profound disabilities. Nonetheless, the definition put forth by IDEA and its inclusion criteria will be the one used for this study.

IDEA's eligibility criteria apply to students ages 3-21 who:

- Have a documented disability;
- Their disability adversely affects their educational performance, *and*;

- Require a special education program (NJAC 6A:14-3.5, 2006).

Description of each of the specific disabilities recognized by the IDEA and/or the Americans with Disabilities Act (ADA) is outside of the scope of this study, but each requires a written diagnosis by a medical professional or an educational team of specialists.

Distinction between IDEA and ADA/Section 504

Of interest to note, the level of support services and programs that are granted to accommodate the needs of the disabled individual will vary by the individual's level of impairment as it relates to the context of school or work, and differs based on the applicable governing statutes (i.e., IDEA vs. ADA/504). For instance, Section 504 of the Rehabilitation Act (2007) defines a person with a disability as having a physical or mental impairment, which limits one or more major life activities. This Federal statute requires that schools eliminate barriers that would prevent the student from participating fully in the programs and services offered in the general curriculum, and that schools provide reasonable accommodations to the child with the disability. Similarly, the ADA requires that employers provide reasonable accommodations to adults with disabilities so they may meet the demands of the workplace environment. Since the workplace environment is not required to be constructed to meet the individual needs of each individual, this can be problematic to individuals who cannot adapt to these demands. While an individual with a disability in a public school can then be protected or serviced under IDEA in this instance, workplaces are not bound by any such jurisdiction. Therefore an individual's disability rights outside of the public school are protected by the ADA/Section 504 only.

Implementing Federal Mandates

The passage of these Federal legislations has led to many grant opportunities for service providers of individuals with disabilities, including public schools. Since 1983, the Office of Special Education Programs (OSEP) has funded over 500 projects that have a specific focus on transition education and services for students with disabilities in educational settings (Kohler & Field, 2003). As Kohler and Field have noted, public schools receive Federal reimbursement monies under IDEA/Section 504 to educate students with disabilities and meet the transition needs of those students ages 14 and older. Additionally, many Vocational Rehabilitation (VR) programs receive Federal support to implement vocational counseling, training, and other disability-related employment supports to assist individuals with disabilities to secure stable post-high school jobs. Such systemic changes have been supported Federally in return for outcome evaluation research and reporting by the service providers and State departments of education.

However, despite the available research regarding effective practices and IDEA mandates, educators and other agencies report problems in implementing appropriate transition plans. Some of the perceived problems include difficulty comprehending the various State and Federal laws, lack of training to implement aspects of the legislation, and a shortage of resources allocated to supporting transition services and programs (Finn & Kohler, 2009). Baer et al. (2007) noted that many special educators were not aware of their students' post-secondary aspirations and were not sure how transition services were developed and put in place. Li, Bassett, and Hutchinson (2009) found that professionals

responsible for transition services are often poorly trained and that their techniques for student need assessment often lack in reliability and construct validity.

Compounding matters, funding from the Federal government and other sources have shriveled up in recent years and the current fiscal conditions have exerted additional pressure on State and local budgets. While the aforementioned legislations succeeded in creating a framework for many high school-based vocational and technical programs that continue today, this current economic and political climate make it difficult for many educators and transition providers to meet the needs of individuals with disabilities.

Given the current state of affairs, it is unknown, to what degree, schools comply with existing policies. An examination of school-based services has indicated that transition services are loosely implemented within many schools, or have been scaled back significantly as a result of recent efforts to delegate resources *vís a vís* improving standardized test performance (Baer et al., 2003; Fabian, 2007). While Federal and State laws issue compliance mandates for districts to service the needs of individuals with disabilities, this does not guarantee that services are always coordinated efficiently, that budget shortfalls will not water down service delivery, or that school systems will not struggle to maintain administrative continuity. The current realities of today's educational landscape all but ensure that individuals with disabilities will continue to face many challenges on their paths to adulthood and independence as they rely on the programs that support them.

Children with Disabilities are Being Left Behind

One such obstacle imposed that has an indirect, but profound, effect on the outcomes of individuals with disabilities, is the NCLB. This results-oriented discourse

laid out by NCLB places a premium on standardized test scores and imposes financial sanctions on school districts that are unable to satisfy its progress indicators of year-over-year growth or improvement. The impact of NCLB on students with disabilities and students in general has been mixed (e.g., Cawthon, 2007; Springer, 2008). If teachers teach to the test due to the high stakes environment created by NCLB, the nature of the classroom skills taught would be narrower, and individuals with disabilities likely will lag behind college-oriented peers.

In addition, it is commonly viewed that a bachelor's degree or above is now often a prerequisite for many rewarding careers, including the high-tech fields in science, engineering, business, and technology. This simultaneously influences and reinforces the belief and practice that tomorrow's jobs will require advanced post-secondary study to meet the high specialization requirements of expected occupations. In addition, challenging college entrance exams and rigorous academic standards pose challenges that make it difficult for individuals with disabilities to succeed without the appropriate disability-related supports. Those who do not succeed in attaining their degree or certificate of completion are often left without an alternate plan.

An additional consequence to the premium placed on standardized testing in the classroom is that students who do not intend on entering college are often left with inadequate vocational preparation and, sometimes, insufficient guidance regarding available post-secondary vocational training programs; most students, of course, wish to go to college like "everyone else." Likewise, students with significant, educationally-disabling conditions, who have been placed in self-contained special education classes during their primary and secondary schooling, often find it too demanding to keep up

with the standards measured by fast-paced classes. The depth of the content assessed by standardized tests further places them at a disadvantage when compared to their non-disabled peer counterparts. An extra consequence of this college-tailored school curriculum is that youth with disabilities have less opportunity to develop the necessary social and life skills related to successful transitions into adulthood and employment compared to their peers without disabilities (Shandra & Hogan, 2008). Therefore, these students often become ill-equipped to succeed both in college *and* in the workplace.

It is also unsurprising that few students with disabilities gain entrance to postsecondary four year colleges or universities and graduate with bachelorette degrees. It is well-documented that the attrition rate of those in two-year colleges is high (Stodden & Dowrick, 2000; Wagner, Cameto, & Newton, 2003). As numerous initiatives are being implemented to increase students' academic performance, effective teaching practices have been altered by the responsibility of standardized test preparation. This is particularly felt strongest in areas with diminished resources whose schools are often seen as the standardized test score laggards (Greene, 2011). Quite often, students with challenging learning disabilities are being left behind.

Unfortunately it is becoming more and more common in today's workplace that the occupational relevance of a high school diploma is minimized, even for many entry-level positions. Shandra and Hogan (2008) argue that the lack of a nationally recognized vocational certification system places considerable distance between educators and the reality of the workplace. Similar to Shandra and Hogan's stance, the work-related skill set of most students entering the labor force is unfortunately confined to classroom discussions about careers and planning activities that are infused into the school day in an

ancillary capacity, such as a topic covered on one day in a Health Education class due to this restriction.

A trickle-down effect caused by the implementation of these various initiatives at the expense of other research-based ones shown to be effective (i.e., Social-Emotional Learning) is that students who are limited by their disabilities do not have adequate preparation for many life skills critical to adult functioning, such as independent living skills, social skills, personal management skills, and self advocacy skills. Rusch et al. (2009) argued that if State and national measures of educational progress took into account these life skills in addition to academic skills, our educational system would be considered a national failure.

In addition to what Rusch et al. pointed out, as is often the case for these under- and unemployed special needs graduates, adult-based community agencies become the only available resources for these individuals after graduation. However, the level of support provided to these individuals by these agencies is different from that of schools, because services rendered are not entitled, are more susceptible to budget cuts than public schools, and wait lists to access services are often quite long. Considering the barriers illustrated here, it is no wonder why individuals with disabilities struggle to find and maintain employment.

Workforce Statistics of Individuals with Disabilities

Nationwide, there are 50 million individuals with disabilities, the largest minority in the United States (United States Department of Labor, 2011). Furthermore, only 34% of adults with disabilities ages 18–64 years work full time, compared with 82% of those without disabilities. Those individuals who do work tend to cluster towards low-paying

jobs, and few enroll in post-secondary training or education institutions. This is the outcome of segregated education, limited training opportunities, prejudicial social stereotypes, and widespread ignorance of the under-utilized potential of persons labeled as having disabilities.

The 2004 National Organization on Disability/Harris Survey of Americans with Disabilities found that 26% of people with disabilities live in poverty, with annual household incomes below \$15,000, versus 9% of those without disabilities (Guy et al., 2009). While a fewer number of individuals are now earning below minimum wage than in the past, it is difficult for these youth to secure and sustain full time employment that provides health benefits (Shandra & Hogan, 2008). While youth of all types of disabilities are faring better in terms of employment than what was common two decades ago, many youth with multiple disabilities do not work for pay after leaving high school (Luecking & Wittenburg, 2009).

Employers often fail to recognize these individuals as an important part of a community's available labor pool (Butterworth & Pitt-Catsoupes, 1997). When they are made aware of this available labor resource, employers typically feel unprepared to adequately support the employment needs of individuals with disabilities. Along with Butterworth and Pitt-Catsoupes' findings, this underrepresentation of individuals with special needs in the workforce today may be due to prejudicial attitudes, a fear of liability, and a lack of understanding how to adequately address the employment support needs of these individuals. However, many employers note that accommodations made for employees with disabilities can be successful when the employee is aligned with an appropriate natural support network. Magill's (1997) research indicated that inexpensive

assistive technology can not only be successful for individuals with disabilities, but often effectively be adopted for other workers, contributing to greater productivity for the company overall.

In fact, there is a history of research that supports the notion that company hiring decisions are less likely to be influenced by the presence or absence of disability than by potential contribution by a job candidate to the company, especially when it is clear that value is being added to the employer's enterprise (e.g., Kiernan & Schallock, 1989; Luecking, 2000). Like these authors state, more pressing concerns to employers appear to be simply matching a person to a specific company need, irrespective of the presence of a disability or need for accommodation. If, indeed, a large percentage of employers continue to overlook this valuable labor pool of individuals with disabilities, how then can public schools assist these individuals in acquiring the necessary skills for success in tomorrow's workplace while simultaneously being burdened with the requirements of NCLB and other priorities?

Addressing the Divide between Public Schools and Employment

Now that the problem has successfully been defined, several researchers have developed models of best practice that call for special educators to develop transition services that address student disability needs while attempting to minimize these practical roadblocks to implementation. Li et al. (2009), for one, suggests that professional educators will need to take on different roles and responsibilities, as well as efficiently integrate limited resources from a variety of stakeholders and service providers in order to implement successful transition practices. Aside from Li et al.'s assertion,

policymakers must continue to fund research that will offer practical answers that can be utilized by school districts from a variety of communities.

In her seminal research on Federal and State transition policy, Kohler (1996; Kohler & Field, 2003) outlined a comprehensive transition services model that could be used by educators to address systems-impediments in implementing IDEA mandates. Although there are competing models that offer educators guidance in transition planning (e.g., Greene, 2003; O’Leary, 2000, cited in Finn & Kohler, 2009; Siegel, 1998), Kohler’s Taxonomy for Transition Planning (1996) has been widely accepted as an exemplary framework for transition programming because it integrates a variety of systems, including the school, family, and community. The five areas of the Taxonomy include (a) student-focused planning, (b) student development, (c) interagency collaboration, (d) family involvement, and (e) program structure and attributes. The practices identified in the 1996 model are frequently cited in the literature as recommended transition interventions for students with disabilities (Finn & Kohler, 2009; Kohler & Field, 2003).

Student-focused planning and student development begins with an appropriate transition assessment of student needs, which will optimize future planning, instruction, collaboration, and job development activities. Student-focused planning includes an important self-determination component that is vital to enhance in order for the student to feel empowered and to take responsibility for his or her education. Unfortunately, it is commonplace in practice that many school districts implement activities and initiatives without a basic needs assessment, which thereby wastes time and resources on programs that are not well aligned to the needs of target students.

The model also calls for a collaborative approach from departments from within and beyond the school that provides support services, such as guidance departments, to work collaboratively with special educators (i.e., child study team case managers), administrators, and other service providers to provide complementary, not redundant or reductionist services for students with disabilities.

In addition, this model draws attention to the research showing that family investment in a student's education is positively associated with successful school outcomes (e.g., Christenson, 2004). Schools from communities where family involvement is low, resources should be diverted to increase parental participation based on research-proven methods.

The final component of Kohler's model, the development of program structure and attributes, advises that schools enhance student's self-determined abilities through a variety of both classroom and experiential opportunities. Providing instruction in hands-on, employment-related activities during high school is one way that school districts can make a lasting impact on the lives of individuals with disabilities and go beyond merely satisfying IDEA requirements. Although these activities are not legally mandatory, school districts that utilize their available resources to enact these services, avoid the pitfall of just merely meeting the "compliance indicator" of simply identifying a student's post-secondary goals in their IEP (Rusch et al., 2009).

Luecking and Fabian (2000) studied how well disability, demographic, and student work behavior factors predicted follow-up employment for those students who had successfully completed hands-on training experiences. They found that students who participated in hands-on training internships were more likely to find positive post-school

outcomes. Ample evidence validates Kohler's research in that development of quality programs with a variety of school and community supports is integral in assisting students with disabilities in their transition out of high school (Test et al., 2009).

Kohler's model illustrates that educational and service systems may either facilitate or hinder their transition programs by overtly or inadvertently establishing procedures that promote barriers or limit access. Program flexibility and responsiveness to individual student needs are also critical aspects to an effective transition program for students with more pervasive types of disabilities. However, with schools investing significant resources in meeting rigorous, time- and personnel-consuming Federal and State mandates, school systems must not only be creative and but also have effective leadership in order to meet many of the needs of students with disabilities.

A major thrust of this study is to demonstrate that proactive transition practices are a primary preventative step that can address the needs of a diverse population of individuals with disabilities. States are holding districts more and more accountable on their progress in relation to graduation, dropout, transition planning, and post-school outcomes, and failure to achieve progress has severe negative consequences for school districts. For instance, a school district's funding may be dependent on their compliance with respect to IDEA mandates. Most importantly, special needs students, particularly those not on college-bound tracks, stand to benefit the most by such progressive systemic changes by gaining the functional and employment skills needed for life after graduation. The next section will explore an existing route that more students with disabilities will need to benefit from.

Career and Technical Training

One such practice that educators have implemented to address the transition needs of individuals not planning on enrolling in postsecondary education has been to create career and technical training programs that special education students can have access to. While these programs have long been in existence, relatively few standard vocational training programs exist that have historically accommodated effectively various needs of a diverse special education population. However, there is a clear need for more of these programs, as vocational and hands-on training have been identified as important factors leading to positive post-school results (Cummings et al., 2000; Kohler, 1996; Rusch et al., 2009). A number of studies have found that the transition to employment and graduation rates of individuals with disabilities can positively be affected by specific, structured vocational training programs (Guy et al., 2009). For example, an opportunity for a student with disabilities to participate in a paid employment experience during high school is one of the most potent predictors of post-high school success (Fabian, 2001).

The infusion of a career awareness curriculum in many schools has also led to effective outcomes for students with disabilities. These classroom-based activities can be tailored to meet individual disability needs and emphasize knowledge about the world of work and instruction in appropriate employment behaviors, such as punctuality, dependability, and adherence to work routines (Kavale & Forness, 1996; cited in Cummings et al., 2000). Participation in a **classroom-based** program, such as a careers class, where students learn about themselves and potential careers, has been shown to increase the likelihood that those students with disabilities will be stably employed and working full-time (Luecking & Wittenburg, 2009; Shandra & Hogan, 2008). Conversely,

participation in a **work-based** (paid or unpaid) program appears to demonstrate the strongest evidence for increasing the likelihood that students with disabilities will be employed in jobs that provide benefits, such as health insurance and paid sick days (2008). These types of programs are referred to as Structured Learning Experiences.

Structured Learning Experiences

According to the New Jersey Administrative Code (N.J.A.C.) Title 6A: Chapter 19 (New Jersey Department of Education, 2006), a Structured Learning Experience (SLE) is an experiential career-focused activity that is aligned with the Core Curriculum Content Standards under the Career and Technical Education Hierarchy (See Figure 1). An SLE, among other things, utilizes Community Based Instruction (CBI), an instructional method that takes place in natural workplace settings in order to facilitate an individual's acquisition and development of vocational skills. Furthermore, anchoring instruction to the demands of the community also helps students generalize skills learned in school to actual work-based settings (McDonnell & Hardman, 2010). As McDonnell and Hardman pointed out, effective SLE's in the schools offer students relevant career-based educational opportunities that connect classroom learning to practical, hands-on learning. McDonnell and Hardman argue that this may be particularly powerful for individuals with developmental or other disabilities who frequently have difficulty applying learned knowledge across settings. Furthermore, CBI goals may be placed directly into the IEP of a student with disabilities and be tailored to his or her individual needs. This acquisition of meaningful and relevant employment skills helps make individuals more self-aware, self-determined, and better prepared for making career decisions that suit their individual needs and preferences.

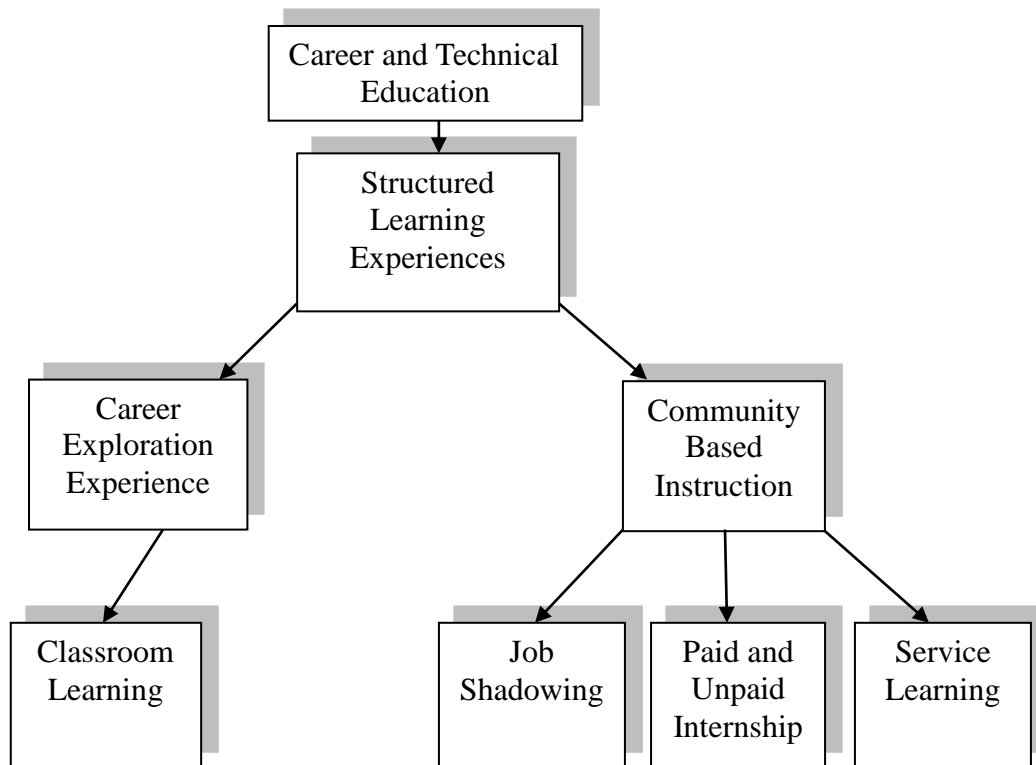


Figure 1. Career and technical education hierarchy

The State of New Jersey provides specific laws regarding the implementation of an SLE program such as an internship (New Jersey Department of Education, 2006). Part of these requirements is that the district must employ an SLE Coordinator who holds the Career and Technical Educator (CTE) credential. In this instance, the SLE Coordinator is a certified teacher who has full responsibility for the student's on-the-job placement and ensures that the job site placement, or employment, is appropriate to the student's skills, abilities, and career goals. This individual is also responsible for:

- hazard analysis, which means a method of reviewing career and technical education program tools, equipment, materials, procedures, and processes in order to identify potential causes of injury or illness;

- reporting incidents;
- developing a health and safety plan;
- student training plan;
- curricula; and
- regular site visits.

Table 1. New Jersey Department of Education’s Guidelines for School-Sponsored Structured Learning Experiences (New Jersey Department of Education, 2006)

SLE Type	Description
Job Shadowing	A type of program where student(s) follows an employee for one or more days to observe activities and functions of a particular occupation or industry
Service Learning	A type of program combines work service with a structured opportunity for reflection about that service, emphasizing the connections between classroom and workplace experiences.
Career Exploration	A type of program that is classroom-based and provides the student with an opportunity to explore a number of occupations or jobs.
Internship: Paid/Unpaid	A program that places the student in an actual workplace setting where they receive an in-depth, hands-on work experience in an occupational area and under supervision by the school.

Existing School-to-Work SLE Programs and Outcomes

Very few studies in the literature detail School-to-Work program models for high school students with disabilities, which have limited the scholarship on post-high school vocational outcomes (Shandra & Hogan, 2008). Well-developed School-to-Work programs for students with disabilities are rare in practice for high school students with

disabilities. Even fewer studies exist in the literature that examine or follow up high school students with disabilities who completed School-to-Work training programs. There are several studies in the literature that measure outcomes of transition programs; however, no studies exist to date that compared the vocational outcomes of students with disabilities who participated in a School-to-Work Internship Program with a non-participating control group from the same school. Furthermore, to this writer's best knowledge, none of the existing studies utilized an experimental or quasi-experimental design to address whether the program is efficacious. Below are several existing studies on transition programs that highlight a School-to-Work training program for students with disabilities.

One such transition study funded by the United States Department of Labor, the National Longitudinal Survey of Youth (NLSY; Shandra & Hogan, 2008), looked at outcomes of 8,984 youth who received vocational education and work experiences from 1997 to 2004. The findings of this study indicate that hands-on vocational training was positively contributed to post-school outcomes. However, the data collected in the NLSY does not specifically differentiate students with disabilities from the rest of the sample and conclusions are based on data collected across a variety of geographic localities.

Another study, the Disabilities, Opportunities, Internetworking and Technology (DO-IT) research program by Burgstahler (2001) featured 60 high school and postsecondary students who completed 104 job placements over a three-year grant period. In addition to the job placement component, additional elements of this research project included career workshops and the use of adaptive technology to assist with the vocational skill development of these students. They found that the majority of program

participants successfully gained employment, but their sample included college students in addition to high school students. While the program clearly appeared to be effective, this study is limited due to inclusion of students not enrolled in a secondary education program.

In a different transition study, Luecking and Fabian (2000) found that the great majority (75%) of a sample of 1,500 high school students who completed a School-to-Work Internship were offered employment opportunities following successful completion of that program. These employment offers were also consistent across demographic and disability characteristics, suggesting that once these youth are placed and effectively accommodated, they are seen by their employers as contributing members of that business, rather than viewed as detractors. However, this study included outcomes of students with and without disabilities and included many school districts. This study is also limited because students with disabilities were not identified and examined.

Another research-based School-to-Work Internship Program, The Marriott Foundation's Bridges School to Work Program, provided competitive paid work experience for special education youth who are making the transition out of high school into the adult world (Fabian, 2007). Students entered a standardized one-semester vocational intervention program during their junior year of high school. The program consisted of three phases: (1) career counseling and job placement; (2) paid work experience with training and support provided by the program staff; and (3) follow-along support and tracking of student participants. This program specifically targeted at-risk special education youth who demonstrated an interest and motivation to work, and who displayed self-determination and self-advocacy skills.

Although there was a selection bias inherent in the recruitment of these participants, among the most important findings was that 68% of the youth in the Bridges Program secured competitive jobs during high school with average hourly earnings above the minimum wage. While this study involved a large sample of students with disabilities, there was no control group which these students were measured against. The intention of this present study is to contribute to the existing literature by examining the vocational outcomes of one group of students with disabilities who participated in a School-to-Work Internship Pilot Program with another comparable group of students with disabilities from the same school who did not participate in such a program.

CHAPTER 2

The Present Study

The present study was aimed at examining outcomes of a full-year School-to-Work Internship Pilot Program for high school seniors with disabilities. This program was designed for these high school students to acquire functional and vocational post-secondary skills, and these students were compared with a separate, non-participating group of students with disabilities.

The current study followed up graduates from this program and examined their training experiences, as well as their post-graduate life and work experiences. One of the major goals of this study was to examine the program findings, including the former students' subjective experiences and job status, and report this group level data to the school district. Individual student data was kept unidentified and confidential. The school district may utilize the aggregate data for further refinement and for developing a controlled, experimental study of program efficacy for the future.

The Current School-to-Work Internship Pilot Program

A school district in central New Jersey developed a School-to-Work Internship Pilot Program designed for high school seniors with disabilities beginning in the 2009-2010 academic year. This School-to-Work Internship Pilot Program was designed in accordance to the previously mentioned SLE guidelines. As of this writing, 12 students from two academic years have completed the program. The special education students who have been selected to participate in this program are not paid for their work experiences, but receive course credit in addition to their training.

This particular School-to-Work Internship Pilot Program for secondary students with disabilities in the present study was originally developed by the school district's Special Services Department. The development of the program was done in collaboration with a State-approved Supported Employment Vendor (SEV) as the partnership agency. This particular SEV is a nationally-based nonprofit organization that helps people with disabilities secure job placements.

The students who were selected to participate in the School-to-Work Internship Pilot Program were provided with special opportunities to obtain preparation for their transition to employment while training under specialized supervision in field settings. Students with disabilities were selected for this program based upon their interest in completing a School-to-Work Internship as indicated by school records. The referral process and program operations are described later in this chapter.

A total of five students in Cohort 1 completed this Internship during their senior year at a large hospital in central New Jersey in 2009-2010. Students were provided with job coaching in several hospital departments. Their major learning experiences included exposure to health information management, environmental services, food and nutrition, materials management, patient management, patient transport, patient financial services, and visitor control. A total of seven students in Cohort 2 who graduated in June, 2011 completed this senior year Internship at the same hospital, but have also been offered additional placements in food services, large retail stores, and offices at various locations within the community. A detailed description of the program model is described next.

Program Conceptualization and Personnel Responsibilities

According to school records, the School-to-Work Internship Pilot Program in this school district was developed by the district's Transition Coordinator. Although the Transition Coordinator position is not required by law, this position has been created by this school district's board of education to assist with the programmatic aspects of developing transition services for students with disabilities, which includes appropriate SLE and CBI opportunities. A responsibility of the Transition Coordinator for the School-to-Work Internship was to develop the internship placements that the special education students could attend. Special considerations were paid to the health/safety of the students as determined by the SLE Coordinator, and developing a specific school/agency agreement that outlined items such as liability insurance. In addition, the Transition Coordinator developed the nature of the tasks that internship students would be completing with consultation and input from the job sites, while also considering the appropriateness to student ability level, disability barriers or concerns, and ensuring that tasks are appropriately aligned with New Jersey Core Curriculum Content Standards (Standard 9: 21st Century Life and Careers; N.J.A.C. 6A:8-5.1).

The school district's partner organization, the SEV, has been contracted to assist with the implementation of the internship program. The SEV has developed a previous job sampling program elsewhere and maintained relationships with a number of employers from around the locality. The SEV and the school district shared insurance responsibilities in the event of an accident or injury. The SEV employed job coaches, individuals with appropriate credentials for the position and have been trained by the

agency. Transportation, job coaching, and student grading were also provided by this SEV.

The school district's Transition Coordinator and SLE Coordinator have overseen the program's day-to-day operations and reported back to the Department of Special Services administration. When students were placed on their job sites they received on-site job training by site staff alongside their job coaches. These individuals provided supervision and assistance at a 2:1 student-job coach ratio. Students rotated to different job sites/departments at a minimum of every 6 weeks to learn several transferable skills that are needed for the working world. Students were also regularly evaluated, assessed, and reviewed by their job coaches and on site supervisors in order to track their progress throughout the program. This feedback was provided to the school, who, then, communicated the information to the stakeholders of the program, including school administration and student's families. This helped to ensure that the students were meeting their employment goals and their needs were being met. A further description of the program's rationale is stated in the next section.

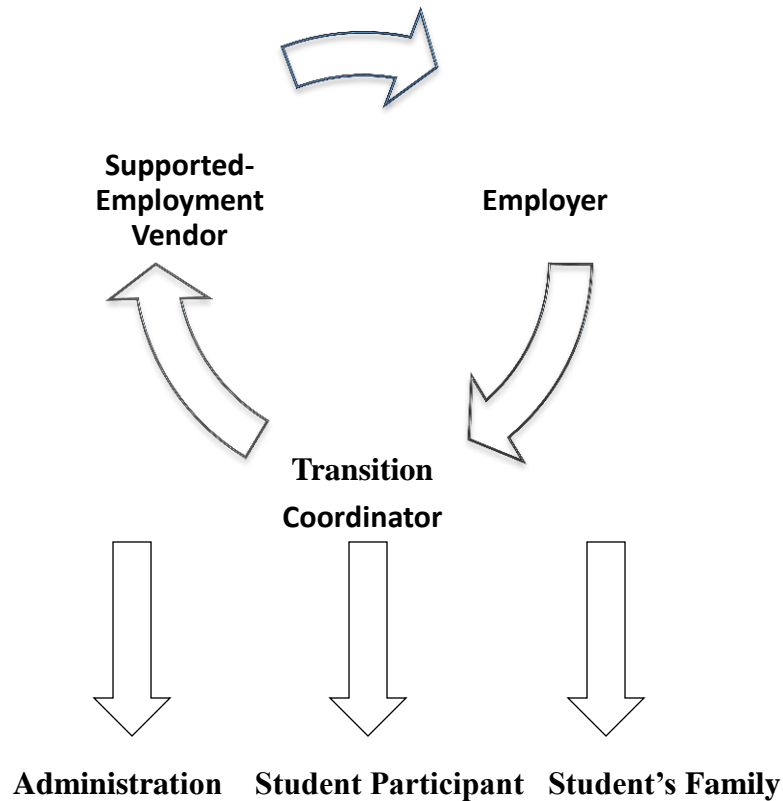


Figure 2. Program feedback loop

Rationale/Program Values

The school district's School-to-Work Internship Pilot Program in partnership with the SEV was originally developed to ensure the long-term benefit of employment and self-sufficiency for individuals with disabilities. This program was designed to provide individuals who have participated in this School-to-Work Internship Pilot Program with the opportunity to gain the skills and knowledge necessary to successfully transition into the adult world after high school graduation. If efficacious, not only would this transition help assist individuals with disabilities gain employment in the field of their choice, it would also result in an overall increase in community involvement.

The SEV aligned with the goals of the school in that this agency offered individuals with disabilities the opportunity to pursue satisfactory employment in the community of their choice. While most transition programs provide some sort of career development services, few provide CBI, and many lack appropriate educational support services for students with disabilities. This disability services support is a critical element in those students' preparation as successful job candidates. These components can be tailored to the individual needs of the students who are enrolled in the program. The district's goal with the SEV as partner was to establish a model school-to-employment program that can be replicated and adopted by schools elsewhere, with appropriate consideration to culture, diversity, and other factors. The recruitment of student participants is accomplished during the program orientation phase.

Program Orientation

Following the conceptualization and development of the program's values, the Transition Coordinator secured stakeholder support and began the program orientation. The Transition Coordinator convened meetings with Child Study Team case managers to acquaint the staff to program goals, objectives, target population and identify prospective students. An orientation meeting was then held with prospective students while the SEV contacted the parents/guardians to acquaint the family with the program, and met with employer representative(s) from the community. The SEV and the school Transition Coordinator also met with additional area businesses in the county to request partnership and to develop sites to be used for future student placements.

The School-to-Work program was a full year course that select special needs students, who are seniors in high school, can earn 10 credits towards their New Jersey

State graduation requirement of 110 credits. As part of the orientation phase of the program, these students were formally recommended by their child study team case manager. Following this, prospective students were chosen when it was determined that they would benefit from the program based on their disability, and if they demonstrated interest or motivation about the world of work, based on self-report and/or formal/informal vocational assessment data. An additional prerequisite for consideration for the program was that the students' academic and/or intellectual functioning had to have been estimated to fall at least one standard deviation below the mean on a standardized assessment of either cognitive ability or achievement, or by functional classroom observation data or academic progress. Disabilities of all types were considered for eligibility for this program. Following the completion of this activity, the School-to-Work Internship Pilot Program was implemented.

Program Implementation

To implement the Program, the school district used available IDEA funds to finance the School-to-Work Internship Pilot Program's operations. A portion of these funds were then reimbursed to the SEV for the services that were rendered, such as the transportation of students to and from various worksites, job coaching, and administrative fees. Additional partnerships with the private sector business community were developed in the second year of the School-to-Work Internship Pilot Program that offered a wider variety of job sampling opportunities to students. This created additional opportunities for students and continued partnership with the SEV. This is described in greater detail later in this section.

The 2009-2010 cohort of students were referred by their child study team case manager to the district Transition Coordinator during the 2008-2009 school year. After the referral was received, an orientation meeting was arranged where students learned more about the program, such as program benefits, the nature of the experiences to be learned, and logistic descriptions (i.e., how the Program would be incorporated into the students' existing schedule). Following the orientation, interested students were required to inform the Transition Coordinator of any special accommodations they may need and obtain parental permission. In addition, the student had to have completed a physical examination by their pediatrician or primary care doctor as per the hospital's requirements.

As stated previously, the SEV interfaced with the school district in providing both transportation and job coaching for the five students with disabilities selected to participate in the program for this school year. The job coaching activities included placing each program participant with a corresponding job "sample" or rotation in the designated business or establishment. These five students with disabilities were provided with training, immediate feedback, and positive reinforcement for their work while at their job site to work towards completing their goals and objectives.

In addition, each program participant was provided with weekly feedback in the form of a written report, as well as a monthly summary. This report was shared with them and furnished to both the parent and the school, which was placed in the student's file. In addition to documenting student progress relative to the New Jersey Core Curriculum Content Standards, component workplace behaviors were rated daily and

qualitatively described based on the following dimensions: Program attendance, performance, attitude & motivation, peer interaction, and additional comments.

School-to-Work Program Overview, 2009-2010

During 2009-2010, all five program participants worked at a hospital in central New Jersey. Participants were required to attend a hospital-held training prior to beginning their hands-on experience. Following the completion of this training, which included a safety issues and HIPAA seminar regarding the privacy rights of patients, the program participants were given clearance to obtain supervised work experience in this setting. The program dates for this supervised experience were from October 12th, 2009-May 7th, 2010.

Students received academic instruction during the morning of each school day as per their school schedule. Following their lunch after 12pm each day, they departed into the workplace for the remainder of the school day. In addition, students attended a workshop twice per month and were provided feedback regarding their performance, tying the workplace experience into the classroom setting. They also met regularly with the Transition Coordinator for additional counseling or miscellaneous follow-up items related to their internship experiences. A weekly description of the program activities for the 2009-2010 school year is listed next.

Weekly Program Activities Description, 2009-2010

Week 1 of the program for the five program participants began on October 12th, 2009. The program participants were shadowed and assisted by the job coaches at the hospital. The students worked in the main lobby during this first week (10/12-10/16), which included greeting hospital guests, directing them to the information desk, bringing

wheelchair patients to various places within the hospital, and keeping the area clear of wheelchairs that are left from patients that are discharged.

During Weeks 2 and 3 of the program (10/19-10/30) the five program participants were assigned to the human resources department in the hospital. The participants applied labels and employee numbers to folders for approximately 5,000 employees. The program participants were assisted by their job coaches and provided feedback by hospital staff when needed.

The participants spent time in Weeks 4 and 5 (11/9-11/20) in the receiving department at the hospital. The responsibilities in this department included removing/crushing empty boxes, gathering requested inventory off the shelves, and delivering orders throughout the hospital. The program participants were expected to fill weekly orders for the various departments of the hospital, deliver them, file and stock them. They were also expected to empty the garbage cans into the hospital dumpsters.

The participants were assigned to the Executive Health Department for Weeks 6 and 7 (11/23-12/4). During this rotation the participants were oriented to the department and were explained the duties of the staff there. The responsibilities included writing out reminder cards, running errands from the Clinical Academic Building to the main hospital building, and inputting data into a computer.

During Weeks 8 and 9 (12/7-12/21), the program participants worked in the Receiving and Community Education Departments. While in the Receiving Department, the participants wrote down orders and delivered them to other hospital departments. In the Community Education Department, envelopes were labeled, sorted, and deployed for

mailing. Following the conclusion of Week 9, the school district dismissed students for winter recess.

The program resumed in Week 10 on January 4th, 2010 (1/4-1/8) and participants continued in the Receiving Department. This week they picked orders, staged them for deliveries, delivered them, stacked boxes, and emptied the trash containers.

Participants volunteered both in the gift shop and in Community Education for Week 11 (1/11-15/2010). In the gift shop, the participants stocked greeting cards by learning to find the appropriate fixture and pocket numbers. They also assisted the store manager in organizing cans of soda in the backroom. While in the Community Education Department the participants would assist the department in mailing, such as putting newsletters in envelopes.

Participants continued in the gift shop during Week 12 (1/19-22/2010). The overview of the expectations this week included preparing earrings to be stocked on the shelves; stocking greeting cards; sodas and candy; marking prices on picture frames; packaging materials; and inflating balloons. Following their work in the gift shop, participants went to the SEV's office later in the week to perform job searches and fill out job applications to various employers to seek potential employment following their graduation.

The program resumed during Week 14 on February 1st (2/1-2/5) due to midterm examinations that were scheduled during Week 13 (1/25-1/29). During Weeks 14 and 15 (2/1-2/12), program participants continued to work in the Receiving department. Here they picked orders off the shelves in accordance with the order sheets sent down by various departments, and then delivered the orders to those departments.

The participants were trained in the hospital's finance department during Week 16 (2/15-2/19). At this department they opened envelopes and organized large volumes of various company invoices alphabetically. They were followed closely by the job coaches as they transitioned to this new department within the hospital.

The participants again began work at a new department during Week 17 (2/22-26), the Employee Health building. The job duties of this assignment included entering vaccination records into a database. They would look up each name alphabetically, find them in the system, and entered the date each employee was vaccinated.

The participants entered another new department, the 4 West nurse's station, during Week 18 (3/1-3/5). At this station, participants would be in charge of answering the phone calls at the front desk. When the phone rang, the base would light up with the room number and bed number. When a call came in, participants were trained to pick up the receiver and greet the patient who was calling. The patient would communicate to the participant what their needs were, and then check on the dry erase board at the station to see which nurse worked with that patient. The participant would then find the nurse and relay to them the patient's need. Miscellaneous tasks were also involved, such as running down to the store room to pick items that were ordered, as well as cleaning up any food trays that may have been seen when entering a patient's room.

The next rotation for the participants came in Weeks 19 and 20 (3/8-3/19) in the Medical Administration department. The job duties in this department included alphabetizing physician's documents and ensuring that all documents are hole-punched so that they may be filed later. Then the participants filed a physician evaluation in a filing cabinet.

During Week 21 (3/22-3/26), the program participants were assigned to Employee Health and Medical Administration. The school calendar this week was scheduled for three half-days so the students only visited their job assignments on two days. At this point in the year, the program participants were expected to be able to input data and file evaluations independently. Job coaches still assisted them when needed.

The program was dismissed for Week 22 due to the school district's spring break. Participants were next assigned to Employee Health during Week 23 (4/5-4/9). This week employee records were updated to reflect the date that each was administered the H1N1 vaccination. Each participant was required to input a stack of forms into the computer data base. Additionally, some participants were required to generate a list of employees who still had not received the vaccination. Job coaches and hospital staff assisted the students on the technical aspects of this task.

The program participants were assigned to Employee Health, Human Resources, and Receiving during Weeks 24 and 25 (4/12-4/23). While at Employee Health, the participants continued their job of inputting the H1N1 employee records into the data base. While in the Human Resources Department, the participants assisted the clerical workers with both mailings and copying duties. The participants worked on filling weekly orders for different departments in the hospital while in the Receiving Department.

The program participants rotated between Human Resources and Receiving Departments during the final two Weeks of the program (4/26-5/7). Program participants were supervised to ensure that tasks were being completed correctly. During this task, oversight was given to the participants to ensure that the correct items were being pulled

and the delivery cart was organized while over at the Receiving Department. This concludes the activities for the 2009-2010 Program Participants.

Participant Performance Reviews

Following both Week 9 and Week 27, the School-to-Work Internship Pilot Program participants received their mid-year (October-December) and final performance reviews. The performance reviews were developed by the SEV partner agency. Each of the School-to-Work program participants' performances were graded individually based on the dimensions listed in Table 2.

Table 2. School-to-Work Participant Mid-Year and Final Performance Reviews

Rating Dimension	Description
Work Quantity	The amount of tasks assigned and completion/thoroughness
Work Quality	The accuracy of the tasks completed by the participant
Work Habits	Follow through, initiative, reliability, orderliness, punctuality/attendance, and company loyalty
Interpersonal Relationships	Teamwork, stability, interaction with supervisors, and customer service
Adaptability	Responsiveness and flexibility
Health and Safety	Observing safety and security procedures

School-to-Work Program Overview, 2010-2011

Similar to the previous cohort, the 2010-2011 School-to-Work Internship students received academic instruction during the morning of each school day as per school schedule. Following their lunch after 12pm each day, they departed into the workplace

for the remainder of the school day. Again, twice per month students remained in the classroom and were provided feedback regarding their performance and were provided with a skills workshop or lesson pertaining to their work experiences.

However, this cohort differed from the 2009-2010 cohort in several important ways. First, seven students entered the program for the 2010-2011 school year, versus five from the previous year. Second, the program spanned 35 weeks of work site experience and bi-monthly classroom workshops, which was eight weeks longer in duration than what the previous cohort received. Lastly, several other job sites in the local community were developed by the SEV in partnership with the school. Therefore, the 2010-2011 cohort differed from the previous cohort by benefitting from these other experiences, in addition to the hospital experience that was offered to the previous cohort.

These new job sites included:

- A local diner
- An assisted living facility
- The community food bank
- The town's public library
- A local preschool
- A local café
- A local supermarket
- A local retail store

A description of these locations is listed in Figure A3 in the Appendix.

Weekly Program Activities Description, 2010-2011

The first Week of the program for the 2010-2011 cohort began on 9/13/2010 (9/13-9/17). For this first week, program participants were shadowed by their job coaches at a diner in central New Jersey. The job duties and expectations of the participants at this location included picking up waste inside and outside, as well as cleaning tables and the outside windows/chrome siding.

During Week 2 (9/20-9/24), participants received supervised experience at the assisted living facility. While at this facility the participants interacted with the residents and helped them with cosmetics, arts and crafts, and card game activities. There was also an on-site gift shop which they helped to clean and organize.

Participants continued at the assisted living facility for the first two days of Week 3 of the program (9/27-10/1). By mid-week the program participants rotated to the community food bank. There the participants checked expiration dates on incoming food, sorted the food onto shelves, prepared donation bags, and interacted with food bank staff.

The participants continued at the community food bank during Week 4 (10/4-10/8). While there their task was to sort through the donated foods and check the expiration dates and overall condition of the items. They were instructed how to sort the items and interact appropriately with the staff. During the latter part of the week the participants rotated back to the assisted living facility. They worked with the activities department and helped prompt the residents to engage in both games and crafts.

During Weeks 5 and 6 (10/11-10/22), the participants continued at the assisted living facility for the first days of each week. The participants were given the

opportunity to teach the residents new games, assist them in games they already knew how to play, such as horseshoes and kick-ball, and also helped prepare their meals. The participants then worked at the hospital setting for the last three days of each week. For this phase of the program they worked in the Receiving Department where they filled weekly hospital department orders and delivered them. During the classroom-based workshop in Week 6, participants worked in focus groups to enhance their vocational and interpersonal skills, as facilitated by the Transition Coordinator and the SEV.

Week 7 featured an abbreviated three-day week (11/1-11/3) due to school district holiday. The participants worked in the Receiving Department at the hospital for these three days. They also continued their work in the Receiving Department during Week 8 (11/8-11/12). Independence with carrying out deliveries and interacting with the department staff was expected by this point.

During Weeks 9 and 10 (11/15-11/24), the program participants were placed at the assisted living facility for both weeks. At the facility the participants played card games, painted resident's nails, and helped the staff with housekeeping tasks such as laundry and clean up. Some of the program participants also attempted to teach the residents how to play some of the video games located in the facility. Week 10 was a shortened week (3 days) due to Thanksgiving recess.

During Week 11 (11/29-12/3), program participants alternated between the assisted living facility and the town's public library. While at the library they organized the fiction books according to card catalogue number. They would also place labels accordingly on the shelves in the archives section of the library. There, the participants learned to use a labeling machine.

The program participants were placed at the town's public library and food bank during Weeks 12 and 13 (12/6-12/17). Additional responsibilities learned at the public library included learning some functions of a computer software program and finding Christmas puzzles and literature for library patrons. The food bank tasks continued to consist of unpacking and sorting food donations.

Week 14 (12/20-12/23) was the final week before the 2010-2011 winter recess. The participants continued their work at the food bank and public library. At the library the participants learned to properly organize the magazines, find newspaper articles related to the town and place them in folders, and finding duplicate reference books in the reference section and placing them on carts for the librarian to file them. They would also check several dozens of donated children's books using the computer database to determine whether the library carried the specific books.

Week 15 of the program resumed on January 3rd, 2011 (1/3-1/7/2011). Program participants alternated between the food bank and public library. While at the food bank the participants sorted through donated foods checking expiration dates, placing the unexpired foods onto the shelves, and putting the expired foods in the recycle bins. On another day they bagged bagels and handed them out to patrons. While at the public library the participants used the computer database to search through old obituaries to be documented.

During Week 16 (1/10-1/14), the participants began working at a new site, a local Montessori school. At the school the participants learned to help the nursing staff record children's immunization records. For the latter part of the week the participants worked

at the assisted living facility and helped the residents complete worksheets pertaining to a horse racing event.

Week 17 (1/17-1/21) featured only two days as the district was closed for a Monday holiday and two days were cancelled due to inclement weather. Both days of this week were spent at the Montessori school. On one day the participants continued the task of updating the children's immunization records, while on the other day they helped organizing the board games for the children and ensured that all game pieces were accounted for.

Week 18 (1/24-1/28) was also another shortened week because of inclement weather (one day) and in-district midterm examinations (two days). One day was spent at the Montessori school where the participants assisted the children cutting out letters of the alphabet from construction paper and pasting the cut out letters unto a piece of oak tag which was to be laminated. While at the assisted living center the participants played card games with the residents.

The program continued next on Week 19 (2/7-2/11). While at the food bank, the participants were required to count out a specific number of hygiene products, such as soaps, shampoos, lotions, etc., place them into bags, seal them, and then stock them for two days this week. The latter part of the week included work at a local café. Here, the assignments included loading and unloading the dishwasher and cleaning off tables. The participants were also required to put dishes within dish dispensers for patron use and cleaning the dining area, as well as fixing and folding tablecloths within the dining area for the next day's use.

For Week 20 (2/14-2/18) of the School-to-Work Internship Pilot Program the participants worked in a local retail store. Following a brief, one-day orientation, the participants were required to organize the clothes in the clearance section of the store. This task included checking the sizes of the clothes to make sure they were in the correct section and replacing the size indicators on the hangers as necessary. They were also responsible for maintaining the overall neatness of the clothes racks. On the final two days of the week the participants spent time at the gift shop department at the local hospital where they placed magazines on stands for sale and checked invoices of delivered items to ensure that they correspond with present items.

Participants rotated to three different locations during Week 21 (2/21-2/25). While at the local café the participants helped set tablecloths in the dining area. Another part of the week was spent volunteering at the hospital gift shop where they helped reorganize the beverage refrigerators and took inventory for the refrigerated items. During the latter part of the week, the participants worked at the retail store where they continued to organize various racks of clothes by size.

The participants alternated between the local café and hospital gift shop during Week 22 (2/28-3/3). While at the café the program participants set up decorations in one of the dining areas and cleaned trays following patron use. The assignments at the gift shop included blowing up balloons, organizing and restocking candy shelves, and transporting various gift orders to other locations within the hospital.

The participants continued at the local café as well as worked at the retail store during Week 23 (3/7-3/11). The participants were required to organize the men's and women's clothing racks while at the retail store. The responsibilities at the café included

cleaning trays after patron use and cleaning the counter tops that were used for serving. They also were required to sweep part of the dining room area.

The participants began training at a new location, a local supermarket, during Week 24 (3/14-3/18). The first task assigned to them was to bag customers' groceries. They learned how to organize items in an efficient manner and learned which items needed to be put in which place, i.e., meat had its own bag and bread and chips need to be with other fragile items. During the latter part of the week the participants rotated to the local Montessori school, where they cut and organized paper for the teachers. The participants continued their Montessori school assignment for Week 25 as well (3/21-3/25).

The participants had an abbreviated week for Week 26 (3/28-4/1) due to three district parent-teacher conferences resulting in a shortened day on those days. The two days spent in the program were at the community assisted living facility. There the participants engaged in various activities such as painting the nails of the residents and observing the therapists engage the residents in a therapy session.

The participants alternated between the assisted living facility and local Montessori school during Week 27 (4/4-4/8). While at the school the filing cabinets were rearranged and the items were stacked accordingly. In addition, the participants helped to cut out "snack napkins" for the children during snack time.

Program participants spent one day at a workshop in the district and worked at the Montessori school for the remaining days during the 28th Week of the program (4/11-4/15). At this workshop the participants learned how to build a professional résumé as well as learn job interview skills. While at the Montessori school, the participants were

familiarized with the school computer program, organized paper folders for students, and glued one page lesson plans to the outside of the folders to assist each student in their school work.

The School-to-Work Internship Pilot Program continued on April 25th, 2011 following the district's spring break. The participants reconvened at the local retail site during both Weeks 29 and 30 (4/25-5/6). While there they ensured that the clothes were correctly organized by size and replaced the size indicators on the hangers when necessary. The participants also worked at the local café during part of Week 30 where their tasks included cleaning tablecloths and transferring them to another dining area, cleaning tables during dining session, and mopping/cleaning the restrooms.

The participants attended a voting workshop and worked at the hospital's gift shop during both Weeks 31 and 32 of the School-to-Work Internship (5/9-5/20). The participants learned about political participation when a speaker visited the school from the county board of elections. While at the hospital's gift shop they restocked and arranged the candy shelves, restocked the beverage refrigerator, and placed puzzle books on magazine stands located on the sales floor.

The program participants spent two days volunteering at the assisted living facility and three days at the local public library for Week 33 (5/23-5/27). At the assisted living facility the program participants cut out cardboard paper patterns and pasted pictures to them, in addition to interacting with the residents. At the library the participants learned how to organize the DVD section into category and numerical order.

The participants had a shortened week again during Week 34 (5/30-6/3) due to a school holiday and a presentation by a representative from a local bank. This presenter

discussed with the participants the roles and responsibilities of various positions held within a bank. For the remainder of this week the program participants were given the task of cleaning the windowsills in the local cafe, in addition to their other duties, such as maintaining a clean dining room area.

June 6th-10th, 2011 represented the final Week of the program (Week 35). Here the participants spent part of the week finishing their work at the assisted living facility. The remaining days of the School-to-Work Internship Pilot Program were spent in the classroom wrapping up their year-long experience with the Transition Coordinator and SLE Coordinator. The participants reflected on the experiences that were meaningful and closure was brought to the program for the 2010-2011 school year.

Participant Performance Reviews

Following Week 14 and Week 35, the School-to-Work Internship Pilot Program participants received their mid-year (October-December) and final performance reviews. The performance reviews of the School-to-Work program participants remained the same as listed in Table 2. This concluded the program implementation for both sets of cohorts. A brief description of the program monitoring phase follows.

Program Monitoring

The Transition Coordinator and SLE Coordinator shared responsibilities with periodically monitoring student performance at their respective job site locations. Teachers and support personnel within the school district worked together during the course of each school year to monitor student progress with respect to normal course load along with the demands of the School-to-Work Internship Pilot Program. SEV personnel provided day-to-day monitoring of student performance and communicated regularly

with the Transition Coordinator and SLE Coordinator. As stated previously, individualized weekly reports were issued to the students by the SEV and overall performance reviews were disseminated bi-annually. The Transition Coordinator met with district administration regularly to provide feedback regarding the programs operations. Family support was secured and written communication was established on a regular basis. The monitoring data allowed for an ongoing program evaluation to take place.

Program Evaluation

The school and SEV personnel conducted bi-monthly administrative review meetings to discuss, monitor, and adjust program operations. Finally, daily observations of student performance were then supplemented with a comprehensive review and assessment of work performance each month. In addition, bi-annual participant performance reviews were documented as described previously. For program evaluation purposes, both student participants and parents were given the opportunity provide their own feedback on program operations. All written feedback was analyzed on an ongoing basis in an effort to maintain and improve upon the existing program. This concludes the description of the program model (See Figure 3). The study questions for this research are stated in the next section.

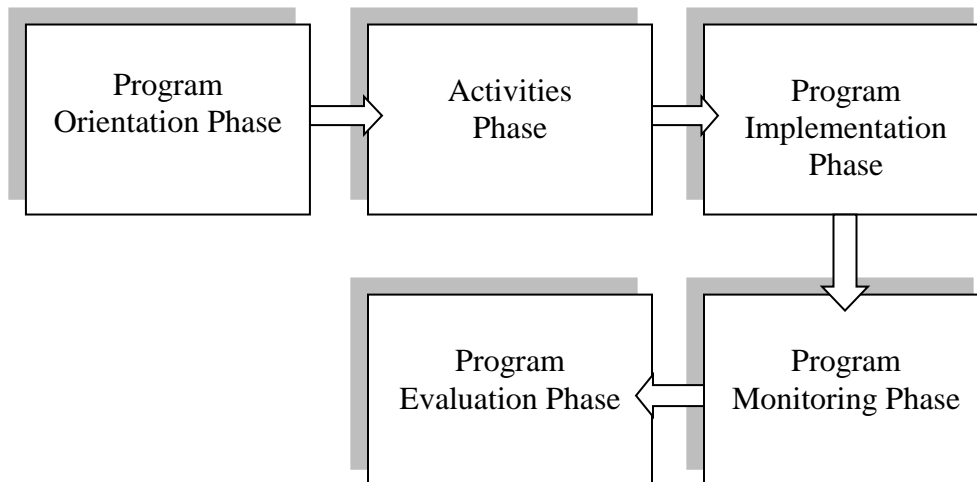


Figure 3. Program model

Study Questions

The current study is aimed at addressing the following:

1. How do participants in the School-to-Work and Case Control groups differ in terms of gaining and sustaining post-secondary employment?
2. How do participants in the School-to-Work and Case Control groups differ in terms of post-secondary education enrollment?
3. How do participants in the School-to-Work and Case Control groups differ in terms of how they report their employment experiences with respect to job knowledge/production skill, socialization/emotional coping skills, trainability/task flexibility, dependability, and motivation/job satisfaction?
4. How do participants in the School-to-Work and Case Control groups differ in terms of how they report their quality of life with respect to life satisfaction, competence/productivity, empowerment/independence, and social belonging/community integration?

CHAPTER 3

Methods

Participants

Participants targeted for this study were 36 individuals with special needs who graduated from a high school in central New Jersey during the 2009-2010 (Cohort 1) and 2010-2011 (Cohort 2) school years. Of these 36 individuals with special needs, 12 received the training in the School-to-Work Internship Pilot Program and 24 individuals were matched controls who did not.

The high school is located in a mixed-income school district containing students of various cultural and economic backgrounds. The district's racial and ethnic student population is approximately 19% White, 21.7% Hispanic, 40.75% African American, and 18.55% Asian. All participants were at least 18 years of age at the time of recruitment for this study. Rutgers University Institutional Review Board approval has been secured prior to the data collection for this study. The school district has also approved this present study and has permitted access to school records. Informed consent was obtained and all identifying information regarding the participants has been kept confidential.

Across the two cohorts, the School-to-Work Internship Pilot Program participants include 12 students (6 males, 6 females) who completed a School-to-Work Internship Pilot Program and graduated during the 2009-2010 and 2010-2011 school years. These program students were previously selected by the school district and agreed to participate in the program using the following eligibility criteria:

- Student must be a special education student with a current Individualized Education Program (IEP).

- Student must demonstrate preference and motivation to learn more about the workforce according to transition surveys collected by the school district.
- Student's academic and/or cognitive functioning is estimated to fall significantly below age and grade expectations. This was determined by child study team testing records that estimate student functioning to fall at least one standard deviation below the mean in at least one academic and/or cognitive domain, or by functional observation data or academic progress reported by a certified special education teacher suggesting such an impairment relative to non-disabled peer performance.
- Student's attendance and discipline records must be satisfactory. Specifically, students must not accrue over 18 absences over a full school year and must not have received any notices of suspension for disciplinary conduct, as per school policy.
- Fulfillment of all New Jersey State graduation requirements with the exception of 1 year of English and Physical Education by start of senior year.
- Students have been recommended by their child study team case manager to participate.

Participant Selection and Recruitment Procedures

A central school database contained each of the participants' contact information, including home phone and cell phone numbers. In addition, an emergency contact was

often listed such as a friend, relative, or neighbor. The Principal Investigator (PI) utilized this database to access this contact information.

Thirty six students were identified to be recruited for participation in this study. However, a total of 24 ultimately participated as research subjects. The PI's efforts to contact participants began in July, 2011 following Rutgers University IRB approval. The first wave of participants contacted for the study belonged to the 2009-2010 graduating class, approximately one year following their high school graduation. The second wave of participants, the 2010-2011 graduating class, was contacted in December, 2011. This was between five and six months post-graduation.

Nearly every participant who was able to be reached by phone consented to participate in the study. One participant from the 2009-2010 Cohort agreed initially then declined participation after follow-up efforts were made. The remaining participants who were targeted for participation in the study but did not were due to the following reasons:

1. The phone number(s) listed in the school's data base was disconnected ($n = 2$);
2. The phone number(s) listed in the school's data base was incorrect/changed ($n = 7$);
3. The phone number(s) listed in the school's data base was correct, but a message could not be left or the participant never returned the PI's phone call ($n = 2$).

Every attempt was made to secure all 36 graduates' participation in the study, including multiple phone calls when necessary (see Figure 4).

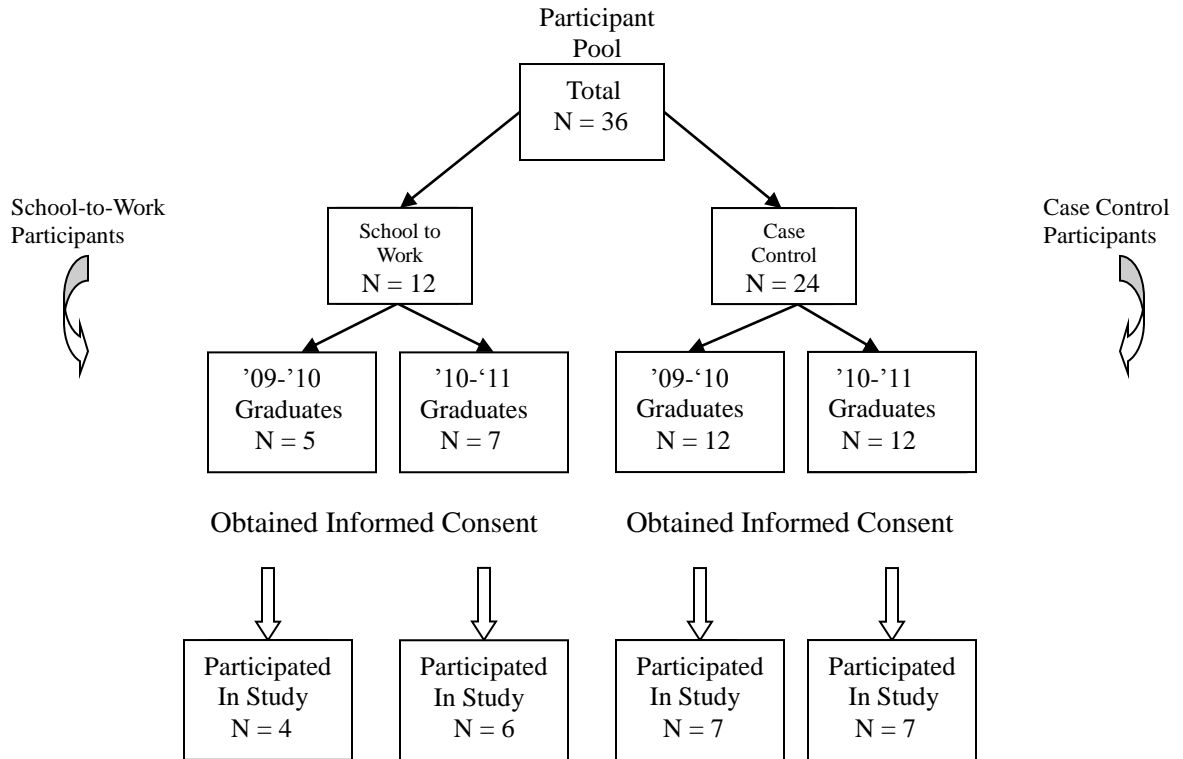


Figure 4. Flow chart of participants

Although the present study was not a randomized experimental study, participants for the Case Control students were matched to the School-to-Work Internship Pilot Program cohorts. These two groups of students were very similar to one another, with the exception of participation in the School-to-Work program. Therefore, this study was a quasi-experimental evaluation study of the School-to-Work internship program. The matched control student cohort was selected from a larger pool of a total of 95 special education student graduates. Specifically, there were 46 special education students who graduated during the 2009-2010 school year and there were 49 special education students who graduated during the 2010-2011 school year. The 24 Case Control participants across the two academic years also met the above criteria for the School-to-Work program but did not participate in the program.

The Case Control participants were matched as closely as possible to the program students in terms of age, gender, family income (economically disadvantaged vs. not economically disadvantaged), child study team testing (i.e., intelligence and learning evaluations), and New Jersey State Assessment (i.e., High School Proficiency Assessment) standardized test scores. The matched control students have graduated across the two school years (see also the Descriptive Statistics, Matched Variables, and Participant Matching Outcomes sections). Of the 24 Case Control potential participants, a total of 14 individuals (9 males and 5 females) participated in the current study.

All potential participants were contacted by phone to participate in this study. In addition to being high school graduates, all participants were 18 years of age or older at the time that they were contacted to participate in the study. Participation in the study was described clearly to each participant as being entirely voluntary. Each participant was offered the choice to have the informed consent form read to them over the phone and provide their consent orally, or be given the opportunity to have the informed consent form read to them in person by the principal investigator. All participants preferred to have the informed consent read to them over the telephone.

The purpose of the study, as well as all procedures, risks, benefits, participant compensation, and statement of confidentiality, was discussed prior to obtaining informed consent. Participants were made aware that they were participating in a research study and not receiving a phone call on behalf of the school district.

The participants were informed that the entire phone call would take approximately 45 minutes to 1 hour. As compensation for their time to participate in this study, all participants were informed that they would automatically be entered into a

raffle for three \$25 gift cards to a local supermarket following the completion of the data collection. Participants were also informed that they were not required to complete the survey or answer each question in order to be eligible for the drawing. The recipients of these three gift cards were selected at random.

To protect confidentiality, a unique numeric identifier was assigned to each participant. All participants were identified only by using the numeric identifiers. Identifying information (e.g., e-mail address, telephone number) was not electronically recorded. The PI was trained in confidentiality issues and has successfully completed the Rutgers University Human Subjects Certification Program.

Descriptive Statistics

Age. There were 10 participants who participated in the school to work program in this study. The mean age of these participants was 19.2 years ($SD = 1.32$). There were 14 participants who participated as Case Control subjects in this study. The mean age of these participants is 19.07 years ($SD = 0.73$). The mean age for the total sample was 19.13 years ($SD = 0.99$).

Gender. Of the School-to-Work Participant sample there were five females (50%) and five males (50%). Of the Case Control participant sample there were five females (35.7%) and nine males (64.3%). Overall, for the total sample there were 10 females (41.7%) and 14 males (58.3%) who participated in the study.

Ethnicity. Three of the School-to-Work participants were White (30%), six were African American (60%), and one was Asian (10%). Seven of the Case Control participants were White (50%), four were African American (28.6%), two were Hispanic (14.3%), and one was Asian (7.1%). Overall, for the total sample ten participants were

white (41.7%), ten were African American (41.7%), two were Hispanic (8.3%), and two were Asian (8.3%). Due to the small sample size of this study, ethnicity was dichotomized to indicate 1 = White; 0 = All other ethnic groups.

Economically disadvantaged. None of the individuals who participated in the School-to-Work Internship Pilot Program were economically disadvantaged. One of the individuals from the Case Control participant group was economically disadvantaged (7.1%). Overall, for the total sample only one of the 24 study participants was economically disadvantaged (4.2%).

Matched Variables

Intelligence Quotient (IQ). The IQ scores were measured by the Wechsler Intelligence Scale for Children-Fourth Edition (Wechsler, 2004). These scores were entered into the data base with numeric descriptors of performance instead of the standardized scores. This was, in part, because some of the records do not indicate the actual standardized score; often times reports by examiners just state specific phrases such as ‘Average’, ‘Borderline’, etc. For instance, intelligence quotient (IQ) scores were coded in the following way: 1 = *extremely low*, 2 = *borderline*, 3 = *low average*, 4 = *average*, 5 = *high average*, 6 = *superior*, 7 = *very superior*.

The mean IQ score for the School-to-Work Participants was 2.20 ($SD = 0.92$), which was between Borderline and Low Average ranges. The median and mode IQ scores were in the Borderline range. The mean IQ score as measured by the Wechsler scales for the Case Control Participants was 2.92 ($SD = 1.07$), which approached the Low Average range (see Figure B1). The median IQ scores were considered Low Average and the mode IQ was Average. The mean IQ score as measured by the Wechsler scales for

the total sample was 2.65 ($SD = 1.06$), which was between the Borderline and Low Average ranges. The median and mode IQ's were in the Borderline range. The difference between the two groups in terms of IQ was not statistically significant, $F(1, 22) = 3.02$, $p = 0.096$.

Woodcock-Johnson III. Similar to the IQ scores, the participants' Woodcock-Johnson III (McGrew & Woodcock, 2001) scores were entered into the data base with numeric descriptors of performance instead of the standardized scores. These standardized scores were also coded in a similar way: 1 = *very low*, 2 = *low*, 3 = *low average*, 4 = *average*, 5 = *high average*, 6 = *superior*, 7 = *very superior*.

Woodcock-Johnson III: Reading. The mean Woodcock-Johnson III Reading score for the School-to-Work Participants was 1.7 ($SD = 0.82$), which was between the Very Low and Low ranges of achievement. The median Reading score was between the Very Low and Low ranges, while the mode Reading score was in the Very low range. The mean Reading score as measured by the Woodcock-Johnson III for the Case Control Participants was 2.57 ($SD = 1.02$), which was between the Low and Low Average ranges of achievement (see Figure B2). The median Reading score was between the Low and Low Average ranges, while the mode Reading score was in the Low range. The mean Reading score as measured by the Woodcock-Johnson III was 2.21 ($SD = 1.02$) for the total sample, which approached the Low range of achievement. The median and mode Reading scores were in the Low range. The difference between the two groups in terms of the Woodcock-Johnson III, Reading scores was statistically significant, $F(1, 22) = 4.99$, $p = 0.04$.

Woodcock-Johnson III: Mathematics. The mean Mathematics score as measured by the Woodcock-Johnson III (McGrew & Woodcock, 2001) was 1.9 ($SD = 1.07$) for the School-to-Work Participants, which was on the borderline of the Very Low and Low ranges of achievement. The median Mathematics scores were in the Low range while the mode Mathematics score was in the Very Low range. The mean Mathematics score as measured by the Woodcock-Johnson III was 2.21 ($SD = 0.89$) for the Case Control Participants, which was in the Low range of achievement (see Figure B3). The median and mode Mathematics scores were also in the Low range. The mean Mathematics score as measured by the Woodcock-Johnson III was 2.08 ($SD = 0.93$) for the total sample, which approached the Low range of achievement. The median and mode Mathematics scores were in the Low range. The difference between the two groups in terms of the Woodcock Johnson III, Mathematics scores was not statistically significant, $F(1, 22) = 0.658, p = 0.43$.

High School Proficiency Assessment (HSPA)-Language Arts. The mean High School Proficiency Assessment (HSPA)-Language Arts score was 168.1 ($SD = 23.26$) for the School-to-Work Participants, which was, on the average, below the acceptable proficiency threshold of 200. The mean High School Proficiency Assessment (HSPA)-Language Arts score was 166.64 ($SD = 20.66$) for the Case Control Participants, which was, on the average, below the acceptable proficiency threshold of 200 (see Figure B4). The mean HSPA-Language Arts score was 167.25 ($SD = 21.30$) for the total sample, which was, on the average, below the acceptable proficiency threshold of 200. The difference between the two groups in terms of the HSPA-Language Arts scores was not statistically significant, $F(1, 22) = 0.026, p = 0.87$.

High School Proficiency Assessment (HSPA)-Mathematics. The mean High School Proficiency Assessment (HSPA)-Mathematics score was 163.3 ($SD = 10.76$) for the School-to-Work Participants, which was, on the average, below the acceptable proficiency threshold of 200. The mean High School Proficiency Assessment (HSPA)-Mathematics score was 164.93 ($SD = 10.65$) for the Case Control Participants, which was, on the average, below the acceptable proficiency threshold of 200 (see Figure B5). The mean HSPA-Mathematics score was 164.25 ($SD = 10.49$) for the total sample, which was, on the average, below the acceptable proficiency threshold of 200. The difference between the two groups in terms of the HSPA-Mathematics scores was not statistically significant, $F(1, 22) = 0.135, p = 0.72$.

The results indicated that participants from the School-to-Work program did not differ by Wechsler Full Scale IQ, Woodcock Johnson III-Mathematics, High School Proficiency Assessment-Language Arts, or High School Proficiency Assessment-Mathematics scores. However, the two groups differed with respect to the Woodcock Johnson III-Reading scores: School-to-Work Participants scored, on average, between the Very Low and Low ranges of achievement, whereas the Case Control Participants who scored, on average, between the Low and Low Average ranges of achievement. Overall, these results suggest that the two groups were generally similar with respect to their cognitive and school performance variables, but the Case Control participants scored significantly higher on a standardized educational evaluation of reading when compared to the School-to-Work Participants (see Appendix B for more information).

Participant Matching Outcomes

A chi-square analysis was employed to analyze the dichotomous variables in this study such as age (< 20 year olds vs. 20+ year olds), graduation year (2010 vs. 2011), gender (male vs. female), ethnicity (white vs. cultural minority), and economically disadvantaged (economically disadvantaged vs. not economically disadvantaged) in order to draw conclusions of independence. An alpha level of $p < .05$ was selected as the cut-off criterion for significance. The results indicated that participants from the School-to-Work program did not differ from the Case Control students in terms of age, $X^2(1, N = 24) = 0.006, p = .94$; graduation year, $X^2(1, N = 24) = 0.235, p = .63$; gender, $X^2(1, N = 24) = 0.490, p = .48$; ethnicity, $X^2(1, N = 24) = 0.960, p = .33$, or economically disadvantaged, $X^2(1, N = 24) = .756, p = 0.385$. These results suggest that the two groups were similar with respect to demographic variables.

Data Collection Procedures

Following the administration of the surveys to the participants, the data was entered into a database (*Microsoft Excel*) with numeric identifiers for subjects. All participants were assigned a numeric identifier and all the qualitative data was coded (i.e., If *male* = 1; if *female* = 0), as stated previously. The variables included demographic variables, aptitude and achievement variables, education variables, work experiences, and life satisfaction/well-being.

Demographic Variables

The demographic variables included age, gender (1 = *males*; 0 = *females*), family income reported by school records (1 = *economically disadvantaged*; 2 = *not economically*

disadvantaged), and ethnicity (1 = *White*, 2 = *African American*, 3 = *Latino/Hispanic*, 4 = *Asian*). These variables were determined by school records.

Aptitude and Achievement Variables

The aptitude and achievement variables included IQ scores, Educational Evaluation scores, and standardized educational achievement test scores (i.e., High School Proficiency Assessment (HSPA-Language and HSPA-Mathematics); administered by the school during March of each student's 11th grade year). These variables were determined from school records (see also the Matched Variables section).

Education Variables

The education variables included school-based training, i.e., membership in the School-to-Work Internship Pilot Program (1 = *yes*, 0 = *no*) and Educational status/attainment (1 = *high school diploma only*, 2 = *enrolled in technical school*, 3 = *enrolled in college/university*). A technical school is defined as any post-secondary training and certificate program that teaches mechanical and industrial arts, as well as the applied sciences. These three variables were chosen from three items selected from the National Longitudinal Study of Youth 1997 survey (NLSY97; Shandra & Hogan, 2008).

Work Experiences

Participants' job knowledge/production skills, socialization/emotional coping skills, trainability/task flexibility, dependability, and job motivation/satisfaction were analyzing using 33 items from the Employment Expectation Questionnaire, Short Form (EEQ; Millington, Leierer, & Abadie, 2000). Participants were read short statements related to activities that are common at the workplace (i.e., report to work on time), and are asked to appraise their ability in that particular area. The content of the questionnaire

measured participant job knowledge, skills, abilities, socialization, coping skills, task flexibility, dependability, motivation, and job satisfaction. Participant responses were scored on a 1-5 scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Scores were summed within each domain to produce a total score. Scores range from 33-165. The EEQ has been appraised by employers as being valid when evaluating the performance of employees with disabilities (2000). Cronbach's alpha (an estimate of internal consistency) for this study on the total score of this measure was .81.

Life Satisfaction/Well-Being

Lastly, participants were assessed on their self-reported attitudes on life satisfaction. The Quality of Life Questionnaire (QOL; Schalock & Keith, 1993) is a 40-item questionnaire that reflects the feelings and attitudes that the participants have about their well-being. Four specific domains of well-being were measured, which included Satisfaction, Competence/Productivity, Empowerment/Independence, and Social Belonging/Community Integration.

Each item used a 3-point scoring system that is printed on the Questionnaire form. When the respondent completed the questionnaire, the item score was the point value indicated on the questionnaire form. The QOL has four subscales, each with ten items. The score for each psychometric scale can range from 10 to 30. Higher scores reflect more satisfaction, more competence/productivity, more empowerment/independence, and more social belonging/community integration.

The norms of this instrument were based on the sample of 552 individuals with disabilities aged 15-55. When the QOL was developed the internal reliability for the entire instrument was .90. Inter-rater reliability for the total score was .83 between

informants and .73 between informants and respondents. Finally, the test-retest reliability for the total score was .87 and the measure showed strong external validity (Schalock & Keith, 1993). Cronbach's alpha for this present study for the Life Satisfaction, Competence/Productivity, Empowerment/Independence, and Social Belonging/Community Integration subscales were .73, .90, .65, and .63, respectively. Only these subscales were reported because the QOL total score had a low Cronbach's alpha.

Analytic Plans

Data on all measures, including the participant training experiences, work experiences, and life satisfaction were examined for outliers and corrected for data entry errors when applicable. Descriptive findings and inferential statistics were reported in this analysis. The results of this analysis are described in Chapter 4.

CHAPTER 4

Results

Group level data were analyzed using descriptive and inferential statistics on the variables listed in Chapter 3. In the study 10 subjects (41.7%) participated in the School-to-Work training program. Fourteen subjects (58.3%) participated as Case Controls. Means and standard deviations are reported descriptively throughout this chapter. Additionally, a chi-square analysis was employed to analyze the dichotomous variables in this study such as employment (employed vs. unemployed), full time employment (employed full time vs. not full time employed), and post-high school education status (enrolled in a post-secondary college/university or training program vs. high school diploma only). Lastly, *F*-tests were utilized to calculate the two-tailed probability differences in numerical outcome variables for the School-to-Work and Case Control Cohorts. These variables included employment duration (in months), time it took each participant to secure employment (in months), Employment Expectation Questionnaire total score, and the QOL domains of Life Satisfaction, Competence/Productivity, Empowerment/Independence, and Social Belonging/Community Integration. An alpha of .05 was used for all statistical tests and p values reported in this analysis.

Employment and Education Outcomes

Participants in the School-to-Work group did not differ significantly from the Case Control group with respect to securing Employment, $X^2 (1, N = 24) = 0.686, p = .408$. Four out of the 10 School-to-Work participants (40%) secured employment and eight out of the 14 Case Control participants (57%) did so. Participants in the School-to-Work group also did not differ significantly from the Case Control group with respect to

securing Full Time Employment, $X^2 (1, N = 24) = 0.046, p = .831$. All four jobs secured by the School-to-Work participants were full time and five out of the eight jobs secured by the Case Control participants were full time.

With respect to post-secondary education, of the 10 School-to-Work participants in this sample, three participants graduated high school and were not currently enrolled in a training program or a college/university (30%), three participants were currently enrolled in a training program (30%), and four participants were currently enrolled in a college/university (40%). Of the 14 Case Control participants in this sample, 12 participants graduated high school and were not currently in a training program or a college/university (85.7%). The remaining two participants were currently enrolled in a college/university (14.3%). In the total sample, 15 participants graduated high school and were not currently in a training program or a university (62.5%), six participants were currently enrolled in a college or university (25%), and three participants were currently enrolled in a training program (12.5%).

Unlike the employment status across the two groups that did not differ, participants in the School-to-Work group differed significantly from the Case Control group with respect to post-high school education enrollment, $X^2 (1, N = 24) = 7.726, p = 0.005$. The results indicate that while 70% of the School-to-Work participants obtained post-high school education, only 14.3% of the Case Control group did so, which was statistically significant. In other words, the probability of obtaining observed and expected counts of this magnitude are unlikely to occur by chance alone (see also Table 3).

Table 3. Chi-Square Analysis of Post-Secondary Status

Variable	X^2	School-to-Work ($n = 10$)	Case Control ($n = 14$)
Employment	0.686	40%	57.1%
Full Time Employment	0.046	40%	35.7%
Post HS Education	7.726*	70%	14.3%

* $p < .05$

Employment-Related Outcomes

Duration of employment. For the 12 participants in the total sample who secured full or part time employment, their mean duration of this employment is 7.5 months ($SD = 5.96$ months). Of the four School-to-Work Participants who have secured full time employment, the mean duration of current employment is 9.5 months ($SD = 6.03$; see Figure 5). Of the eight Case Control participants who have secured full or part time employment, the mean duration of current employment is 6.5 months ($SD = 6.07$). The difference in the duration of current employment between the two groups was not statistically significant, $F(1, 11) = 0.654, p = 0.438$.

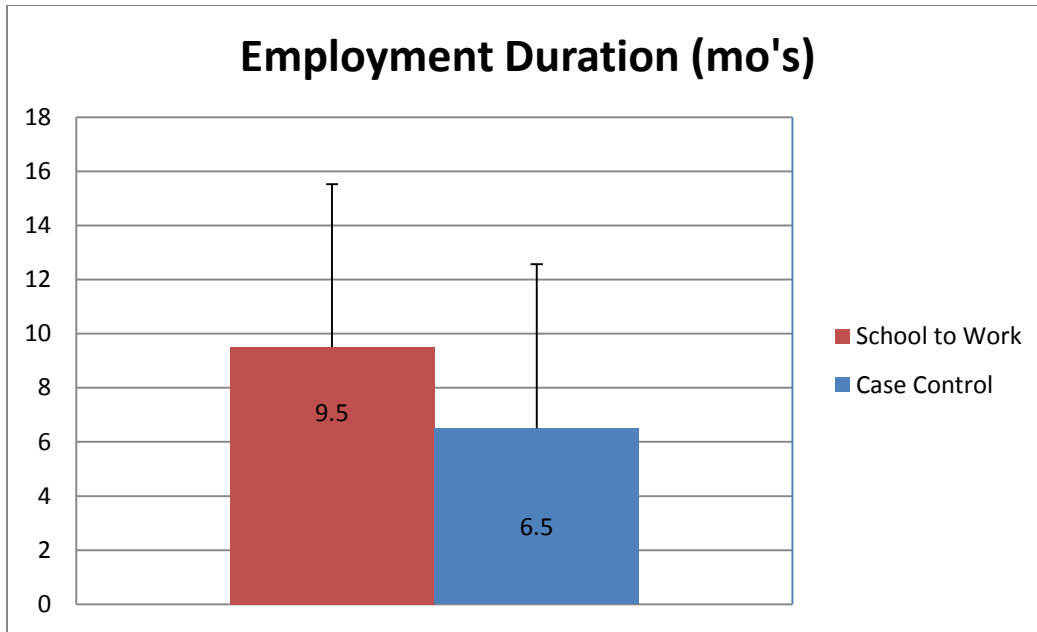


Figure 5. Duration of employment (in months). Error bars indicate standard deviations

Time needed to secure employment. For the 12 participants who secured employment, the mean duration of time it took each participant to secure full or part time employment following their graduation was 3.17 months ($SD = 2.86$). The mean duration of time it took the four School-to-Work Participants to secure full time employment following their high school graduation was 2 months ($SD = 1.83$; see Figure 6). The mean duration of time it took the eight Case Control Participants to secure full or part time employment following their high school graduation was 3.75 months ($SD = 3.2$). The difference in the time needed to secure employment was not statistically significant, $F(1, 11) = 1, p = 0.34$.

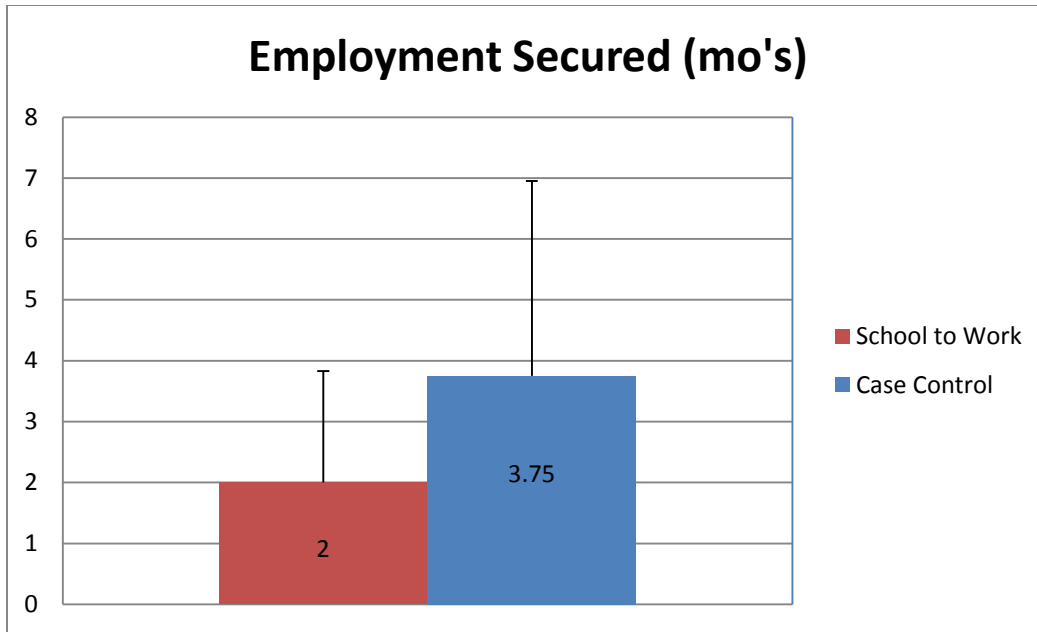


Figure 6: Time needed to secure employment (in months). Error bars indicate standard deviations

Employment expectation questionnaire (EEQ). All participants who reported to be working currently were administered the Employment Expectation Questionnaire (EEQ). As stated previously, the EEQ scores range from 33-165. The mean EEQ score for the 12 participants who secured employment in the total sample was 137.58 ($SD = 10.21$). The mean EEQ score for the four School-to-Work participants was 137 ($SD = 5.29$) and 137.88 ($SD = 12.31$) for the eight Case Control participants (see Figure 7). There was no statistical difference between the two groups, $F(1, 11) = 0.018$, $p = .896$.

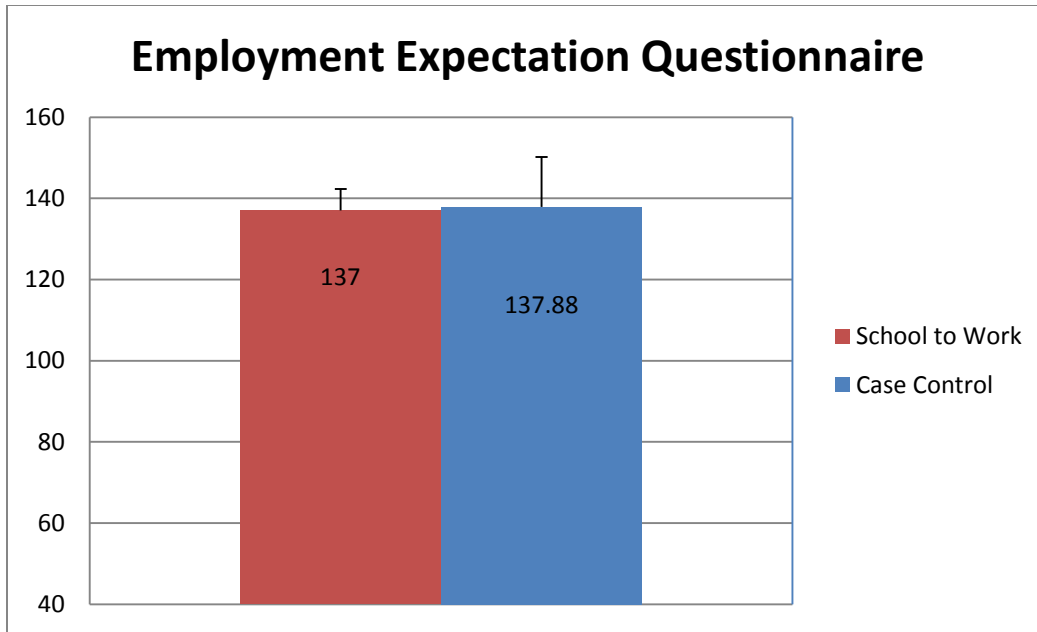


Figure 7: Results of the EEQ questionnaire. Error bars indicate standard deviations

Quality of Life (QOL) Outcome Measures

As described previously, The QOL questionnaire is composed of four subdomains: Satisfaction, Competence/Productivity, Empowerment/Independence, and Socialization/Community Integration. Scores on each subdomain ranged from 10 - 30.

Life satisfaction. The mean score for all ten School-to-Work participants on the Life Satisfaction subdomain was 23.8 ($SD = 2.62$). The mean score for the 14 Case Control participants on the Life Satisfaction subdomain was 22 ($SD = 3.57$; see Figure 8). The mean score for the entire sample on the Life Satisfaction subdomain was 22.75 ($SD = 3.27$). There was no statistical difference in life satisfaction across the two groups, $F(1, 22) = 1.826, p = .19$.

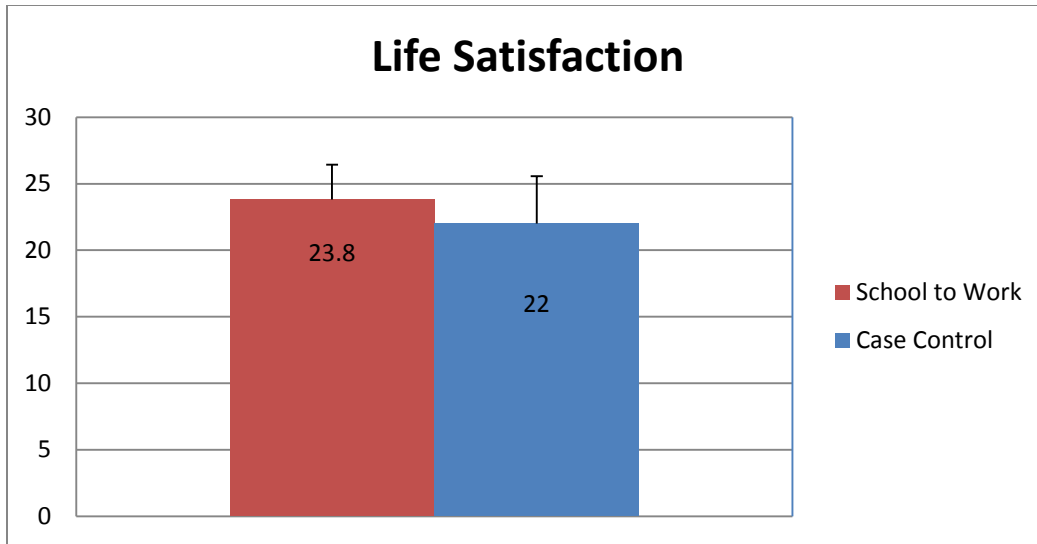


Figure 8: Results of the QOL; Life Satisfaction subdomain. Error bars indicate standard deviations

Competence/productivity. The mean score for the School-to-Work participants on the Competence/Productivity subdomain was 18 ($SD = 5.75$). The mean score for the Case Control participants on the Competence/Productivity subdomain was 16.86 ($SD = 5.74$; see Figure 9). The mean score for the entire sample on the Competence/Productivity subdomain was 17.33 ($SD = 5.65$). There was no statistical difference in competence between the two groups, $F(1, 22) = 0.231, p = .636$.

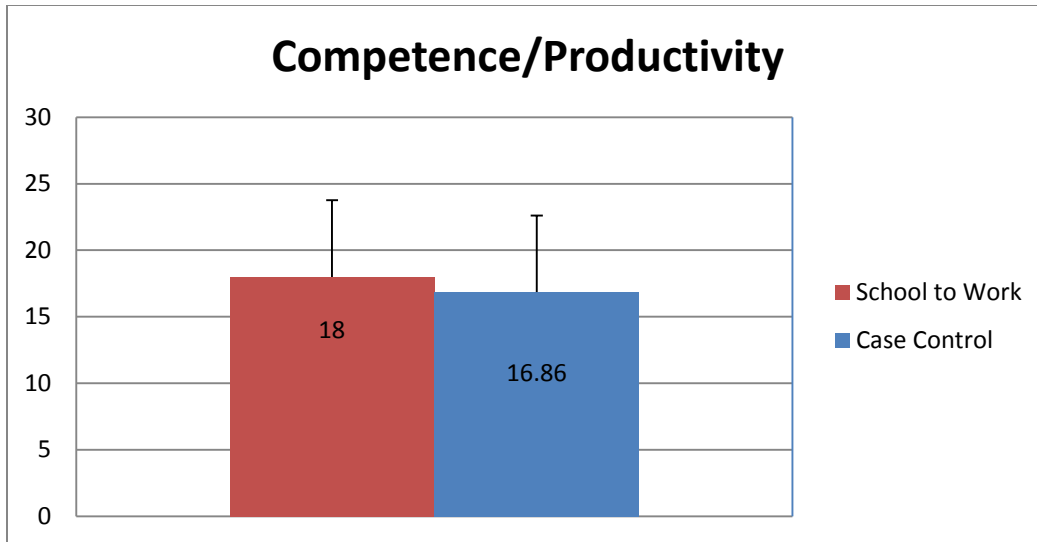


Figure 9: Results of the QOL; Competence/Productivity subdomain. Error bars indicate standard deviations

Empowerment/Independence

The mean score for the School-to-Work participants on the Empowerment/Independence subdomain was 24.8 ($SD = 2.86$). The mean score for the Case Control participants on the Empowerment/Independence subdomain was 22.93 ($SD = 3.22$; see Figure 10). The mean score for the entire sample on the Empowerment/Independence subdomain was 23.71 ($SD = 3.16$). There was no statistical difference in empowerment between the two groups, $F(1, 22) = 2.155, p = .156$.

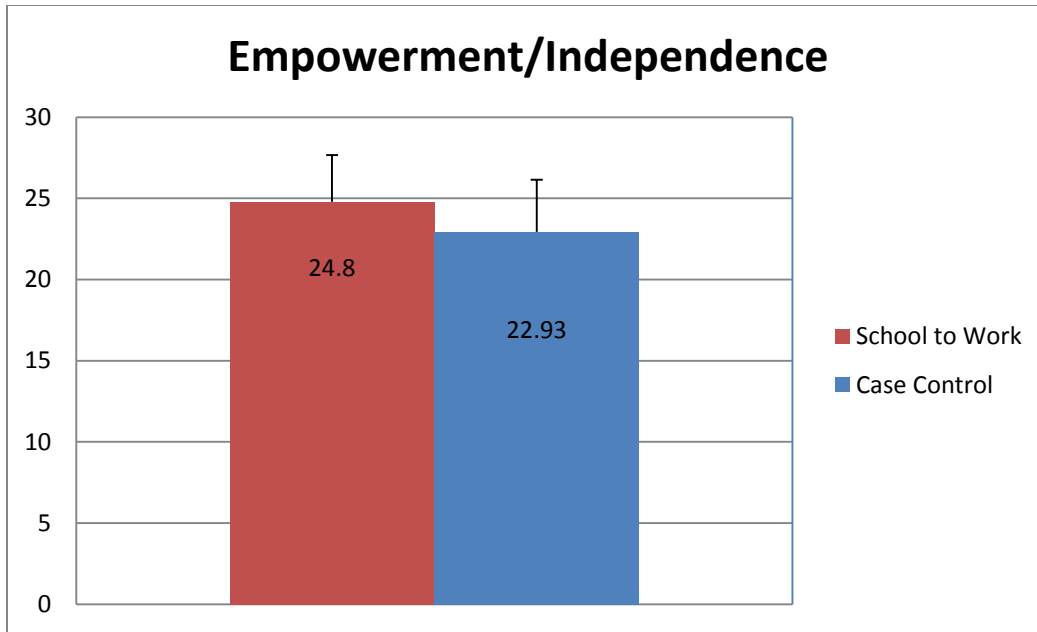


Figure 10: Results of the QOL; Empowerment/Independence subdomain. Error bars indicate standard deviations

Social Belonging/Community Integration

The mean score for the School-to-Work participants on the Social Belonging/Community Integration subdomain was 22 ($SD = 3.3$). The mean score for the Case Control participants on the Social Belonging/Community Integration subdomain was 19.71 ($SD = 3.0$; see Figure 11). The mean score for the entire sample on the Social Belonging/Community Integration subdomain was 20.67 ($SD = 3.27$). There was no statistical difference in social belonging between the two groups, $F(1, 22) = 3.12, p = .09$.

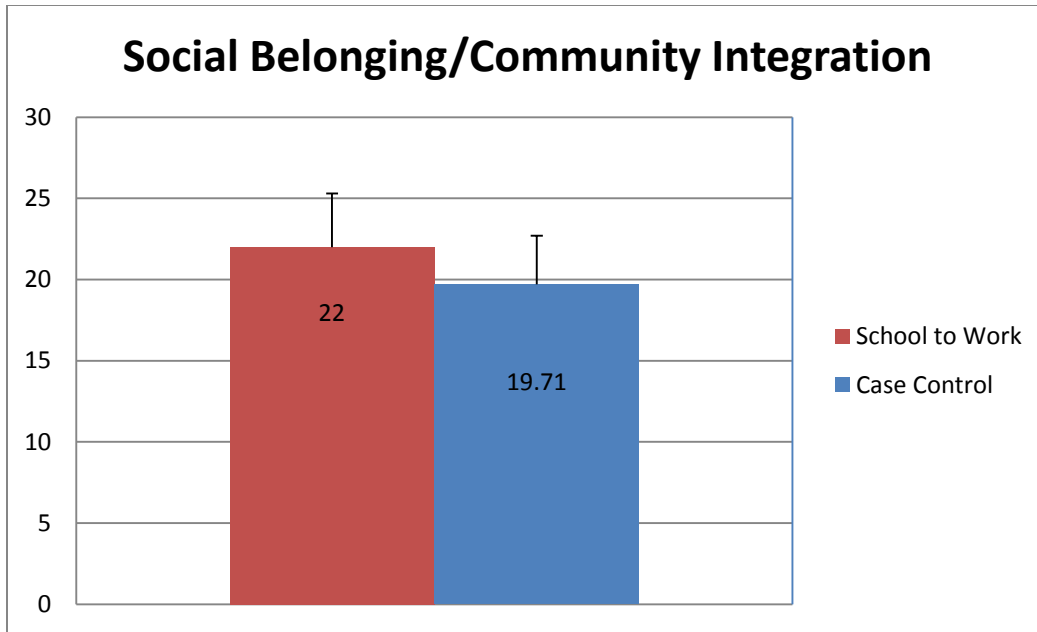


Figure 11: Results of the QOL; Social Belonging/Community Integration

Subdomain. Error bars indicate standard deviations.

CHAPTER 5

Discussion

The purpose of the current study was to compare the differences between School-to-Work and Case Control Participants with respect to gaining post-secondary employment, sustaining post-secondary employment, enrollment in post-secondary education, employment experiences, and quality of life experiences with respect to life satisfaction, competence/productivity, empowerment/independence, and social belonging/community integration. These participant groups did not differ significantly with respect to gaining post-secondary employment, sustaining post-secondary employment, employment experiences, or quality of life experiences. However, the School-to-Work Participants enrolled in post-secondary education at a significantly higher rate than did the Case Control Participants. The results of the analysis yield promising data that may be used as seeds for future research. A discussion of the study's findings is discussed below.

Although participants in the School-to-Work and Case Control groups did not statistically significantly differ in terms of gaining full- or part-time secondary employment, the Case Control Participants scored higher than School-to-Work Participants on the standardized assessments of IQ and Woodcock-Johnson III Reading and Mathematics (see Chapter 3 or Appendix B for more information). However, their post graduate outcomes were statistically comparable. Furthermore, there appears to be some beneficial effects of the School-to-Work Internship Pilot Program. However, due to the small number of participants ($N = 24$), there was insufficient power to detect these beneficial effects. Given that the School-to-Work Participants may have been at some

disadvantage as indicated by their standardized assessment results, the favorable or comparable outcomes are quite promising. Likewise, Participants in the School-to-Work and Case Control groups were generally comparable in terms of sustaining full- or part-time secondary employment. Once again, the impact of this program appears to be very encouraging in light of any disadvantage or limitation that School-to-Work Participants may have had.

Of note as well, all four School-to-Work Participants who reported securing employment secured full time employment. Whereas eight of the Case Control Participants have secured employment, only five Participants have secured full time employment. As noted previously, individuals who are employed on a less-than-full time basis are less likely to secure health care and benefits. Altogether, 50% of the total sample of the study was reported to be working either full time or part time. Unfortunately, these figures of individuals with disabilities who have secured employment of any kind more closely resemble the 34% employment rate currently reported by the United States Department of Labor (2011), than 82% of those without disabilities.

In addition, despite the Case Control Participants scoring consistently higher than School-to-Work Participants on the standardized IQ and educational assessments, School-to-Work Participants reported similar employment experiences to the Case Control Participants based on the EEQ measure. This means that the School-to-Work participants self-appraised their job knowledge/skills, socialization/emotional coping skills, task flexibility, dependability, motivation, or job satisfaction on par with the Case Control participants. Nonetheless, the Participants in the School-to-Work Internship Pilot

Program received one year of a specialized training experience which likely has influenced their feelings of competency in this area. This effect, however, was very small (Cohen's $d = .1$), suggesting that the School-to-Work program may not have been particularly helpful in terms of specific work skills.

The Case Control Participants also did not differ from the School-to-Work Participants in terms of how they reported their quality of life with respect to Life Satisfaction, Competence/Productivity, Empowerment/Independence, and Social Belonging/Community Integration despite any intellectual or educational limitation or disadvantage they may have had. In contrast to work experience, the School-to-Work Internship Program participants reported slightly elevated levels of quality of life, compared to the Case Control participants, although their differences were not statistically significant. For future studies, to detect a statistically significant effect, $N = 45$, $N = 393$, $N = 45$, and $N = 33$ for each group would be needed for Life Satisfaction (Cohen's $d = .6$ for power = .8), Competence/Productivity (Cohen's $d = .2$ for power = .8), Empowerment/Independence (Cohen's $d = .6$ for power = .8), and Social Belonging/Community Integration (Cohen's $d = .7$ for power = .8), respectively. The effect sizes and required sample size suggest that the School-to-Work Internship Program had a sizable effect on perceived quality of life measures.

It is possible that the Case Control participants who volunteered in participating in this research may have been more likely to have positive feelings about their high school experience overall than the other participants from this cohort who could not be reached for participation. For instance, during the participant selection process the participation rate of the School-to-Work Group was very high (10 of 12 participated; 83.3%) when

compared to the rate from the Case Control group (14 of 24; 58.3%). Perhaps it is plausible that the Case Control participants who could not be reached for this study were less invested in their high school educational experiences, which contributed to the lower reported participation rate. Conversely, it is likely that the School-to-Work Program Participants had greater motivation to participate in this Internship Program and also this study.

The major finding of the study, indeed, was that School-to-Work Internship Pilot Program participants in this study did appear to demonstrate a significantly higher rate of post-secondary college or training program involvement over the Case Control comparison group participants. Furthermore, none of the participants in this School-to-Work Participants report unemployment *as well as* not being enrolled in either a college/university or training program (i.e., not being engaged either vocationally or educationally). Likewise the three participants in the School-to-Work cohort who have not enrolled in either a college/university or training program have secured full time employment. One additional participant who reported working full time was also attending a college/university on a part-time basis. Of the Case Control Participants, four individuals were listed as both unemployed and not enrolled in a college/university or training program (25%).

Although a larger efficacy study is needed to fully support these results, the reason for these preliminary findings concerning the School-to-Work Participants enrolling in post-secondary education enrollment at a higher rate than their Case Control counterparts is not equivocal. While the School-to-Work Internship Pilot Program did not appear to help its participants secure employment at a rate greater than their control

group counterparts *per se*, it, perhaps, helped these students gain the necessary knowledge and experience that further training would be necessary to obtain a full time job that is rewarding and provides full time benefits. It is not only plausible, but clear from school records that the training program's training placed a premium on enhancing these individuals' career development and self determination.

Limitations

In addition to the small sample size ($N = 24$), there are several limitations of the current study that bear discussion. As with any research that involves the study of two cohorts or examines variables over a lengthy period of time, a maturation bias could partially explain the findings. For instance, when examining employment duration, the 2009-2010 Cohort had a natural advantage in having more time to both secure and sustain employment based on the collection procedures listed in Chapter 3. However, Cohort 2 was given six months to secure employment prior to being contacted for participation in this study. This was the rationale for including the number of months it took for each participant to secure employment following their graduation as a variable for this study. As indicated in Chapter 4, however, the two groups did not significantly differ in this sample, but this may be a factor in larger studies.

While the study did not find significant differences in terms of the two groups gaining and/or maintaining successful employment, comparisons are also made difficult due to other factors outside the study's control, such as such as current job market conditions that have affected, not only these participants' abilities to both secure and maintain employment, but many other Americans as well. While this School-to-Work program tried to ensure that each participant had a variety of employment experiences

during their training, this does not guarantee that such qualifications will help these individuals gain an employment advantage, especially in a saturated job market where jobs are scarce.

This current study is also limited by low internal consistency reported on some of the survey instruments, as several of the reported Cronbach's alphas were much below .80. While the four Quality of Life questionnaire subscales were used, two of the subscales (Empowerment/Independence, Social Belonging/Community) had low internal consistency estimates and consequently not reported as outcome measures in the present study. Furthermore, the Employment Expectation Questionnaire originally contained five subscales but only the total score was determined to have an acceptable internal consistency.

Another questionnaire, the Disabilities, Opportunities, Internetworking and Technology (DO-IT) questionnaire was originally administered to study participants but not utilized due to the low reported Cronbach's alpha ($\alpha = .53$). While this survey's internal consistency was low, the results of this questionnaire indicated that School-to-Work program participants generally felt that the program was a valuable experience for them. These participants frequently indicated that they learned the language of the workplace, such as how to speak to coworkers and supervisors properly, as well as learned of disability-related accommodations at work.

Other limitations of this study include a lack of random assignment of the participants; this research involved the study of naturally occurring or selected groups from within the school district. Furthermore, there was a bias in the selection process of students to the program by the school: Students who were selected and then consented for

participation in the School-to-Work program have persisted academically in high school and have shown motivation, self-determination, and an interest in the world of work.

Furthermore, the School-to-Work Internship Pilot Program did not accommodate individuals that required behavioral or emotional supports during their training. Supporting individuals adequately in the workplace who have emotional or behavioral challenges has long confounded researchers and practitioners alike (e.g., Luecking & Fabian, 2000; Rosenzweig & Brennan, 2008). For future projects, the development of a program that includes these supports would allow for the inclusion of even more students who face additional challenges the opportunity to gain the various skills needed for successful employment. This is an important issue that is beyond the scope of this study, but clearly needed.

Lastly, the study's variables are limited to self-report survey data; participants appraised their own abilities on a variety of tasks and situations. This has several implications: First, because participant self-report measures were used instead of third person/observation survey measures, such as employer appraisal of student participant work performance, the accuracy of their responses may be questioned. There may have been a possible treatment effect if some participants had tried to report themselves as favorable to the examiner on some of the questions asked on the survey. It would be interesting for future studies to compare and contrast the difference between student participant and employer appraisal with respect to work task understanding and competency in a future study.

Future Directions

In examining the School-to-Work Internship Pilot Program's impact on its participants, a valuable component of the Program was the frequent classroom-based workshops that the School-to-Work Participants experienced. These workshops taught them both interview and résumé-building skills, communication skills, and disability-related accommodations at the workplace, among other things. The inclusion of the bi-monthly skills workshops into the program added a service-learning element to the program that appeared to be instrumental in helping to consolidate their experiences across the various worksites. The skills that these Participants learned during these workshops should likely aid them in future endeavors.

In fact, it is reasonable to suggest that the most valuable skills the School-to-Work participants learned were the “soft skills” of how to communicate and interact with others at the workplace. Furthermore, having the assistance of a job coach to support them throughout the entire process, assist them in developing their communication skills, and helping to guide them in situations that might otherwise be taxing on their executive functioning, or ability to simultaneously process situational information, will likely prove to be highly valuable in their growth as individuals and future contributing members to the workforce. The results of this study indicates that the individuals in the School-to-Work Cohort were more likely to be employed and had a better quality of life than did the Case Control Cohort.

However, it is true that nothing in these participants' experiences suggests that they have learned any technical skills that can differentiate themselves from others entering the workforce seeking an entry level position. This is due to the design and

intent of the program as well as child labor laws, which permit only a certain number of hours that a minor can work in an SLE, as well as prohibit them from engaging in certain types of work-related tasks, such as operating specialized machinery, for instance (New Jersey Department of Education, 2006). Although the 2010-2011 cohort had been given eight additional weeks of job sampling and more worksite locations when compared to the 2009-2010 cohort, nothing portends to the skills gained had differed markedly from one cohort to the other. Barring further training, the “hard skills” that are needed for certain entry-level positions, which is where these individuals are most likely going to be able to find employment initially, will likely not differ much from their non-disabled peers. While this Program may not have been helpful in terms of teaching these individuals specific work skills, this may also be because many of them are in school rather than at work.

Therefore, this could account for why three of the individuals from the School-to-Work training program have sought this specialized training at post-secondary training programs. It is plausible that participation in this specialized program helped provide these individuals with the awareness that they might require additional training in their field of choice in order to help develop hard skills that employers are seeking. The rate of post-secondary enrollment evident in this study seems to support this notion. However, a larger study of efficacy would need to be carried out in order to draw more meaningful conclusions.

Implications for School Psychologists and Recommendations

Individuals with disabilities exiting their secondary education programs will face a variety of challenges that their non-disabled counterparts will never have to encounter.

Whether the individual has what is generally considered by most to be a mild impairment such as a specific learning disability, which may be confined to only the context of learning, or a more pervasive emotional or organically-based developmental disorder, that individual will likely require some degree of disability-related support once they transition into the post-secondary world. Practitioners working with transition-age children should place a premium on promoting awareness of the effects of a disability, not only to others, which includes employers, but on the individuals with disabilities themselves. All-too-often an individual with a disability does not have sufficiently developed self-determination or self-advocacy skills, which results in life stagnation once the entitlement services of compulsory education stop (Cho, Wehmeyer, & Kingston, 2011).

There should also be a process by which the IDEA-eligible student population vocational needs are identified through a more robust vocational and/or transition assessment process. Numerous studies on transition indicate that an adequate transition assessment is necessary prior to developing and implementing other phases of a transition program, but all-too-often school districts do not do a thorough transition assessment or even avoid the process altogether (e.g., Kohler, 1996; Sitlington et al., 2007). An analysis of the school records in this study does not indicate that a robust transition assessment process exists in this school district. Such an assessment would include an ongoing collection of data using multiple informal and formal assessment measures from a variety of people, including psychologists, teachers, parents, and the students themselves (1996).

Programmatic recommendations to this school district, and to others hosting similar School-to-Work Internship Pilot Programs for students with disabilities, must

begin with a requirement that this unique population's vocational needs are adequately understood. A school-wide transition assessment process such as the one discussed previously can not only be used to refine the program's operations, but the referral of the individual candidates can start with the individuals with disabilities themselves: Adequate transition planning should result in outcomes where individuals with disabilities engage in self-awareness/self determination, followed by career exploration and, finally, career decision making (e.g., Clark, 2007). Then, through this process, a school psychologist, Transition Coordinator, or other educator will have the appropriate information needed to better target transition-related activities and, in turn, communicate findings to the relevant stakeholders in order to gain further support to align, invest, and/or reallocate the available resources into high-quality training programs. This Pilot Program can also be expanded to meet the needs of students placed in very restrictive out-of-district settings, who are often isolated and separated from their peers and school activities. Their inclusion to participate in a key high school program will link all students to a common goal: Preparation for a successful life after high school.

A process can also be developed to help customize job placements in the community based on student preferences, strengths, and limitations as determined by a transition/vocational assessment. Promoting awareness of the strengths of individuals with disabilities to prospective employers by allowing for volunteer experiences under the guidance and supervision of professional job coaches will also help put employers at ease when considering hiring an individual with disabilities in the future. Building these positive relationships will demonstrate to employers that these individuals can be valuable commodities in the labor pool, especially when they are connected to the natural

supports that are available to them. Next, the implementation of outcome measures that is consistent with the questionnaire(s) used for this study is necessary for program evaluation and future adjustments to be effective.

Finally, practitioners reading this study should be able to clearly see the value of developing similar School-to-Work Internship Pilot Programs in their school districts, particularly as it impacts the lives of the students with disabilities. Future programs should also be developed with the consideration of teaching more specialized, hands-on skills as it relates to student preferences and disability needs. Future directions should also involve the development of such programs that can accommodate the multiple disability needs of those individuals with significant challenges, including those with developmental disabilities and emotional/behavioral challenges.

References

- Baer, R. M., Flexer, R. W., & Dennis, L. (2007). Examining the career paths and transition services of students with disabilities exiting high school. *Education and Training In Developmental Disabilities, 42*, 317-329.
- Benz, M., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children, 66*, 509-529.
- Beyers, J. M., Bates, J. E., Pettit, G. S., & Dodge, K. A. (2003). Neighborhood structure, parenting processes, and the development of youths' externalizing behaviors: A multi-level analysis. *American Journal of Community Psychology, 31*, 35-53.
- Bolles, R., & Brown, D. (2001). *Job-hunting for the so-called handicapped*. Berkeley, CA: Ten Speed Press.
- Burgstahler, S. (2001). A collaborative model to promote career success for students with disabilities. *Journal of Vocational Rehabilitation, 16*, 209–215.
- Burgstahler, S., & Bellman, S. (2009). Differences in perceived benefits of internships for subgroups of students with disabilities. *Journal of Vocational Rehabilitation, 31*, 155–165.
- Butterworth, J., & Pitt-Catsouphes, M. (1997). Employees with disabilities: What managers, supervisors, and co-workers have to say. *Employment in the Mainstream, 22*, 5-15.
- Cawthon, S. W. (2007). Hidden benefits and unintended consequences of No Child Left Behind Policies for students who are deaf or hard of hearing. *American Educational Research Journal, 44*(3), 460-492. doi: 10.3102/0002831207306760.

- Cho, H. J., Wehmeyer, M., & Kingston, N. (2011). Elementary teachers' knowledge and use of interventions and barriers to promoting student self-determination. *The Journal of Special Education, 45*, 149-156.
- Christenson, S. L. (2004). The family–school partnership: An opportunity to promote the learning competence of all students. *School Psychology Review, 33*, 83–104.
- Clark, G. (2007). *Assessment for transition planning (2nd Edition)*. Austin, TX: Pro-Ed, Inc.
- Code of Federal Regulations: Title 29-Labor (2011). *Part 1630 - Regulations to implement the equal employment provisions of the Americans with Disabilities Act: Regulations Relating to Labor*. Chapter xiv - Equal Employment Opportunity Commission.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.
- Cummings, R., Maddux, C. D., & Casey, J. (2000). Individualized transition planning for students with learning disabilities. *The Career Development Quarterly, 49*, 60-72.
- Fabian, E. S. (2007). Urban youth with disabilities: Factors affecting transition employment. *Rehabilitation Counseling Bulletin, 50*, 130–138.
- Finn, J. E., & Kohler, P. D. (2009). A compliance evaluation of the transition outcomes project. *Career Development for Exceptional Individuals, 32*, 17-29.
- Flannery, K. B., Yovanoff, P., Benz, M. R., & Kato, M. M. (2008). Improving employment outcomes of individuals with disabilities through short-term postsecondary training. *Career Development for Exceptional Individuals, 31*, 26-36.

- Geenen, S., Powers, L. E., Lopez-Vasquez, A., & Bersani, H. (2003). Understanding and promoting the transition of minority adolescents. *Career Development for Exceptional Individuals*, 26, 27-46.
- Greene, C. C. (2011). Third grade teachers' experiences in preparing for and interacting with the Ohio Achievement Assessment: A hermeneutic phenomenological study of the effects of the 2001 No Child Left Behind Act. Ph.D. dissertation, Kent State University, United States -- Ohio. Retrieved April 24, 2012, from Dissertations & Theses: A&I. (Publication No. AAT 3479740).
- Greene, G. (2003). *Transition pathways*. In G. Greene & C. A. Kochhar-Bryant (Eds.), *Pathways to successful transition for youth with disabilities* (pp.198-230). Columbus, OH: Merrill Prentice-Hall.
- Guy, B., Sitlington, P., Larsen, M., & Frank, A. (2009). What are high schools offering as preparation for employment? *Career Development for Exceptional Individuals*, 32, 30-41.
- Individuals with Disabilities Education Act of 1990, Pub.L.No.101–476, 20 U.S.C. § 1400 et seq.
- Individuals with Disabilities Education Act of 1997, Pub. L. No. 105 17, 20 U.S.C. 1400 et seq.
- Individuals with Disabilities Education Improvement Act of 2004, Pub. L. No. 108–446, 20 U.S.C. 1400 et seq.
- Kiernan, W. E., & Schalock, R. L. (1989). *Economics, industry, and disability*. Baltimore, MD: Paul H. Brookes.
- Kohler, P. D. (1996). *Taxonomy for transition programming: Linking research and*

- practice*. Urbana Champaign, IL: University of Illinois at Urbana-Champaign, Transition Research Institute.
- Kohler, P. D., & Field, S. (2003). Transition focused education: Foundation for the future. *The Journal of Special Education*, 37, 174-183.
- Lehman, C. M., Clark, H. B., Bullis, M., Rinkin, J., & Castellanos, L. A. (2002). Transition from school to adult life: Empowering youth through community ownership and accountability. *Journal of Child and Family Studies*, 11, 127-141.
- Levinson, E. M., & Ohler, D. L. (1998). Transition from high school to college for students with learning disabilities: Needs, assessment, and services. *High School Journal*, 82, 62-80.
- Li, J. Y., Bassett, D. S., & Hutchinson, S. R. (2009). Secondary special educators' transition involvement. *Journal of Intellectual and Developmental Disability*, 34, 163-172.
- Luecking, R. G. (2000, Fall). *What employers are saying about recruitment and retention*. Richmond, VA: The National Supported Employment Consortium, Virginia Commonwealth University.
- Luecking, R. G., & Fabian, E. (2000). Paid internships and employment success for youth in transition. *Career Development for Exceptional Individuals*, 23, 205-222.
- Luecking, R. G., & Wittenburg, D. (2009). Providing supports to youth with disabilities transitioning to adulthood: Case descriptions from the Youth Transition Demonstration. *Journal of Vocational Rehabilitation*, 30, 241-251.
- Magill, B. (1997). ADA accommodations: Don't have to break the bank. *HR Magazine*, 42, 84-89.

- McDonnell, J., & Hardman, M. L. (2010). *Successful transition programs: Pathways for students with intellectual and developmental disabilities* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- McGrew, K. S., & Woodcock, R. W. (2001). *Technical manual. Woodcock–Johnson III tests of achievement*. Itasca, IL: Riverside Publishing.
- Millington, M. J., Leierer, S., & Abadie, M. (2000). Validity and the Employment Expectation Questionnaire: Do disability-related attitudes affect employment selection outcomes? *Rehabilitation Counseling Bulletin*, 44, 39-47.
- New Jersey Department of Education (2006). *New Jersey administrative code, title 6a: Chapter 14, special education*.
- New Jersey Department of Education (2006). *New Jersey administrative code, title 6a: Chapter 19, career and technical education programs and standards*.
- Rosenzweig, J. M., & Brennan, E. M. (2008). *Work, life, and the mental health system of care: A guide for professionals supporting families of children with emotional or behavioral disorders*. Baltimore, MD: Paul H Brookes Publishing.
- Rusch, F. R., Hughes, C., Agran, M., Martin, J. E., & Johnson, J. R. (2009). Toward self-directed learning, post-high school placement, and coordinated support constructing new transition bridges to adult life. *Career Development for Exceptional Individuals*, 32, 53-59.
- Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. § 794 (2007).
- Shanahan, M. J. & Bauer, D. (2005). Developmental properties of transactional models: The case of life-events and mastery from adolescence to young adulthood. *Developmental Psychopathology*, 16, 1095-1117.

- Shandra, C. L., & Hogan, D. P. (2008). School-to-Work program participation and the post-high school employment of young adults with disabilities. *Journal of Vocational Rehabilitation, 29*, 117–130.
- Siegel, S. (1998). *Foundations for a School-to-Work system that serves all students*. In F. R. Rusch & J. G. Chadsey (Eds.), *Beyond high school: Transition from school to Work* (pp. 146-178). New York: Wadsworth Publishing.
- Sitlington, P. L., Neubert, D. A., Begun, W. H., Lombard, R. C., & Leconte, P. J. (2007). *Assess for success: A practitioner's handbook on transition assessment* (2nd ed.). Thousand Oaks, CA: Corwin Press.
- Springer, M. G. (2008). The influence of an NCLB accountability plan on the distribution of student test score gains. *Economics of Education Review, 27*(5), 556-563. doi: 10.1016/j.econedurev.2007.06.004.
- Stodden, R. A., & Dowrick, P. W. (1999). Postsecondary education and quality employment for adults with disabilities. *American Rehabilitation, 25*, 19-23.
- Test, D. W., Fowler, C. H., Richter, S. M., White, J., Mazzotti, V., Walker, A. R. Kortering, L. (2009). Evidence-based practices in secondary transition. *Career Development for Exceptional Individuals, 32*, 115-128.
- Timmons, J. (2007). Models of collaboration and cost sharing in transition programming. *National Center on Secondary Education and Transition Information Brief, 6*, 1-5.
- Turnbull, H. R., Turnbull, A. P., Wehmeyer, M. L., & Park, J. (2003). A quality of life framework for special education outcomes. *Remedial and Special Education, 24*, 67-74.

- United States Department of Labor, Bureau of Labor Statistics (2011). *Occupational outlook handbook, 2010-2011*. Retrieved from www.bls.gov/oco.
- Wagner, M., Cameto, R., & Newman, L. (2003). *Youth with disabilities: A changing population* (Special topic report of findings from the National Longitudinal Transition Study-2). Menlo Park, CA: SRI International.
- Wagner, M., Newman, L., Cameto, R., & Levine, P. (2005). *Changes over time in the early postschool outcomes for youth with disabilities: A report from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International.
- Wechsler, D. (2004). *The Wechsler Intelligence Scale for Children—Fourth Edition*. London: Pearson Assessment.
- Wiesner, M., Vondracek, F. W., Capaldi, D. M., & Porfeli, E. (2003). Childhood and adolescent predictors of early adult career pathways. *Journal of Vocational Behavior, 63*, 305-328.

Appendix A

Appendix A1: Summary of Job Coach Responsibilities

- Job coaches assisted the participants develop personal goals and objectives. For instance, a personal goal for one student may be to organize and deliver their orders with 85% accuracy over the course of a one week period.
- Job coaches helped the participants develop interpersonal skills such as establishing rapport with employees and strengthening employee relations.
- Job coaches enhance socialization between program participants.
- Job coaches helped the participants understand and adhere to deadlines for mandated tasks. If deadlines are unable to be met by the participant, the job coach will sit down with the participant and address the obstacles to that task completion.
- Job coaches worked with the students and assisted them if they became frustrated, unfocused, unmotivated, noncompliant, or engaged in inappropriate behavior.
- The participants were encouraged to interact with staff and ask questions.
- Ensured that participant punctuality was addressed.
- Ensured that participant dress code was addressed and adhered to, depending on the work site.
- Ensured that the participants were provided with feedback regarding appropriate work behavior. For instance, the participants would receive feedback that having loud conversations with peers at work is not appropriate behavior for the setting.
- Addressed the frequency of the participant socializing, which affected participant work productivity.

- Taught the participants expectations of customer service roles. Further conversations were had regarding the differences between talking to females and males.
- Addressed how they accepted the job coach feedback was also a vital part of the process. Some participants accepted constructive criticism, whereas others became defensive and/or hurt by critiques of their performance.
- Helped participants learn how to take the initiative to complete various tasks, such as introduce themselves to different departmental supervisors.
- Encouraged participants to ask as many questions as possible.
- Assisted participants in generating alternative responses when encountering difficulties.
- Participants frequently were taught that an important goal of their internship was to put their client's needs first, ahead of their own. For instance, at the assisted living facility, sometimes participants were observed participating in the card games for their own enjoyment, and excluded the residents. They would have to be reminded why they were there and whose needs they were required to serve. At times those needs needed to be clarified, such as helping them understand that senior citizens may process information at a slower rate than a teenager and that patience was required when working with this population.

Appendix A2: Hospital Department Job Descriptions:

Health Information Management:

Job Duties: The intern will utilize hospital systems to identify patient account and/or medical record numbers as well as record chart locations. The hospital systems will also be used to charge out/update chart locations. The intern will physically retrieve patient charts as requested in lists submitted by hospital staff, outside agencies, and other authorized parties. Also, students will physically place requested charts in designated locations.

Environmental Services:

Job Duties: In this department, interns will collect, wash, and fold hospital linens. They will also be responsible for counting linens and stocking them in their appropriate areas. Additionally, students will maintain a sterilized and clean appearance of the hospital by cleaning, sweeping and mopping. Interns will also perform routine trash removal.

Patient Management:

Job Duties: The intern will input data regarding any patient transfers to alternative rehabilitation centers into the hospital computer system. They will also be in charge of filing and faxing certain paperwork while answering phones if need be.

Patient Transport:

Job Duties: In Patient Transport, the intern will escort patients to various locations throughout the hospital, i.e. testing sites and the Radiology Department. In addition, the intern will also be responsible for transporting patients out of the hospital upon discharge.

Radiology:

Job Duties: The intern will be responsible for filling out basic paperwork. Then the student will pick up and drop off paperwork to different departments and file it in alphabetical order. They will also transport x-rays to and from the Radiology Department.

Surgical Services:

Job Duties: In this jobsite, interns will be known as “runners”. They will be responsible for making rounds to various departments to pick up contaminated supplies. They will also make rounds washing, wrapping, and sterilizing equipment throughout Surgical Services.

Emergency Department:

Job Duties: The intern will be accountable for stocking the 26 rooms in the Emergency Department in accordance with item lists provided in each room. Interns will also tidy up rooms, change linens, and fill the blanket warmer. While onsite, students will also provide emergency room visitors with snacks and beverages.

Patient Financial Services:

Job Duties: Interns will be in charge of filing reports and EOB's (Explanation of Benefits) by date. The students will additionally be in charge of faxes, referral forms and itemized bill requests from attorneys.

Food and Nutrition:

Job Duties: In the café, interns will be responsible for wrapping silverware, cleaning and distributing trays, and performing light housekeeping to maintain a sanitary environment.

Engineering:

Job Duties: In this department, students will perform general maintenance around the hospital such as changing fluorescent light bulbs, painting, patching, spackling, and possible plumbing duties.

Materials Management:

Job Duties: In the Materials Management department, the interns will be sorting and filing mail as well as picking up and distributing mail from each department. Job duties extend to the copy center where the interns will produce forms and brochures for the hospital on top of providing copies upon request from departments.

Visitor Control:

Job Duties: In the visitor control position, the interns will be interacting with the visitors of the hospital by greeting them, as they enter the hospital facility. Students will be expected to use the computer system to look up patients and room locations along with providing directions to departments throughout the hospital.

Appendix A3: Additional Job Placements; 2010-2011 School-to-Work Program Cohort

- **A local diner:**

Job Description: Interns are responsible for maintaining the cleanliness and overall appearance of the dining room, under the discretion of the shift manager.

- **An assisted living facility**

Job Description: Interns perform recreation duties with the residents of the assisted living facility. Some care and assistance with daily living skills is also required.

- **The community food bank**

Job Description: Interns are responsible for stocking food items and maintaining the organization of the stock room as indicated by the floor manager.

- **The town's public library**

Job Description: Interns learned how to catalogue and organize a variety of multimedia items under the direction of the library manager.

- **A local preschool**

Job Description: Interns functioned as assistants to the teaching staff at the school. Additional responsibilities included free play with the children.

- **A local café**

Job Description: Interns were responsible for maintaining the cleanliness and overall appearance of the cafe, under the discretion of the shift manager.

- **A local supermarket**

Job Description: Interns assisted cashiers with the bagging of customer groceries. Additional duties involved maintaining the neatness and orderliness of the store.

- **A local retail store**

Job Description: Interns organized the various sections of a large retail store without interfering in the customer shopping experience. This activity is termed ‘recovery’ and ensures that the store is able to maintain a neat and full appearance. Such activities may involve organizing the clothing or coat racks to ensure that the sizes are ordered appropriately, and replacing empty spots with items from the warehouse in the rear of the store.

Appendix B, Additional Figures: Matching of the Two Groups

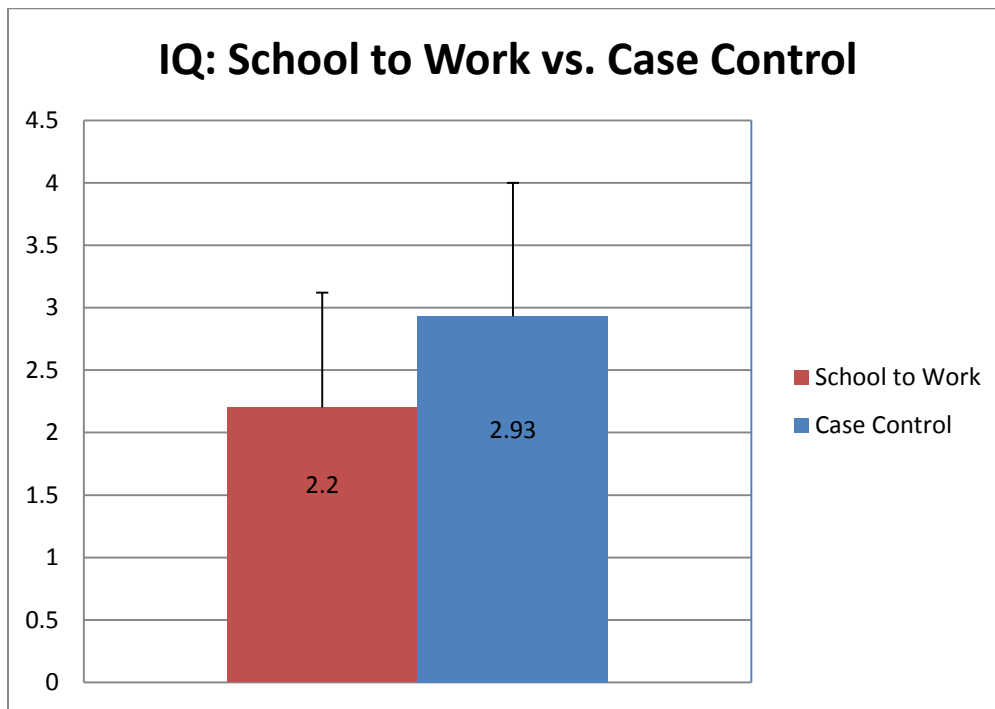


Figure B1: Converted IQ Score Comparisons, School-to-Work and Case Control

Participants. Error bars indicate standard deviations

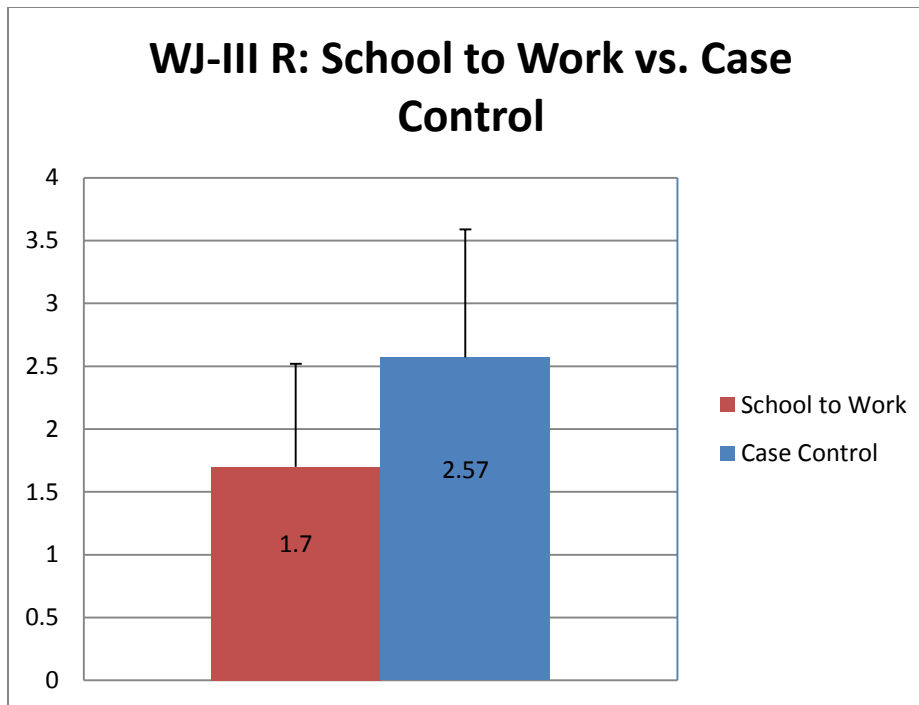


Figure B2: Converted Woodcock-Johnson III Reading Score Comparisons, School-to-Work and Case Control Participants. Error bars indicate standard deviations

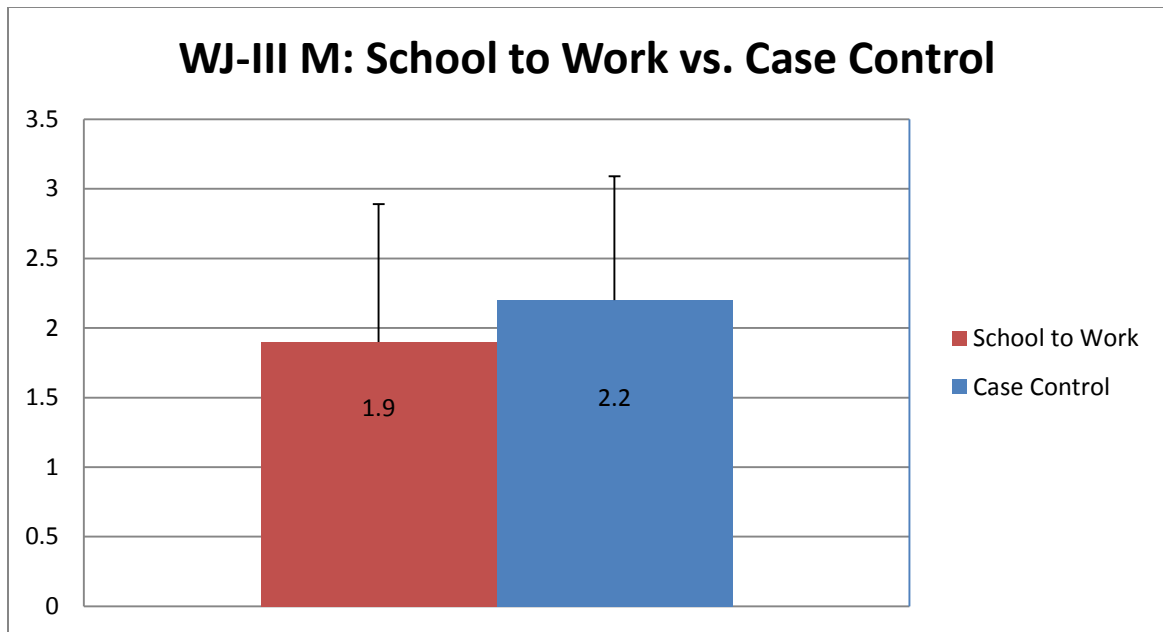


Figure B3: Converted Woodcock-Johnson III Mathematics Score Comparisons, School-to-Work and Case Control Participants. Error bars indicate standard deviations

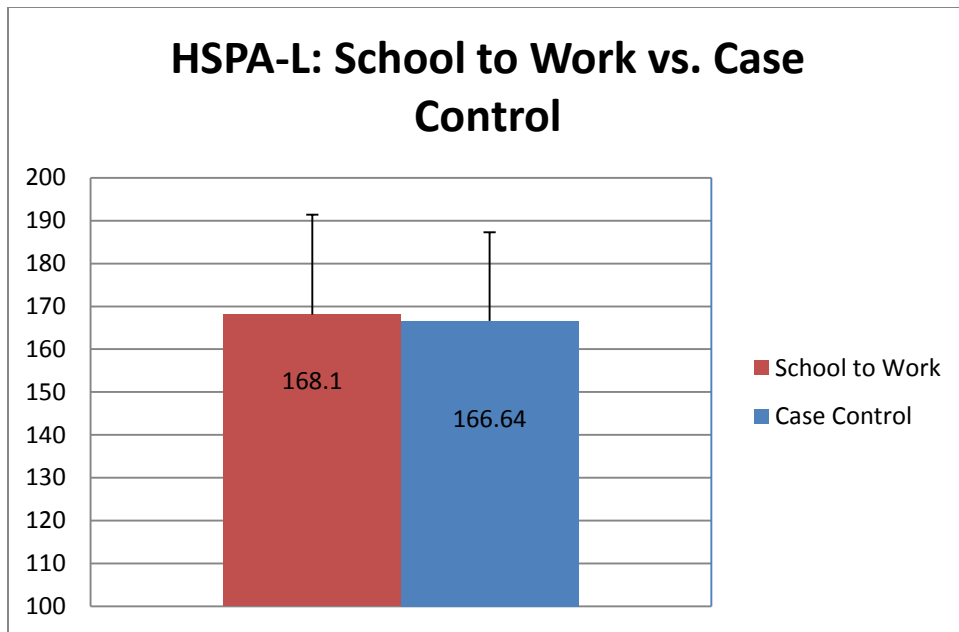


Figure B4: High School Proficiency Assessment-Language Arts Score Comparisons, School-to-Work and Case Control Participants. Error bars indicate standard deviations

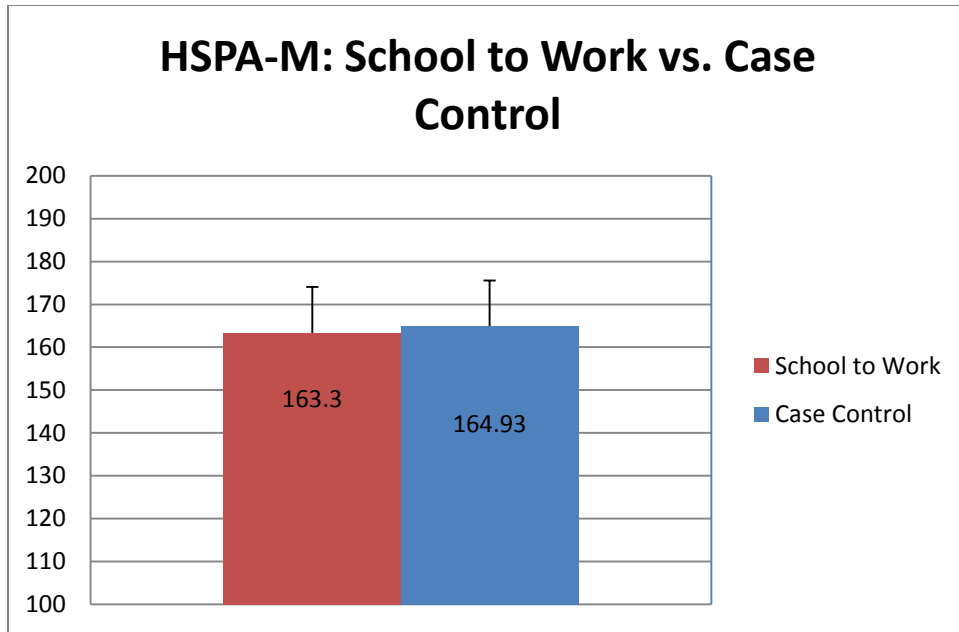


Figure B5: High School Proficiency Assessment-Mathematics Score Comparisons, School-to-Work and Case Control Participants. Error bars indicate standard deviations

Appendix C: Opening Statement

“My name is David Goldstein and I am a doctoral student in the Graduate School of Applied and Professional Psychology at Rutgers University. I am conducting research on high school graduates’ work experiences after high school. Before I ask your consent to participate in this research, I would like to read a statement to you regarding the procedures, risks, and benefits of the study. I can read this statement to you over the telephone right now, or I can come to a convenient location such as your home and read it to you in person. Would you like to hear more about this study?”

(If NO) “I understand. Thank you for your time.”

(If YES) “That's great. This initial phone call will take about 5 minutes. Do you have time now?”

(If NO) “When would be a good time?”

“Is this the best number where we can reach you?”

(If NO) “What is the best number to reach you?”

(If YES and would like informed consent dictated in person) “The purpose of this study is to examine young adults’ work experiences after graduating high school. You will be asked to complete a questionnaire that asks you about those experiences. Would you be interested in participating in this study over the phone at this point? It will take about 45 minutes.”

(ALTERNATIVELY) “Would you like me to come to a convenient location and explain this to you?”

(If YES) “Where and when would you like to meet up?”

“Thank you for your interest. I appreciate your time.”

Appendix D: Informed Consent Form and Protocol for School-to-Work Participants

After the opening statement is dictated to the participant, the informed consent statement is dictated:

“I wish to ask you to complete a survey related to your work experiences after high school. In addition, I wish to ask you questions about the training you received during the school-to-work internship that you participated in during your senior year of high school. The entire process may take between 45 minutes to 1 hour. If you decide to participate in this study, your answers will be useful in providing feedback to the school district from which graduated from. In addition, you will be entered in a raffle to win a \$25 gift certificate to a local supermarket as compensation for your participation. There are three of these gift certificates available to the 37 total possible participants.

“Your consent for participating in this study is entirely voluntary. Even if you agree to participate and then change your mind at a later time, you are permitted to leave the study at any time. If you do decline to participate, you will still be eligible to receive the \$25 gift certificate.

“In addition, the information that you provide to me will be kept completely confidential. If you decide to participate, you will be assigned a number and the responses that you give will only be associated with that number, not your name. The data that is collected will not be published in any form in which you can be identified.

“There are no risks to you as a participant in this study. While there are no *direct* benefits to you as a participant, the responses that you provide me may be extremely beneficial to other high school students in the future. Your responses will have an impact in providing the school district useful information about whether or not to expand an existing program that could create opportunities for future high school students.

“If you have any further questions about the study, you can contact me at any time. I can be reached at 973-615-7759 between the hours of 8am-5pm, Monday-Friday. You can also email me at dgoldstein@franklinboe.org.

Subject’s Initials:_____

“If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at:

Rutgers University Institutional Review Board for the Protection of Human
Subject

Office of Research and Sponsored Programs

3 Rutgers Plaza

New Brunswick, NJ 08901-8559

Tel: 732-932-0150, extension 2104

Email: humansubjects@orsp.rutgers.edu

Authorization:

“I have read and understand this consent form, and I volunteer to participate in this research study. I understand that I will receive a copy of this form. I voluntarily choose to participate, but I understand that my consent does not take away any legal rights in the case of negligence or other legal fault of anyone who is involved in this study. I further understand that nothing in this consent form is intended to replace any applicable federal, state, or local laws.”

Participant Name (Printed or Typed):

Date:

Participant Signature or Phone Consent:

Date:

Principal Investigator Signature:

Date:

Signature of Person Obtaining Consent:

Date:

Appendix E: Informed Consent Form and Protocol for Case Control Participants

After the opening statement is dictated to the participant, the informed consent statement is dictated:

“I wish to ask you to complete a survey related to your work experiences after high school. The entire process may take between 45 minutes to 1 hour. If you decide to participate in this study, your answers will be useful in providing feedback to the school district from which graduated from. In addition, you will be entered in a raffle to win a \$25 gift certificate to a local supermarket as compensation for your participation. There are three of these gift certificates available to the 37 total possible participants.

“Your consent for participating in this study is entirely voluntary. Even if you agree to participate and then change your mind at a later time, you are permitted to leave the study at any time. If you do decline to participate, you will still be eligible to receive the \$25 gift certificate.

“In addition, the information that you provide to me will be kept completely confidential. If you decide to participate, you will be assigned a number and the responses that you give will only be associated with that number, not your name. The data that is collected will not be published in any form in which you can be identified.

“There are no risks to you as a participant in this study. While there are no *direct* benefits to you as a participant, the responses that you provide me may be extremely beneficial to other high school students in the future. Your responses will have an impact in providing the school district useful information about whether or not to expand an existing program that could create opportunities for future high school students.

“If you have any further questions about the study, you can contact me at any time. I can be reached at 973-615-7759 between the hours of 8am-5pm, Monday-Friday. You can also email me at dgoldstein@franklinboe.org.

Subject’s Initials:_____

“If you have any questions about your rights as a research subject, you may contact the IRB Administrator at Rutgers University at:

Rutgers University Institutional Review Board for the Protection of Human
Subject

Office of Research and Sponsored Programs

3 Rutgers Plaza

New Brunswick, NJ 08901-8559

Tel: 732-932-0150, extension 2104

Email: humansubjects@orsp.rutgers.edu

Authorization:

“I have read and understand this consent form, and I volunteer to participate in this research study. I understand that I will receive a copy of this form. I voluntarily choose to participate, but I understand that my consent does not take away any legal rights in the case of negligence or other legal fault of anyone who is involved in this study. I further understand that nothing in this consent form is intended to replace any applicable federal, state, or local laws.”

Participant Name (Printed or Typed):

Date:

Participant Signature or Phone Consent:

Date:

Principal Investigator Signature:

Date:

Signature of Person Obtaining Consent:

Date:

Appendix F: Questionnaire

Questionnaire

PART 1-EDUCATION [Items selected from National Longitudinal Study of Youth 1997 survey (NLSY97; Shandra & Hogan, 2008):

1) What type of school [are you currently attending /did you last attend]?

- 1 None (high school graduate, not continuing).
- 2 Two-year college, community college, or junior college
- 3 Four year college or university
- 4 Technical school

IF IN A TECHNICAL OR VOCATIONAL PROGRAM (can select more than one):

2) Which of the reasons on this card was the main reason you enrolled in this training program?

- 1 The training was associated with a promotion or job advancement
- 2 The training was associated with looking for a new job
- 3 The training was necessary to obtain a license or certificate
- 4 The training was necessary when job began
- 5 The training was part of a regular program to maintain and upgrade employee skills
- 6 The training was associated with the introduction of new methods or processes on the job
- 7 Other, please (SPECIFY)

IF IN A COLLEGE OR UNIVERSITY:

3) What is/was your major of study?

PART 2-WORK EXPERIENCES [Items selected from National Longitudinal Study of Youth 1997 survey (NLSY97; Shandra & Hogan, 2008)]:

We would like to talk to you about any work you have done in the time since your GRADUATION: that is since [DATE]. In answering these questions, please tell us about any paid employment you had, or any work you did for a family business (whether or not you were paid).

We are going to discuss two sorts of jobs with you. We'll call one type working as a freelancer or being self-employed, that is doing one or a few tasks for several people and not having a "boss" (for example, babysitting or mowing lawns) or working for yourself (for example, running a business).

We'll refer to the second type as working as an employee: that is you had an on-going relationship with a particular employer (for example, working in a supermarket or restaurant, or being in the military).

1) Do you USUALLY work 35 hours or more per week at your job?

1 YES

0 NO

2 HOURS VARY

2) When did you first start working for [employer/self] (on this job)?

ENTER MONTH |_|| ENTER DAY |_|| ENTER YEAR | |||

3) Are you currently working for [employer/self]?

1 Yes

0 No

4) When you first started your job with [employer/self], what kind of business or industry was this? What did they make or do where you worked? (ENTER VERBATIM)

5) When you started working for [employer/self], what kind of work did you do? That is, what was your occupation? (For example: plumber, typist, farmer..)

6) What were your usual activities or duties at this job? (For example: types, keeps account books, files, sells cars, operates printing

press, lays brick ...))

7) Which of the following categories best describes the type of schedule you [work/worked] for this employer [now/when you left]?

1 REGULAR DAY SHIFT

2 REGULAR EVENING SHIFT

3 REGULAR NIGHT SHIFT

4 SHIFT ROTATES (CHANGES PERIODICALLY FROM DAYS TO EVENINGS OR NIGHTS)

5 SPLIT SHIFT (CONSISTS OF TWO DISTINCT PERIODS EACH DAY)

6 IRREGULAR SCHEDULE OR HOURS

7 OTHER (SPECIFY)

8) Who [sets/set] your hours?

1 EMPLOYER

2 RESPONDENT

3 BOTH RESPONDENT AND EMPLOYER

9) [Do/Did] you usually work on the weekend?

1 Yes

0 No

10) How long, in months, did it take to secure employment following your graduation from high school?

PART 3-TRAINING EXPERIENCES OF SCHOOL-TO-WORK PROGRAM STUDENTS

[Items selected from DO-IT (Disabilities, Opportunities, Internetworking, and Technology) survey (Burgstahler & Bellman, 2009)]:

A) “Help us know what you have learned as a result of this work experience. Please indicate your response to these statements where 1= Strongly Disagree...5=Strongly Agree. Mark N/A = Not Applicable if the item was not addressed in your work experience. For example, if your experience did not involve working with co-workers circle N/A, Not Applicable for item 4.”

	Not Applicable	(1) Strongly Disagree	(2)	(3)	(4)	(5) Strongly Agree
I am more motivated to study and work toward a career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My knowledge of my career interests has increased.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have learned the skills I need to succeed in specific job tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have learned skills I need to effectively work with co-workers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have learned the skills I need to effectively work with supervisors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learned about the disability-related accommodations I may need at work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

B) “Please answer the following questions.”:

1. List two skills learned from this experience.
2. List accommodations (if any) you needed for this position.
3. Describe what you gained most from this experience.

PART 4-EMPLOYEE FACTORS [Items selected from the Employment Expectation Questionnaire, Short Form (EEQ-B; Millington, Leierer, & Abadie, 2000)]:

“Below are statements that will ask about your job knowledge and skills, your ability to cope with the social demands of the work place, your ability to learn new tasks, your dependability, and your job motivation and satisfaction. Please indicate your response to these statements where 1= Strongly Disagree, 2 = Slightly Disagree, 3 = Neutral, 4 = Slightly Agree, 5=Strongly Agree. N/A = Not Applicable if the item was not addressed in your work experience.”

Statement	1 = Strongly Disagree	2 = Slightly Disagree	3 = Neutral	4 = Slightly Agree	5 =Strongly Agree	N/A = Not Applicable
Understand job procedures						
Remember where equipment is kept						
Utilize tools and machines						
Understand job objectives						
Remember changes in procedure						
Set up work area efficiently						
Meet physical demands of the job						
Exhibit self-control under stress						
Respond constructively to criticism						
Tolerate frustration						
Resolve conflicts						
Accept supervisor authority						
Persist when facing difficulties						
Negotiate agreement						
Tolerate Stress						
Behave courteously						
Work cooperatively						

Participate as a team member						
Perform math computations						
Communicate through writing						
Understand symbols, graphs						
Generate new ideas						
Understand written documents						
Attend work every day						
Return from breaks on time						
Call when late or absent						
Document work time (clock/in out)						
Keep appointments						
Appear at work station on time						
Take pride in work						
Show enthusiasm						
Accept wages as satisfactory						
Demonstrate interest in task						

PART 5-QUALITY OF LIFE [From Quality of Life Questionnaire; Schalock & Keith, 1993]:

Instructions for Respondents

Read the following instructions to the respondent:

I want you to think about where you live, work, and have fun, and the family, friends, and staff that you know. Together, let's answer some questions that express how you feel about these things. If you like, you can check the choices given for each item; if you like, I can check them for you after reading and discussing each of the three alternatives for each item. Please try to answer each of the items and we will take as much time as you need. There are no right or wrong answers. We want only to know how you feel about where you live, work, and have fun and the family, friends and staff that you know. Do you have any questions?

If the respondent consents, the examiner proceeds to administer the 40 items. When reading the items, pay close attention to the exact wording. You may paraphrase items and repeat them as often as necessary to ensure the respondent's understanding of the item content.

Questions	Answer Alternatives			Record Score Here
	3 Points	2 Points	1 Point	
SATISFACTION				
1. Overall, would you say that life:	Brings out the best in you?	Treats you like everybody else?	Doesn't give you a chance?	
2. How much fun and enjoyment do you get out of life?	Lots	Some	Not much	
3. compared to others, are you better off, about the same, or less well off?	Better	About the same	Worse	
4. Are most of the things that happen to you:	Rewarding	Acceptable	Disappointing	
5. How satisfied are you with your current home or living arrangement?	Very satisfied	Somewhat satisfied	Unsatisfied or very unsatisfied	
6. Do you have more or fewer problems than other people?	Fewer problems	The same number of problems as others	More problems than others	
7. How many times per month do you feel lonely?	Seldom, never more than once or twice	Occasionally, at least 5 or 6 times a month	Frequently, at least once or twice a week	
8. Do you ever feel out of place in social situations?	Seldom or never	Sometimes	Usually or always	
9. How successful do you think you are, compared to others?	Probably more successful than the average person	About as successful as the average person	Less successful than the average person	
10. What about your family members? Do they make you feel:	An important part of the family	Sometimes a part of the family	Like an outsider	
TOTAL SCALE SCORE -- SATISFACTION				<div style="border: 1px solid black; width: 100px; height: 50px; margin: 0 auto;"></div>

Questions	Answer Alternatives			Record Score Here
	3 Points	2 Points	1 Point	
COMPETENCE/PRODUCTIVITY				
11. How well did your educational or training program prepare you for what you are doing now?	Very well	Somewhat	Not at all well	
12. Do you feel your job or other daily activity is worthwhile and relevant to either yourself or others?	Yes, definitely	Probably	I'm not sure, or definitely not	
Note: If a person is unemployed, do not ask Questions 13-20. Score items # 13-20 "I".				
13. How good do you feel you are at your job?	Very good, and others tell me I am good	I'm good, but no one tells me	I'm having trouble on my job	
14. How do people treat you on your job?	The same as all other employees	Somewhat differently than other employees	Very differently	
15. How satisfied are you with the skills and experience you have gained or are gaining from your job?	Very satisfied	Somewhat satisfied	Not satisfied	
16. Are you learning skills that will help you get a different or better job? What are these skills?	Yes, definitely (one or more skills mentioned)	Am not sure, maybe (vague, general skills mentioned)	No, job provides no opportunity for learning new skills	
17. Do you feel you receive fair pay for your work?	Yes, definitely	Sometimes	No, I do not feel I am paid enough	
18. Does your job provide you with enough money to buy the things you want?	Yes, I can generally buy those reasonable things I want	I have to wait to buy some items or not buy them at all	No, I definitely do not earn enough to buy what I need	
19. How satisfied are you with the benefits you receive at the workplace?	Very satisfied	Somewhat satisfied	Not satisfied	
20. How closely supervised are you on your job?	Supervisor is present only when I need him or her	Supervisor is frequently present whether or not I need him or her	Supervisor is constantly on the job and looking over my work	
	TOTAL SCALE SCORE – COMPETENCE/PRODUCTIVITY			<div data-bbox="1629 1354 1852 1458" style="border: 1px solid black; width: 106px; height: 64px; margin: 0 auto;"></div> <div data-bbox="1856 1458 1906 1490">120</div>

Questions	Answer Alternatives			Record Score Here
	3 Points	2 Points	1 Point	
EMPOWERMENT/INDEPENDENCE				
21. How did you decide to do the job or other daily activities you do now?	I chose it because of pay, benefits, or interests	Only thin available or that I could find	Someone else decided for me	
22. Who decides how you spend your money?	I do	I do, with assistance from others	Never on my own	
23. How do you use health care facilities (doctor, dentist, etc.)?	Almost always on my own	Usually accompanied by someone, or someone else has made the appointment	Never on my own	
24. How much control do you have over things you do every day, like going to bed, eating, and what you do for fun?	Complete	Some	Little	
25. When can friends visit your home?	As often as I like or fairly often	Any day, as long as someone else approves or is there	Only on certain days	
26. Do you have a key to your home?	Yes, I have a key and use it as I wish	yes, I have a key but it only unlocks certain areas	No	
27. May you have a pet if you want?	Yes, definitely	probably yes, but would need to ask	No	
28. do you have a guardian or conservator?	No, I am responsible for myself	Yes, limited guardian or conservator	Yes, I have a full guardian	
29. Are there people living with you who sometimes hurt you, pester you, scare you, or make you angry?	No	Yes, and those problems occur once a month or once a week	Yes, and those problems occur every day or more than once a day	
30. Overall, would you say that your life is:	Free	Somewhat planned for you	Cannot usually do what you want	
	TOTAL SCALE SCORE – EMPOWERMENT/INDEPENDENCE			<div style="border: 1px solid black; width: 100px; height: 50px; margin: 0 auto;"></div>

Questions	Answer Alternatives			Record Score Here
	3 Points	2 Points	1 Point	
SOCIAL BELONGING/ COMMUNITY INTEGRATION				
31. How many civic or community clubs or organizations (including church or other religious activities) do you belong to?	2-3	1 Only	None	
32. How satisfied are you with the clubs or organizations (including church or other religious activities) do you belong to?	Very satisfied	Somewhat satisfied	Unsatisfied or very unsatisfied	
33. Do you worry about what people expect of you?	Sometimes, but not all the time	Seldom	Never or all the time	
34. How many times per week do you talk to (or associate with) your neighbors, either in the yard or in their home?	3-4 times per week	1-2 times per week	Never or all the time	
35. Do you have friends over to visit your home?	Fairly often	Sometimes	Rarely or never	
36. How often do you attend recreational activities (homes, parties, dances, concerts, plays) in your community?	3-4 per month	1-2 per month	Less than 1 per month	
37. Do you participate actively in those recreational activities?	Usually, most of the time	Frequently, about half the time	Seldom or never	
38. What about opportunities for dating or marriage?	I am married, or have the opportunity to date anyone I choose	I have limited opportunities to date or marry	I have no opportunity to date or marry	
39. How do your neighbors treat you?	Very good or good (invite you to activities, coffee, etc.)	Fair (say hello, visit, etc.)	Bad or very bad (avoid you, bother you, etc.)	
40. Overall, would you say that your life is:	Very worthwhile	Okay	Useless	
	<p style="text-align: right;">TOTAL SCALE SCORE</p> <p>SOCIAL BELONGING/COMMUNITY INTEGRATION</p>			<div style="border: 1px solid black; width: 100px; height: 50px; margin: 0 auto;"></div>