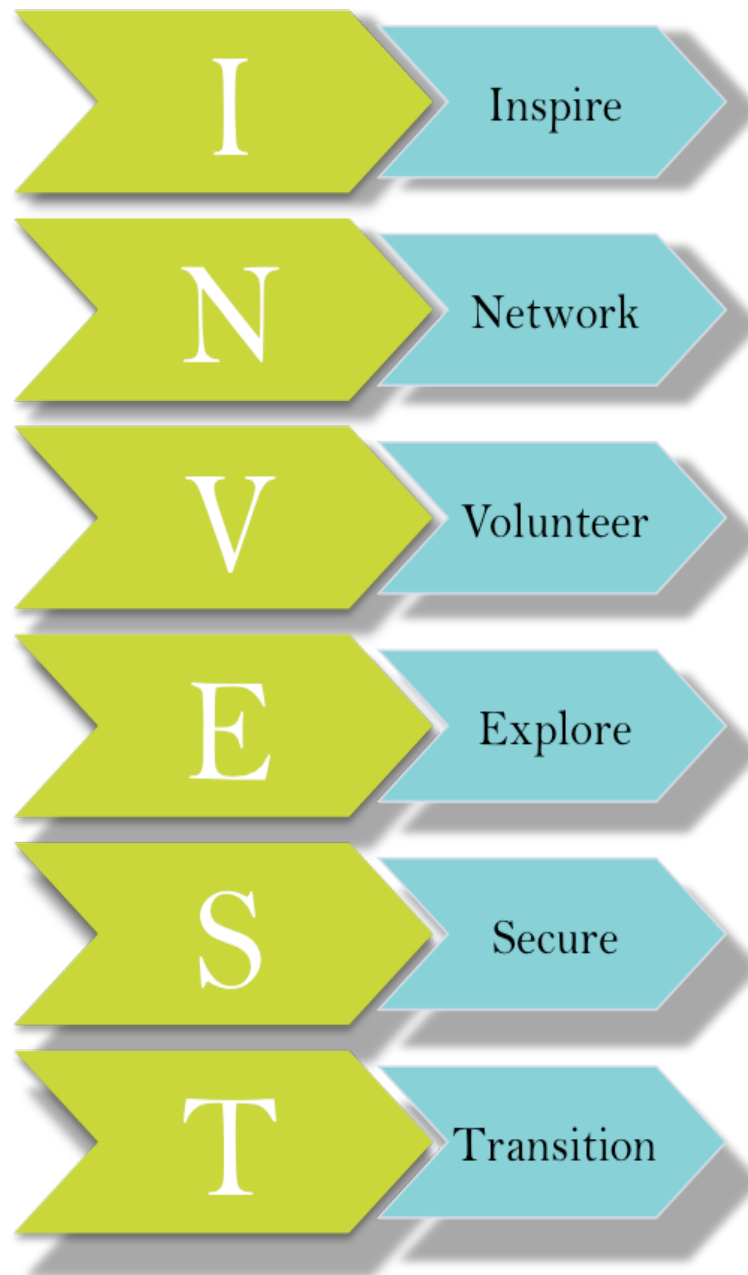


The INVEST Program

An Education to Employment/Post-Secondary Education Transition Program for Students with Mid to High Functioning Autism Spectrum Disorder

Alicia Schmoker



The INVEST Program:
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Functioning Autism Spectrum Disorder

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ABSTRACT

The time of transition from adolescents to adulthood is a difficult one for many individuals, disability or not. One of the biggest challenges within this large developmental milestone is that of transitioning from secondary education to competitive employment or post-secondary education. Autism spectrum disorder (ASD) refers to a continuum of disorders that impact an individual's ability to function in daily life. The impacts of ASD range from mild to severe. This disorder is believed to be persistent and one that commonly causes significant social, communication, and behavioral challenges that can result in lifelong adjustment needs and supports. These autistic symptoms have often been found to affect an individual's ability to handle transitions as well as finding and maintaining competitive employment. Over the recent years, studies have shown competitive employment rates of individuals with ASD ranging between 6%-10%. Contributing factors to these low employment rates include ineffective and inappropriate transition planning for students with ASD, as well as poor collaboration between education, employment, and community agencies. Therefore, a need has been identified, by both literature and professionals, to begin a collaborative autism-focused transition model to prepare students with mid to high-functioning autism spectrum disorder for competitive employment and post-secondary education. The INVEST program provides micro, mezzo, and macro levels of intervention in order to address identified improvement areas for future transition service development including early intervention, motivation, school and adult service collaboration, multi-system transition planning collaboration, and autism awareness training.

Keywords: Autism spectrum disorder, transition, competitive employment, post-secondary education.



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INTRODUCTION

Both research and professionals have shown that transition planning from education to employment for young adults diagnosed on the autism spectrum is inadequate. As a result of this identified problem, students need schools and adult service providers to begin a collaborative autism-focused transition model to prepare students with autism for competitive employment and post-secondary education. This model transition program will work toward closing the competitive employments and post-secondary education gaps between “typically developing” individuals and those with mid to high-functioning autism spectrum disorder (ASD).

In order to achieve these goals, the program will focus on a number of different outcomes over a six-year period. During year one an increase in life skills will be a target outcome with indicators such as, the student comes to class on time and manages his/her emotions. The second target outcome for year one will be the improvement of communication skills with indicators such as, the student listens to others and is able to negotiate solutions. Over the following five years, students will be evaluated on target outcomes of increased decision making skills, job search technical skills, knowledge of resume writing techniques, understanding of how to maintain employment, understanding of college option and opportunities, confidence in ability to attain employment, willingness to attain and maintain employment, access to higher education, attainment of employment or acceptance to post-secondary education. In order to measure whether or not these outcome have been met, specific indicators relating to each outcome will be tracked and evaluated before, during, and after program enrollment.

This developed transition program is designed through the lenses of person-centered theory, ecological systems theory, empowerment theory, and self-efficacy theory. Through respecting the individual’s right to determination and right to make decisions, person-centered theory has the potential to enhance the client’s self-worth. By listening to the individual’s needs and concerns that are ultimately shaping their behavior, professionals have the ability to break down the barrier between professional and client and form a mutually respectful and trusting relationship with the individual. It has been found that when job placements and responsibilities are matched up to the strengths, goals, interests, and specific needs of the adolescent, they are more likely to see an increase in their job satisfaction and a decrease in their needs for additions support (Lee & Carter, 2012; Rowe, 2011).

Concepts of ecological systems theory are based in viewing the person-in-environment. This way of viewing the world requires an understanding of the reciprocal relationship between a person and their environment. As discussed previously, individuals with ASD have social and communication deficits. When thinking about these challenges in relation to the ecological systems theory, one can see the challenges that this might present to individuals looking to find



employment or enroll in post-secondary education. Professionals are able to draw upon this theoretical framework to understand what systems must be in place to best support the student in transition, promote the enhancement of a student's natural supports, and hopefully increase the strength and amount of interactions the student has with their environment (Dente & Coles, 2012).

The theoretical empowerment approach expands on the ecological theory by recognizing that in some environments and systems conflicts arise, and that some individual's potentialities are stifled by injustices within their environment. Individuals with disabilities have been a population facing adversity for years. Although strides have been taken to change this, individuals with ASD are far behind others due to the recent rise in prevalence and the lack of cultural understanding about this disability. By drawing on the concepts of empowerment theory, professionals can work towards meeting the needs of individuals with autism spectrum disorder and challenge the social and economic injustices this population faces. Lee and Hudson (2011) say, "empowerment is about taking control, achieving self-direction, seeking inclusiveness rooted in connectedness with the experiences of other people" (p. 160). In order to spark motivation in these adolescents with ASD to strive for employment or post-secondary education, they must be empowered by the individuals, systems, and communities around them to stand-up against the adversity they face (Lee & Hudson, 2011).

The theory of self-efficacy goes one step further in exploring empowerment, motivation for change, and intention to act. This theory recognizes that social and political systems can influence an individual's level of motivation and ability to take action, but further believes that one's personal beliefs about their ability to take action are far more important. Through this theory, self-efficacy is developed through four task methods that focus on recognizing and reflecting upon personal achievements and success, the achievements of others, feedback on these experiences that is both supportive yet realistic, as well as the psychological and emotional effects these experiences had on the individual and where stressors arose. Through reflective discussions, mentorship, and necessary skill building and practice, transition programs for individuals with ASD can work toward strengthening the individual's self-efficacy, in turn increasing their motivation, and hopefully strengthening their chances of being successful in the adult world (Farkas, 2011).

The proposed program will provide micro, mezzo, and macro levels of intervention in order to address identified improvement areas for future transition service development including early intervention, motivation, school and adult service collaboration, multi-system transition planning collaboration, and autism awareness training. On a micro level this program will conduct strengths assessments, needs assessments, skill development, individual life goal assessments, transition plan development, and employment exploration opportunities as soon as the student registers for high school. On a mezzo level this program will incorporate collaboration with students, parents, teachers,



employment agencies, transportation services, secondary education services, and adult service agencies. On a macro level this program will provide training for employers, co-workers, and job coaches around working with individuals with autism.



PROGRAM OVERVIEW

Problem Statement

Transition planning from education to employment for young adults diagnosed on the autism spectrum is inadequate.

Needs Statement

Students need schools and adult service providers to begin a collaborative autism-focused transition model to prepare students with autism for competitive employment and post-secondary education.

The INVEST Program

Inspire Network Volunteer Explore Secure Transition

The INVEST Program is an autism-focused transition program inspiring youth to be future driven and motivated by exploring interests through volunteer opportunities as soon as high school begins. Through the long-term goal of closing the competitive employment and post-secondary gaps between “typically developing” individuals and those with mid to high-functioning ASD, the INVEST Program is a university based transition program working in collaboration with the K-12 and 18-21 transition public school system, as well as vocational service agencies.

Mission

To provide all INVEST participants with the skills, professional exploration, and growth necessary to obtain competitive employment or post-secondary education prior to or by the time of exiting the public education system at age 21.

Target Population

Students with mid to high-functioning ASD, ages 14-21 years, who qualify for continued 18-21 educational services and who do not qualify for DDA services. Initial communication and registration begins by age 13.

Why INVEST?

While transition support programs through education services, community-based services, and adult services do exist, many of them show deficits in the areas of early inter-disciplinary collaboration, addressing the specific needs of



students with middle to high-functioning ASD, involving the student as an active participant in the transition planning process, initiating the planning for transition as soon as the student enters high school, and inspiring the student to be motivated for employment or post-secondary education. The social disadvantage and exclusion resulting from these underdeveloped and underutilized factors is that of low competitive employment outcomes and low post-secondary education attendance for young-adult with ASD. Associated outcomes resulting from a lack of participation in competitive employment or post-secondary education during the first few years after high school include poor behavioral outcomes, poor quality of life, and poor self-esteem, especially among those individuals with low incomes. Therefore, the INVEST Program is designed to address the need for collaborative transition services for students with ASD before, during, and after the high school years (Carter, Harvey & Gotham, 2013; Dente & Coles, 2012; Duran, 1987; Hendricks & Wehman, 2009; Howlin, 2013; Lee & Carter, 2012; Shattuck et al., 2012; Wilson, 2003).



Component One: Skill Development

In order to develop necessary skills in the areas of social interaction/conversational norms, motivation, problem solving, and executive functioning, INVEST students will participate in 2 hours of classroom instruction every Monday, Wednesday, Friday during 9th - 12th grade (during the student's allotted SDI time) and every Tuesday and Thursday during the student's 18-21 transition years. Specific skill development curriculums, The Why Try Curriculum and The Theory of Mind Curriculum, will be implemented in the classroom focusing on these specific skills that have been identified to be challenging for students with mid to high-functioning autism spectrum disorder. A special education teacher supported by a teacher's aid, employed by the Public School System, will teach these classes in a college campus classroom.

Skill Development Timeline:

- ❖ **Year One:** Communication skills & Life skills
- ❖ **Year Two:** Job search technical skills & Understanding of how to maintain employment
- ❖ **Year Three:** Willingness to attain employment & Willingness to maintain employment
- ❖ **Year Four:** Decision making skills & Confidence in ability to attain employment
- ❖ **Year Five:** Understanding of college options and opportunities & Knowledge of resume writing techniques
- ❖ **Year Six:** Attained employment & Attained admittance to post-secondary education



Component Two: University-Based Employment Exploration Placements

The second main component of The INVEST Program is university based employment exploration placements. Employment exploration placements will take place on the university campus or in the campus of the university medical center, in a variety of employment settings dependent on the student's choice, for a duration of 2 hours every Tuesday and Thursday during 9th-12th grade (during the student's allotted SDI time) and 3 hours every Monday, Wednesday, and Friday during the student's 18-21 transition years. Placements will be determined based on the INVEST student's individual strengths and interests and each placement will last the duration of one high school semester. During the first three years the job coach/mentor will be working one-on-one with the INVEST student at the volunteer site for the entire two days. During the last three years of the program, the amount and duration of the support given by the job coach/mentor will gradually be reduced. This incremental reduction of support will be determined at the quarterly team meetings based on the INVEST student's individual needs and progress. A potential benefit to having the INVEST program components take place on a local university campus, is to help each INVEST student become oriented and familiar with the university setting, classrooms, students, and potential future opportunities.

Along with receiving autism-focused skill development and university-based volunteer placements, INVEST students will also receive weekly transition case management, one hour of volunteer placement supervision 2 times per month by their case manager, and quarterly team meetings and assessments with the student, parent(s)/guardian(s), case manager, teacher, job coach/mentor, and partnering DVR representative.

Community-Based Employment Exploration Placements Timeline:

Year 1

- ❖ **Spring 7th grade:** Begin recruitment and discussion with parents
- ❖ **Fall-Winter 8th grade:** Begin brainstorming with student around goals, interests, strengths, challenges, needed supports (strengths-based, goal-oriented and client-driven), and exploring options.
- ❖ **Winter 8th grade:** Students, Parents, Teachers, future university student job coaches, DVR representatives, and employment supervisors attend opportunity fair located on university campus.
- ❖ **Spring 8th grade:** Meeting to choose first exploration placement by active participation of student (strengths-based, goal-oriented and client-interest-driven), position chosen and added to 9th grade first semester quarter schedule (these schedules are usually developed by spring of the previous school year).



- ❖ **First Semester (September - December):** First employment exploration placement begins.
- ❖ **November of First Semester:** Meeting to choose second exploration placement by active participation of student (strengths-based, goal-oriented and client-interest-driven).
- ❖ **Second Semester (January - June):** Second employment explorations placement begins.

Year 2-6

- ❖ **Early spring (March/April):** Begin brainstorming with student around goals, interests, strengths, challenges, needed supports (strengths-based, goal-oriented and client-driven), and exploring options for following year.
- ❖ **Late spring (April/May):** Meeting to choose first exploration placement of following year by active participation of student (strengths-based, goal-oriented and client-interest-driven).
- ❖ **First Semester (September - December):** First employment exploration placement begins
- ❖ **November of current school year:** Meeting to choose second exploration placement for the year by active participation of student (strengths-based, goal-oriented and client-interest-driven).
- ❖ **Second Semester (January - June):** Second employment explorations placement begins.

Recommended to be carried out by students during summer with assistance by parent(s)

- ❖ **Summers between school years:** Structured visits to the location of the volunteer placement, practice learned skills, and practice using transportation/schedule.



Component Three: Mentor/Job Coach

The third main component of The INVEST Program is the pairing of the INVEST student with a mentor/job coach. Each INVEST student will be matched up with a university senior-level undergraduate, graduate, or doctoral student mentor who is passionate about working with individuals with special health care needs (i.e. Social workers, counselors, teachers, psychologists, behavioral specialist, etc....) and who has undergone autism awareness training provided by The INVEST Program. This mentor will act as the INVEST student's job coach for a minimum of one school year. By drawing upon the use of role models and mentors as job coaches, the program will hopefully further empower and strengthen the individual's drive to obtain employment and/or post-secondary education.

For INVEST students ages 14-20 (9th grade through first year of 18-21 transition), job coaching will be provided by university senior-level undergraduate, graduate, and doctoral students who are passionate about working with individuals with ASD (i.e. counselors, social workers, psychologists, teachers, behavioral specialists, etc.).

Not only will this component allow INVEST students to have a mentor/job coach that is dedicated and passionate about their growth and success, it would also provide more internship, practicum, work placement, and continuing education positions for university programs. By providing more internship, practicum, work placement positions for senior-level undergraduate/graduate/doctoral education programs, INVEST will be able to provide the university student mentors with hands on experience working with individuals with ASD and a knowledge base that will be beneficial in their future careers.

For students ages 20-21 (last year of school 18-21 transition years), who qualify for DVR service, job coaching will be provided through DVR. The INVEST Program will provide autism awareness training to these DVR job coaches. If the INVEST student does not qualify for DVR services, job coaching would continue to be provided by the university students. During the last two years of the program, the amount and duration of the support given by the job coach/mentor will gradually be reduced. This incremental reduction of support will be determined at the quarterly team meetings based on the INVEST student's individual progress made and continued level of need for support.



INVEST Team Members and Roles

Student

The student will be expected to be an active participant in the transition plan development, skills trainings, reflection, quarterly assessment meetings, and chosen employment exploration opportunities.

Parent(s)/Guardian(s)

The student's parents/guardians will be expected to attend and contribute to transition plan development, follow-up with the INVEST case manager at least once a month, attend quarterly assessment meetings, assist student with recommended summer activities, and continue skill building at home.

INVEST Case Manager (Social Worker)

The role of the INVEST case manager will be to carry out all tasks on the timelines provided. Once the student enters into high school, the case manager will act as the liaison between school, DVR, and job sites. Throughout the school year the INVEST case manager will also be in charge of providing weekly transition case management to each student, provide one hour of bi-weekly employment exploration placement supervision, conduct monthly check-ins at least once a month with the student, parent(s), mentor/job coach, teachers, and employment supervisor to discuss progress and potential concerns, as well as plan and facilitate two hour quarterly assessment meetings with the INVEST student, parent(s), mentor/job coach, teacher or teachers aide, and DVR. The case manager will also be expected to assist students in applying for DVR services as soon as they reach qualifying age, and assist in the application process to post-secondary education if the student decides that is their desired path. If a conflict arises for a student within an employment exploration placement, the case manager will be expected to initiate conflict resolution and work with the student, supervisor, and mentor/job coach to develop an action plan.

Program Development Timeline

- ❖ Hold meeting with school district special education coordinator and DVR coordinator.
- ❖ Meet with University program directors and develop potential employment explorations placement opportunities.
- ❖ Meet with university program directors (social work, education, counseling, psychology, etc.) and identify who is interested in providing mentor/job coach internship/practicum placement to their students.
- ❖ Identify special education teacher and teacher's aide and review skill curriculum.
- ❖ Meet University administration and secure classroom space.
- ❖ Set-up transportation services through school district.



- ❖ Recruit university student mentors/job coaches from identified programs.
- ❖ Provide autism awareness training to job coaches, supervisors, and teachers in collaboration with on-call behavioral specialist.
- ❖ Develop opportunity fair with university, public school system, and DVR.
- ❖ Recruit students and families.
- ❖ Match up student with appropriate mentor/job coach.
- ❖ Enroll students into employment exploration placement and skills development class.

Community-Based Employment Exploration Placements Timeline

Year 1

- ❖ Spring 7th grade: Begin recruitment and discussion with parents
- ❖ Fall-Winter 8th grade: Begin brainstorming with student around goals, interests, strengths, challenges, needed supports (strengths-based, goal-oriented and client-driven), and exploring options.
- ❖ Winter 8th grade: Students, Parents, Teachers, future university student job coaches, DVR representatives, and employment supervisors attend opportunity fair located on university campus.
- ❖ Spring 8th grade: Meeting to choose first exploration placement by active participation of student (strengths-based, goal-oriented and client-interest-driven), position chosen and added to 9th grade first semester quarter schedule (these schedules are usually developed by spring of the previous school year).
- ❖ First Semester (September - December): First employment exploration placement begins.
- ❖ November of first semester: Meeting to choose second exploration placement by active participation of student (strengths-based, goal-oriented and client-interest-driven).
- ❖ Second Semester (January - June): Second employment explorations placement begins.

Years 2-6

- ❖ Early spring (March/April): Begin brainstorming with student around goals, interests, strengths, challenges, needed supports (strengths-based, goal-oriented and client-driven), and exploring options for following year.
- ❖ Late spring (April/May): Meeting to choose first exploration placement of following year by active participation of student (strengths-based, goal-oriented and client-interest-driven).
- ❖ First Semester (September - December): First employment exploration placement begins
- ❖ November of current school year: Meeting to choose second exploration placement for the year by active participation of student (strengths-based, goal-oriented and client-interest-driven).



- ❖ Second Semester (January - June): Second employment explorations placement begins.

On-call Behavioral Specialist

The role of the on-call behavioral specialist will be to assist case manager in the autism awareness training of job coaches, teachers, and supervisors as well as to provide extensive behavioral supports for the student within the workplace setting when needed and when the caseworker feels the specific techniques or level of intervention falls outside of their professional ability.

Special Education Teacher and Teacher's Aid

Attend autism awareness training.

The role of the special education teacher will be to participate in transition plan development, conduct classes based off specific skill development curriculum within a classroom setting on the university campus. The role of the Teacher's aid will be to support the teacher in the classroom and offer individualized student supports when necessary.

University Student Mentor/Job Coach

The role of the university student mentor is to act as a role model for the INVEST student and provide one-on-one job coaching while the INVEST student is at their employment exploration placement. Each student mentor will be expected to commit to working at least one full semester or full employment exploration placement term. The mentor/job coach will also be expected to attend the autism awareness training, check in on a monthly basis with the INVEST case manager, and attend the two hour quarterly INVEST student assessment meetings.

Employment Supervisor

Each department within the university that has INVEST students placed with them will be expected to assign an employment supervisor that is in charge of assigning the students a job description, expectations, and duties to be carried out during the placement term. The employment supervisor will also be expected to communicate monthly with the INVEST case manager and provide feedback on the students achievement, growth, and areas of future need or improvement as well as attend the autism awareness training.

DVR

A DVR counselor will be expected to participate in transition planning for each student starting at the age of 16. For those students who qualify to receive DVR services during their last transition year, DVR will be expected to provide the student with a job coach and act as dual case manager alongside the INVEST case manager. DVR counselors and job coaches will be highly encouraged to participate in the autism awareness training.



Transportation

Transportation will be provided by the school district in the form of an ORCA card, Access bus, school bus, or taxi. Transportation will be individualized depending on the specific needs of the student. If the student's parents/guardians wish to provide transportation for their child this will also be acceptable.

Funding

Funding for The INVEST Program will be provided through both the public school district's special education federal fund pool as well as possible grants available. The areas that will require funding are the hiring of the INVEST case manager, behavioral specialist, classroom teacher, and teacher's aid, as well as the obtainment of classroom materials, transportation and a possible stipend for employment supervisors.

The buy-in for the university to participate in The INVEST Program will be that this program will not only offer high school students with ASD career exploration and skill development who potentially will go on to become future university students or employees, this program will provide internship, practicum, work placement positions for senior-level undergraduate/ graduate/doctoral education programs. Therefore, The INVEST Program will be providing the university student mentors/job coaches with hands on experience working with individuals with ASD and a knowledge base that will be beneficial in their future careers.

Data Collection

For information regarding yearly outcomes, outcome indicators, and data collection see attached Appendix A.





Appendix A Year One Data Collection

OUTCOMES/CRITERIA	TOOLS	DATA COLLECTION PROCESS	DATA COLLECTION METHOD	VALIDITY
<p>Outcome 1: Improved communication skills Criteria to achieve outcome 1 = achieve A&B</p> <p>Indicator A: Listens to others Criteria to achieve indicator A: <i>Observation tool:</i> student is able to answer 3 questions about conversation with 100% accuracy by the end of the year.</p> <p>Indicator B: Able to negotiate solutions Criteria to achieve indicator B: <i>Case records:</i> When a conflict arises the student is able to negotiate to come up with an appropriate solution 80% of the time.</p> <p>Outcome 2: Increased life skills Criteria to achieve outcome 2 = achieve A&B</p> <p>Indicator A: Comes to class on time Criteria to achieve indicator A: <i>Official Records:</i> student must be on time to class at least 80% of class days.</p> <p>Indicator B: Manages emotions Criteria to achieve indicator B <i>Observation Survey:</i> Student is able to regulate emotions at least 80% of the time when identified triggers arise.</p>	<p>Outcome 1: A) Observation tool B) Case records</p> <p>Outcome 2: A) Official Records B) Observation Survey</p>	<p>Outcome 1: A) Teacher's aide will track student's ability to listen to others once a day by asking student 3 questions about a conversation the student just had. Teacher's aide will track student's answer accuracy on tracking sheet.</p> <p>B) Daily case notes will be kept for each child tracking their ability to negotiate appropriate solutions when conflicts arise. The teacher or teacher's aid will record the case notes.</p> <p>Outcome 2: A) The teacher or teacher's aid will keep daily attendance records tracking who is "present/ tardy/ absent".</p> <p>B) Teacher's or teacher's aid will use a daily observation survey to track each student's ability to manage his or her emotions when triggered.</p>	<p>Because of the number of participant will be less than 100, data will be gathered from ALL students.</p>	<p>Outcome 1: A) - Same person will complete observation-tracking sheet. - Same observation-tracking sheet will be completed each time. - Teacher's aide will be trained in using observation-tracking sheet B) Same person will complete case notes for student each day.</p> <p>Outcome 2: A) Attendance will be taken at the same time each day. B) - Same person will complete daily observation survey. - Same survey will be completed each day.</p>
				RELIABILITY
				<p>Outcome 1: A) Questions asked by teacher's aide will relate to student's conversation. B) To be appropriate, solutions will be negotiated and accepted by both individuals. Outcome 2: A) Records will record student's daily attendance at the same time each day. B) Survey questions will be related to student triggers and emotional regulation.</p>





Outcome: Increased life skills
Indicator B) Manages Emotions

Name of Student: _____

Week of: _____ Year: _____ Semester: _____

Date: _____			
# Of Times Triggered (Use tally marks)	Specific Trigger (list)	Did student manage his/her emotions? (Y=yes, N=no)	If yes, list coping skill student used

Date: _____			
# Of Times Triggered (Use tally marks)	Specific Trigger (list)	Did student manage his/her emotions? (Y=yes, N=no)	If yes, list coping skill student used

Date: _____			
# Of Times Triggered (Use tally marks)	Specific Trigger (list)	Did student manage his/her emotions? (Y=yes, N=no)	If yes, list coping skill student used

Date: _____			
# Of Times Triggered (Use tally marks)	Specific Trigger (list)	Did student manage his/her emotions? (Y=yes, N=no)	If yes, list coping skill student used

Date: _____			
# Of Times Triggered (Use tally marks)	Specific Trigger (list)	Did student manage his/her emotions? (Y=yes, N=no)	If yes, list coping skill student used





Outcome: Improved Communication Skills
Indicator A) Listens to others

Name of Student: _____

Week of: _____ Year: _____ Semester: _____

Date: _____				
Communication With (Name of person)	Number of Questions Asked	Number of Accurate Answers	Number of Inaccurate Answers	Accuracy percentage

Date: _____				
Communication With (Name of person)	Number of Questions Asked	Number of Accurate Answers	Number of Inaccurate Answers	Accuracy percentage

Date: _____				
Communication With (Name of person)	Number of Questions Asked	Number of Accurate Answers	Number of Inaccurate Answers	Accuracy percentage

Date: _____				
Communication With (Name of person)	Number of Questions Asked	Number of Accurate Answers	Number of Inaccurate Answers	Accuracy percentage

Date: _____				
Communication With (Name of person)	Number of Questions Asked	Number of Accurate Answers	Number of Inaccurate Answers	Accuracy percentage





Year Two Data Collection

OUTCOMES/CRITERIA	TOOLS	DATA COLLECTION PROCESS	DATA COLLECTION METHOD	VALIDITY
<p>Outcome 1: Increased job search technical skills Criteria to achieve outcome 1 = achieve A&B</p> <p>Indicator A: Makes eye contact Criteria to achieve indicator A: <i>Observation survey:</i> rating scale must reach “Almost always” or “Always”.</p> <p>Indicator B: Answers questions appropriately Criteria to achieve indicator B: <i>Case records:</i> Student is able to provide an appropriate response when asked a question by teacher or teacher’s aid.</p> <p>Outcome 2: Increased understanding of how to maintain employment Criteria to achieve outcome 2 = achieve A&B</p> <p>Indicator A: Knows own stressors Criteria to achieve indicator A: <i>Client assessment survey:</i> Student is able to identify own stressors when asked on survey.</p> <p>Indicator B: Knows how to get assistance Criteria to achieve indicator B: <i>Client assessment survey:</i> Student is able to identify three different individuals to ask for assistance in both the classroom and employment settings.</p>	<p>Outcome 1: A) Observation Survey B) Case records</p> <p>Outcome 2: A) Official Records B) Observation Survey</p>	<p>Outcome 1: A) Teacher or Teacher’s aid will track eye contact using an observation survey completed the first week of the semester, half way point, and during the last week of the semester.</p> <p>B) Daily case notes will be kept for each child tracking their ability to answer questions appropriately when asked. The teacher or teacher’s aid will record the case notes.</p> <p>Outcome 2: A) Student completes stressor assessment survey during the first week of the semester, half way, and during the last week of the semester.</p> <p>B) Student completes assistance assessment survey during the first week of the semester, half way, and during the last week of the semester.</p>	<p>Because of the number of participant will be less than 100, data will be gathered from ALL students.</p>	<p>Outcome 1: A) - Same person will complete observation survey. - Same survey will be completed each time. - Observers will both be trained the same way on how to use criteria and rating scale. B) Same person will complete case notes for student each day.</p> <p>Outcome 2: A) Students will all be given same survey each time. B) Students will all be given same survey each time</p>
				RELIABILITY
				<p>Outcome 1: A) Survey question will be related to student’s eye contact. B) To be appropriate student’s response will match question topic.</p> <p>Outcome 2: A) Each student will complete 3 surveys per semester. B) Each student will complete 3 surveys per semester.</p>





Outcome: Increased job search technical skills
Indicator A) Makes eye contact

Student Name: _____

School Year: _____ Semester: _____

- Rating Scale:**
- 0** Never
 - 1** Sometimes
 - 2** Almost Always
 - 3** Always

Date: _____				
Does student make eye contact when speaking with someone?				
0	1	2	3	
Comments: _____				

Date: _____				
Does student make eye contact when speaking with someone?				
0	1	2	3	
Comments: _____				

Date: _____				
Does student make eye contact when speaking with someone?				
0	1	2	3	
Comments: _____				

Outcome: Increased understanding of how to maintain employment





Indicator A) Knows own stressors

Identify as many **situations that make you stressed** as you can:

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.





Outcome: Increased understanding of how to maintain employment
Indicator A) Knows how to get assistance

Name **as many people as you can** to ask for assistance from at school:

1.

2.

3.

4.

5.

Name **as many people as you can** to ask for assistance from at your place of employment:

1.

2.

3.

4.

5.





Year Three Data Collection

OUTCOMES/CRITERIA	TOOLS	DATA COLLECTION PROCESS	DATA COLLECTION METHOD	VALIDITY
<p>Outcome 1: Increased confidence in ability to attain employment Criteria to achieve outcome 1 = achieve A&B</p> <p>Indicator A: Shows confidence he/she will be a valuable employee Criteria to achieve indicator A: <i>Interview:</i> Student will verbally show confidence he/she will be a valuable employee.</p> <p>Indicator B: Shares experience/knowledge Criteria to achieve indicator B: <i>Focus Group:</i> Students shares experience and knowledge gained from employment exploration placements with focus group.</p> <p>Outcome 2: Increased willingness to maintain employment Criteria to achieve outcome 2 = achieve A&B</p> <p>Indicator A: Willing to show up consistently for work Criteria to achieve indicator A: <i>Survey:</i> Student shows up consistently for work 100% of the time when expected to be there.</p> <p>Indicator B: Willing to complete the workday. Criteria to achieve indicator B <i>Survey:</i> Student is able to complete workday without complaint or agitation.</p>	<p>Outcome 1: A) Interview B) Focus Group</p> <p>Outcome 2: A) Survey B) Survey</p>	<p>Outcome 1: A) Teacher or teacher’s aide will hold an interview with each student during the first week of the semester, half way, and during the last week of the semester.</p> <p>B) A whole class focus group will be run to share experiences and expertise gained from employment exploration placements.</p> <p>Outcome 2: A) Mentor/job coach will fill out survey regarding student’s ability to show up consistently for work.</p> <p>B) Mentor/job coach will fill out daily survey regarding student’s ability to complete workday with complaint or agitation.</p>	<p>Because of the number of participant will be less than 100, data will be gathered from ALL students.</p>	<p>Outcome 1: A) Teacher and teacher’s aide will both be trained the same way on running interview with student. B) Focus group facilitator will be trained on how to run a focus group.</p> <p>Outcome 2: A) Same survey will be filled out for each student. B) - Same survey will be filled out for each student. - Survey will be completed at the same time each day.</p> <div style="background-color: #cccccc; text-align: center; padding: 2px;">RELIABILITY</div> <p>Outcome 1: A) Questions asked in interview will be related to student’s feelings around attaining employment. B) Focus group questions will relate to student’s knowledge and experiences.</p> <p>Outcome 2: A) Survey questions will be related to student’s attendance at work. B) Survey questions will be related to workday completion.</p>





Outcome: Increased willingness to maintain employment
Indicator: Willing to show up consistently for work

Students Name: _____

School Year: _____ Semester: _____

Rating Scale:

- 1 – Always (Everyday)
- 2 – Almost Always (Misses one day a week on occasion without notice)
- 3 – Sometime (Misses more days than is present)
- 4 – Never (Student has not shown up for work)

Please answer the following question for your INVEST student using the rating scale above:

Does the student show a willingness to show up consistently for work?			
Please circle only one answer.			
1	2	3	4

Comments: <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>





Year Four Data Collection

OUTCOMES/CRITERIA	TOOLS	DATA COLLECTION PROCESS	DATA COLLECTION METHOD	VALIDITY
<p>Outcome 1: Improved decision making skills Criteria to achieve outcome 1 = achieve A&B Indicator A: Considers pros and cons for decisions Criteria to achieve indicator A: <i>Case records:</i> Student displays ability to think about the pros and cons of a decision prior to making the decision. Indicator B: Thinks about consequences of decision prior to making decisions. Criteria to achieve indicator B: <i>Case records:</i> Student displays ability to identify the potential consequences of a decision before making it. Outcome 2: Increase willingness to attain employment Criteria to achieve outcome 2 = achieve A&B Indicator A: Willing to try temporary employment Criteria to achieve indicator A: <i>Survey:</i> Student is registered for a employment exploration placement. Indicator B: Identifies reason(s) to be employed Criteria to achieve indicator B <i>Focus group:</i> Student contributes to focus group discussion on reasons to be employed.</p>	<p>Outcome 1: A) Case records B) Case records Outcome 2: A) Survey B) Focus group</p>	<p>Outcome 1: A) Daily case notes will be kept for each child tracking their ability to think about the pros and cons of a decision prior to making the decision. B) Daily case notes will be kept for each child tracking their ability to identify the potential consequences of a decision before making it. Outcome 2: A) Teacher will complete one survey for each student per semester tracking whether or not the student is registered for a employment exploration placement. B) An in-class focus group will be help during the first week of the semester during and during the last week of the semester on reasons to be employed.</p>	<p>Because of the number of participant will be less than 100, data will be gathered from ALL students.</p>	<p>Outcome 1: A) Same person will complete case notes for student each day. B) Same person will complete case notes for student each day. Outcome 2: A) Teacher and teacher's aide will be trained on how to fill out survey. B) Focus group facilitator will be trained on running a focus group around reasons to be employed.</p> <p style="text-align: center;">RELIABILITY</p> <p>Outcome 1: A) To show ability student must demonstrate though process of decision making. B) To show ability student must demonstrate though process of decision making. Outcome 2: A) Survey question will measure yes or no if student is registered for placement. B) Focus group questions will be related to reasons to be employed.</p>





Outcome: Increased willingness to attain employment
Indicator B) Willing to try temporary employment

Name of Student: _____

School Year: _____

Semester:	
Is the student registered for an employment exploration placement: (circle one)	
Yes	No
If No, please explain:	





Year Five Data Collection

OUTCOMES/CRITERIA	TOOLS	DATA COLLECTION PROCESS	DATA COLLECTION METHOD	VALIDITY
<p>Outcome 1: Increased understanding of college options and opportunities Criteria to achieve outcome 1 = achieve A Indicator A: Knows college degree and certificate options Criteria to achieve indicator A: <i>Survey:</i> Student is able to list at least one degree and one certificate option that relates to their specific strengths and interests.</p> <p>Outcome 2: Increase knowledge of resume writing Criteria to achieve outcome 2 = achieve A&B Indicator A: Knows components of a resume Criteria to achieve indicator A: <i>Survey:</i> Student is able to correctly identify components of a resume.</p> <p>Indicator B: Submits resume in 2 different formats. Criteria to achieve indicator B <i>Case records:</i> Students submits 2 different resumes in-class by due date.</p>	<p>Outcome 1: A) Survey</p> <p>Outcome 2: A) Survey B) Case records</p>	<p>Outcome 1: A) Student will fill out survey during the first week of the semester and during the last week of the semester.</p> <p>Outcome 2: A) Student will fill out survey during the first week of the Semester and during the last week of the semester. B) Teacher or teacher's aide will record if student submitted 2 different resumes in-class by due date.</p>	<p>Because of the number of participant will be less than 100, data will be gathered from ALL students.</p>	<p>Outcome 1: A) Student will fill out same survey each time.</p> <p>Outcome 2: A) Student will fill out same survey each time. B) Teacher and teacher's aid will be trained on how to record submission results.</p> <div style="background-color: #cccccc; text-align: center; padding: 2px;">RELIABILITY</div> <p>Outcome 1: A) Survey questions will be related to college options and opportunities.</p> <p>Outcome 2: A) Survey questions will be related to the different components of a resume. B) Teacher or teacher's aid will record date that student submitted resume on the day of submission.</p>





Outcome: increase knowledge of resume writing
Indicator B) Knows components of a resume

Name of Student: _____

Date: _____ School Year: _____ Semester: _____

Explain the different components of a resume:





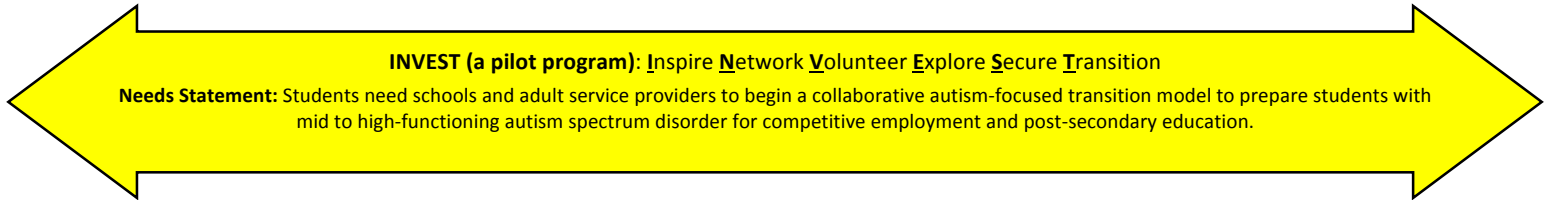
Year Six Data Collection

OUTCOMES/CRITERIA	TOOLS	DATA COLLECTION PROCESS	DATA COLLECTION METHOD	VALIDITY
<p>Outcome 1: Achieve post-secondary plan Criteria to achieve outcome 1 = achieve A or B If student has identified they want to gain employment they must achieve A. If student has identified that want to attain post secondary education they must achieve B.</p> <p>Indicator A: Attained Employment Criteria to achieve indicator A: <i>Case records:</i> Student attained competitive employment by the end of the school year.</p> <p>Indicator B: Attained acceptance to post-secondary education. Criteria to achieve indicator B: <i>Official records:</i> Student attained acceptance to post-secondary education by the end of the school year.</p>	<p>Outcome 1: A) Case records B) Official records</p>	<p>Outcome 1: A) At the beginning of the school year and at the end of the school year the teacher or teacher's aide will record whether or not student attained competitive employment.</p> <p>B) At the beginning of the school year and at the end of the school year the teacher or teacher's aide will record whether or not student attained acceptance to post-secondary education.</p>	<p>Because of the number of participant will be less than 100, data will be gathered from ALL students.</p>	<p>Outcome 1: A) Same person will complete case records for student at the beginning and at the end of the school year. B) Same person will complete case records for student at the beginning and at the end of the school year.</p> <div style="background-color: #d3d3d3; text-align: center; padding: 5px; margin: 10px 0;">RELIABILITY</div> <p>Outcome 1: A) Case records will be based on verification from employer. B) Case records will be based on verification from place of post-secondary education.</p>





Appendix B Year One Logic Model



THEORY/ FRAMEWORKS	INPUTS/ RESOURCES	ACTIVITIES	OUTPUTS (Measurable)	OUTCOMES (Short-term goals)	OUTCOME INDICATORS (Measurable)	LONG-TERM GOAL
<p>Person-Centered Theory: Values the client’s right to free will and personal decision-making. (Increase self-worth)</p> <p>Ecological Systems Theory: Recognizes the reciprocal relationship between person and their environment. (Understand barriers)</p> <p>Empowerment Theory: Recognizes that some individual’s potentialities are stifled by injustices within their environment. (Fight injustices and spark motivation)</p> <p>Self-Efficacy Theory: Believes that ones personal beliefs about their ability to take action are far more influential than the systemic influences. (Increase self-efficacy, motivation, and potential success).</p>	<p>5-10 Student’s with mid to high functioning autism according to the DSM 5 diagnostic criteria.</p> <p>Parent/guardian support and participation.</p> <p>5-10 University student job coaches</p> <p>1 Transition case manager (MSW)</p> <p>1 Behavioral specialist (on-call)</p> <p>1 Special education teacher and 1 teacher’s aid employed by Seattle School District</p> <p>Transportation provided by Seattle School District</p> <p>5-10 employment exploration placement opportunities on university campus</p> <p>1 employment exploration site supervisor per placement position</p> <p>1 Classroom space on university campus</p> <p>Classroom supplies</p>	<p>Hold meeting with Seattle School District special education coordinator and DVR coordinator.</p> <p>Develop skill curriculum.</p> <p>Set-up transportation services through the school district.</p> <p>Meet with University program directors and develop potential employment exploration opportunities across university campus.</p> <p>Recruit university student coaches/mentors.</p> <p>Provide autism training to job coaches, supervisors, and teachers.</p> <p>Develop Opportunity fair with university, public school system, and DVR.</p> <p>Recruit students and families.</p> <p>Match up student with appropriate coach/mentor.</p> <p>Enroll student into volunteer placement and skill development class.</p>	<p>Provide weekly transition case management.</p> <p>Provide one hour of placement supervision 1x per week.</p> <p>Two hour quarterly assessment meetings with case manager, job coach/mentor, INVEST student, and parent(s)/ guardian(s).</p> <p>Provide students with 2 hours per day 3x/week of classroom learning around social, job, and executive functioning skill development.</p> <p>Provide students with professional explorations and growth through a total of 2 university-based employment exploration placements (2 hours per day/ 2 days per week).</p>	<p>Outcome 1: Improved communication skills</p> <p>Outcome 2: Increased life skills.</p>	<p>1a: Listens to others</p> <p>1b: Able to negotiate solutions</p> <p>2a: Comes to class on time</p> <p>2b: Manages emotions</p>	<p>Close competitive employment and post-secondary gaps between “typically developing” individuals and those with mid to high-functioning ASD.</p>



Appendix C Information Report

Services for Students with Autism Spectrum Disorder Transitioning from Education to Employment

One in 88 children were diagnosed with Autism Spectrum Disorder (ASD) within the United States in 2012 alone, and the prevalence continues to grow. Over the next few years, as these newly diagnosed children age into high school, secondary education services must begin developing programs to best support these youth as they grow into young-adults. For example, an estimated 50,000 adolescents with an ASD diagnosis were expected to turn 18 years of age in 2012 alone. With this large number of adolescents aging out of the federally mandated education services and into adulthood, there is a growing need for continuing education and employment support services (Shattuck et al., 2012; Roux et al., 2013; Strickland, Coles, & Southern, 2013; Wehman et al., 2012).

Autism Spectrum Disorder "... refers to a continuum of disorders that range from severe to mild" (Hendricks & Wehman, 2009, p. 77). This disorder is believed to be persistent and one that commonly causes significant social, communication, and behavioral challenges that can result in lifelong adjustment needs and supports. These autistic symptoms have often been found to affect an individual's ability to handle transitions as well as finding and maintaining competitive employment (Centers for Disease Control and Prevention [CDCa], 2012; Hendricks & Wehman, 2009; Lee & Carter, 2012).

The term *transition* refers to "a time of change, and change is often accompanied by growth, uncertainty and possibility" (Wilson, 2003, p. 52). Common characteristics of individuals with autism spectrum disorder include a need for routine, sameness, and predictability. As a result of these characteristics, one can see why times of transition may be more difficult for individuals with autism compared to their *typically developing* peers (Lee & Carter, 2012).

The term *competitive employment* for individuals with ASD, refers to employment within a community-based setting with pay equal to or greater than minimum wage, equal to others in the same employment position without a disability, and employment equal to or greater than part-time (Wilczynski, Trammell, & Clarke, 2013). Roux et al. (2013) found that, competitive employment contributes to positive outcome factors such as "economic and social well-being, is linked to positive health outcomes, is a gateway to health insurance, and is a factor in quality of life" (p. 931).

The Historical and Current Understanding

The time of transition from adolescents to adulthood is a difficult one for many individuals, disability or not. One of the biggest challenges within this large developmental milestone is that of transitioning from secondary education to competitive employment or post-secondary education. Studies have shown



employment rates of individuals with ASD to be between 6%-10%. Contributing factors to these low employment rates include ineffective and inappropriate transition planning for students with ASD, as well as poor collaboration between education, employment, and community agencies. As of 2012, there have been no transition services or programs that focus on the unique needs of individuals with autism spectrum disorder and schools are inconsistent in providing supports that result in post-school employment for this population. For students with ASD, during their high school years, studies show that there is a lack of focus on and availability of resources and opportunities including job skills training, job shadowing, internship experiences, job coaching, and job placement support. As a result of these current service gaps, the transition from formal education to the adult workforce is inconsistent and complicated to say the least (Chiang, Cheung, Li & Tsai, 2013; Hendricks & Wehman, 2009; Lee & Carter, 2012; Taylor & Seltzer, 2011; Wehman et al., 2012; Wehman et al., 2013; Wilczynski et al., 2013).

In the following sections, this report will work to explore what is currently known regarding the transition process from education to employment, specifically for students with ASD, as well as how current transition programs through education services, community-based services, and adult services work toward making this transition process successful. After exploring these available and current services, potential service gaps will be identified along with how economic, developmental, cultural, and systemic influences play a role in this emerging social issue.

Education Services

Wehman et al. (2012) found that 62% of students with ASD participated in special education classes while only 33% participated in general education classes during their high school years. Students with ASD who receive special education and related services under this diagnosis equal more than 370,000, constituting the “3rd largest population among students receiving special education related services” (Chiang et al., 2013, p. 1833). The purpose and goal of special education services for youth with ASD is to provide these students with the transferable skills, competencies, and real-life experiences necessary to excel during and after high school. Whether that is in an employment or higher education setting. Transition programs currently in place by the Seattle Public School System include, Individual Education Plan (IEP) transition meetings (ages 16-18 years), the Exploring Internship Program, individual high school 18-21 transition programs, and King County School to Work (ages 20-21) (Carter, Harvey, Taylor, & Gotham, 2013; S. Studley, Ed. D., personal communication, November 19, 2013).

IEP Transition Plan Meetings (ages 16-18 years)

The Individuals with Disabilities Education Act (IDEA) requires all school districts to provide each and every student on an IEP with an initial transition plan meeting, at 16 years of age. These meetings identify and develop a course of study, future planning, graduation track, necessary vocational and life skills, and



are intended to occur annually after the age of 16 (S. Studley, Ed. D., personal communication, November 19, 2013). Presently, the most active participants in these meetings are special education teachers and parents/guardians. Active participation by the student themselves is highly encouraged as well as attendance by an array of support and service providers. However, in a study conducted by Hendricks & Wehman (2009) it was determined that, “in all, 58% of meetings were attended by related service personal, 40% by general education teacher, and 30% by an external support agency...fewer than one third of students with autism actively participated in transition planning meetings, whereas only 3% led the discussion” (p. 79).

For students with students with mid to high functioning autism spectrum disorder (HFASD), their high school track tends to be fully academic. Although many of these students still qualify and have an IEP transition plan in place, identifying that these students should be receiving social and life skills development, many of them are spending their Specifically Designed Instruction (SDI) time making up homework instead of receiving these services. School district professionals have noted that a potential reason behind this decision may be that, although it has taken years and years to develop these skills, the student appears to be comfortable talking and relating to peers and adults in the school setting. Therefore, it is possible that school professionals feel that it is more important for the students to focus on academics relating to graduation rather than what is specified in the student’s transition plan. However it has been found, that when many of these students begin to venture out into the community they do not talk or know how to interact with individuals around them (S. Studley, Ed. D., personal communication, November 19, 2013).

Exploring Internship Program (EIP)

The Exploring Internship Program (EIP) is a program that was developed by the Seattle School District in order to offer students with both low functioning and high functioning disabilities the chance to experience work opportunities through internship placements. These internships take place in a variety of jobs and duties around the school district administration building, John Stanford Center for Educational Excellence. Internship placements in this program can start at age 16. The internship is unpaid, hours occur during the school day, and the student receives class credit for the work they complete. The program begins with a half-day of direct instruction, job skills, and life skills taught by 2 special education teachers and a teacher’s aide located within the Stanford Center. Internship placements are limited in this program and students are recommended and chosen on a best-fit basis determined by special education staff (S. Studley, Ed. D., personal communication, November 19, 2013).

Individual High School 18-21 Transition Programs

Within the Seattle Public School System there are nine different transition programs across seven schools. These programs are specifically for students who qualify for continued academic services between the ages of 18-21. Typically, these programs incorporate one special education teacher and one aide.



Teachers assign student placements based on student interests and placement availability. In individual school programs associated with the Division of Vocational Rehabilitation (DVR) job coaches or Washington Initiative for Supported Employment (WISE) interns, job placements take place in non-centralized hospital settings scattered throughout the region. Other high school special education teachers have developed their own programs that take place in community organizations such as food banks and gardens. Within these individually developed programs, the special education teacher typically acts as the job coach for their students (S. Studley, Ed. D., personal communication, November 19, 2013).

It is hopeful to hear that these programs are being developed and that the importance of internship opportunities is not being ignored in some high schools. However, when talking about these different programs, Sherry Studley, a Seattle Public School's Special Education Supervisor of 18-21 transition programs in the Northeast region of Seattle, states, "students seem happy but administration is not happy" due to the fact that there are nine completely different programs within seven schools and the length of each program varies (personal communication, November 19, 2013).

School-to-Work (S2W)

Congress passed the School-to-Work Opportunities Act (STWOA) in 1994. This act provides grant funding to states and local education districts that strive to link classroom learning with skill development required for students to succeed in employment settings. "The STWOA is perhaps the most comprehensive federal initiative to date designed to significantly enhance student' post-school outcomes, regardless of whether a student has a disability, or whether a student seeks immediate entry into the labor force or postsecondary education" (Unger & Luecking, 1998, p. 94). Although the School-to-Work programs strive to include all students, disability or not, the STWOA does not mandate schools to do so and "...preliminary findings report that youth with disabilities are generally underrepresented in STW initiatives" (Unger & Luecking, 1998, p. 94).

In King County the Division of Disabilities Administration (DDA) has partnered with the King County School District to make the School-to-Work (S2W) program available for students regardless of their level of disability. School-to-work eligibility criteria for King County School District students are that the student must be turning 21 years of age and in their last eligible year to receive continued school services, connected with DDA and DVR services, and that the student must show strong desire and motivation to obtain a job in their community. According to the King County S2W program, "the key ingredients to successful job placement are the individuals' desire to work and a strong support team with a belief in and vision for community based individual employment" (King County, 2012, para. 2).



Community-Based Services

Project SEARCH

Project SEARCH is a newly developed business-lead transition model that focuses on workplace immersion by combining and integrating classroom instruction and on-the-job training. The program was originally developed as a model for students diagnosed with developmental disabilities (DDs) such as intellectual disabilities (IDs) and learning disabilities (LDs). Project SEARCH has recently conducted studies around how to best support students with autism spectrum disorder when using a Project Search model. Yet, “to date, no specific transition programs or models have been described for students with ASD” (Wehman et al., 2012, p. 145).

With a strong emphasis on students rotating through a series of internships during their entire last year in the continued education system, Project SEARCH encompasses a number of key elements in order to reach its goal of post-secondary competitive employment for all its participants. The key elements of Project SEARCH include “real-life work experiences, training in employability and independent living skills, and placement assistance through active collaboration of the public education system, employers, and the state and local vocational rehabilitation (VR) system” (Wehman et al., 2012, p. 145). During their specific exploration around Project SEARCH and practice implications when working with students who have ASD, Wehman et al. (2012) discovered that along with the key elements established above for students with other DDs, students with ASD require additional supports. These additional supports were identified as intensive social skills instruction and practice, low student to staff ratios, regular and accessible behavioral supports, concrete structure and schedules, as well as enhanced description of workplace expectations in regards to social communication, behavioral expectations, and workplace dialect (K. Davis, BA, personal communication, November 11, 2013; Wehman et al., 2012; Wehman et al., 2013).

As implementers of the Project SEARCH model, high schools, large businesses (i.e. hospitals, government centers, and banks), and adult service agencies (i.e. DVR) create collaborative partnerships to support the full immersion of student learning and career exploration. During a student’s time in a Project SEARCH program, both the school and the partnering adult services agencies act as collaborative case managers for the participating student (Wehman et al., 2012).

In order for students with ASD to be considered to participate in a Project SEARCH transition model, students need to have completed certain pre-requisites prior to beginning the program. These qualifying determinates are that each student must be in their last year of the public school continued education system, previously completed all academic high school graduation requirements prior to beginning Project SEARCH, have an ASD diagnosis or be receiving special education services under the qualification of autism, be independent enough to conduct self-care, and have the ability to give consent or assent. Those



individuals who require extensive support needs especially in the area of self-care are not able to participate and those individuals who require limited support are seen as too high functioning to require the level and intensity of supports and instruction provided in this program (Wehman et al., 2012; Wehman et al., 2013).

Outcomes of programs modeled after Project SEARCH found that, "...78% of students with varying disabilities who participate in the program achieve competitive employments at a privileged wage" (Wehman et al., 2012, p. 146). These high employment results reflect the essential need for community-based intensive skills training and internship opportunities.

During the 2013-2014 school year Roosevelt High School is partnering with Children's Medical Center in Seattle, WA to bring this program to the qualifying transition students at Roosevelt High. During the entire 2013-14 school year, Roosevelt High School students in their last year of their continued 18-21 transition service program are rotating through multiple internship placements within Children's Medical Center in order to gain a variety of opportunities in career training. Available office space within Children's Medical Center is used for the instruction of job and independent living skills in order to follow the Project SEARCH model of offering students full immersion into the work place (S. Studley, Ed. D., personal communication, November 19, 2013; Wehman et al., 2012).

According to Studley, some education professionals who have been in the field for multiple years are still skeptical of the new Project SEARCH model. This skepticism arises from concerns regarding whether programs that use a volunteer track, rather than an adult vocational services vendor track in the last year of continued schooling, are capable of leading to stable employment (S. Studley, Ed. D., personal communication, November 19, 2013).

Adult Services

Division of Vocational Rehabilitation (DVR)

During a student's last year in the public school system's 18-21 transition program, typically at 20-21 years of age, the Department of Social and Health Services (DSHS) Division of Vocational Rehabilitation (DVR) offers many different career and skill development services to qualifying students. If a student qualifies for DVR during their last year of schooling, DVR will provide the student with job coaching, career exploration, job searching, and determine if DVR is the right agency to provide these services or if there is a better-fit agency for the individual student (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013).

It is important to note that prior to the age of qualification to receive DVR services, a student can become *connected* to DVR as early as age 16. Becoming *connected* with DVR means that a DVR counselor will be invited to the annual transition plan meetings at the student's school, to help give input and brainstorm needed individualized preparatory measures that will most benefit the student in preparing for their transition to adult services and that best align with



the students interests and goals. As soon as schools identify a student who will potentially qualify for DVR services, in the last year of their education, they are supposed to be contacting DVR and inviting a DVR counselor to the student's first transition meeting at age 16 and annually following the initial meeting. As reported by a DVR Vocational Rehabilitation Counselor, although this is what is expected of the schools, in reality schools are typically waiting to contact the DVR counselor until one week prior to the students exit from the education system. In cases where the school does contact a DVR counselor and invite them to attend the transition meeting, it is common for the DVR counselors to be asked to sign the IEP, stating that they agree with the plan, without discussing what the plan involves or incorporating the input of the DVR counselor. This type of partnership, originally developed to best support the students preparing for transition, has left some DVR counselors discouraged. As a result of failed early collaboration between education and adult services, we see many students who are not prepared to qualify and receive DVR services in their last year of school (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013).

Typically at age 20, in order for an individual to qualify for DVR services, they must meet three qualifying criteria. First, the individual must have a diagnosed disability that impacts at least one of seven daily living functions. According to DVR, a DSM-IV diagnosis of autism or asperger's syndrome, or a DSM-5 diagnosis of autism spectrum disorder meet this qualification regardless of severity level. The second qualification is that the individual must be motivated to work and be able to relay this motivation by vocalizing their desire to work to their DVR counselor. Lastly, the individual must have the ability to benefit from services; some individuals may want to work, but may lack physical or mental ability to maintain employment (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013).

Once an individual has qualified for DVR services, there are many DVR programs and DVR partner programs that can become a part of the individual's plan to employment. These service programs include assessments (neuropsychological, function, and needed supports), independent living services (IL), job coaching, social skills training classes, consultations with an assistive technology practitioner, bus training through King County Metro, and College 101 courses through Goodwill (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013; Department of Social & Health Services Division of Vocational Rehabilitation, 2013).

Once a student has been assigned a job placement, DVR will provide supportive employment services including a job coach. This job coach will work with the individual until they have secured employment as well as 6-months post-hire. Once the 6-month period has ended, DVR does not have the funds or available services to provide supports any further (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013).



Developmental Disabilities Administration (DDA)

Once individuals have completed their work with DVR and secured stable employment, the Developmental Disabilities Administration (DDA) will step-in and begin working with those who qualify for DDA services. However, due to a lack in funding, DDA is unable to provide employment support services prior to employment. Therefore, long term employment support/job coaching is provided only after the individual has been supported by DVR for the 6-months post-hire (Rolfe, 2012).

The services and resources provided by DDA are focused on servicing the *most severely impacted* individuals as defined by the WAC 388-823. Currently, to qualify for DDA services under the qualification of autism and be entered into the DDA database, an individual must have a diagnosis of DSM-IV-TR 299.00. This diagnosis must be determined and given by a professional qualified in evaluating and assessing development as determined by DDA and WAC 388-823-0850. These qualified diagnostic professionals consist of licensed physicians, master's level social workers, licensed psychologists, certified school psychologists, licensed physical therapists, registered occupational therapists, audiologists, speech language pathologists, registered nurses, certified teachers, and orientation or mobility specialists (Washington State Department of Social and Health Services, 2013; Autism Speaks, 2013; Washington State Legislature, 2005).

Currently, under WAC regulations and DSM-IV-TR diagnostic criteria, individuals with asperger's syndrome and pervasive developmental disorder not otherwise specified (PDD-NOS) do not qualify for DDA services because they do not meet criteria for being *most severely impacted*. DDA is currently working to switch their diagnostic eligibility qualifications over to match the DSM-5 diagnostic criteria for autism spectrum disorder. In the DSM-5 the diagnosis of Autism Spectrum Disorder is accompanied by 3 severity levels according to the perceived level of supports the individual is in need of. When DDA begins accepting a DSM-5 diagnosis of Autism Spectrum Disorder the individual will need to have a severity level of either Level 2, *requiring substantial support*, or a Level 3, *requiring very substantial support* to be considered *most severely impacted* and qualify for DDA services. Under these qualifying diagnostic criteria, individuals who have a diagnosis of mid-level to high functioning autism spectrum disorder (HFASD) such as asperger's disorder or PDD-NOS (DSM-IV-TR), typically referred to now as a Level 1 Autism Spectrum Disorder under DSM-5, will continue to be denied DDA services. For those individuals who do not qualify for DDA services and who have participated in DVR to find employment, after the 6-month post-hire support period the individual's case will be closed and employment supports will end. This is the case for most individuals with a diagnosis that does not meet DDA criteria unless the individual themselves or individual's parents/guardians are able to hire a private job coach and pay out of pocket for their services (Washington State Department of Social and Health Services, 2013; Autism Speaks, 2013).



Impact of Economics, Difference, and Diversity

Autism spectrum disorder appears across all socioeconomic, ethnic, age and gender groups. A recent study conducted by Chiang et al. (2013), found that some of the significant contributing factors associated with post-secondary employment for young-adults with ASD include annual household income, if the individual has a diagnosed ID as well as an ASD, the individual's level of social skills, if the individual received career exploration during high school, and the level of collaboration between the high school, adult vocational services, and potential employers (National Institute of Neurological Disorders and Stroke, 2013).

Economics

In 2009, it was recorded that approximately 163,000 children with a diagnosis of autism lived below the poverty line (Shattuck et al., 2012). With this statistic in mind, Shattuck et al. (2012) explored the possible effects that poverty can have on post-secondary outcomes for individuals with autism spectrum disorder and found that "...poorer youth with an ASD have very different life changes after leaving high school than their more affluent peers" (p. 1047). Multiple studies have identified the importance for professionals who work with individuals with ASD to become aware of the fact that individuals from families with lower socio-economic-status may need extra supports in place, such as job opportunities and resources, to meet their needs and attain stable employment. Without these supports in place, there is a stronger chance of low employment outcomes for this population (Chiang et al., 2013; Shattuck et al., 2012).

Another element when thinking about service development for youth with autism is the societal cost of services for this population if they are unable to attain and maintain competitive employment. Currently, studies suggest that the average societal cost for a single individual with autism across their lifetime is over \$3 million. With the current autism spectrum disorder prevalence rate of 1:88, this population can be seen as a financial burden on society and shows a need for stronger support services as these individuals begin to age into adulthood and are looking for employment. The real long-term financial burden, as the prevalence of autism rises, is to ignore the critical need for autism specific transition supports (Howlin, 2013; Wilczynski et al., 2013).

Although, vocational program start-up costs are higher for adults with ASD than almost any other disability and funding is limited, "in the long term, such schemes can become cost neutral as young people cease to be dependent on benefits and begin to pay taxes" (Howlin, 2013, p. 898). It has been found that providing an extra 2 years of transition services for youth with autism can lead to a significant reduction in the long term societal cost of services by at least 30% and increase the chances of stable employment (Cimera, Burgess, & Wiley, 2013; Strickland et al., 2013).

Disparities

Although it has been found that as time passes the unemployment rate of individuals with ASD is less dramatic than during the first two years after high



school, barriers still exist well into adulthood and continue to be significantly higher than barriers experienced by others (Roux et al., 2013). “Adults with ASD experience high unemployment and underemployment, switch jobs frequently, have difficulty adjusting to new job settings, make less money than their counterparts, and are much less likely to be employed than their typically developing peers, individuals with less severe language disorders, or individuals with learning disabilities” (Hendricks & Wehman, 2009, p. 81). The majority of employed individuals with ASD are receiving hourly wages less than that of the national minimum (Chiang et al., 2011).

In a sample population, 8 years after high school, surveyed by Lee & Carter (2012), 63.2% had worked at some point in time since graduation while only 37.2% were currently employed. Similar results yielded from a study conducted by Howlin (2013), which found 53% had been employed at least once at some point post-graduation. Comparing these employment rates to the general population at 98%, individuals with speech and language impairments, learning difficulties, and emotional disturbances at 80%, and individuals with intellectual disabilities at 62%, shows the large employment rate disparities between individuals with ASD not only to the general population but also to that of individuals with similar disabilities. It has been found that young adult’s with ASD who do not have a co-occurring ID are three times more likely to have no employment or postsecondary education than their peers with a dual diagnosis (Chiang et al., 2013; Hendricks & Wehman, 2009; Howlin, 2013; Lee & Carter, 2012; Shattuck et al., 2012; Taylor & Seltzer, 2011; Wehman et al., 2012; Wilczynski et al., 2013).

Impact of Relevant Developmental Stages

For *typically developing* adolescents, between the ages of 15-17 years old, many developmental changes are occurring. During this time, typically developing students are beginning to separate from their parents/guardians and question what they have been taught to value in the past by forming their own beliefs and sense of an independent identity. Students begin to understand abstract ideas, develop stronger social skills and intimate friendships, tools for independence, critical thinking, and executive functioning (Centers for Disease Control [CDC], 2012b; Medline Plus, 2013).

The main diagnostic characteristics of an ASD are perpetual deficits in social communication, social interaction, and patterns of behavior or interests that are restrictive and/or repetitive. As mentioned earlier ASD comes in a range of severities including being non-verbal, over-stimulated by sensory input, unable to read social cues, keep eye contact, and initiate a conversation. Each diagnosis of ASD varies in the individual’s ability to function across these areas depending on their severity level. Due to their social communication deficits and restrictive or repetitive behaviors and interests, adolescents diagnosed with autism tend to show difficulty in their ability to make friends, initiate or carry-on conversations, relate to other areas of interest, and adapt to changes in schedules and routines



(Autism Speaks, 2013; National Institute of Neurological Disorders and Stroke, 2013; Winner & Crooke, 2011).

In recent years, there has been a rise in the number of people diagnosed with mid to high functioning autism spectrum disorder, commonly known as asperger's syndrome. These mid to high functioning individuals typically display levels of verbal ability in the low-average to average range and low-average to above average cognitive ability but, continue to struggle in areas regarding social interaction, restrictive interests, motivation, problem solving, executive functioning skills as well as some sensory input sensitivity. Although these individuals tend to have IQ levels between 70-110, their interests tend to be very rigid and specific to individual topics. These rigid interests only add roadblocks to an individual's ability to relate to others and explore opportunities. Learning and adhering to conversational norms (i.e., ability to initiate conversation, read social cues, hold a two-sided conversation, determine appropriate timing and intensity, and read how they are affecting the other person) is also very difficult for individuals with mid to high level functioning ASD no matter their verbal ability (Dente & Coles, 2012; G. Stobbe, MD, personal communication, November 14, 2013; Web MD, 2013).

Some may think that if an individual shows strong cognitive ability, they shouldn't have any problems maintaining employment. However, studies have found that, "...adults on the autism spectrum who have higher cognitive ability are unlikely to be competitively employed" (Wilczynski et al., 2013, p. 876). As discussed above, these mid level to high functioning individuals receive limited support services into adulthood, despite proof that their disability is hindering their core ability to interact with others, ability to be flexible, and their executive functioning skills (i.e. time management, planning, and organizing). In turn, hindering their ability to maintain employment.

These deficits limit an individual's ability to navigate the social aspects of searching for a job, showing up on time, forming positive work relationships with coworkers and employers, and problem solving. Many adult service agencies have a qualifying IQ cut-off of 69 or below (constituting the *most severely impacted*), therefore these findings suggest that this group of mid to high level functioning individuals whose disability isn't limiting enough to qualify them for adult day services but too debilitating to function independently without support are slipping through the service cracks during the transition from education to adulthood (Dente & Coles, 2012; Lee & Carter, 2012; Taylor & Seltzer, 2011; Wilczynski et al., 2013).

The Cultural and Systemic Influences

Culture

For years despite the individual's interests and strengths, when it comes to employment, students with ASD have been funneled into what are referred to as *the 3 Fs* (food, filth, and flowers). Up until recently in the dominant American culture and currently in many other cultures it is not expected for individuals with disabilities such as autism spectrum disorder to transition into adulthood, get a



job, and become independent with limited supports. In a study conducted by Duran (1987), coworkers of students with disabilities shared their feelings around individuals with disabilities performing work. Some expressed that they felt the families of individuals with disabilities should be caring for and providing for the individuals instead of having them work. While others expressed feelings that they never truly believe that individuals with disabilities are capable of doing the same duties and jobs that others without disabilities are performing. It is still very common for schools, parents/guardians, as well as some communities as a whole to have low expectations of students with ASD (K. Peters, personal communication, November 18, 2013; Lee & Carter, 2012).

Systemic

Starting in 1990, the Individuals with Disabilities Education Act (IDEA) made transition planning for students a federal law. Currently in Washington State, this law requires schools to establish the first transition plan during the first IEP meeting in place by the student's 16th birthday and to review and update this plan annually. The transition planning process can start prior to age 16 years if the IEP team decides that it is necessary or the student's parents/guardians make a request to the school. Although, this option is available, families are seldom made aware of this right and schools rarely opt to begin the process early. In some states, the IDEA regulations have been amended to require initial transition planning to begin at age 14 years. Although it was not a requirement that students take on an active role in these meetings, it is required by law that they be invited and highly encouraged that they be given the support and encouragement to take on a leadership role in the meetings (Chiang et al., 2013; Cimera et al., 2013; Hendricks & Wehman, 2009; Lee & Carter, 2012; Wilczynski et al., 2013).

During the same time the implementation of the IDEA in the early 1990s was underway, the country saw an accelerated rise in ASD diagnosis. Since then, professionals have recognized that the planning and implementation of transition plans for students with ASD in schools are falling short of what the federal government intended when they implemented the IDEA in 1990 (Chiang et al., 2013; Cimera et al., 2013; Hendricks & Wehman, 2009; Lee & Carter, 2012; Wilczynski et al., 2013).

In 1998, the federal government passed The Workforce Investment Act. This act mandated that outreach be conducted by the vocational rehabilitation agencies in order to identify students with disabilities who will qualify for adult services upon the exit of school. By identifying these students prior to them leaving the school system, the intention of this act was for the adult service agencies and schools to work collaboratively with the student and family to develop an individualized transition plan to employment before the students last year. As mentioned earlier in this report, although the intention of the act was for early collaboration and outreach between adult service agencies and schools to improve the transition for students with disabilities from education to



employment, in reality collaboration isn't beginning until the last year of the student's educational career (Wilczynski et al., 2013).

With the economic downturn over the last few years, we have seen employment rates in the general population drop drastically and in conjunction employment opportunities for individuals with disabilities such as ASD have been further limited. In response to the drop in opportunities available to these students, special education professionals have begun advocating for the IEP transition planning to be further emphasized and for educators to look at it with greater importance than in the past. Reflecting on the states that have now mandated transition planning at age 14 years, some individuals in Washington State have gone on to advocate that the process of transition be addressed earlier than age 16 years (Cimera et al., 2013; Taylor & Seltzer, 2011).

The transition from education to employment is not only a switch in environments for individuals, but also a switch in service delivery. Up until age 18, the schools are federally mandated to provide educational and support services to students with disabilities, these services are seen as an entitlement that come to you. After the age of 18, employment support services are based off eligibility and only are initiated if the individual seeks them out. Through the collaboration of schools, parents/guardians, and adult services agencies, the IDEA and The Workforce Investment Act are intended to assist individuals in this transition and make sure that services are in place to best support a smooth transition to successful and meaningful employment (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013; Dente & Coles, 2012).

According to a Washington State DVR Vocational Rehabilitation Counselor, education and employment services are not working together best to meet the needs of individuals with disabilities. These agencies are doing the best they can when partnerships are formed and volunteer opportunities are provided. However, these services are still falling short because of the short amount of time the two systems are actually working together. By the time collaboration is initiated, in the student's final year, it is too late for some students to be successful in or even qualify for the adult program. This DVR counselor's belief comes from seeing many students apply for DVR services and be denied because the student is not able to verbalize a motivation to work. Potentially if schools and adult service agencies began collaboration from the start of the student's transition plan, the adult service agency representative would be able to make sure that within the student's transition plan adult service qualification requirements were being addressed (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013; Wilczynski et al., 2013).

Improvement Areas for Future Service Development

While the demand for vocational rehabilitation services for transition age youth with ASD is increasing steadily, the successful employment outcome rate is declining. The reality is that, current transition programs are falling short of their goal to provide meaningful and successful school to adulthood transition. It has



been shown that poor employment and post-secondary education enrollment can be improved through collaborative transition teams centered on the individual. By the time the student is 14 years of age, these teams must develop an individualized and autism-focused transition program that emphasizes the student's strengths and interests as well as specific skill development and provide work environment immersion opportunities (Carter et al., 2013; Chiang et al., 2013; Dente & Coles, 2012; G. Stobbe MD., personal communication, November 14, 2013; Hendricks & Wehman, 2009; Lee & Carter, 2012; Roux et al., 2013; Taylor & Seltzer, 2011; Wehman et al., 2012; Wehman et al., 2013; Wilczynski et al., 2013).

Early Intervention

The exploration of current transition services and outcomes for students with autism spectrum disorder has shown that there is a gap in direct job exploration services prior to ages 18-21 and concentrated workforce immersion prior to age 20. Many studies have explored the difference in outcomes of transition programs that start at age 14 years compared to those that start at age 16 years (Cimera et al., 2013; Hendricks & Wehman, 2009). For example, "...In 2006, 80.8% of young adults from early transition states became employed by the time their cases were officially closed by vocational rehabilitation. This is compared to only 58.9% for their peers from later transition states" (Cimera et al., 2013, p. 92). Transition services that start the identification and exploration of student strengths and interests by 14 years of age, followed by skill development and volunteer/internship opportunities, have the potential to inspire youth with ASD to take the lead in self-advocacy for adult services, employment, and/or post-secondary education (Hendricks & Wehman, 2009; Lee & Carter, 2012; Wilson, 2003). Cimera et al. (2013) found that "...providing transition services early substantially increases the chances that young adults with ASD will become employed after exiting high school" (p. 92).

HFASD and Motivation

As mentioned earlier in this report, many students with middle to high functioning autism spectrum disorder are being overlooked in the school system when it comes to supports in the areas of social, job, life, and executive functioning skills. All of which are vital skills to be successful in employment as well as post-secondary education. Not only are these students not receiving necessary skill development and exploration in school, when it comes time to transition to the world of adult vocational services, it is common for these individuals to qualify in the areas of having a debilitating diagnosed disability and having high potential to benefit from services, but lack the ability to demonstrate the personal motivation and desire to work that is required (Dente & Coles, 2012; DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013; Lee & Carter, 2012; Taylor & Seltzer, 2011; Wilczynski et al., 2013).

Commonly, when others have low expectations of an individual, in turn it is hard for that individual to develop positive self-expectations and motivation for future growth. Hagner & Cooney (2005) found, when they talked to employers



who had workers with HFASD, that these workers were viewed as successful and outstanding employees. Based on these findings, clearly these individuals have skills and talents that are valuable to the workforce. When working with individuals who have very specific interests and strengths, it is important to emphasize these strengths and encourage the student to draw upon these strengths and interests when moving towards future growth.

Because these students are not considered *most severely impacted* by their disability, they are likely to not qualify for future extended employment support services through DDA. Therefore, providing the individuals with early adequate skill development and employment exploration opportunities within high school in order to prepare them for adult vocational service qualification in their last year of education services is imperative (Dente & Coles, 2012; Lee & Carter, 2012; K. Peters, personal communication, November 18, 2013; Taylor & Seltzer, 2011; Wilczynski et al., 2013; Washington State Department of Social and Health Services, 2013).

School and Adult Service Collaboration

Currently, schools and adult support service agencies are being challenged to provide collaborative autism-focused supports to students and future young adults with ASD necessary to obtain and maintain meaningful employment. Because “individuals with ASD spend much more of their lifetime outside of the educational system than in the system...efforts to maximize this critical period are pivotal to improving outcomes” (Hendricks & Wehman, 2009, p. 84). School systems and adult services do not have the resources to meet these goals alone. Therefore, in order to be successful in the transition process, these two service systems need to work together by communicating, collaboratively overlapping, and carefully coordinating resources to best fit the individual student’s needs from the very beginning (Carter et al., 2013; Chiang et al., 2013; Hendricks & Wehman, 2009; Lee & Carter, 2012; Wilson, 2003).

Not only does the collaboration between the student’s support systems and service agencies have a long-term effect on the outcomes and trajectories for the student but it has been found that the “...outcomes transition-age youth experience have as much or more to do with the opportunities and support adults provide as they do the characteristics of a student” (Carter et al., 2013, p. 895).

Transition Planning Team Participants

Key players that need to be present during the transition planning process, as identified by professionals working with individuals with ASD, were students, parents/guardians, school personnel/teachers, employment services agencies, job coaches, DDA caseworkers (if the student qualifies), DVR, and any other relatives and community partners that are able to provide support in the student reaching their transition goals. These professionals not only recognized the need for diversity within transition planning teams and the importance of bringing as many people to the table as possible, but also that the student as an individual must see the benefit and *buy in* to the transition plan. This emphasizes the need for the student to be an active participant in the planning process (DVR



Vocational Rehabilitation Counselor, personal communication, November 22, 2013; K. Davis, BA, personal communication, November 11, 2013; K. Peters, personal communication, November 18, 2013; G. Stobbe, MD, personal communication, November 14, 2013; S. Studley, Ed. D., personal communication, November 19, 2013).

Whenever a student identifies employment as a goal, this goal should be immediately incorporated in the student's IEP transition plan. The transition planning team should collaboratively work with the student to identify what meaningful employment looks like to the student and where their interests lie. Studies have found that only when transition plans are designed and carried out to meet the goals identified and set by the student do they lead to success. Students with ASD need to be able to feel that their goals and aspirations are important and that they too have a place and play an important role within their community (Carter et al., 2013; Hendricks & Wehman, 2009; Wilson, 2003).

Although many studies have shown, along with the recommendations listed in IDEA, the extreme importance of placing the student at the center of the transition meeting, active inclusion and participation of students with ASD seems to be continuously overlooked and falling short of expectations. Therefore, transition programs must make sure to access any resources and/or supports necessary (i.e. social, visual, technological, or organizational tools) to include the student as an active participant and preferably a leader in their transition planning (Hendricks & Wehman, 2009).

Autism Specific Job Coach Training

Currently, there is a lack of understanding about the broadness of ASD and how to provide adequate supports to these individuals amongst job coaches, employment agencies, school systems, co-workers, and other support professionals. As mentioned previously in this report, there has yet to be a transition program developed accommodating to the unique needs of individuals with autism. Therefore, supports in the form of training on the vast spectrum of autism and working with individuals on the spectrum must be provided to these professionals in order for them to best support students with ASD in achieving their maximum level of independence and meaningful employment (Taylor & Seltzer, 2011; Wehman et al., 2013).

The Role of the Social Worker

Many high school counselors have been helping students explore career options and navigate college applications and enrollment for years, but only recently, as the diagnosis of ASD increases, have these counselors been introduced to the complexity of ASD and individualized supports for this population. Each student with ASD is unique and requires specific, structured, functional and individualized goals and plans that focus on their skills within the context of their environment.

Meaningful and competitive employment "...can contribute to a person's sense of accomplishment, self-worth, and confidence; promote independence and self-determination; provide a venue to share strengths and talents in ways that



are valued by others; lead to new friendships and supportive relationships; and offer deeper connections to, and engagement in, the larger community” (Lee & Carter, 2012, p. 988). In an environment where teachers are overloaded with expectations to prepare their students academically for graduation and potentially college acceptance and parents are expected to support the student emotionally and financially, there seems to be a need for an individual who can support the unique transition needs for these students and act as a service coordinator and liaison between education providers, adult service agencies, families, and students (Dente & Coles, 2012; Hendricks & Wehman, 2009).

Social workers have professional training, theoretical orientation, and skills in client-centered practice, resource identification and access, advocating for appropriate service delivery, strengths and needs identification, navigation of employment and secondary education demands, behavioral management techniques, counseling both individuals and families, working with diverse populations, and knowledge around how systems and individuals interact with each other. With their skill set and knowledge base, social workers are well trained and suited to assist students, families, and service agencies in identifying and assisting with the appropriate collaborative assessments, planning, and service delivery that will provide for a smooth transition from secondary education to either employment or post-secondary education. Professional social workers hold ethical standards of practice in the dignity and worth of a person, empowering individuals to become active change agents in their lives, importance of human relationships, and have a drive to challenge social injustice. These ethical standards go hand-in-hand with identifying the service gaps and providing person-centered, collaborative, and effective transition support services to student’s with ASD while promoting natural supports and empowering self-advocacy, and self-determination within each student (Dente & Coles, 2012; Hendricks & Wehman, 2009; NASW, 2013).

Historically, social workers have not been involved in transition planning from education to employment or post-secondary education for individuals with ASD. However, with the identified service gap in transition services for students with ASD, “school districts that use social workers to assist in transition planning might find this involvement proactive for assisting their students to transition with greater success and in a more cost-effective manner...” (Dente & Coles, 2012, p. 33) (DVR Vocational Rehabilitation Counselor, personal communication, November 22, 2013).

Relevant Social Work Theoretical Frameworks

Person-Centered Theory

Person-centered theory, or what used to be called client-centered theory when first developed by a theorist by the name of Carl Rogers, is based off the notion that the client is valued as an individual. This theory recognizes an individual’s right to free will and the ability to make their own decisions. Through respecting the individual’s right to determine and make his or her own decision, this theory has the potential to enhance the clients self-worth. By listening to the



individual's needs and concerns that are ultimately shaping their behavior, the social worker has the ability to break down the barrier between professional and client and form a mutually respectful and trusting relationship with the individual (Rowe, 2011).

When working with both individuals with disabilities as well as adolescents it is important to be able to develop this trusting relationship. The social worker can draw upon person-centered theory in order to truly understand the strengths, interests, needs, goals and preferences of the individual and develop a transition plan that is lead by the desires of the individual (Rowe, 2011). A study by Lee and Carter (2012) found that when job placements and responsibilities are matched up to the strengths, goals, interests, and specific needs of the adolescent it is "likely to increase their job satisfaction and diminish their need for additional support" (p. 995).

Ecological Systems theory

Concepts of ecological systems theory are based in viewing the person-in-environment. This way of viewing the world requires an understanding of the reciprocal relationship between person and environment. Thus, how an individual is constantly effecting their different surrounding systems and how those systems simultaneously affect the individual. Social workers are trained in ecological-systems theory and use this theoretical framework in assessments, decision-making, and intervention planning. As discussed previously individuals with ASD have social and communication deficits. When thinking about these challenges in relation to the ecological systems theory, one can see the challenges that this might present to individuals looking to find employment or enroll in post-secondary education. When working with students with ASD around transition planning and implementation, social workers are able to draw upon this theoretical framework to understand what systems must be in place to best support the student in transition, promote the enhancement of a students natural supports, and hopefully increase the strength and amount of interactions the student has with their environment (Dente & Coles, 2012).

Empowerment Theory

By making a connection between the adversity faced by an individual and both social and economic injustices, the theoretical empowerment approach expands on the ecological theory by recognizing that in some environments and systems conflict arises and that some individual's potentialities are stifled by injustices within their environment. Individuals with disabilities have been a population facing adversity for years. Although strides have been taken to change this, individuals with ASD are far behind others due to the recent rise in prevalence and the lack of cultural understanding about this disability (Lee & Hudson, 2011).

By drawing on the concepts of empowerment theory, social workers can work towards meeting the needs of individuals with autism spectrum disorder and challenge the social and economic injustices this population faces. Lee and Hudson (2011) say, "empowerment is about taking control, achieving self-



direction, seeking inclusiveness rooted in connectedness with the experiences of other people” (p. 160). Also, “...parents and professionals who assist individuals with autism in finding paid jobs need not be constrained by the stereotyped thinking that suggests that individuals with autism can do only certain types of jobs due to their deficits” (Chiang et al., 2013, p. 1839). In order to spark motivation in these adolescents with ASD to strive for employment or post-secondary education, they must be empowered by the individuals, systems, and communities around them to stand-up against the adversity they face (Lee and Hudson, 2011).

Self-Efficacy Theory

The theory of self-efficacy goes one step further in exploring empowerment, motivation for change, and intention to act. This theory recognizes that social and political systems can influence an individual’s level of motivation and ability to take action but says, that one’s personal beliefs about their ability to take action are far more important. Through this theory, self-efficacy is developed through four task methods that focus on recognizing and reflecting upon personal achievements and success, the achievements of others, feedback on these experiences that is both supportive yet realistic, and the psychological and emotional effects these experiences had on the individual and where stressors arose. Through reflective discussions, mentorship, and necessary skill building and practice, transition programs for individuals with ASD can work toward strengthening the individual’s self-efficacy, in turn increasing their motivation, and hopefully strengthening their chances of being successful in the adult world (Farkas, 2011).

Influencing Interventions for Future Program Development

Future program development should draw upon multiple aspects of different existing interventions and project designs including Project SEARCH, School-to-Work, JobTIPS, Supported Employment, Wraparound Services, and the Recovery model. Along with pulling from these established interventions and techniques, the program should also draw upon concepts identified as useful tools when working toward meaningful and secure employment for individuals with ASD (King County; 2012; Lyons & Rawal, 2005; Razzano & Cook, 2005; Rogers, Farkas, & Anthony, 2005; Strickland et al., 2013; Unger & Luecking, 1998; Wehman et al., 2012; Wehman et al., 2013).

By providing training around ASD for employers, co-workers, and job coaches prior to placing individuals with ASD into employment settings, the program can potentially shield against misunderstandings and un-realistic expectations. By drawing upon the use of role models and mentors as job coaches, the program can potentially further empower and strengthen the individual’s drive to obtain employment and/or post-secondary education (Duran, 1987; Wilson, 2003). Lastly, the program should draw upon the “school-based workforce programming phases” (p. 879-883) outlined in Wilczynski et al. (2013).



Micro, Mezzo, and Macro Levels of Addressing Emerging Needs

In order to address the previously identified improvement areas for future service development (early intervention, ASD and motivation, school and adult service collaboration, transition planning team participants, and autism specific job coach training) a program must be developed that will provide micro, mezzo, and macro levels of interventions. On a micro level the program should conduct strengths assessments, needs assessments, skill development, individual life goal assessments, transition plan development, and internship/volunteer opportunities as soon as the student registers for high school. On a mezzo level the program should incorporate collaboration with students, parents, teachers, employment agencies, transportation services, secondary education services, and adult service agencies. On a macro level the program should provide training for employers, co-workers, and job coaches around working with individuals with autism.

Conclusion

While transition support programs through education services, community-based services, and adult services do exist, many of them show deficits in the areas of early inter-disciplinary collaboration, addressing the specific needs of students with middle to high-functioning ASD, involving the student as an active participant in the transition planning process, initiating the planning for transition as soon as the student enters high school, and inspiring the student to be motivated for employment or post-secondary education. The social disadvantage and exclusion resulting from these underdeveloped and underutilized factors is that of low competitive employment outcomes and low post-secondary education attendance for young-adult with ASD. Associated outcomes resulting from a lack of participation in competitive employment or post-secondary education during the first few years after high school include poor behavioral outcomes, poor quality of life, and poor self-esteem, especially among those individuals with low incomes. Therefore, there is a strong need for schools and adult service providers to begin a collaborative autism-focused transition model to prepare students with autism for competitive employment and post-secondary education. (Carter, Harvey & Gotham, 2013; Dente & Coles, 2012; Duran, 1987; Hendricks & Wehman, 2009; Howlin, 2013; Lee & Carter, 2012; Shattuck et al., 2012; Wilson, 2003).



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