# EVALUATING THE EFFECTIVENESS OF THE FAMILY EMPLOYMENT AWARENESS TRAINING PROGRAM: EXPECTATIONS, KNOWLEDGE, BARRIERS, AND EMPLOYMENT OUTCOMES FOR PEOPLE WITH DISABILITIES WHO HAVE INDIVIDUALIZED SUPPORT NEEDS

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Submitted to the graduate degree program in Special Education and the Graduate Faculty of the University of Kansas in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

	Ann Turnbull, Ed.D., Co-Chairperso	
H Rutherf	ord Turnbull III, LL.M, Co-Chairperson	
	Deborah Adams, Ph.D.	
	Bruce Frey, Ph.D.	
	Mary Morningstar, PhD.	
	Martha Blue-Banning, PhD.	

Date Defended: March 26,th 2013

The Dissertation Committee for Grace L. Francis certifies that this is the approved version of the following dissertation:

EVALUATING THE EFFECTIVENESS OF THE FAMILY EMPLOYMENT AWARENESS TRAINING PROGRAM: EXPECTATIONS, KNOWLEDGE, BARRIERS, AND EMPLOYMENT OUTCOMES FOR PEOPLE WITH DISABILITIES WHO HAVE INDIVIDUALIZED SUPPORT NEEDS

	Co-Chairperson, Dr. Ann Turnbull
	Co-Chairperson, H Rutherford Turnbull III
Date approved:	

#### Abstract

This dissertation consists of four individual, but related chapters. Chapter 1 provides an introduction to competitive employment for people with disabilities who have individualized support needs and the Family Employment Awareness Training (*FEAT*). This chapter also provides a general overview of the other chapters in this dissertation. Chapter 2 is a research study that examined the expectations and knowledge of participants who attended *FEAT* in 2010-2011. This study also explored families' perceptions of *FEAT*. Chapter 3 is a second research study that evaluated participants' behavior, employment outcomes, and perceptions of *FEAT*'s influence. Chapter 4 is a third research study that explored families' perceptions of barriers to competitive employment.

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#### CHAPTER 1

Overview: Investigation, Purpose, and Scope of Dissertation Research

People with disabilities who have individualized support needs (ISN) typically have three experiences when it comes to employment: unemployment, sheltered employment, or competitive employment. Competitive employment (i.e., employment in community settings among peers without disabilities for minimum wage or higher) improves the quality of life for individuals with ISN (Eggleton, Robertsom, Ryan, & Kober, 1999; Kraemer, McIntyre, & Blacher, 2003; Verdugo, Martin-Ingelmo, Jordán de Urríes, Vicent, & Sánchez, 2009) by increasing an individual's self-esteem, positive peer relationships, independence, and self-determination (Johannesen, McGrew, Griss, & Born, 2007; Schmidt & Smith, 2007; Verdugo et al., 2009; Wehmeyer & Bolding, 2001). However, people with ISN often do not reap these benefits because they end up with jobs in segregated settings or without a job at all (Olson, Cioffi, Yovanoff, & Mank, 2001; National Disability Rights Network, 2011; Schmidt & Smith, 2007; Schur, Kruse, & Blanck, 2005).

People with ISN face copious barriers to competitive employment (Blitz & Mechanic, 2006; National Council on Disability, 2010; Schmidt & Smith, 2007). However, low expectations for competitive employment and poor knowledge of employment services and supports among families, educators, and employment professionals have the most profound and negative influence (Carter et al., 2010; Chambers, Hughes, & Carter, 2004; Corbière, Mercier, & Lesage, 2004; Geenen, Powers, Lopez-Vasquez, & Bersani, 2001; Hasnain & Balcazar, 2009; Larson et al., 2011; National Council on Disability, 2010; National Disability Rights Network, 2011; Timmons, Hall, Bose, Wolfe, & Winsor, 2011). On the other hand, high expectations and current and accurate knowledge among these individuals can improve the likelihood of

competitive employment outcomes for people with ISN (Carter, Austin, & Trainor, 2011; Lindstrom, Doren, & Miesch, 2011; Timmons et al., 2011).

Knowledge-based training programs provide individuals information to increase their expectations and knowledge. The Family Employment Awareness Training (*FEAT*) is a knowledge-based training program designed to increase expectations for competitive employment and knowledge of employment-related services and supports among people with ISN, families, and professionals. A pilot study on the immediate influence of *FEAT* on participants' expectations for competitive employment and knowledge of employment-related services and supports indicated that participants experienced increases in expectations and knowledge following *FEAT* (Francis, Gross, Parent-Johnson, & Turnbull, in press). However, the longer-term influence of *FEAT* remained unknown.

Therefore, the purpose of this dissertation research was to determine the longer-term influence of *FEAT* by evaluating participants' (a) expectations (b) knowledge, and (c) behavioral change, in addition to (d) competitive employment outcomes for people with ISN. Furthermore, I investigated *FEAT*'s influence on how participants help their family members with ISN gain and/or maintain a competitive job and also explored families' perceptions of the *FEAT* program. Last, I explored issues families cite as barriers or roadblocks to competitive employment for people with ISN.

#### **Research Study One**

This study, presented in Chapter 2, evaluated the longer-term effectiveness of *FEAT* on participants' expectations and knowledge one to two years after attending the program. This study also explored families' perceptions of the *FEAT* program, including aspects of the program they liked, disliked, as well as their suggested improvements. I employed mixed-method design

(Creswell, 2009) by distributing (a) a confidential *FEAT* Follow-up Survey (see Appendix A) to evaluate participants' expectations and knowledge and using (b) a *FEAT* Semi-structured Interview Protocol (see Appendix B) to explore perceptions of *FEAT*. I used reliability tests and single sample *t* tests to evaluate expectations and knowledge, in addition to basic interpretative qualitative analysis (Merriam, 2002) to explore perceptions of *FEAT*. The results of this study indicated that participants rated their expectations at "average" and rated their knowledge above "average." Participants also described several "likes," "dislikes," and "suggested improvements" for *FEAT*. Chapter 2 provides a thorough discussion of the *FEAT* program and the participants, methods, results, limitations, and contributions/implications of this study.

#### **Research Study Two**

In Chapter 3 I present the second research study of this dissertation. This study evaluated if participants (a) engaged in behavioral change following *FEAT*, (b) reported competitive employment outcomes for their members with ISN following *FEAT*, and (c) indicated that *FEAT* positively influenced how they help their family members with ISN gain and/or maintain a competitive job. As with research study one, I employed mixed-method design by distributing a *FEAT* Follow-up Survey and using a *FEAT* Semi-structured Interview Protocol to conduct interviews. My methods of analysis involved reporting frequency data from the *FEAT* Follow-up Survey, in addition to basic interpretative qualitative analysis for interview data. The results of this study indicated that many families who attended *FEAT* in 2010-2011 engaged in (a) behavioral change following *FEAT*; (b) reported competitive employment outcomes for their family member with ISN following *FEAT*; and (c) indicated that *FEAT* positively influenced the way they help their family members with ISN gain and/or maintain a competitive job. In Chapter

3 of this dissertation I thoroughly discuss the participants, methods, results, limitations, and contributions/implications of this study.

#### **Research Study Three**

Last, in Chapter 4 I present a third research study. Unlike the evaluative nature of research studies one and two, this study explored issues families cited as barriers or roadblocks to competitive employment for people with ISN. Similar to the other studies, this study involved mixed-methods design, as I used data from the *FEAT* Follow-up Survey and semi-structured interviews conducted using the *FEAT* Interview Protocol. I reported frequency data and used basic interpretative analysis to identify and explore the most prevalent and problematic barriers to competitive employment, as identified by families. I used Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1979) as a framework to organize and explore relationships among the barriers to competitive employment for people with ISN. In this study I also recommend solutions to address barriers. Chapter 4 outlines the participants, methods, results, and implications of this study in greater detail.

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#### **CHAPTER 2**

Research study one: The Family Employment Awareness Training (*FEAT*) Program: A Mixed-method Follow-up

#### Abstract

This study used information from a Family Employment Awareness Training (*FEAT*) Follow-up Survey to evaluate the expectations and knowledge of participants who attended *FEAT* in 2010-2011. This study also explored the perceptions of families who attended the program through semi-structured interviews. Study findings indicated that participants who attended *FEAT* rated their expectations at average, and rated their knowledge above average one to two years after attending *FEAT*. An analysis of interview data indicated that families described several aspects of *FEAT* they liked, aspects they disliked, and suggested improvements for the program. I discuss implications of these findings and recommendations for future research.

Competitive employment (i.e., employment in community settings among peers without disabilities for minimum wage or higher) enhances independence, provides a sense of purpose and belonging, and positively impacts self-esteem, social skills, and interpersonal relationships (Johannesen, McGrew, Griss, & Born, 2007). However, people with disabilities who have individualized support needs [people with physical or mental impairments that seriously limit one or more functional capacities (Rehabilitation Act, 1973)] that require services and supports in the workplace (Buntinx et al., 2008) often do not reap these benefits because they have jobs in segregated settings or are unemployed (National Disability Rights Network, 2011). Further, those employed in competitive settings typically work only part-time, earn less than living

wages, and do not receive benefits such as paid vacation or health care (Hendricks & Wehman,

2009; Mank, 2007). Although employment rates for individuals with ISN appear dismal, high

expectations and knowledge can increase the likelihood of competitive employment (Carter,

Austin, & Trainor, 2011).

The Family Employment Awareness Training (FEAT) Program: A Mixed-method Follow-up

The numerous barriers to competitive employment for people with ISN include discrimination, the intensity of their individual needs, and the struggling economy (Blitz & Mechanic, 2006; National Council on Disability, 2009). Two other barriers are especially prevalent and problematic. One is the existence of low expectations for competitive employment from families, people with ISN, educators, and employment professionals (Chambers, Hughes, & Carter, 2004; Corbière, Mercier, & Lesage, 2004; Hall & Fox, 2004; Hasnain & Balcazar, 2009; National Council on Disability, 2010; National Disability Rights Network, 2011). The other is inadequate knowledge of available services and supports (Baker, 2008; Hall & Parker, 2010; Larson et al., 2011; Timmons, Hall, Bose, Wolfe, & Winsor, 2011).

#### The Importance of Expectations and Knowledge

High expectations among families, individuals with ISN, educators, and employment professionals increase the likelihood that people with ISN will earn competitive employment (Blitz & Mechanic, 2006; Cimera, 2008; Heiman, 2002; Lindstrom, Doren, & Miesch, 2011; Migliore, Grossi, Mank, & Rogan, 2008; Schmidt & Smith, 2007; Timmons et al., 2011). High familial expectations for employment have resulted in people with ISN being five times more likely to gain work (Carter et al., 2011). Individuals with ISN who feel encouraged and optimistic about their abilities and about working are more likely to find employment (Blitz & Mechanic, 2006; Schmidt & Smith, 2007). Expectations of educators such as teachers and transition coordinators also influence competitive employment outcomes of people with ISN positively, especially when these individuals lack family support (Migliore, Mank, Grossi, & Rogan, 2007). Similarly, expectations of employment professionals (e.g., Vocational Rehabilitation counselors) influence the types of jobs people with ISN experience (Burge, Ouellette-Kuntz, Lysaght, 2007; Timmons et al., 2011).

Expectations are important, but people with ISN and their families also need knowledge of employment services and supports to improve and fulfill their expectations for competitive employment. However, families often report being mis/uninformed about school transition plans, state and federal benefits available to people with ISN, and about employment-related services and supports (Butterworth, Smith, Hall, Migliore, & Winsor, 2009; Chambers et al., 2004; Greenen, Powers, Lopez-Vasquez, & Bersani, 2003; King, Baldwin, Currie & Evans, 2006; Kraemer & Blacher, 2001; Larson et al., 2011; National Council on Disability, 2009). Individuals with ISN also report being uninformed about services and supports such as transportation and access to Social Security Disability Insurance (SSDI) benefits (Dutta, Gervey,

Chan, Chou, Ditchman, 2008; Schmidt & Smith, 2007). Programs and agencies providing these services and supports are often difficult for families to understand fully and access, leaving many people with ISN and families unable to navigate them effectively and efficiently (Greenen et al., 2001; King et al., 2006; Larson et al., 2011).

By connecting families and people with ISN with appropriate services and supports, informed school staff can enhance the knowledge of families and people with ISN and increase the numbers of people with ISN who use employment resources (National Disability Rights Network, 2011; Timmons et al., 2011; Winsor et al., 2011). Employment professionals' knowledge of employment laws, accommodations, services and supports, and disability-related benefits can also increase successful employment outcomes by increasing the frequency of individuals with ISN accessing these resources (Dutta et al., 2008; Winsor et al., 2011). Schools and employment professionals should also collaborate to inform families and individuals with ISN about employment-related services and supports and to facilitate transitions from school to work and independent living (National Disability Rights Network, 2011).

Knowledge-based training programs are effective for improving expectations and knowledge. I completed a literature review on peer-reviewed articles (published between 2000-2012) describing reasonably brief (i.e., no more than five sessions) face-to-face trainings designed to increase expectations and/or knowledge. The review showed that knowledge-based training programs commonly included practical information and used various interactive instructional methods (e.g., lectures, small group activities, breakout sessions, group discussions, demonstrations). Training programs focused on a wide range of topics including, evidence-based medical practices, disability awareness, and professional development for educators. Given the diversity of training topics, it is not surprising that participants' professions/roles also varied

widely, from medical professionals and teachers to elementary school students without disabilities. Researchers collectively administered pre-post surveys, questionnaires, or tests to participants immediately before and after trainings. Data for each training program indicated that participant expectations and knowledge increased from pre- to post-training (Deutschlander, 2010; Hall, 2007; Hessing, Arcand, & Frost, 2004; Ison et al., 2010; Shriner, Schlee, Hamil, & Libler, 2009; Sprague et al., 2012).

Although the training programs offered various instructional methods (e.g., lectures, small group activities), only one training program offered participants follow-up technical assistance or follow-up training sessions (Migliore, Butterworth, Nord, & Gelb, 2011). No knowledge-based training programs (a) focused on expectations and knowledge related to competitive employment; (b) targeted families, professionals, and individuals with ISN as participants; and (c) included follow-up data. By contrast, the Family Employment Awareness Training (*FEAT*) in Kansas is an example of a knowledge-based training program designed to improve competitive employment outcomes by raising employment expectations and knowledge of employment-related services and supports for people with ISN, their families, and professionals (e.g., educators and employment professionals).

#### The Family Employment Awareness Training (FEAT)

University researchers, state Medicaid personnel, and parent leaders partnered to create *FEAT* in 2010. These partners designed *FEAT* for families. The *FEAT* team also encouraged professionals who support people with ISN to attend to increase collaboration among families and professionals. The program provided these individuals real-life examples of successful competitive employment, information on employment-related resources, and opportunities to network with each other and with various guest speakers (including competitively employed

individuals with ISN, employers, and local agency representatives). Table 1 provides a topical outline of the *FEAT* curriculum.

Table 1

Major and Subtopics of the FEAT Curriculum

Major Topics	Sub-topics	Training Format/Activities
Employment options	Integrated competitive employment Supported and customized employment Carved jobs Created jobs Resource ownership Self-employment Business within a business Employer-initiated models	Lecture PowerPoint Videos Community speakers Success stories
Family role	Building a support network Contributing to the employment process Creating partnerships	Lecture PowerPoint Opportunities for networking Creating an action plan for employment
Transition	School to work Healthcare	Lecture PowerPoint
Support resources	For employees (i.e., assistive technology, natural supports, job coaches, benefits specialist)  For employers - local and national organizations designed support employers of persons with ISN	Lecture PowerPoint Resource CD List of websites
Systems navigation	Case managers Career one-stop/Workforce centers	Lecture PowerPoint Community speakers
Services, benefits, and programs	Vocational Rehabilitation (VR) Ticket to Work Kansas Medicaid (i.e., waivers and buy-in programs)	Lecture PowerPoint Community speakers Resource CD

	Community rehabilitation providers Transportation Work incentives (e.g., PASS, IRWE, 1619b)	List of websites Opportunities for networking Creating an action plan for employment
Other funding and information	Kansas Council on Developmental Disabilities Small Business Administration (i.e., development centers, SCORE, women's business centers) Kansas Disability Service Maps	Lecture PowerPoint Resource CD List of websites
Antidiscrimination laws	Federal (i.e., Americans with Disabilities Act, Section 504) State (i.e., Employment First policy, Kansas Act Against Discrimination)	Lecture PowerPoint Resource CD List of websites
Youth sessions	Job preferences Support needs Self-advocacy Disability disclosure	Lecture Group discussions Brainstorming Individual planning sheets Role-playing

Six *FEAT* trainings in 2010 included 237 participants across Kansas. Attendance in 2011 totaled 87 participants across five trainings. Members of the *FEAT* team (myself and a university researcher) evaluated *FEAT* in two phases. The first involved an immediate *FEAT* Pre/Post-Questionnaire that evaluated participants' expectations and knowledge before and after training sessions. In the second phase I distributed a *FEAT* Follow-up Survey to participants one to two years after attendance. This phase produced extensive data on participant outcomes (e.g., expectations, knowledge, barriers to competitive employment, employment outcomes). This study reports only those findings related to participants' expectations and knowledge. A second manuscript focuses on behavioral change (e.g., use of *FEAT* information/materials, use of *FEAT* 

technical assistance), competitive employment outcomes after *FEAT*, and perceptions of *FEAT*'s influence (Francis, Gross, & Turnbull, 2013b).

FEAT Pre/Post-Questionnaires. FEAT instructors administered the FEAT Pre/Post-Questionnaires to participants who attended FEAT in 2010-2011 (i.e., family members, professionals, and individuals with ISN). The FEAT team used these questionnaires to evaluate FEAT's immediate influence on participants' expectations for competitive employment and knowledge of employment services and supports. The Pre/Post-Questionnaires contained one question on participants' expectations and one on knowledge. The FEAT team administered the anonymous Pre/Post-Questionnaires to participants from all 11 trainings. Table 2 includes description of assessments, including the Pre/Post-Questionnaires.

Table 2

Phase One and Two FEAT Evaluation Assessments

Name of Assessment	Distribution	Number of Participants	Purpose of Assessment	Assessment Method
	Pl	nase One <i>FEAT</i> I	Evaluation	
FEAT Pre/Post- Questionnaire	Directly before and after 11 <i>FEAT</i> trainings held in 2010-2011	<ul><li>237</li><li>participants</li><li>69.7% families</li><li>39%</li><li>professionals</li></ul>	Evaluate FEAT's immediate influence on raising participants' expectations and knowledge	(a) one open-ended question about expectations ("What do you feel are the employment options for individuals with a disability?")
		15.4% individuals with ISN		(b) one four-point Likert question (rated as poor, fair, good, or excellent) about knowledge ("How would you rate your knowledge of transition services and employment options for youth with

				1: 1:1:4: 022)					
				disabilities?")					
Phase Two FEAT Evaluation									
FEAT Follow- up Survey	Surveys mailed/emailed to 2010-2011 FEAT participants in June 2012	participants 63.5% families 29% professionals 7.5% individuals with ISN	Evaluate FEAT's longer-term influence on raising participants' expectations and knowledge	<ul> <li>(a) an Expectations Scale consisting of eight 5-point Likert scale questions about participants' expectations</li> <li>(b) a Knowledge Scale consisting of six 5-point Likert scale questions about participants' knowledge of employment services and supports</li> </ul>					
FEAT Interview Protocol	Interviews conducted face-to-face or over the phone in June/July 2012 with families who attended <i>FEAT</i> in 2010-2011	13 families	Determine likes, dislikes and suggested improvements for <i>FEAT</i>	Survey protocol consisting of one question regarding suggestions for improvements to <i>FEAT</i> ("What are your suggestions to improve/enhance future FEAT trainings?")					

Results indicated that participants' expectations for competitive employment and knowledge of employment services and supports increased from the pre- to post-training sessions (Francis, Gross, Parent-Johnson, & Turnbull, in press). Specifically, an analysis from Pre-Questionnaire data regarding expectations revealed four key themes: (a) competitive employment options are available, but getting them requires effort and knowledge; (b) employment is limited to specific jobs and by the economy; (c) negative employer attitudes pertaining to employing people with disabilities and low professional expectations limit employment; and (d) people with ISN are regarded as needing too much support to work in

competitive jobs. Post-Questionnaire data analysis indicated improvement in participant expectations with the following themes: (a) improved expectations for people with ISN to experience competitive employment, despite existing barriers; (b) increased confidence and positive outlooks regarding future employment opportunities; and (c) increased employment possibilities, given advocacy and support.

The *FEAT* team used a one-sample chi-square test, a paired samples *t* test, and a repeated measures ANOVA to evaluate Pre-Questionnaire data regarding knowledge outcomes. Results from these methods indicated the shift from "poor" or "fair" knowledge ratings before *FEAT* to "good" or "excellent" knowledge ratings after *FEAT* was statistically significant across both years and all trainings (Francis et al., in press). Although the *FEAT* Pre/Post-Questionnaire data from 2010/2011 indicated a positive shift in participant expectations and knowledge, the longer-term influence of *FEAT* remains unclear.

The purpose of this study is to determine the longer-term effectiveness of *FEAT* (one to two years after attendance) for participants' expectations and knowledge. Although phase one evaluation data from *FEAT* Pre/Post-Questionnaire data indicated that 2010/2011 participants experienced increases in expectations and knowledge, I anticipate that these ratings may drop over time as individuals experience barriers to competitive employment, including discrimination, wait lists for services such as job coaches, low expectations from community employers, and stress (Morgan & Alexander 2005; Olson, Cioffi, Yovanoff, & Mank, 2001; National Disability Rights Network, 2011; Schmidt & Smith, 2007; Shier, Graham, & Jones 2009). This study on phase two evaluation data from the *FEAT* Follow-up Survey will consider *FEAT* successful if participants rate their expectations and/or knowledge at or above "average."

Exploring perceptions of families (the group most likely to influence competitive employment outcomes) (Developmental Disabilities Assistance and Bill of Rights Act, 2000; Rupp & Ressler, 2009; Timmons et al., 2011) who attended *FEAT* will help determine ways to improve or enhance the program. These findings could warrant the program's continuation and/or provide information to improve future trainings. I explore the following research questions in this study:

- (a) Do participants rate their expectations for competitive employment at or above "average?";
- (b) Do participants rate their knowledge of employment services and supports/types of competitive employment at or above "average?"; and
- (c) What are families' perceptions of *FEAT*?

#### Method

I distributed a *FEAT* Follow-up Survey and conducted semi-structured interviews to determine (a) the longer-term influence of *FEAT* on participants' expectations and knowledge and (b) families' perspectives of *FEAT*.

#### **Participants**

I identified participants using the 2010-2011 *FEAT* database. I distributed a recruitment letter and *FEAT* Follow-up Survey in English and Spanish to 220 participants who provided contact information when they initially submitted their registration for *FEAT* before attending the program. In total, 114 participants who attended *FEAT* returned surveys yielding a response rate of 52%. I omitted six surveys from the analysis because participants marked "did not attend FEAT," (i.e., they registered in advance for *FEAT* but did not attend) leaving a final sample of 109 surveys. All but one of the surveys in the final sample were in English.

Families (e.g., parents, siblings, grandparents, aunts and uncles, foster parents, spouses, caregivers, and family members with ISN) were the largest participant group (n=68). Professionals (e.g., case managers, social workers, employment/transition specialists, teachers) comprised the second largest participant group (n=31). Individuals with ISN (i.e., people with ISN who completed the survey individually rather than with their family) were the smallest participant group (n=8). Seven participants did not identify their roles. Table 3 provides additional demographics for participants and comparisons to Kansas demographics from the U.S. Census.

Table 3

Demographic Information for FEAT Participants and Comparative Kansas Data

	Families	Individuals with ISN <sup>a</sup>	Professionals <sup>b</sup>	
	n=68	n=8	n=31	_
Primary Language Use in				Percent in
Home				Kansas
English	96.7	100		89.3
Spanish	1.7	-		
Other	1.7 (American	-		
	Sign			
	Language)			
Race/Ethnicity				Percent in Kansas
White/Caucasian	79.3	83.3		87.4
Hispanic/Latino	6.9	-		10.8
Multiple races/ethnicities	5.2	_		2.7
Asian/Asian American	3.4	_		2.5
Black/African American	5.2	.9		6.1
Area Where You Live <sup>c</sup>	3.2	.)		0.1
Urban	23.7	50	40	
Suburban	64.4	33.3	16.7	
Rural	11.9	16.7	43.3	
<b>Average Annual Income</b>			Percent in K	ansas
for Household				
Below \$15, 000	1.9		Below \$10,000	3.6
\$15, 000 - \$24,999	1.9		\$15, 000 - \$24,999	11.1

\$25,000 - \$34, 999	7.7		\$25,000 - \$34, 999	11.2
\$35,000 - \$44,999	15.4		\$35,000 - \$49,000	15.4
\$45,000 - \$54,999	3.8			
\$55,000 - \$64,999	5.8		\$50,000 - \$74,900	19.5
\$65,000 - 74,999	19.2			
\$75,000 - \$84,999	3.8			
\$85,000 - \$94,999	5.8		\$75,000 - \$99,000	16.6
\$95,000 and higher	34.6		\$100,000 and	25.1
,			higher	
<b>Highest Level of Education</b>				Percent in
Obtained in Household				Kansas
High school diploma	3.4			28.4
Trade school/technical	8.5			n/a
degree				
Some college	8.5			24
2 year college degree	10.2			7.4
4 year college degree	37.3			19.5
Graduate degree	32.2			10.2
Age of Family				
Member/Individual with				
ISN				
Under 12 years old	3.5	-		
13-15 years old	5.3	-		
16-18 years old	24.6	16.7		
19-21 years old	29.8	-		
22-25 years old	21.1	50		
26-30 years old	5.3	16.7		
31 years old or older	10.5	16.7		
Disability of Family				
Member				
Member/Individual with				
ISN				
Autism	32.8	16.7		
Developmental disabilities	14.8	-		
Multiple disabilities	23	33.3		
Down syndrome	14.8	-		
Cerebral Palsy	13.1	33.3		
Attention	1.6	-		
deficit/hyperactivity disorder				
Hearing	-	16.7		
impairment/Deafness				
Level of Support Needed				
by Family Member  Member/Individual with				
Member/Individual with				

ISN		
None	1.8	16.7
Minimal	17.5	33.3
Moderate	29.8	-
Extensive	50.9	50

*Note.* Seven participants did not identify a role (e.g., family, individual with ISN, professional). Data reported in percentages. Kansas statistics were retrieved from the U.S. Census Bureau (2012).

In the survey, I offered family units the opportunity to participate in a follow-up interview; 26 families volunteered. I sought families to participate in interviews because (a) the training is designed for families; (b) families comprised the largest participant group; (c) many of the interviews included family units, including family members with ISN; and (d) families are the most influential individuals in the lives of individuals with ISN (Timmons et al., 2011). These facts warrant attention to these stakeholders' needs and perceptions. To gain a more complete understanding of families' perspectives across a spectrum of characteristics, I purposefully selected contrasting cases (Merriam, 2009). I interviewed families until I reached saturation (Glaser & Strauss, 1967), yielding 13 interviews.

Interviewee demographic information is largely representative of demographics for Kansas (U.S. Census Bureau, 2012), with the exception of higher levels of education and income represented in the sample for this study. Table 4 displays demographic information for interviewees, organized by criteria for selection.

<sup>&</sup>lt;sup>a</sup>The researcher did not request information about average household income or highest level of education obtained in household from individuals with ISN.

<sup>&</sup>lt;sup>b</sup>The only demographic data requested from professionals was the area in which they worked.

<sup>&</sup>lt;sup>c</sup>For professionals I requested the area in which they worked.

Table 4
Demographic Information for Interview Participants

Family	Average Annual Household income	Location of family home	Highest level of education obtained in home	Primary language(s) spoken in home	Race/ Ethnicity(jes) of family members	Age of family member	Level of support needed by family member	Current employment status of family member
1.	65,000- 74,900	Suburban	Graduate degree	English	White/Caucasian	20	Moderate	Competitive employment
2.	85,000- 94,900	Rural	Four year college degree	English	White/Caucasian	18	Minimal	Competitive employment
3.	35,000- 44,900	Suburban	Some college	English	White/Caucasian Hispanic/Latino	19	Minimal	Competitive employment
4.	95,000+	Suburban	Graduate	English	White/Caucasian	22		Competitive employment
			degree		Multiple races/ethnicities			
5.	95,000+	Suburban	Graduate degree	English	Hispanic/Latino	23 & 24	Extensive/ Minimal	Unemployed/ Volunteer

6.	35,000- 44,900	Suburban	Some college	English	White/Caucasian	17	Extensive	Internship
7.	95,000+	Urban	Four year college degree	English	White/Caucasian Multiple races/ethnicities	19	Moderate	Had, but lost job
8.	Not reported	Not reported	Four year college degree	English	Black/African American	23	Extensive	Sheltered workshop
9.	65, 00- 74,900	Suburban	Four year college degree	English	White/Caucasian	27	Extensive	Sheltered workshop
10.	25,000- 34,900	Urban	Some college	English	White/Caucasian	46	Minimal	Sheltered workshop
11.	95,000+	Suburban	Graduate degree	English	White/Caucasian	22	Extensive	Sheltered workshop
12.	25,000- 34,900	Suburban	Two year college degree	English/ ASL	White/Caucasian Hispanic/Latino	19 & 22	Extensive/ Minimal	Not sought
13.	Not reported	Urban	Graduate degree	English	White/Caucasian	23	Extensive	Not sought

Note. Participant information organized by criteria for selection to achieve contrasting cases.

#### **Instrument Design and Implementation**

I used two instruments, a *FEAT* Follow-up Survey and a *FEAT* Interview Protocol, to collect data on the longer-term influence of *FEAT*.

*FEAT* Follow-up Survey. I collected data through (a) a paper survey mailed through the U.S. Postal Service or (b) a web-based survey through Qualtrics, an online program. I followed the research-based methods outlined in the guidelines crafted by Dillman and colleagues (2009) to create and distribute the survey. I developed the *FEAT* Follow-up Survey by using (a) qualitatively analyzed open-ended survey responses from the *FEAT* Pre/Post-Questionnaires, (b) a review of relevant literature, and (c) items adapted from the Barriers to Employment and Coping Efficacy Scale (Corbière, Laisne, & Mercier, 2000; Corbière et al., 2004). Although the

survey included topics not related to the research questions (e.g., barriers to competitive employment), this article focuses on information related to expectations and knowledge.

The Follow-up Survey included an Expectations Scale consisting of nine five-point Likert items about expectations generally for individuals with ISN working in competitive positions. Within this scale, the phrasing of three items necessitated reverse coding. The survey also included a Knowledge Scale consisting of 11 five-point Likert items about participants' perceptions of their knowledge of employment resources, services and supports, and different types of competitive employment positions. Within this scale, the phrasing of two items necessitated reverse coding.

To ensure content and construct validity (Creswell, 2009), I pretested the Follow-up Survey using two methods: (a) recommendations from individuals with specialized knowledge and (b) cognitive interviews (Dillman et al., 2009). I obtained feedback from several professionals from a variety of areas of expertise (e.g., *FEAT* team members, university professors, and statisticians). I conferred about the wording of the questions, types of questions, and constructs measured.

Dillman and colleagues (2009) recommend cognitive interviews to determine whether respondents understand survey questions as the researchers intended. I completed four cognitive interviews in paper and online format with participants representing the three stakeholder groups. This process enabled me to understand interpretation of questions, whether questions measured constructs of expectations and knowledge appropriately, and whether respondents could navigate the survey effectively. Based on stakeholder input, I modified the surveys. I also ensured social validity (Creswell, 2009; Dillman et al., 2009) by integrating language from the initial Pre/Post-Questionnaires into the survey. For example, I referred to various types of competitive

employment as "out-of-the-box positions," a frequently used term in *FEAT* trainings which many participants referenced on Post-Questionnaires from 2010/2011.

I provided all survey materials in English and Spanish. As Dillman and colleagues (2009) suggested, two native Spanish-speakers (one from Puerto Rico and one from Colombia) worked independently and then collaborated to translate all materials into "neutral" or "universal" Spanish (Eremenco, Cella, & Arnold, 2005). I chose this method to ensure that (a) words and concepts were accurately and consistently conveyed across both versions of the survey and (b) Spanish surveys were translated into a form of Spanish that speakers of all dialects and cultural backgrounds are likely to understand (i.e., neutral Spanish). The familiarity of the translators with the program (they presented *FEAT* in Spanish and translated *FEAT* training materials) and their background experiences working in the field of developmental disabilities facilitated construct and social validity (Creswell, 2009) of the translations.

To increase the accuracy of responding, I included explicit and simply stated directions for survey completion (bolding and italicizing key information) on the first page of the Follow-up Survey and embedded directions in cover letters sent with the surveys. I also assigned individual identification numbers to all participants and tracked responses to avoid duplication of responses.

**FEAT Interview Protocol.** In addition to surveys, I conducted 13 semi-structured interviews with family units (i.e., parents and their children with ISN) in person (n=7) or via telephone (n=6). I targeted families for several reasons, including the fact that they constituted the largest participant group and because family expectations and knowledge, more than those of other participants, influence competitive outcomes for individuals with ISN (Timmons et al., 2011). I conducted all but one interview with another *FEAT* team member. I conducted one

interview with a native Spanish-speaking mother in English (which was the mother's preference and the primary language spoken in the home), but a native Spanish-speaking interviewer co-interviewed the mother.

The Interview Protocol is a product of iterative feedback from a university professor and three pilot interviews (Maxwell, 2005) with parents of children with ISN who presented at *FEAT* (two of whom had family members working in competitive employment and one whose family member with ISN had not yet sought employment). I began each interview with a brief introduction of myself, a description of the study and its purpose, and an explanation of confidentiality measures. Acknowledging my university affiliation and role in developing and conducting *FEAT*, I expressed my concern that *FEAT* may not address realities that many families experience and urged participants to "hold nothing back" in order to increase their comfort in discussing their experiences fully and honestly. After introducing the study, I asked participants to describe their families and then asked several open-ended questions regarding their employment-related experiences and barriers they experienced or are concerned about experiencing. With permission, I audio-recorded the interviews, which lasted an average of 74 minutes (ranging between 48 and 116 minutes long). As with survey data, I limit the analysis and discussion to data related to families' perceptions of and suggested improvements for *FEAT*.

## **Analysis**

I used the SPSS statistical software to analyze quantitative data derived from the *FEAT* Follow-up Survey and report reliability tests and single sample *t* tests. To ensure the survey's internal reliability, I reverse-coded appropriate items and conducted reliability tests on the Expectations and Knowledge scales (Green & Salkind, 2008). Using the internal consistency estimate of coefficient alpha, I omitted aberrant items from the Expectations and Knowledge

scales (questions that had Cronbach's alpha below .80) prior to running other statistical tests. I used single sample *t* tests to determine if scores on the scales differed significantly from a score of three to ascertain if participants rated their expectations and knowledge at or above "average."

I used NVivo software to employ basic interpretative qualitative analysis for transcribed interview data (Merriam, 2002). Using NVivio, I reviewed all transcribed interview data to identify general themes found among and across questions and responses (Creswell, 2009). I then coded the data by placing interview content into categories, clustering similar categories together, identifying unique or irrelevant topics, and assigning codes to the data. Using this process, I determined if any new categories emerged or if current codes were appropriate, and recoded the data as necessary.

I used several methods to ensure the trustworthiness of my qualitative analysis (Maxwell, 2005). The first method was transcript checks (comparing written transcripts to original interview recordings) (Creswell, 2009). Prior to analyzing interview data, I checked each transcript line by line with the original recording to ensure accuracy. Peer debriefing (reviewing and questioning interpretations of qualitative data with colleagues) was the second method (Creswell, 2009). I met with a *FEAT* team member and another colleague periodically to examine and discuss preliminary findings and to have dialogue about other perspectives and potential data interpretations. This process prevented coder drift, thus increasing consistency of the codes (Fernald & Duclos, 2005). Last, I used comparison (i.e., comparing data across environments, individuals, or time) (Maxwell, 2005). Comparing data from diverse families enabled me to consider threats to trustworthiness that quantitative researchers address by comparing data from intervention and control groups.

#### Results

This study sought to (a) determine *FEAT*'s longer-term influence on participants' expectations and knowledge by distributing a *FEAT* Follow-up Survey and (b) gather information on perceptions of *FEAT* by interviewing families with a *FEAT* Interview Protocol.

## **Expectations for Competitive Employment**

**Reliability.** I computed a reliability analysis for the Expectations Scale on the *FEAT* Follow-up Survey. Based on this analysis, I excluded three items from the Expectations Scale, resulting in eight remaining items with a coefficient alpha of .80, indicating satisfactory reliability.

Single sample t test. I conducted a single sample t test on the Expectations Scale to determine whether participants rated their expectations at or above "average" (a three on the scale). The sample mean of 3.10 (SD=.67) did not differ significantly from 3.00, t(103)=1.10, p<.30. The effect size d of .10 indicated a small effect (Cohen, 1988). I conducted post hoc power analyses using G\*Power (Erdfelder, Faul, & Buchner, 1996) to determine if these non-significant results were due to a lack of statistical power. Power analysis determined that for the effect size of .10 observed for this t test, this study would need an n of approximately 30 participants to achieve statistical power at .80. Therefore, sample size is not the cause of these non-significant results.

# **Knowledge of Employment Services and Supports**

**Reliability.** I computed a reliability analysis for the Knowledge Scale. Based on this analysis, I excluded five items from the Knowledge Scale, resulting in six items with a coefficient alpha of .88, indicating satisfactory reliability.

Single sample t test. As with expectations, I also conducted single sample t test on the Knowledge Scale to determine whether participants rated their expectations at or above "average" (a three on the scale). The sample mean of 3.68 (SD=.73) differed significantly from 3.00, t(103)=9.51, p<.00. The effect size d of .68 indicated a medium effect (Cohen, 1988).

## Families' Perceptions of FEAT

My analysis of interview data indicated that families reported aspects of *FEAT* they liked and other aspects they disliked. Families also provided several suggested improvements for *FEAT*.

**Likes.** Families identified three major themes regarding aspects of *FEAT* they liked.

These themes included (a) feeling inspired by stories, (b) enjoying learning new information, and (c) appreciating networking opportunities.

First, families reported leaving *FEAT* feeling inspired by stories of positive examples of successful competitive employment. Several families noted that *FEAT* "opened their eyes" or gave them a "light bulb moment" when they learned about "outside of the box" options for competitive employment that the stories demonstrated. Families also specifically cited several success stories, making remarks such as, "I'm thinking why can't [family member with ISN] do something like that?" Several families also mentioned that the stories "encouraged" them to seek various types of employment, including options "other than just sheltered day services."

Second, families enjoyed learning new information from *FEAT* in ways that "cater a little better [to] parents." Participants also liked that *FEAT* clarified information of which they were aware, but found confusing or had forgotten. One participant remarked that, "We knew about some of that stuff, but we hadn't seen it in a while." Another family also stated that information from *FEAT* allowed them to realize that "there is a lot of help out there."

Third, families appreciated the opportunities for networking. As one family put it, "Who you know is more important than who you don't know." While talking about networking at *FEAT*, another family remarked that, "it is just so good to meet people" and "see people coming together...because otherwise it's just on paper." One father even reported finding a much-needed service provider while networking during *FEAT*:

We were just talking to other families and saw somebody we didn't know. We were looking for a youth support worker. They recommended a guy's name, who was with us for a year and a half and was a godsend.

Another mother said she was glad she went to *FEAT* because she was able to network with community employers, which resulted in a volunteer opportunity for her family member with ISN.

**Dislikes.** Families identified three primary themes regarding aspects of *FEAT* they disliked, all of which involve information the program provided: (a) the failure of the curriculum to match the needs of their families/family members, (b) the gap between *FEAT*'s information and real world opportunities, and (c) information overload.

First, some families reported the *FEAT* curriculum did not match the needs of their families/family members. Although families liked the stories of successful competitive employment, some families expressed there was too much emphasis on self-employment for individuals with ISN. Families noted this was problematic because most families do not have time or resources to help family members with ISN run small businesses: "You know some of your examples [of entrepreneurship], I'm going great, if that's all I could do." Two families also mentioned that *FEAT*'s curriculum was too geared to individuals with significant support needs,

since many of the stories and much of the information discussed at *FEAT* did not apply to their family members with fewer support needs.

Second, some families indicated that there is a gap between information and materials *FEAT* presented and actualization of *FEAT* content. One mother of two adult family members with autism discussed the "gap" between information and reality: "There's so much in between [*FEAT*] and actually putting our kids behind a job. It's a huge gap there." Other families also reported that, although stories and information they learned about at *FEAT* were helpful and inspiring, they quickly found they needed more support to actualize competitive employment outcomes. For example, a mother reflected on the difficulty she experienced navigating the services and supports discussed at *FEAT* saying, "I am confused about what comes first and then second.... it just seems very confusing to me about how to put the systems together and at what age."

Third, although families appreciated the information they learned at *FEAT*, they reported feeling "overwhelmed" by the amount of information discussed during trainings. One parent discussed feeling "discouraged rather than encouraged after [*FEAT*] because there was a lot of information, a lot of resources and then [she] turn[ed] around and just [went] back to work." Some families reported feeling as if they had to "wade" through the information after *FEAT* to find appropriate resources for their family members with ISN. This experience left those families feeling overwhelmed and discouraged. As one mother put it, "Information in this life is sad, believe me. It's sad because you feel you cannot do it anymore."

**Suggested improvements.** Families made several suggestions for improving the *FEAT* program. The suggestions aligned with two key themes: (a) enhancing the curriculum and (b) expanding the program.

First, families offered several suggestions for enhancing *FEAT*'s existing curriculum. For example, families discussed the need for "refresher" trainings "to clarify a few more things." Another family requested longer trainings so families could have more time to absorb information and ask questions. Other families recommended that *FEAT* include more "small group" activities "so that people can truly talk about their own situations" to make the program "applicable in the real life." Another mother suggested developing "three or four scenarios" and then taking participants step-by-step through those scenarios to demonstrate potential action plans for competitive employment. Families also suggested making *FEAT* more individualized. For example, families discussed including information geared toward individuals with fewer support needs or holding separate trainings specifically for individuals with fewer needs. A final suggestion for *FEAT* was to invite more community employers so that families walk away with "a potential place where [their] son or daughter can work."

Second, families also made suggestions for expanding *FEAT*. Given that work and independent living go hand-in-hand, one family suggested including information about independent living options. A military family recommended expanding *FEAT* to military bases stateside and overseas since military families are often in dire need for information about life after high school. Finally, families overwhelmingly suggested that *FEAT* expand into schools. Families identified numerous benefits to brining *FEAT* into schools, including getting teachers and families working "side-by-side," facilitating "accountability" from schools and teachers, and increasing the prevalence of families and schools "working together" to achieve successful transitions from school to work. They also noted that bringing *FEAT* into schools would benefit people with ISN by "starting [transition planning] sooner." Another mother suggested that *FEAT* should be available to all students so that they "see that capability [that students with ISN

possess]." One family proposed that schools throughout Kansas employ regional *FEAT* representatives who could provide individualized support to families going through transition.

#### Discussion

This study sought to determine longer-term influence of *FEAT* on participants' expectations and knowledge and families' perspectives on *FEAT*.

## **Expectations and Knowledge**

I asked the research questions (a) do participants rate their expectations for competitive employment at or above "average?" and (b) do participants rate their knowledge of employment services and supports/types of competitive employment at or above "average?" Results indicated that, for the most part, participants who attended *FEAT* in 2010-2011 rated their expectations at "average." Results also indicated that a significant majority of participants who attended *FEAT* rated their knowledge above "average."

These results are encouraging because anecdotal comparisons to Pre-Questionnaire data indicated participants generally had poor expectations and knowledge. These findings are also interesting because families reported that they felt inspired by stories of successful competitive employment, which one imagines would result in higher expectations. However, families reported several concerns about information they received at *FEAT*, such as feeling overwhelmed by the amount/complexity of information presented and discouraged by the "gap" between *FEAT* and reality. While these concerns may not have impacted families' knowledge ratings (even though families felt overwhelmed, they still gained knowledge), the concerns may have influenced their expectations ratings.

There may be several additional ways to explain differences between participants' expectations and knowledge ratings. First, the construct of knowledge could be more static than

expectations. Although information is either something a person either knows or does not know, expectations can change frequently in response to various circumstances (e.g., stress, illness, local job market, experiences in the community). Participants also discussed the need for support after *FEAT* and "refresher" trainings. Although *FEAT* offered technical assistance (i.e., problemsolving assistance provided in person or over the phone) to all participants, only 36% indicated on the *FEAT* Follow-up Survey that they took advantage of this assistance. This need for support and lack of utilization of available technical assistance also may have negatively influenced expectations.

The findings of this study are somewhat consistent with literature on other knowledge-based training programs. When measuring participant knowledge at three and six months after a one-day knowledge-based training program designed to increase knowledge of therapy methods among medical staff, Hessing and colleagues (2004) found that participants did not maintain statistically significant knowledge in all therapy methods, despite trends indicating increased knowledge. This resembles the slight disparity between participants' expectations and knowledge ratings. By contrast, this study is important because it requested stakeholder feedback to potentially explain this disparity and improve future trainings/participant outcomes. Only one other study on knowledge-based training programs sought stakeholder feedback to evaluate a program (Sprague et al., 2012).

# **Families' Perspectives**

The third research question was "what are families' perceptions of *FEAT*?" Families noted several aspects of *FEAT* they liked, including information, networking opportunities, and stories of successful employment. They also described aspects they disliked, including the fit of the *FEAT* curriculum to their family member's needs, a gap between *FEAT* and the real world,

and information overload. Finally, families suggested improvements for the program, such as enhancing the curriculum and expanding the program. These suggestions provided valuable information about the program that should be incorporated into future trainings to improve participant outcomes.

Future trainings should dedicate more time to group discussions and problem-solving sessions. *FEAT* organizers could encourage networking between participants to improve long-term expectations. Organizers could also facilitate competitive employment outcomes by providing participants with names and telephone numbers of local community employers who are open to hiring individuals with ISN. Families agreed that *FEAT* was beneficial and should continue and even expand, notably into schools as part of school transition programs. These findings are applicable to future *FEAT* trainings and to other knowledge-based training programs that seek to replicate or enhance outcomes that *FEAT* participants experienced.

## Limitations

This study has three primary limitations. One limitation is that I am unable to directly compare data from the Follow-up Survey to data from the Pre/Post-Questionnaires because I measured expectations and knowledge differently (see Table 2). I measured the constructs differently for this study so that I could run *t* tests on both constructs and validate the Expectations and Knowledge Scales for future research. Although I cannot directly compare data from Pre/Post-Questionnaires and results of the Follow-up Survey, comparing results of the two studies anecdotally indicates participants generally reported poor expectations and knowledge before *FEAT*, higher expectations and knowledge immediately after *FEAT*, and continued rating their expectations and knowledge above "poor" (a score of two on the scale) one to two years after *FEAT*.

Underrepresentation of Spanish-speaking participants is a second limitation. Although the number of Spanish-speaking participants/participants of color in this study are comparable with these groups' populations in Kansas (Francis et al., in press), only one Spanish-speaking participant returned a survey (12 Spanish-speaking participants submitted Pre/Post-Questionnaires). This occurred despite providing of all survey materials in both English and Spanish and the translation of materials into "neutral Spanish."

Third, the demographics of the sample limits generalization. While the race/ethnicities and languages spoken by participants in the sample are largely comparable with the population of Kansas (U.S. Census Bureau, 2012), other characteristics, including level of education and, to some degree, income were not. For example, 88.3% of survey participants and 100% of interviewees went to college, compared 61.1% of the general population in Kansans (U.S. Census Bureau, 2012). Only one participant who did not go to college offered to participate in an interview, but I was unable to contact her. Further, while the number of participants who reported household incomes of \$75,000 or more a year is comparable to the average Kansan household (44.2% of survey respondents and 45% of interviewees, compared to 41.7%), there is a gap between percentage of participants who reported incomes of \$24,000 or lower (3.8% of survey respondents and 0% of interviewees, compared to 14.7%) (U.S. Census Bureau, 2012). Despite these limitations, this study fills many gaps in the literature on knowledge-based trainings.

### **Contributions to the Literature**

Findings from this study enhance the literature in several ways. First, this study focuses on expectations and knowledge related to competitive employment; targets families, professionals, and individuals with ISN as participants; and examines follow-up data. Of the nine

studies included in the literature review, only 43% of research on knowledge-based training programs measured long-term retention of expectations and/or knowledge, and none measured outcomes past one year. Although mixed-methods research is gaining acclaim as researchers increasingly recognize the strengths of a mixed-methods approach to studying complex systems (not unlike employment for people with ISN) (Patton, 2002), only 29% of studies on knowledge-based training programs used mixed-methods design. Of those, only 14% collected face-to-face qualitative data from participants. Professionals developing knowledge-based programs can also integrate suggestions for improvement from families participating in *FEAT* in their specific programs (e.g., more time for discussion).

## **Future Directions for FEAT**

The findings from this study give some credence to the longer-term effectiveness of *FEAT*, thus warranting the program's continuation and expansion. However, the *FEAT* team should take into account families' suggestions. Based on feedback from families, I concluded that future *FEAT* training should: (a) place more balanced interest on all types of employment; (b) share stories of individuals with more diverse levels of need; (c) allow more time for questions; (d) include more information for individuals with fewer support needs; (e) create more time for interactive activities (e.g., problem solving by small groups); and (f) emphasize follow-up technical assistance included in the current design. Future *FEAT* trainers should consider taking the initiative to call participants after *FEAT* and remind them that assistance is available.

In addition to addressing families' suggestions, *FEAT* should also increase/enhance the use of universal design for learning (Lancaster, 2008) to digest and present information and materials in ways that all families understand so they leave feeling capable to help their family members obtain competitive employment. *FEAT* should also invite local families (Colosi &

Dunifon, 2003) to serve in leadership roles (Hepburn, 2004) where they collaborate with program staff to design trainings and present material in ways that families understand. Last, in addition to offering follow-up technical assistance, *FEAT* should also consider facilitating parent-to-parent connections (Kerr & McIntosh, 2000) and creating communities of practice (Mansell & Beadle-Brown) to enhance understanding of the material. I believe these changes will prevent/mitigate information overload.

On another note, the study results provides evidence that families believed *FEAT* should be available in schools. The *FEAT* team could collaborate with local school districts to modify the program and bring *FEAT* into the school system. *FEAT* could be adapted to a professional development program for school staff and/or a transition curriculum for students with ISN. Expanding *FEAT* into schools would provide a sustainable foundation for teachers to empower their students and encourage competitive employment/continuing education outcomes.

Moreover, since FEAT is a Kansas-specific training program, future research should involve expanding the FEAT program to reach more states, including military bases. Research on FEAT's expansion to other states, military bases, and schools would determine if the program is effective among various populations and in diverse variations. Although this study provided information on FEAT's longer-term influence and on how to enhance the program, future research can fill gaps in knowledge about FEAT's effectiveness and gaps in the literature on knowledge-based training programs.

#### **Future Research**

A major criticism of knowledge-based training programs is that these programs do not foster action among participants. In fact, I was only able to find one study (Hessing et al., 2004) that investigated the impact of a knowledge-based training program on expectations, knowledge,

and behavioral change. However, a preliminary analysis of additional information from the Follow-up Survey indicated that (a) several participants reported competitive employment after *FEAT*, (b) a majority of participants reported using information and materials from *FEAT* following attendance, and (c) most participants reported that *FEAT* influenced or strongly influenced their work toward competitive employment for individuals with ISN. Although these results are encouraging, future research should continue exploring the effectiveness of knowledge-based training programs such as *FEAT* in facilitating action on behalf of participants.

A limitation of this study is my inability to compare findings to the Pre/Post-Questionnaires findings. Future research should measure variables consistently, using both quantitative (e.g., scales and questionnaires) and qualitative (e.g., interviews and focus groups) methods. Validation of the survey used in this study will provide a reliable measurement tool for future *FEAT* research, and a tool for researchers to reference as they evaluate other knowledge-based training programs. Although I interviewed families because of the influence they have on competitive employment outcomes of people with ISN (Timmons et al., 2011), it would be helpful in future research to interview professionals and people with ISN apart from their families to generate a more complete picture of stakeholder perspectives.

Future research should also include control groups and account for mediating/confounding variables. Including control groups would determine an estimate of a program's impact on participant expectations, knowledge, and other outcomes (e.g., rates of competitive employment). The literature on knowledge-based training programs also discussed the need for future research to consider mediating or confounding variables (Hall, 2007; Hessing et al., 2004; Ison et al., 2010) such as intensity of needs, socioeconomic status, and first language. Future research may consider conducting multivariate regression of variables such as

income, levels of education, and types of disability on outcomes such as competitive employment. Conducting this type of analysis would determine if these variables have relationships with participant outcomes.

Research in this area should also include more diversity among participants (the majority of participants studied in research on knowledge-based programs are Caucasian). In fact, the underrepresentation of Spanish-speaking participants and participants from varied socioeconomic statuses and educational backgrounds mark limitations of this study. To encourage greater participation in follow-up research from Latino families who attend knowledge-based training programs, future researchers should consider calling families personally to explain the importance family input and how the information they provide will influence others (Quezada, Díaz, & Sánchez, 2003).

Although the demographics for race/ethnicity and language for the sample align with demographics for Kansas (U.S. Census Bureau, 2012), future research should reach out to families from varied socioeconomic statuses and cultural backgrounds. Future researchers should spread information through parent-to-parent connections and support groups, collaborate with schools to inform families, or even visit families in their homes to encourage attendance (Hepburn, 2004).

It is also important to consider that despite the fact that 100% of interview participants went to college (38% obtained a graduate degree), participants stated that *FEAT* information made them feel overwhelmed. One father imagined how difficult it must be for "that single mother" who does not have the education, support, and financial means that his family experiences:

I mean we know everybody. I have family and extended family here. We have financial resources or whatever. I own a business, so I've got flexibility. So we thought we had all of that but even with that, raising [his son] has been more than we could do. It's been beyond us (Francis, Gross, Turnbull, 2013a).

Future research should incorporate the strategies discussed in the "future directions for *FEAT*" section to ease participants feeling overwhelmed, especially those who have not had access to post-secondary education.

Last, Ison et al. (2010) called for research to determine whether knowledge-based training programs succeed in affecting how participants perceive barriers. Future research should determine the ability of these programs to change how participants perceive barriers. Similarly, more research on why participants rated their expectations lower than their knowledge (especially given the excitement they expressed about the employment success stories) would contribute to an understanding of (a) barriers that individuals experience; (b) the influence of those barriers on individuals' expectations, knowledge, and behavior; and (c) how knowledge-based training programs such as *FEAT* can address these barriers. Research on barriers that families and individuals with ISN frequently experience when seeking competitive employment, and on how they overcome those barriers, could also support change to local and national policies and systems.

### Conclusion

Despite the benefits associated with competitive employment (Johannesen et al., 2007), many individuals with ISN are unemployed, work part-time, or work in sheltered settings (National Disability Rights Network, 2011). However, high expectations for competitive employment and knowledge of employment services and supports can improve employment

rates (Cimera, 2008; Heiman, 2002; Lindstrom et al., 2011; Migliore et al., 2008; Winsor et al., 2011). The results of this study on longer-term influences of *FEAT* indicated that participants who attended *FEAT* rated their expectations at average, and rated their knowledge at or above average one to two years after attending *FEAT*. This is encouraging because anecdotal comparisons to Pre-Questionnaire data indicated participants generally had poor expectations and knowledge (Francis et al., in press). This study indicates that *FEAT* is a promising approach to improving employment outcomes for individuals with ISN. Additionally, continued implementation of *FEAT* and future research will contribute to the literature on knowledge-based training programs.

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### CHAPTER 3

Research study two: Determining the Effectiveness of the Family Employment Awareness

Training (*FEAT*) Program on Behavioral Change and Competitive Employment Outcomes of

People With Individualized Support Needs

#### Abstract

This study used mixed methods design to evaluate if families who attended *FEAT* in 2010-2011 (a) engaged in behavioral change following *FEAT*, (b) reported competitive employment outcomes for their members with ISN following *FEAT*, and (c) indicated that *FEAT* positively influenced how they help their family member with ISN gain and/or maintain a competitive job. Findings indicated that many families engaged in behavioral change following *FEAT*; reported competitive employment outcomes for their family member with ISN following *FEAT*; and reported that *FEAT* positively influenced how families help their family members with ISN gain and/or maintain a competitive job. I discuss implications of these findings and recommendations for future research.

Determining Effectiveness of the Family Employment Awareness Training (*FEAT*) Program on Behavioral Change and Competitive Employment Outcomes of People with Individualized Support Needs

Competitive employment (i.e., employment in community settings among people without disabilities for minimum wage or higher) results in numerous benefits for people with disabilities who have individualized support needs [people with physical or mental impairments that seriously limit one or more functional capacities (Rehabilitation Act, 1973)] that require supports and services in the workplace (Buntinx et al., 2008). These benefits include enhanced self-esteem, independence, and quality of life (Boeltzig, Timmons, & Butterworth, 2008; Johannesen McGrew, Griss, & Born, 2007; Kraemer, McIntyre, & Blacher, 2003; Verdugo, Martin-Inglemo, Jordán de Urries, Vicent, & Sánchez, 2009). Despite benefits associated with competitive employment and policies and programs designed to facilitate competitive employment for people with individualized support needs (ISN) (e.g., Social Security Act, Vocational Rehabilitation, and Medicaid), people with ISN continue to face higher unemployment rates than do people without disabilities (Olson, Cioffi, Yovanoff, & Mank, 2001; Schmidt & Smith, 2007; Schur, Kruse, & Blanck, 2005).

Individuals with ISN are also frequently placed into segregated settings such as sheltered workshops or enclaves that offer few challenges or variety (Carter et al., 2010; Migliore, Mank, Grossi, & Rogan, 2007). Sheltered positions typically pay a mere average hourly wage of \$1.59-\$2.30 (Migliore, Grossi, Mank, & Rogan, 2008; National Disability Rights Network, 2011). These problems make the current state of competitive employment for individuals with ISN discouraging in many respects. However, high expectations for competitive employment and knowledge of available services and supports can increase the likelihood of individuals with ISN

securing and maintaining competitive jobs (Carter, Austin, & Trainor, 2011; Cimera, 2008; Heiman, 2002; Migliore et al., 2008; Lindstrom, Doren, & Miesch, 2011; Timmons, Hall, Bose, Wolfe, & Winsor, 2011; Winsor, Butterworth, & Coone, 2011). Knowledge-based training programs are one intervention found to improve expectations and knowledge.

Knowledge-based training programs provide individuals information to increase their expectations and knowledge, and thereby influence their behaviors. These programs are commonly conducted face-to-face, include practical information, employ a variety of interactive instructional methods, and occur over a reasonably brief time period (one to five training sessions) (Hall, 2007; Merriam, Caffarela, & Baumgartner, 2006). Research from various fields, including health and education, indicates that these programs increase participants' expectations and knowledge (Deutschlander, 2010; Hall, 2007; Hessing, Arcand, & Frost, 2004; Ison et al., 2010; Shriner, Schlee, Hamil, & Libler, 2009; Sprague et al., 2012). Unfortunately, literature on knowledge-based training programs has many gaps.

I conducted a literature review of research on reasonably brief face-to-face knowledge-based training programs designed to increase expectations and/or knowledge. I searched for manuscripts published between 2000 and 2012, using variations and combinations of 15 key terms to search in five literature databases. However, I located only seven studies on knowledge-based training programs and found that just one of these focused on employment for people with disabilities via job development training for employment consultants (Migliore et al., 2011). Furthermore, only three studies assessed the longer-term influence of knowledge-based training programs by measuring participant outcomes from three months to one year after attendance (Hall, 2007; Hessing et al., 2004; Migliore, Butterworth, Nord, & Gelb, 2011). Only one study, by Hessing and colleagues (2004), investigated the impact of a knowledge-based program on

expectations, knowledge, and behavioral change. None of the trainings included families, people with disabilities, or linguistically diverse participants, and only two of the seven studies used mixed-methods design. Of those two, only Ison et al. (2010) collected face-to-face qualitative data from participants. Migliore and colleagues (2011) were the only researchers to include a follow-up technical assistance/support in their training, a component found to increase participant outcomes (Joyce & Showers, 2002).

# The Family Employment Awareness Training (FEAT)

The Family Employment Awareness Training (FEAT) is an example of a knowledge-based training program designed to raise employment expectations and knowledge among people with ISN, their families, and professionals to improve competitive employment outcomes. FEAT is a product of collaboration between university researchers, state Medicaid personnel, and state parent leaders. These partners designed FEAT for families, but professionals also attended the program. Over the course of 11 trainings held during eight-hour blocks on two days, FEAT provided families, individuals with ISN, and professionals (e.g., teachers, transition specialists, case managers, job coaches) information, real-life stories of successful competitive employment, opportunities to network with each other and with community guest speakers, and time to create employment action plans. FEAT stands apart from most knowledge-based trainings because the program included

 universal design for learning strategies embedded within the format and curriculum (e.g., PowerPoint, lecture, photographs and images, small group instruction, videos, enlarged print, picture icons, modified materials for individuals with ISN);

- guest speakers from the community (e.g., representatives from local businesses,
   employment agencies and programs, and competitively employed individuals with ISN and their families);
- accommodations/modifications available to all participants (as indicated on the preregistration form);
- two break-out sessions designed specifically for youth and young adults with ISN (sessions targeted interests, strengths, needs, available services and supports, and disclosure);
- trainings/materials offered in Spanish;
- participant-created action plans for employment developed during FEAT;
- technical assistance and support available to participants following *FEAT* (i.e., participants could sign up for technical assistance during the training or contact the *FEAT* team for telephone or in-person assistance/support); and
- multiple trainings offered in rural, suburban, and urban areas around Kansas (where the trainings took place).

Table 1 describes the *FEAT* curriculum and format in greater detail.

Table 1

Major and Subtopics of the FEAT Curriculum

Major Topics	Sub-topics	Training Format/Activities
Employment options	Integrated competitive employment Supported and customized employment Carved jobs Created jobs Resource ownership Self-employment	Lecture PowerPoint Videos Community speakers Success stories

	Business within a business Employer-initiated models	
Family role	Building a support network Contributing to the employment process Creating partnerships	Lecture PowerPoint Opportunities for networking Creating an action plan for employment
Transition	School to work Healthcare	Lecture PowerPoint
Support resources	For employees (i.e., assistive technology, natural supports, job coaches, benefits specialist)  For employers - local and national organizations designed support employers of persons with ISN	Lecture PowerPoint Resource CD List of websites
Systems navigation	Case managers Career one-stop/Workforce centers	Lecture PowerPoint Community speakers
Services, benefits, and programs	Vocational Rehabilitation (VR) Ticket to Work Kansas Medicaid (i.e., waivers and buy-in programs) Community rehabilitation providers Transportation Work incentives (e.g., PASS, IRWE, 1619b)	Lecture PowerPoint Community speakers Resource CD List of websites Opportunities for networking Creating an action plan for employment
Other funding and information	Kansas Council on Developmental Disabilities Small Business Administration (i.e., development centers, SCORE, women's business centers) Kansas Disability Service Maps	Lecture PowerPoint Resource CD List of websites
Antidiscrimination laws	Federal (i.e., Americans with Disabilities Act, Section 504) State (i.e., Employment First policy, Kansas Act Against Discrimination)	Lecture PowerPoint Resource CD List of websites

Youth sessions Job preferences

Support needs Self-advocacy Disability disclosure Lecture Group discussions Brainstorming

Individual planning

sheets

Role-playing

A total of 324 families, individuals with ISN, and professionals attended *FEAT* trainings between June 2010 and November 2011. Members of the *FEAT* team (myself and a university researcher) evaluated *FEAT* in two phases, as Table 2 shows. The evaluation's first phase involved an immediate *FEAT* Pre/Post-Questionnaire that evaluated participants' expectations and knowledge before and after each training. Results from the Pre/Post-Questionnaire indicated that attending *FEAT* had the immediate results of enhancing expectations for competitive employment and increasing knowledge of employment-related services and supports (Francis, Gross, Parent-Johnson, & Turnbull, in press).

For the second evaluation phase (see Table 2), I distributed a *FEAT* Follow-up Survey to participants one to two years after their attendance. During this phase of evaluation I also interviewed families who attended *FEAT*. The Follow-up Survey and interviews produced a considerable amount of information on participants' expectations, knowledge, behavioral change, employment outcomes, and perceptions, which I organized into two articles.

Table 2

FEAT Assessments|Conducted Prior to this Study

Name and Purpose of Assessment	Distribution and Participants	Assessment Method	Results		
Phase One of FEAT Evaluation					
FEAT Pre/Post- Questionnaire  Evaluate FEAT's immediate influence on raising participants' expectations and knowledge	Directly before and after 11 FEAT trainings held in 2010-2011 237 participants 69.7% families 39% professionals 15.4% individuals with ISN	(a) one open-ended question about expectations ("What do you feel are the employment options for individuals with a disability?")	<ul> <li>(a¹) Expectations before FEAT:</li> <li>competitive employment options are available; getting them requires effort and knowledge</li> <li>employment is limited to specific jobs and by the economy</li> <li>employment is limited by negative employer attitudes, low professional expectations</li> <li>people with ISN are regarded as needing too much support for employment in competitive jobs</li> <li>(a²) Expectations after FEAT:</li> <li>improved expectations for people with ISN to experience competitive employment, despite existing barriers</li> <li>increased confidence, positive outlooks for future employment opportunities</li> <li>increased employment possibilities, given advocacy and support</li> </ul>		

(b) one four-point Likert question (rated as poor, fair, good, or excellent) about knowledge ("How would you rate your knowledge of transition services and employment options for youth with disabilities?") (b¹) one-sample chi-square test: Proportion of participants rating their post-FEAT knowledge "Good" (P=.53) or "Excellent" (P=.27) was significantly greater than hypothesized proportions of .26 and .09 (p < .05)

(b<sup>2</sup>) paired-samples t test: participants rated their knowledge higher after FEAT (p < .05)

Phase Two of FEAT Evaluation					
2. FEAT Follow- up Survey  Study one: Evaluate FEAT's longer-term influence on raising	Surveys mailed/emailed to 2010-2011 FEAT participants in June 2012 114 participants 63.5% families 29% professionals 7.5% individuals with ISN	Study one:  (a) Expectations scale consisting of eight 5-point Likert scale questions about participants' expectations	Study one:  (a¹) Expectations scale: Coefficient alpha of .80  (a²) Single sample <i>t</i> -test: Participants rated their expectations at "average,"		
participants' expectations and knowledge		(b) Knowledge scale consisting of five 5-point Likert scale questions about participants' knowledge of employment services and supports	(b¹) Knowledge scale: Coefficient alpha of .88  (b²) Single sample <i>t</i> -test: Participants rated their knowledge at or above "average," ( <i>p</i> =.00)		
3. FEAT Semi- structured Interview Protocol	Face-to-face or telephone interviews in June/July 2012 with families who attended FEAT in 2010-2011	Study one: Interview protocol consisting of one question regarding suggestions for improving FEAT ("What are your	Study one: Likes: Inspired by stories cencouraged by information entworking opportunities		

Study one: Determine families' perspectives of FEAT 13 family units

suggestions to improve/enhance future FEAT trainings?") Dislikes:

- curriculum did not match the needs of their family/family member with ISN
- gap between FEAT and the real world
- information overload

#### Suggested improvements:

- enhance curriculum
- expand program

The first article reported data about participants' expectations and knowledge about families' perceptions of FEAT. This study indicated that survey participants rated their expectations at "average" and their knowledge at or above "average" (Francis, Gross, & Turnbull, 2013). Interview data indicated that families enjoyed several aspects of FEAT (e.g., positive stories about various types of competitive employment), disliked some aspects of the training program (e.g., feeling overwhelmed by the amount of information), and suggested several improvements to enhance FEAT (e.g., bringing FEAT into schools as part of a transition program). Table 2 provides more information about these measurement tools and outcomes. These data indicate that *FEAT* effectively enhanced participants' expectations and knowledge. According to the literature, this enhancement should increase competitive employment outcomes (Carter et al., 2011; Hasnain & Balcazar, 2009; Rowe & Test, 2010). However, scholars know little about the ability of knowledge-based training programs (such as FEAT) to elicit behavioral change. Since so few studies on knowledge-based training programs focus on competitive employment, we know little about these programs' effectiveness at increasing competitive employment outcomes. A second study examining data from the FEAT Follow-up Survey and semi-structured interviews will begin to fill this gap in knowledge. I address the following research questions in this second study of phase two *FEAT* evaluation:

(a) Do families report behavioral change following *FEAT*?;

- (b) Do families report that their family members with ISN gained competitive employment outcomes following *FEAT*?; and
- (c) Do families indicate that *FEAT* positively influenced how they help their family members with ISN gain and/or maintain a competitive job?

### Method

# **Participants**

I distributed recruitment letters and comprehensive *FEAT* Follow-up Surveys to 220 participants who provided contact information when pre-registering for *FEAT* in 2010-2011. Of that number, 114 participants (52%) responded. However, I excluded six surveys from the final sample because participants marked "did not attend *FEAT*" on the survey (i.e., participants signed up for but did not attend *FEAT*). All but one of the surveys in the final sample of 109 were in English. Family units (i.e., parents, siblings, grandparents, aunts and uncles, foster parents, spouses, caregivers, and individuals with ISN who consider themselves family) represented 63.5% of respondents. Individuals with ISN (i.e., people with ISN who did not complete the survey with their families) represented 7.5%. Professionals (e.g., case managers, social workers, employment/transition specialists, teachers) represented 29%. Table 3 displays (a) demographic data for families who returned the Follow-up Surveys and (b) data for the average Kansan household.

Table 3

Demographic Information for FEAT Participants and Comparative Kansas Data

	Families		Percent in Kansas
	n=68		
Primary Language Use in			
Home			
English	96.7		88.6
Spanish	1.7		7.4
Other	1.7 (American		.07
	Sign Language)		
Race/Ethnicity			
White/Caucasian	79.3		87.4
Hispanic/Latino	6.9		10.8
Multiple races/ethnicities	5.2		2.7
Asian/Asian American	3.4		2.5
Black/African American	5.2		6.1
Area Where You Live <sup>c</sup>			
Urban	23.7		
Suburban	64.4		
Rural	11.9		
Average Annual Income for			
Household			
Below \$15, 000	1.9	Below \$10,000	3.6
\$15, 000 - \$24,999	1.9	\$15, 000 - \$24,999	11.1
\$25,000 - \$34, 999	7.7	\$25,000 - \$34, 999	11.2
\$35,000 - \$44,999	15.4	\$35,000 - \$49,000	15.4
\$45,000 - \$54,999	3.8		
\$55,000 - \$64,999	5.8	\$50,000 - \$74,900	19.5
\$65,000 - 74,999	19.2		
\$75,000 - \$84,999	3.8		
\$85,000 - \$94,999	5.8	\$75,000 - \$99,000	16.6
\$95,000 and higher	34.6	\$100,000 and higher	25.1
Highest Level of Education		,	
Obtained in Household			
High school diploma	3.4		28.4
Trade school/technical degree	8.5		n/a
Some college	8.5		24
2 year college degree	10.2		7.4
4 year college degree	37.3		19.5
Graduate degree	32.2		10.2
Age of Family Member			
Under 12 years old	3.5		
13-15 years old	5.3		

16-18 years old	24.6	
19-21 years old	29.8	
22-25 years old	21.1	
26-30 years old	5.3	
31 years old or older	10.5	
Disability of Family Member		
Autism	32.8	
Developmental disabilities	14.8	
Multiple disabilities	23	
Down syndrome	14.8	
Cerebral Palsy	13.1	
Attention deficit/hyperactivity	1.6	
disorder		
Level of Support Needed by		
Family Member		
None	1.8	
Minimal	17.5	
Moderate	29.8	
Extensive	50.9	

*Note.* Data reported in percentages. Kansas statistics retrieved from the U.S. Census Bureau (2012).

In the survey, I offered families the opportunity to participate in semi-structured interviews about their experiences seeking, obtaining, or maintaining employment. Twenty-six families volunteered to participate in follow-up interviews. I purposefully selected contrasting cases (Merriam, 2009) and interviewed families until I reached saturation (Glaser & Strauss, 1967). This process yielded 13 interviews that largely reflect the demographics of survey participants and Kansan families (U.S. Census Bureau, 2012), with the exception of higher rates of college attendance and higher income levels. Table 4 displays demographic information for interviewees.

Table 4

Demographic Information for Interview Participants

Family	Average Annual Household income	Location of family home	Highest level of education obtained in home	Primary language(s) spoken in home	Race/ Ethnicity(ies) of family members	Age of family member	Level of support needed by family member	Current employment status of family member
1.	65,000- 74,900	Suburban	Graduate degree	English	White/Caucasian	20	Moderate	Competitive employment
2.	85,000- 94,900	Rural	Four year college degree	English	White/Caucasian	18	Minimal	Competitive employment
3.	35,000- 44,900	Suburban	Some college	English	White/Caucasian Hispanic/Latino	19	Minimal	Competitive employment
4.	95,000+	Suburban	Graduate degree	English	White/Caucasian Multiple races/ethnicities	22	Minimal	Competitive employment
5.	95,000+	Suburban	Graduate degree	English	Hispanic/Latino	23 & 24	Extensive/ Minimal	Unemployed/ Volunteer
6.	35,000- 44,900	Suburban	Some college	English	White/Caucasian	17	Extensive	Internship

7.	95,000+	Urban	Four year college degree	English	White/Caucasian Multiple races/ethnicities	19	Moderate	Gained, but lost job
8.	Not reported	Not reported	Four year college degree	English	Black/African American	23	Extensive	Sheltered workshop
9.	65, 00- 74,900	Suburban	Four year college degree	English	White/Caucasian	27	Extensive	Sheltered workshop
10.	25,000- 34,900	Urban	Some college	English	White/Caucasian	46	Minimal	Sheltered workshop
11.	95,000+	Suburban	Graduate degree	English	White/Caucasian	22	Extensive	Sheltered workshop
12.	25,000- 34,900	Suburban	Two year college degree	English/ ASL	White/Caucasian Hispanic/Latino	19 & 22	Extensive/ Minimal	Not sought
13.	Not reported	Urban	Graduate degree	English	White/Caucasian	23	Extensive	Not sought

Note. Participant information organized by criteria for selection to achieve contrasting cases.

Although phase two data collected from the Follow-up Survey and interviews included information from families, individuals with ISN, and professionals, I include only data from families (n=68) in this manuscript. I singled out family data for several reasons: (a) families are the most likely group to influence competitive employment outcomes for individuals with ISN [Developmental Disabilities Assistance and Bill of Rights Act (DD Act), 2000; Rupp & Ressler, 2009; Timmons et al., 2011], (b) the *FEAT* program was designed for families, (c) families constituted the largest participant group, (d) all data evaluated in this manuscript relate to families (e.g., professionals were not asked about competitive employment outcomes on the survey), and (e) there are missing data from participants with ISN.

## **FEAT** Follow-up Survey

I developed and distributed a *FEAT* Follow-up Survey using research-based guidelines that Dillman and colleagues (2009) recommended to measure *FEAT*'s longer-term influence.

Although the survey measured several constructs (e.g., expectations, knowledge, barriers), this

study targeted survey information related to behavioral change, competitive employment outcomes, and perceptions of *FEAT*'s influence. I measured behavioral change by collecting data on (a) the percentage of families that used *FEAT* information/materials, (b) how families used *FEAT* information, (c) the number of services and supports accessed/used since attending *FEAT*, and (d) the percentage of families who used *FEAT* technical assistance on the *FEAT* Follow-up Survey. I also measured how families rated *FEAT* technical assistance on the survey.

Moreover, I investigated the percentage of families reporting competitive employment outcomes for their family members with ISN (i.e., current employment/volunteer/internship), as well as the percentage gaining those outcomes following *FEAT*. I also obtained information about the average number of hours per week individuals with ISN worked/volunteered/interned. I regarded volunteering/interning as a competitive employment outcome because volunteer/intern positions at competitive jobs can lead to paid positions (Carter et al., 2010; Timmons et al., 2011). Further, volunteer/intern positions at competitive jobs are important employment outcomes for individuals with and without disabilities.

Finally, I asked participants a 5-point Likert question to determine how families perceived *FEAT*'s influence on the way they help their family members with ISN gain and/or maintain competitive jobs. Specifically, I asked participants to indicate the degree to which *FEAT* positively influenced the ways they help their family members with disabilities gain and/or maintain competitive jobs.

I established content and construct validity for the survey (Creswell, 2009) by modifying survey questions/format based on information gained while (a) pretesting the survey by obtaining feedback from key stakeholders (families who experience disability) and (b) conducting four cognitive interviews using online and paper formats of the survey (Dillman et al., 2009). I also

considered social validity (Creswell, 2009; Dillman et al., 2009) by (a) embedding definitions of key constructs in survey questions (e.g., "competitive employment") and (b) referring to agencies, programs, services, and supports in multiple ways. For example, I referred to Vocational Rehabilitation as "Vocational Rehabilitation (VR)."

Two native Spanish speakers, (professionals in developmental disabilities field who presented *FEAT* in Spanish), worked independently and then collaborated to translate all survey materials into a "neutral" or "universal" form of Spanish (Eremenco, Cella, & Arnold, 2005). Their methods ensured that the Spanish translations represented concepts on the English version of the survey accurately on the Spanish version (Dillman et al., 2009). One translator was also a family member of an individual with ISN. The professional and personal backgrounds of these individuals ensured construct and social validity (Creswell, 2009) of translations. Since I provided all participants paper and electronic versions of the survey in English and Spanish, I assigned participants individual identification numbers to prevent duplication of surveys. Table 5 describes the *FEAT* Follow-up Survey format in greater detail, organized by this study's research questions.

Table 5

Research Questions, Constructs, and Survey Response Format

Research Questions/	Survey Response Format				
Constructs Measured					
1. Do participants report					
behavioral change following					
FEAT?					
(a) use of information and materials received at <i>FEAT</i>	(a <sup>1</sup> ) "Have you used the information and materials you received from <i>FEAT</i> ?" (yes/no)				
	(a <sup>2</sup> ) "Please describe how you have used the information or materials since attending <i>FEAT</i> . Check all that apply." (frequency checklist)				

- (b) access and use of services, supports, and resources
- (b) "Please indicate the resources you have accessed or used since attending *FEAT*. Check all that apply." (frequency checklist)
- (c) use of *FEAT* technical assistance
- (c) "Have you sought support or technical assistance from *FEAT* staff?" (yes/no)
- (d) evaluation of *FEAT* technical assistance
- (d) "To what extent do you agree or disagree with the following statement: The support/technical assistance I received was helpful." (5-point Likert scale: strongly agree- strongly disagree)
- 2. Do families report that their family members with ISN gained competitive employment outcomes following *FEAT*?
- (a) competitive employment outcomes following *FEAT*
- (a) "Describe the employment of your family member with a disability. Select all that apply."

(frequency checklist:

- competitive employmentinternship or job tryouts
- gained competitive employment, but later quit
- gained competitive employment, but lost the job
- segregated employment
- not employed
- not sought employment)
- (b) determination if employment occurred before or after *FEAT*
- (b) "Did your family member's employment or internship occur before or after *FEAT*?" (before/after)
- (c) average weekly hours
- (c) "On average, how many hours a week does your family member work or intern at their competitive job?" (frequency checklist ranging from 0-5 hours a week to 36-40 hours a week)
- 3. Do families report that *FEAT* positively influenced the way they help their family members with ISN gain and/or maintain a competitive job?
- (a) perceptions of *FEAT*'s
- (a) "To what extent do you agree or disagree with the

influence on the way families help their members with ISN gain and/or maintain competitive employment outcomes following statement: *FEAT* positively influenced the way I help my family member with a disability gain and/or maintain a competitive job." (5-point Likert scale: strongly agree-strongly disagree)

## **FEAT** Semi-structured Interviews

I conducted 13 semi-structured interviews with family units (i.e., parents and their children with ISN) in person (n=7) or via telephone (n=6). I began each interview by introducing myself/the study, explaining confidentiality measures, and encouraging interviewees to discuss their experiences fully and honestly. I also audio-recorded interviews with participant consent. The mean length of the interviews was 74 minutes, with interviews lasting between 48 and 116 minutes.

I iteratively redesigned this study's interview protocol by including feedback from a university professor and three pilot interviews with families who have a member with ISN (Maxwell, 2005). During interviews, I asked participants to describe their families and then asked several open-ended questions about *FEAT*, their employment-related experiences, and barriers to competitive employment. As with the survey, the interviews produced comprehensive information related to families' employment experiences. For this study, however, I report information related to families' experiences with (a) behavioral change related to competitive employment, (b) competitive employment outcomes, and (c) perceptions of *FEAT*'s influence.

## **Analysis**

I used SPSS statistical software to report frequencies for data from the Follow-up Survey on behavioral change, competitive employment outcomes, and *FEAT*'s influence. Analysis of transcribed interview data took place through use of NVivo qualitative software.

Using basic interpretative qualitative analysis (Merriam, 2002), I analyzed the data by (a) identifying general themes found among and across responses; (b) coding the data into categories; (c) revisiting codes to determine accuracy and appropriateness; and (d) recoding data as necessary (Creswell, 2009). During this process, I collaborated frequently with a *FEAT* team member to discuss the codes. I also used several methods to ensure trustworthiness of the qualitative analysis (Maxwell, 2005): transcript checks (comparing written transcripts to original interview recordings), peer debriefing (reviewing and questioning interpretations of qualitative data with colleagues), and comparison (comparing data from contrasting cases of participants) (Creswell, 2009; Maxwell, 2005).

#### Results

The purpose of this study was to determine whether families who attended *FEAT* in 2010-2011 engaged in behavioral change following *FEAT*, reported competitive employment outcomes for their members with ISN following *FEAT*, and indicated that *FEAT* positively influenced how they help their family members with ISN gain and/or maintain competitive jobs. This section combines quantitative (survey) and qualitative (interview) data to address each research question.

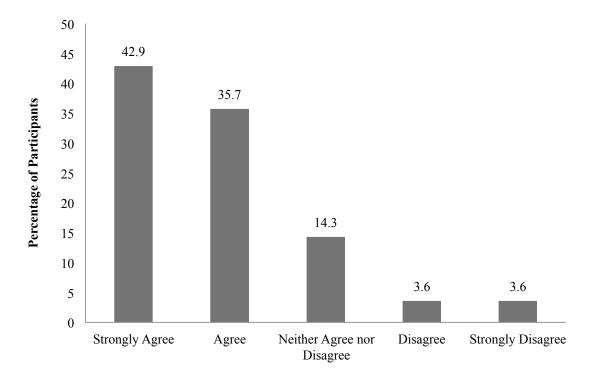
## **Behavioral Change**

I determined behavioral change related to competitive employment by measuring (a) the percentage of families who used *FEAT* information/materials, (b) how families used *FEAT* information, (c) the number of services and supports accessed/used since attending *FEAT*, and (d) the percentage of families that used *FEAT* technical assistance on the *FEAT* Follow-up Survey. I also measured how families rated *FEAT* technical assistance on the survey. I used interview data to derive information on behavior related to competitive employment.

*FEAT* information and materials. Sixty-five percent of families indicated they used *FEAT* information/materials (e.g., web resources, information packet) after attending the program. Families reported using the information/materials several ways: (a) sharing information with friends (44.1%), (b) sharing information with family (38.2%), (c) sharing information with professionals (33.8%), (d) looking at or using web resources (32.4%), and (e) sharing information with colleagues (22.1%).

Services and supports. Families accessed/used an average of five employment-related services and supports after attending *FEAT*. The minimum number of services and supports they accessed/used was zero (n=6) and the maximum was 10 (n=1). The most frequently accessed/used resources were case management (32.4%), Community Developmental Disability Organization (county/regional programs offering a range of services and supports), (23.5%), Home and Community Based (HCBS) Waiver (22.1%), Vocational Rehabilitation, (14.7%), and job coaching (13.2%)/assistive technology (13.2%).

**FEAT** technical assistance. Forty-one percent of families indicated they used *FEAT* technical assistance. Of those, 42.9% indicated they strongly agreed that the assistance they received was helpful, 35.7% agreed, 14.3% neither agreed nor disagreed, 3.6% disagreed, and 3.6% strongly disagreed that the assistance was helpful. Figure 1 displays percentages of families' ratings for *FEAT* technical assistance.



Extent to which Particpants Agreed FEAT Technical Assistance was Beneficial

Figure 1. Families' perceptions of FEAT technical assistance.

## Information on behavior related to competitive employment from interviews.

Participants engaged in four primary behaviors related to competitive employment: (a) networking and connecting with the community, (b) applying for jobs, (c) seeking and/or obtaining employment services and supports, and (d) future planning.

First, families reported networking and connecting with members of the community to help their family members with ISN gain competitive employment. Many families contacted community employers to inquire about employment or volunteering opportunities. One family, discouraged by several fruitless application submissions, described how they contacted a manager at Wal-Mart to ask for "tips" on getting through the application process:

So, [the store manager] had kind of given my husband a hint anytime you fill one of those [online applications] out you either strongly agree or strongly disagree, don't do a whole

lot in the middle. So, that's what my husband advised [her son] to do, and so he did that this time and actually did get an interview.

In addition to contacting community employers, families also networked with other families or community organizations to find employment, service providers, or general day-to-day support. Families networked with individuals online through support groups, at parent trainings and conferences (including *FEAT*), and through organizations such as Special Olympics and Partners in Policymaking. Parents outlined numerous benefits to networking in this way. The benefits included (a) learning "different techniques" to assist their family members with ISN; (b) obtaining social and emotional support for all family members; (c) gaining advocacy and empowerment skills; (d) finding job leads; and (e) acquiring quality service providers for their family members with ISN. Several families also reported sharing information and materials learned at *FEAT* with other families, schools, and employment professionals.

Second, families frequently helped their family members with ISN create resumes, fill out/submit applications for jobs, and practice interviewing. Families sometimes helped their family members apply for jobs without support from formal services such as Vocational Rehabilitation (as with the family who spoke with the manager at Wal-Mart). These families discussed the "hours" that they invested "sitting" with their children and "going through resumes." In other instances, families and their members with ISN received support from paid service providers such as job coaches or case managers to help their family members with ISN apply for jobs. For example, one mother indicated that a Vocational Rehabilitation job coach helped her son "fill out applications online." Another father described similar help his son received: "He's been putting out applications. He has help through CLO [Community Living Organization]." Families also described coaching their family members with ISN through the

interview process. For example, a mother discussed practicing interviews at home because her son's "answers [during interviews] were a big-turn off, like he gets frustrated easy and things like that."

Third, families discussed actively and sometimes "aggressively" searching for, advocating among, and/or securing services and supports designed to help their family members get, learn, or maintain jobs. Many families described "looking into information" about or "setting up an appointment" with various agencies and programs for support (e.g., a job coach, assistive technology). However, families also sought support from community organizations not necessarily related to employment. For instance, one family reported applying for services and supports such as "reduced rates for the bus system" to support their family member with ISN getting to and from work. Families also enrolled their members with ISN in vocational and community college classes to expand and hone their skills. Regardless of the type of organization, agency, or program they approached, families reported frequently having to advocate for appropriate services and supports for their members with ISN. Several families recounted contacting potential support sources "on so many different occasions" and asking employment agencies "questions until I'm out of them."

Fourth, families reported constantly planning for the future. Examples included plans for applying for specific jobs, contacting community employers/employment agencies, and/or attending school/vocational programs on behalf of their family members with ISN. Many families also discussed "planning for the worst case scenario." These scenarios included loss of services or supports, staff turnover, caregiver/parental death, health care needs, and job loss. One mother described her plans to "get [her son] a letter of recommendation" from the owners of the coffee shop were he worked (who were considering closing their business) and "move on down

the road to the next coffee shop and see what they say." On a more positive note, families described planning for "dreams" of their family members with ISN, which included obtaining their drivers license and living independently.

# **Competitive Employment**

I determined competitive employment by measuring various employment outcomes on the *FEAT* Follow-up Survey. Using interview data, I also derived information on employment outcomes.

Employment outcomes. Ten percent of families reported their family member with ISN currently was competitively employed (n=7) and 17.6% (n=12) indicated their family member currently was involved in an internship or was volunteering at a competitive job. A smaller percentage of families (2.9%) reported their family member had gained employment but later quit her or his job. Similarly, 1.5% reported that their family member had gained employment but lost the job. Some families (8.8%) reported employment in segregated settings such as sheltered workshops. Other families (20.6%) indicated that their family member had no employment whatsoever, and 26.5% noted that their family member had not yet sought employment. Figure 2 displays percentages for competitive employment outcomes.

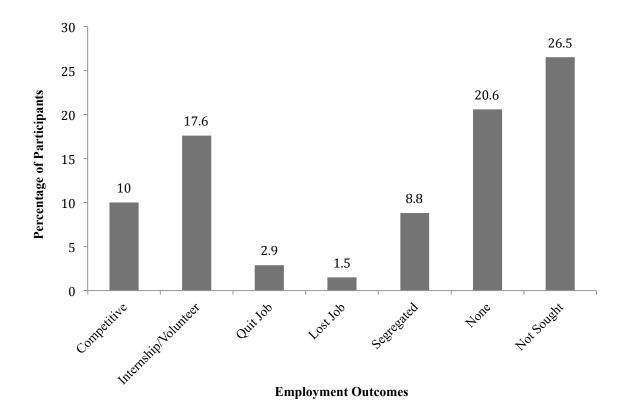


Figure 2. Families' descriptions of their family members with ISN's current employment.

Of those reporting competitive employment outcomes (27.9%), 83.3% reported that they gained the position after attending *FEAT*. A majority of families (57.9%) reported that their family member with competitive employment outcomes worked between 0-10 hours a week, 26.4% worked between 11-20 hours, and 15.8% worked between 26-35 hours a week.

**Information on competitive employment outcomes from interviews.** The two themes regarding employment outcomes that emerged were (a) job descriptions and (b) employment preferences.

I purposefully selected contrasting cases of families for interviewing (see Table 4) and found that interviewees experienced a range of employment outcomes. At the time of the interviews, four individuals with ISN were competitively employed and two were volunteering at

competitive jobs. Of the six individuals working or volunteering in competitive settings, five gained their positions after *FEAT*.

Two of the competitively employed individuals worked at different Wal-Mart stores, one worked at a local bakery, and the last individual worked at a hotel. The individuals who interned/volunteered worked in a hospital and a coffee shop, respectively. However, although the individual volunteering at the coffee shop was not paid by the employer, he earned tips from customers. The length of employment ranged from approximately three weeks (Wal-Mart) to seven years (hospital). Job descriptions and tasks varied, but general tasks included (a) customer service, retrieving carts, and cleaning (Wal-Mart); (b) customer service and cashier work (Wal-Mart); (c) cleaning and washing dishes (bakery); (d) cleaning (hotel); (e) clerical work (hospital); and (f) making drinks, cleaning, and stocking materials (coffee shop). Overall, participants reported feeling grateful for their positions, and two families indicated that their children enjoyed their jobs. However, the rest of the individuals with ISN and their families expressed dissatisfaction and preferences for other kinds of employment.

Although families expressed gratitude for the current positions, four of the six also articulated preferences for different jobs, responsibilities, or pay rate/hours. For example, a set of parents described their son's attitude toward his current job pushing carts at Wal-Mart: "He still [would] rather probably be inside [the store], but it's at least that's a step in." The other individual with ISN working at Wal-Mart also noted he did not "want to have this job forever." He and his family went on to describe preferred employment "where the bar is higher and the income is higher," which also aligns with his interest in video games. Similarly, the individual with ISN working at the bakery expressed his desire to work more hours and do more baking instead of cleanup. He also suggested he would be great at customer service if given the chance.

Last, the mother of the individual volunteering at a hospital angrily questioned why her daughter, who had volunteered for seven years and done "a very good job," had not been offered a paid position.

## **Perceived Influence**

Through a five-point Likert scale question on the Follow-up Survey, I measured families' perceptions of *FEAT*'s influence on how they help their family members with ISN gain and/or maintain competitive jobs. I also used interview data to derive information on families' perceptions of *FEAT*'s influence.

**Influence.** Almost 67% of families responded that they "strongly agreed" (31.1%) or agreed (35.6%) that *FEAT* positively influenced the way they helped their family members with ISN gain and/or maintain competitive jobs. Twenty-two percent responded that they "neither agreed nor disagreed" and 11.1% indicated that they disagreed (4.4%) or strongly disagreed (6.7%) that *FEAT* positively influenced how they help their family members with ISN.

Information on perceptions of *FEAT*'s influence from interviews. Interview data analysis indicated that *FEAT* influenced families as they (a) sought out employment opportunities for their family members with ISN and (b) shared information/materials with others.

Families reported taking action as a result of attending *FEAT*, which included seeking employment opportunities: "We started looking for employment and volunteer opportunities because of the reasons that you made us aware of. So we really appreciate the training you gave us very, very much." Families also shared information with others. Many families reported sharing information/materials with friends, professionals, and people with whom they worked. One mother shared information with her colleagues; together, they provided *FEAT* 

information/materials to military families at a local Army base: "We're sharing some of the information, like gosh, this is what you can do if your child doesn't want to just clean." Families also "reached out to" services, supports, and resources they learned about at *FEAT*. One mother, who worked as a case manager, explained how *FEAT* influenced her behavior for both of her roles: "I think [the *FEAT* program] is something that I really need to be a part of as a case manager, as well as a parent of a child that is transitioning."

### Discussion

Results of this study indicated that many families who attended *FEAT* in 2010-2011 (a) engaged in behavioral change following *FEAT*, (b) reported competitive employment outcomes for their family members with ISN following *FEAT*, and (c) indicated that *FEAT* positively influenced how they help their family members with ISN gain and/or maintain competitive jobs.

#### **Behavior**

Participants in this study engaged in several behaviors since attending *FEAT*. These findings add to the literature on knowledge-based training programs because, according to a literature review I conducted, only one study (Hessing et al., 2004) investigated a knowledge-based program's impact on expectations, knowledge, *and* behavioral change. Sixty-five percent of participants used *FEAT* information and materials, the majority of whom shared information/materials. Families also indicated that they shared *FEAT* information/materials with friends, family, colleagues, and others, including people for whom they work. Considering the number of participants who shared *FEAT* information/materials, it is worth considering reconfiguring *FEAT* into a professional development program for schools and employment agencies and programs (e.g., Vocational Rehabilitation). Expanding *FEAT* in this way could improve the ways professionals (a) provide services to individuals with ISN, (b) provide

information and materials to families and people with ISN, and (c) collaborate with families and other professionals. As a professional development program, *FEAT* could also reduce the number of advocacy efforts families often make to find or obtain appropriate services and supports.

Participants accessed or used an average of five employment-related services and supports including case management, Community Developmental Disability Organization, and HCBS Waiver services. Families also reported applying for jobs, practicing interviews, planning, and networking with other families, professionals, and support groups on behalf of their family members with ISN. Although many services and supports families accessed were related to competitive employment (e.g., Vocational Rehabilitation), families also sought support from churches, Special Olympics, and Partners in Policymaking (sources that are not related to employment for individuals with ISN). Families perceived that connections they made while networking or participating with these groups contributed to employment for their family members with ISN. Several families reported acquiring transportation, reliable service providers, or job leads from these sources. Networking with other families who experience disability can also provide emotional support, reduce social isolation, decrease stress, and yield practical support and information to families and people with ISN (Kerr & McIntosh, 2000). The FEAT program model could improve employment outcomes of people with ISN while also improving family quality of life by dedicating more time to networking among families, community employers, and school/employment-agency staff.

Providing ongoing technical assistance is essential to mastering and enhancing knowledge (Joyce & Showers, 2002). However, few knowledge-based trainings include follow-up technical assistance as components of their programs. Nearly half of the participants (41%) reported using *FEAT* technical assistance (which involved the *FEAT* team providing participants

assistance/support over the telephone or in-person), and 78.6% of this group found the assistance beneficial or very beneficial.

Since many families reported barriers related to services and supports (including the need for parental advocacy), and since less than half of all families used *FEAT* technical assistance, future *FEAT* trainings should emphasize and expand *FEAT* technical assistance. During the trainings, participants signed up for *FEAT* technical assistance as a part of their action plans for employment and *FEAT* instructors announced availability of *FEAT* technical assistance at the end of each training. Members of the *FEAT* team called participants who requested technical assistance one to six months following attendance. However, participants could also contact the *FEAT* team for assistance as often as they wanted (whether or not they signed up for technical assistance). In the future, *FEAT* instructors should describe and provide examples of how technical assistance could benefit individuals with ISN throughout the program to encourage participant use (e.g., instructors could highlight how *FEAT* technical assistance can help with brainstorming competitive employment goals while discussing the topic of transition plans).

## **Competitive Employment**

Nearly 30% of families reported competitive employment outcomes for their members with ISN. Of those individuals, 83.3% gained their position after attending *FEAT*. While one cannot attribute these outcomes to *FEAT* alone, it is encouraging that 70% of families reporting competitive employment outcomes indicated they believed or strongly believed that *FEAT* positively influenced how they helped their family members with ISN get or maintain competitive jobs.

On the other hand, many interviewees with competitive employment outcomes expressed dissatisfaction with their current positions. Although volunteer positions can lead to paid

competitive employment (Carter et al., 2010; Timmons et al., 2011), one of the interviewees volunteered with the same company for seven years without receiving payment or a job offer. Also, a majority of participants who reported competitive outcomes indicated they worked between 0-10 hours a week, well below part-time.

These findings reflect national data on employment of people with ISN. According to Hendricks and Wehman (2009) and Mank (2007), individuals with ISN who experience competitive employment typically do not work full-time. As evidenced by the woman with ISN volunteering for seven years, these findings also reflect the exploitation that individuals with ISN experience (Abbas, 2012). Although *FEAT* improved employment outcomes for many participants, the majority of participant outcomes are not ideal. Ideally, I would prefer full or part-time competitive employment outcomes for 75% or more participants. Enhancing *FEAT* by (a) emphasizing available technical assistance; (b) inviting more community employers and employment-related professionals to attend *FEAT*; (c) providing more time for networking between families, employers, and professionals; and (d) developing *FEAT* into a professional development program may improve employment outcomes.

### FEAT's Influence

The majority of families (66.7%) agreed or strongly agreed that *FEAT* positively influenced how they helped their family members with ISN gain and/or maintain competitive jobs. Qualitative data supported this finding. Interviewees described how attending *FEAT* influenced they way they help their family members, including how they sought services/supports and opportunities for competitive employment. Further, families reported disseminating *FEAT* information/materials, which can provide other families with emotional and practical support (Kerr & McIntosh, 2000) and increase collaboration between families and

professionals. These findings are encouraging because they support the idea that *FEAT* played a significant role in participants' competitive employment outcomes. It is also encouraging that *FEAT*'s benefits extend beyond participants as they share information and materials with others.

# **Implications**

This study fills many gaps in literature on knowledge-based training programs. First, this study fills gaps in literature by including families and linguistically diverse participants. Second, this study is unique because it investigated participants' perceptions of *FEAT*'s influence on their behavior. Third, the topic of competitive employment for people with ISN is an understudied area of knowledge-based training programs (Migliore et al., 2011). Fourth, few studies on knowledge-based training programs evaluated longer-term participant outcomes (Hall, 2007; Hessing et al., 2004; Migliore et al., 2011); even fewer reported information on behavioral outcomes (Hessing et al., 2004; Migliore et al., 2011). Fifth, this study fills gaps in literature on knowledge-based training programs by using mixed-methods research to perform a longer-term evaluation of behavioral change and employment outcomes.

## Limitations

This study has three primary limitations. First, I provided all survey materials in both English and "neutral" or "universal" Spanish (Eremenco et al., 2005). However, I received only one completed Spanish survey (I received 12 Pre/Post-Questionnaires in Spanish).

Second, the education and income levels of participants do not reflect the greater population of Kansas. Nearly 90% of survey participants and 100% of interviewees reported attending college (only one potential interviewee did not report attending college, but I was unable to interview her). These percentages are substantially greater than the 61.1% of the general population in Kansans who reported attending college (U.S. Census Bureau, 2012).

Although the percentage of participants reporting annual household incomes of \$75,000 or more is comparable with statistics for Kansan families (44.2% compared to 41.7%), this study has an underrepresentation of families reporting annual incomes of \$24,000 or lower (3.8% compared to 14.7%).

Third, although pre- and post-*FEAT* comparison data would strengthen this study, the Pre/Post-Questionnaires did not request that participants provide information about resource use or competitive employment. Using the *FEAT* Follow-up Survey to develop a more comprehensive Pre/Post-*FEAT* Survey would allow researchers to measure the same constructs (e.g., use of services and supports) before and after *FEAT*, thus strengthening future research.

## **Future Research**

I focused on data from families for several reasons, including the substantial influence families have on the competitive employment outcomes of people with ISN (DD Act, 2000; Rupp & Ressler, 2009; Timmons et al., 2011). Future research should investigate outcomes of other participants, including professionals and individuals with ISN (apart from their families). Researchers should also continue targeting culturally and linguistically diverse participants, participants from varied socioeconomic groups, participants without a college education, as well as individuals with ISN. Research should consider using strategies such as calling families personally (Quezada, Díaz, & Sánchez, 2003), visiting families in their homes, spreading information through parent-to-parent connections/support groups, and collaborating with schools to recruit families (Hepburn, 2004).

Another gap in literature on knowledge-based training programs this study did not consider involves mediating or confounding variables (e.g., type of disability, number of family members with ISN, socioeconomic status) (Hall, 2007; Hessing et al., 2004; Ison et al., 2010).

An analysis of multivariate regression of mediating or cofounding variables on outcomes such as behavioral change and competitive employment would contribute to the literature. I also thought it unethical not to inform or to deny access to potential participants who wanted to attend *FEAT*. Consequently, this study did not include a control group. Future research should consider including wait-list control groups or employing a quasi-experimental design to determine estimated impact of a program on participant outcomes.

This study on *FEAT* is unique because it investigated participants' perceptions of *FEAT*'s influence on how they help their family members with ISN gain and/or maintain competitive jobs. However, as Ison et al. (2010) pointed out, future research on knowledge-based training programs should investigate these programs' influence on changing how participants perceive barriers. In *FEAT*'s case, future research should report changes in perceptions of barriers related to competitive employment.

On a different but related note, future research on the *FEAT* program should investigate steps participants took toward competitive employment before and after attendance (e.g., developing an employment goal on a Person-Centered Plan) along with employment outcomes. This information would add to knowledge on how *FEAT* influenced behavior and could also provide information about differences in behavior (e.g., steps taken) between individuals who did and did not obtain competitive employment. Families, professionals, and individuals with ISN could use the information as guidance while seeking competitive employment.

### Conclusion

Numerous benefits are associated with competitive employment for individuals with ISN (Boeltzig et al., 2008; Johannesen et al., 2007; Kraemer et al., 2003; Verdugo et al., 2009).

However, many individuals with ISN are unemployed or work in sheltered settings (Carter et al.,

2010; Olson et al., 2001; Migliore et al., 2007; Schmidt & Smith, 2007; Schur et al., 2005). Results of this study indicated that families who attended *FEAT*, a knowledge-based training program, engaged in behavioral change. Many families also reported competitive employment outcomes for their family members with ISN. Further, most families believed or strongly believed that *FEAT* positively influenced how they help their family members with ISN gain and/or maintain competitive jobs. These findings contribute to literature on knowledge-based training programs and support the notion that *FEAT* enhanced families' perceptions and roles related to competitive employment for individuals with ISN.

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## **CHAPTER 4**

Research study three: An Ecological Systems Approach to Understanding Barriers to

Competitive Employment

## Abstract

This research study employed mixed-methods design to explore issues families cited as barriers or roadblocks to competitive employment for people with ISN. Participants cited barriers related to (a) people with disabilities who have individualized support needs; (b) employment agencies and programs; and (c) low expectations most frequently. This study also used Bronfenbrenner's ecological systems theory as a framework to organize barriers and develop recommendations for practice, policy, and future research.

An Ecological Systems Approach to Understanding Barriers to Competitive Employment

Competitive employment (i.e., employment in community settings among peers without disabilities for minimum wage or higher) offers people with disabilities who have individualized support needs [people with physical or mental impairments that seriously limit one or more functional capacities (Rehabilitation Act, 1973)] the opportunity to work in integrated settings with appropriate services and supports. This type of employment utilizes employment services and supports offered through various employment and disability-related agencies and funding sources (Burge, Oullette-Kuntz, & Lysaght, 2007; National Disability Rights Network, 2011), including Vocational Rehabilitation, Centers for Independent Living, Medicaid, and Small Business Development Centers.

People with disabilities who have individualized support needs (ISN) working in competitive employment experience higher quality of life (Boeltzig, Timmons, & Butterworth, 2008; Kraemer, McIntyre, & Blacher, 2003; Migliore, Mank, Grossi, & Rogan, 2007; Sharma, Singh, & Kutty, 2006; Verdugo, Martin-Ingelmo, Jordán de Urríes, Vicent, & Sánchez, 2009; Wehmeyer & Bolding, 2001). Competitive employment also benefits community employers. Many accommodations provided to people with ISN through employment-related services and supports benefit others in the workplace and increase employee productivity (Schmidt & Smith, 2007). Additionally, competitive employment benefits society by reducing individual support costs (Burge et al., 2007). Competitive employment also reflects national policies including the Rehabilitation Act (1973) and the Americans with Disabilities Act (1990). Despite the benefits of

competitive employment, individuals with ISN continue to experience unemployment at alarming rates.

Unemployment is epidemic for people with ISN. Although they have experienced marginal advancements in employment rates over the years, they experience unemployment significantly more often than individuals without disabilities (Olson, Cioffi, Yovanoff, & Mank, 2001; Schmidt & Smith, 2007; Schur, Kruse, & Blanck, 2005). Moreover, it is important to consider that people with significant support needs face unemployment at even higher rates than individuals with ISN who require only minimal support or no support at all (Blitz & Mechanic, 2006; Corbière, Mercier, & Lesage, 2004; Schmidt & Smith, 2007). The discouragingly high rates of unemployment for individuals with ISN can be attributed to numerous barriers (Blitz & Mechanic, 2006; National Council on Disability, 2010; Schmidt & Smith, 2007). Table 1 lists many common barriers to competitive employment, as reported in recent literature. This study explores barriers to competitive employment, as reported by families. In this study I also use Bronfenbrenner's ecological theory to organize and develop recommendations to address those barriers.

Table 1

Barriers to Competitive Employment from Recent Literature

System	Barriers
Microsystem	• Families lack information on transition to employment resources (Geenen et al., 2001; Kraemer & Blacher, 2001; Larson et al., 2011; Shapiro et al., 2004)
	<ul> <li>Families lack information about job options available to people with disabilities (Chambers et al., 2004)</li> </ul>
	<ul> <li>Families rely on professionals for advice and guidance, leaving them vulnerable to misinformation (Hall &amp; Fox, 2004; Timmons et al., 2011)</li> </ul>
	<ul> <li>Families receive misinformation about employment-related agencies and programs, including issues related to state and federal benefits from programs such as Social Security (Butterworth et al., 2009; National Council on Disability, 2009)</li> </ul>
	<ul> <li>Families receive poor support transitioning their family member from school into the world of work (DD Act, 2000)</li> </ul>
	• Families maintain poor expectations for competitive employment, based on the severity of their family member's needs (Chambers et al., 2004; Hasnain & Balcazar, 2009)
	<ul> <li>Families feel overwhelmed with the concept of transition planning and service waitlists (National Disability Rights Network, 2011)</li> </ul>
	<ul> <li>Teachers and school staff lack information about employment resources available to students with disabilities after graduation (Butterworth et al., 2009; Hall &amp; Fox, 2004; Kraemer &amp; Blacher, 2001)</li> </ul>
	<ul> <li>Teachers and school staff lack information of how to access, navigate, and coordinate employment resources outside of school (Timmons et al., 2011)</li> </ul>
	<ul> <li>Teachers and school staff lack information about the benefits of high school work experiences (Carter et al., 2010; National Council on Disability, 2010)</li> </ul>
	• Teachers and school staff provide poor transition services to people with disabilities as they near graduation. (Blitz & Machanic, 2006)

with disabilities as they near graduation (Blitz & Mechanic, 2006),

including a lack of appropriate post-secondary transition goals and work experiences in the community (Lindstrom et al., 2011; National Council on Disability, 2010; Timmons et al., 2011)

- Teachers and school staff lack information about responsibilities for transition planning, as mandated by IDEA (Timmons et al., 2011)
- Formal support staff (e.g., job coaches) lack information on how to best support people with disabilities in competitive positions (Hall & Parker, 2010)
- Supervisors are frequently unaware or lack understanding of how to accommodate, support, train, or interact with people with disabilities on the job (Baker & Moon, 2008; Chan et al., 2010; Timmons et al., 2011)
- Supervisors are unaware that accommodations and modifications provided to people with disabilities can benefit all employees (Baker & Moon, 2008; Schmidt & Smith, 2007)
- Coworkers are unsupportive (Baker & Moon, 2008; Corbière et al., 2004; Timmons et al., 2011)
- Supervisors and coworkers maintain negative expectations and attitudes (Schur et al., 2005; Timmons et al., 2011)
- Job coaches and other formal support staff maintain low expectations (Hall & Fox, 2004; National Disability Rights Network, 2011; Timmons et al., 2011; Webb, 2003)

## Mesosystem

- Educators and employment-related service providers fail to involve families in career planning for people with disabilities (Timmons et al., 2011)
- School staff and employment-related service providers frequently advise families and people with disabilities against competitive employment because they are misinformed about how the programs actually work (Butterworth et al., 2009; Hall & Fox, 2004; Kraemer & Blacher, 2001)

## Exosystem

- Community businesses are reluctant to hire people with disabilities (Olson et al., 2001; Morgan & Alexander, 2005; Schmidt & Smith, 2007)
- Community businesses lack information about available technological accommodations and modifications (Baker

# & Moon, 2008)

- Work environments are inaccessible (Loprest & Maag, 2001)
- Sheltered workshop providers maintain low expectations for competitive employment (Carter et al., 2010; Migliore et al., 2007; Timmons et al., 2011).
- Unwelcoming corporate climates have not developed corporate cultures that are open to disability and diversity (Chan et al., 2010; National Council on Disability, 2010)
- Programs such as Medicaid and Social Security are extremely difficult to understand and navigate (Dutta et al., 2008; Hall & Fox, 2004; National Council on Disability, 2009)
- Many programs and agencies have wait lists for services such as job coaches (National Disability Rights Network, 2011)
- Coverage from programs such as Medicaid are insufficient (Hall & Fox, 2004)
- Work disincentives from agencies such as Social Security discourage employment (National Council on Disability, 2009)
- Program administrators do not appropriately train their staff to provide effective support to individuals with disabilities on the job (Stören et al., 2002; Timmons et al., 2011)
- Programs and agencies are not always effective (Hall & Parker, 2010)
- Programs and agencies provide limited/inaccessible transportation (Loprest & Maag, 2001; Schmidt & Smith, 2007; Timmons et al., 2011)

## Macrosystem

- People with disabilities experience discrimination, stigma, and stereotypes based on their disabilities (National Council on Disability, 2009)
- Media and pop culture portray individuals with disabilities as incapable, pitiful, foolish, stupid, reckless, dangerous, or completely ignore individuals with disabilities altogether (National Council on Disability, 2009)
- Current policies and laws designed to protect people with disabilities from discrimination are not always effective (Schmidt & Smith,

2007)

- Negative media stories about the ADA that perpetuate misperceptions about people with disabilities (National Council on Disability, 2009)
- Society and policymakers maintain low expectations for individuals with disabilities (National Disability Rights Network, 2011)
- Poor economy and limited job market (Blitz & Mechanic, 2006; Corbière et al., 2004; National Council on Disability, 2009; Schmidt & Smith, 2007)

# Chronosystem

- An individual's difficult experiences transitioning through ineffective transition plans and complex adult programs and agencies (Blitz & Mechanic, 2006; Kraemer & Blacher, 2001)
- An individual's lack of work experience (Blitz & Mechanic, 2006)
- An individual adjusting to work (Corbière et al., 2004)
- An individual's past work failures (National Council on Disability, 2009; Timmons et al., 2011)

Note. Barriers organized by Bronfenbrenner's ecological systems theory.

## **Theoretical Framework**

Researchers studying barriers to competitive employment must think beyond the targeted population (i.e., people with ISN) and consider environments that surround people with ISN to fully understand the issues that prevent or hinder competitive employment (Gable, 2006). Bronfenbrenner's ecological theory involves five "nested" systems (the microsystem, mesosystem, exosystem, macrosystem, and chronosystem) that surround individuals rooted at the center "like a set of Russian dolls" (Bronfenbrenner, 1979, p. 3; Bronfenbrenner, 1986). Bronfenbrenner's ecological systems theory provides a framework for understanding how barriers interact and compound to influence people with ISN negatively. This understanding can help stakeholders address the most significant and underlying barriers. Figure 1 provides a graphic representation of Bronfenbrenner's theory as it relates to the employment of people with ISN.

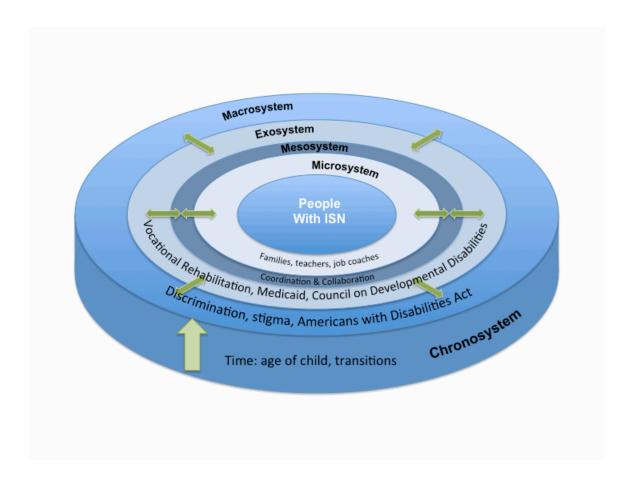


Figure 1. Examples of individuals and structures within Bronfenbrenner's theory that influence employment for people with ISN. Adapted from The McGraw-Hill Companies, Inc. (2012).

Individuals with ISN in the center of the systems. In this study I place individuals with ISN at or above transition age (16 or older) in the center of Bronfenbrenner's theory. The influence of individuals at the center of this theory is bidirectional; individuals influence the development and behavior of individuals in the systems that surround them, just as individuals and structures within the systems influence individuals at the center (Paquette & Ryan, n.d.). As such, barriers in and among the systems surrounding the individual at the center compound with personal barriers that people with ISN experience such as socioeconomic status (Schmidt & Smith,

2007), severity of disability/needs (Danziger & Seefeldt, 2003; Schmidt & Smith, 2007), behavior (Blitz & Mechanic, 2006), low expectations for personal achievement (Blitz & Mechanic, 2006; Corbière et al., 2004), and insufficient education or transition to employment knowledge (Blitz & Mechanic, 2006; Schmidt & Smith, 2007).

**Microsystem.** The system closest to the individual in the center is the microsystem. The microsystem consists of individuals having direct contact with ISN. For the purposes of this research, these individuals include (a) families (e.g., a group of individuals who consider themselves family), (b) school professionals (e.g., teachers, school staff, transition coordinators, social workers), and (c) employment professionals (e.g., job coaches, coworkers, direct supervisors, personal assistants) (Bronfenbrenner, 1986).

Individuals in this system are significant for several reasons. Individuals in the microsystem guide and influence people with ISN. However, if individuals in this system are unsupportive, harbor low expectations, or are unknowledgeable, then people with ISN will remain unequipped to explore other systems (Paquette & Ryan, n.d.), including employment and independent living. Of the structures found in this system, families are the most influential (Timmons, Hall, Bose, Wolfe, & Winsor, 2011). This is largely because people with ISN frequently rely on their families for support (Lindstrom, Doren, & Miesch, 2011; Rupp & Ressler, 2009) and families provide their family members with ISN information and guidance (Ankeny, Wilkins, & Spain, 2009; Developmental Disabilities Assistance and Bill of Rights Act, 2000; Dixon & Reddacliff, 2001; Rupp & Ressler, 2009; Timmons et al., 2011). While the influence of family is undeniable, all

individuals within the microsystem must collaborate to ensure that individuals with ISN transition successfully into adult life.

Mesosystem. The next system in Bronfenbrenner's theory is the mesosystem. This system involves connections and interactions within the microsystem (Bronfenbrenner, 1979), such as collaboration among families, schools, and employment professionals (e.g., job coaches) or between the mirco- and exosystem (e.g., schools and employment agencies). Collaboration among these individuals is significant because effective collaboration can mitigate many barriers to competitive employment for people with ISN (Carter et al., 2010; Timmons et al., 2011). Alternatively, a breakdown in collaboration can result in confusion, misinformation, and low expectations for competitive employment among individuals with ISN and individuals in the microsystem (Baker & Moon, 2008; Hall & Fox, 2004; Timmons et al., 2011).

Exosystem. The exosystem includes structures such as the work environment and employment agencies and programs available to people with ISN (Gardiner & Kosmitzki, 2011). Individuals with ISN may work in a variety of community environments (e.g., offices, retail shops, restaurants), as well as work environments exclusively designed for people with ISN (e.g., sheltered workshops). There are numerous agencies/programs designed to bolster full inclusion and employment of individuals with ISN, including Vocational Rehabilitation, Medicaid, and Medicare (National Council on Disability, 2009). This system is significant because accessible work environments and services provided by employment agencies can support competitive employment for individuals with ISN (Hall & Parker, 2010). However, barriers found in the workplace (e.g., accessibility, negative corporate attitudes toward hiring individuals with ISN) and among

agencies/programs (e.g., transportation, waitlists for services) can stymie an individual's progression in the competitive workforce (Dutta, Gervey, Chan, Chou, & Ditchman, 2008; Hall & Fox, 2004; National Council on Disability, 2009).

Macrosystem. The macrosystem includes larger societal structures such as values and laws (Gardiner & Kosmitzki, 2011). This system includes values such as "full participation" and "equality," in addition to laws such as the Social Security Act (1965), Rehabilitation Act (1973), Americans with Disabilities Act (1990), Ticket to Work and Work Incentives Improvement Act (1999), Developmental Disabilities Assistance and Bill of Rights Act, (2000), and Individuals with Disabilities Education Act (2004). The structures in this system are important because they indirectly affect individuals with ISN by shaping the way they are perceived and integrated into the community. However, barriers such as stigma or ineffective laws and policies can present barriers to competitive employment for people with ISN (National Council on Disability, 2009; Schmidt & Smith, 2007).

Chronosystem. The chronosystem involves change that occurs over time and incidents that a person experiences as they age (Bronfenbrenner, 1986). For individuals with ISN seeking employment, changes that occur over time include transitioning from student to adult life, from volunteer or sheltered work to competitive employment, from part-time to fulltime work, and from one support person to another during staff turnovers. Changes found in this system are important because, while transitions and changes that occur over time may ultimately benefit individuals with ISN, they may also bring about new barriers, including confusion and uncertainty, at the very least (Corbière et al., 2004).

Given the number of challenges that present themselves for individuals with ISN and their families as they support their family members transitioning out of school and into work, there is a need for understanding the most frequent barriers families experience and what those barriers mean for individuals with ISN. The purpose of this study is to explore issues families cite as barriers or roadblocks to competitive employment for people with ISN. I also use Bronfenbrenner's theory to organize and develop recommendations to address those barriers.

### Method

I distributed a survey to families who attended the Family Employment Awareness Training (*FEAT*) between 2010-2011 (Francis, Gross, Parent-Johnson, & Turnbull, in press) to determine the top five barriers to competitive employment. I also conducted semi-structured interviews with several families who attended *FEAT* to learn more about the issues they perceive as barriers and the contexts in which they occur.

# **Participants**

Participants in this study included 68 family units (i.e., parents, siblings, grandparents, aunts, uncles, foster parents, spouses, caregivers, and individuals with ISN) who considered themselves family and attended *FEAT* between 2010-2011. People with ISN frequently rely on their families for support (Lindstrom et al., 2011; Rupp & Ressler, 2009), making families extremely influential contributors to employment outcomes (Timmons et al., 2011). Families also typically interact (in some way and to some degree) with individuals and structures in each of Bronfenbrenner's systems as they support their family members (Bronfenbrenner, 1979). Therefore, I thought it prudent to explore the thoughts and experiences of families. Moreover I asked entire family units (including

members with ISN) to compete the survey as a group and encouraged entire families to participate in the interviews to gain a more complete picture of families' experiences.

Twenty-six families volunteered to participate in a follow-up interview. I interviewed contrasting cases (Merriam, 2009) of participants until I reached saturation (Glaser & Strauss, 1967) with 13 interviews. Although I sought to represent the widest possible range of participant characteristics, not all participant characteristics (e.g., education/income level) aligned with Kansan demographics (U.S. Census Bureau, 2012). Table 2 provides demographic information for participants, comparing our participant demographics to those of the average Kansan family. Table 3 displays demographic information for interview participants, organized by selection criteria.

Table 2

Demographic Information for FEAT Participants and Comparative Kansas Data

	Families		Percent in Kansas
	n=68		Ransas
Primary Language Use in	11 00		
Home			
English	96.7		88.6
Spanish	1.7		7.4
Other	1.7 (American		.07
Other	Sign Language)		.07
Race/Ethnicity	Sign Language)		
White/Caucasian	79.3		87.4
Hispanic/Latino	6.9		10.8
Multiple races/ethnicities	5.2		2.7
Asian/Asian American	3.4		2.5
Black/African American	5.2		6.1
Area Where You Live <sup>c</sup>			
Urban	23.7		
Suburban	64.4		
Rural	11.9		
Average Annual Income for			
Household			
Below \$15, 000	1.9	Below \$10,000	3.6

\$15, 000 - \$24,999	1.9	\$15, 000 - \$24,999	11.1
\$25,000 - \$34, 999	7.7	\$25,000 - \$34, 999	11.2
\$35,000 - \$44,999	15.4	\$35,000 - \$49,000	15.4
\$45,000 - \$54,999	3.8		
\$55,000 - \$64,999	5.8	\$50,000 - \$74, 900	19.5
\$65,000 - 74,999	19.2		
\$75,000 - \$84,999	3.8		
\$85,000 - \$94,999	5.8	\$75,000 - \$99,000	16.6
\$95,000 and higher	34.6	\$100,000 and higher	25.1
<b>Highest Level of Education</b>			
Obtained in Household			
High school diploma	3.4		28.4
Trade school/technical degree	8.5		n/a
Some college	8.5		24
2 year college degree	10.2		7.4
4 year college degree	37.3		19.5
Graduate degree	32.2		10.2
Age of Family Member			
Under 12 years old	3.5		
13-15 years old	5.3		
16-18 years old	24.6		
19-21 years old	29.8		
22-25 years old	21.1		
26-30 years old	5.3		
31 years old or older	10.5		
Disability of Family			
Member			
Autism	32.8		
Developmental disabilities	14.8		
Multiple disabilities	23		
Down syndrome	14.8		
Cerebral Palsy	13.1		
Attention deficit/hyperactivity	1.6		
disorder			
Level of Support Needed by			
Family Member			
None	1.8		
Minimal	17.5		
Moderate	29.8		
Extensive	50.9		

Note. Data reported in percentages. Kansas statistics retrieved from the U.S. Census Bureau (2012).

Table 3

Demographic Information for Interview Participants

Family	Average Annual Household income	Location of family home	Highest level of education obtained in home	Primary language(s) spoken in home	Race/ Ethnicity(ies) of family members	Age of family member	Level of support needed by family member	Current employment status of family member
1.	65,000- 74,900	Suburban	Graduate degree	English	White/Caucasian	20	Moderate	Competitive employment
2.	85,000- 94,900	Rural	Four year college degree	English	White/Caucasian	18	Minimal	Competitive employment
3.	35,000- 44,900	Suburban	Some college	English	White/Caucasian Hispanic/Latino	19	Minimal	Competitive employment
4.	95,000+	Suburban	Graduate degree	English	White/Caucasian Multiple races/ethnicities	22	Minimal	Competitive employment
5.	95,000+	Suburban	Graduate degree	English	Hispanic/Latino	23 & 24	Extensive/ Minimal	Unemployed/ Volunteer

6.	35,000- 44,900	Suburban	Some college	English	White/Caucasian	17	Extensive	Internship
7.	95,000+	Urban	Four year college degree	English	White/Caucasian Multiple races/ethnicities	19	Moderate	Gained, but lost job
8.	Not reported	Not reported	Four year college degree	English	Black/African American	23	Extensive	Sheltered workshop
9.	65, 00- 74,900	Suburban	Four year college degree	English	White/Caucasian	27	Extensive	Sheltered workshop
10.	25,000- 34,900	Urban	Some college	English	White/Caucasian	46	Minimal	Sheltered workshop
11.	95,000+	Suburban	Graduate degree	English	White/Caucasian	22	Extensive	Sheltered workshop
12.	25,000- 34,900	Suburban	Two year college degree	English/ ASL	White/Caucasian Hispanic/Latino	19 & 22	Extensive/ Minimal	Not sought
13.	Not reported	Urban	Graduate degree	English	White/Caucasian	23	Extensive	Not sought

Note. Participant information organized by criteria for selection to achieve contrasting cases.

### **Instruments**

I used two instruments, a *FEAT* Follow-up Survey and a *FEAT* Interview Protocol (Francis, Gross, & Turnbull, 2013b), to identify and evaluate barriers to competitive employment. Two graduate students who spoke different dialects of Spanish (one was from Puerto Rico and the other from Colombia) independently translated the survey/interview protocol and then collaborated to merge their translations into "neutral" or "universal" Spanish, a form of Spanish speakers of all dialects and cultural backgrounds are likely to understand (Eremenco, Cella, & Arnold, 2005). Both translators worked in the field of developmental disabilities, translated *FEAT* materials, and presented several *FEAT* trainings in Spanish. One translator also has a sister with ISN. These experiences contributed to construct and social validity (Creswell, 2009) of the translations.

*FEAT* Follow-up Survey. The *FEAT* Follow-up Survey is a product of (a) careful adherence to research-based methods (Dillman, Smyth, & Christian, 2009); (b) qualitatively analyzed open-ended survey responses from *FEAT* Pre/Post-Questionnaires (Francis et al., in press); (c) a review of relevant literature; (d) items adapted from the Barriers to Employment and Coping Efficacy Scale (Corbière, Laisne, & Mercier, 2000; Corbière et al., 2004); (e) recommendations from individuals with specialized knowledge; and (b) cognitive interviews (Dillman et al., 2009).

I collected survey data through (a) a paper survey mailed through the U.S. Postal Service or (b) a web-based survey through the online program Qualtrics (I assigned participants with individual identification numbers and tracked responses to prevention survey duplication). This survey evaluated numerous topics related to competitive employment (e.g., expectations for employment, knowledge of employment services and supports). However, this study focuses on survey information related to families' perceptions of common barriers to competitive employment. On the survey I asked participants to select "the top five barriers (they) believe influence competitive employment for individuals with disabilities" from a checklist of 26 frequently documented barriers, as determined by *FEAT* pilot data (Francis et al., in press), current literature on employment for individuals with disabilities, and items adapted from the Barriers to Employment and Coping Efficacy Scale (Corbiere et al., 2000; Corbiere et al., 2004). I also included an "other" option on the checklist, which provided participants the opportunity to add a barrier not included on the list.

**FEAT** Interview Protocol. In addition to collecting data from surveys, I conducted 13 semi-structured interviews with families (i.e., parents and their children

with ISN) in person (n=7) or over the phone (n=6). Interviews averaged 74 minutes and lasted between 48 and 116 minutes. I collaborated with a member of the *FEAT* team (a university researcher) to complete all but one interview and recorded all interviews with consent. I conducted one interview with a native Spanish-speaking mother in English (the mother's preference and primary language used in the home), but a native Spanish-speaking interviewer co-interviewed the mother to prevent any language issues.

The interview protocol is a product of iterative feedback from a university professor and three pilot interviews (Maxwell, 2005) with parents of children with ISN (two of which had family members working in competitive employment and one who had not yet sought employment). I began each interview with a brief introduction of myself, a description of the study and its purpose, and an explanation of confidentiality measures. After introducing the study, I asked the participants to describe their families and then asked several open-ended questions regarding their employment-related experiences and barriers they experienced or are concerned about.

# Analysis

I used two methods to report and interpret data: frequencies and basic interpretive analysis. I used the SPSS statistical software to report frequencies of the top five barriers selected by families from the barriers checklist. I used NVivo software to employ basic interpretative qualitative analysis for transcribed interview data (Merriam, 2002).

Using NVivio, I reviewed transcribed interview data to identify general themes (Creswell, 2009). I then coded the data by placing survey and interview content into categories, clustering similar categories together, and identifying unique or irrelevant topics. I frequently revisited the data to determine if new categories emerged/if current

codes were appropriate, and recoded the data as necessary. I also used several methods to ensure the trustworthiness of the qualitative analysis (Maxwell, 2005). These methods included: transcript checks (comparing written transcripts to original interview recordings) (Creswell, 2009); triangulation (utilizing various sources of information to validate research findings and provide a more complete analysis of a phenomenon) (Cohen, Manion, & Morrison 2000; Creswell, 2009); peer debriefing (reviewing and questioning interpretations of qualitative data with colleagues) (Creswell, 2009); and comparison (i.e., comparing data across environments, individuals, or time) (Maxwell, 2005).

#### Results

This study sought to explore issues families cite as barriers or roadblocks to competitive employment for people with ISN, including their family members with ISN. Survey results indicated that families experienced numerous barriers, but those related to the (a) needs of individuals with ISN, (b) employment agencies and programs, and (c) community employers were the most prevalent.

# **Survey Data**

Families selected the following barriers as the top five issues they perceived to influence competitive employment for individuals with ISN most strongly:

- 1. a. Poor social skills (n=27, 40%)
  - b. Need for extensive or ongoing support (n=27, 40%);
- 2. Lack of supported employment service providers (n=24, 35%);
- 3. Severity of disability (n=20, 29%);
- 4. Lack of employer flexibility (n=18, 27%); and

5. Low expectations from society and employment agencies (n=17, 25%).

It is worth noting that participants selected each item on the checklist at least once, with "negative past work experiences" representing the least frequently selected barrier (n=1). Further, five participants (7%) selected "other." Although these participants wrote in additional barriers, several of the write-in answers (e.g., "poor communication skills") closely aligned with existing options on the checklist (e.g., "poor social skills").

## **Interview Data**

During interviews families elaborated on the barriers listed above and discussed additional barriers to competitive employment. Families discussed general perceptions about issues they considered barriers, as well as barriers they personally experienced. Although participants cited copious barriers to competitive employment, five key themes emerged: barriers related to (a) individuals with ISN; (b) families; (c) agencies and programs; (d) low expectations; and (e) the economy.

**Barriers related to individuals with ISN.** Barriers found in this theme deal with individual (a) needs, (b) behavior, (c) physical health, (d) motivation, and (e) "hidden disabilities" (disabilities that are not immediately apparent) influencing a person's ability to earn or maintain a job.

First, several participants citied individualized skill needs (e.g., "atrocious handwriting," inability to count money or make change) or learning style needs (e.g., the need for visual supports, repetition, 1:1 assistance) as preventing or hindering employment. Participants also noted that an individual's inability to be patient, organized, flexible, and practice self-regulation (including time management) on the job presented barriers. As one mother put it, her son "is incredibly precise, I mean he is meticulous, but

he has no time management skills. He cannot feel the passage of time. For him five minutes and three hours are the same." Several families also indicated that their members with ISN did not ask for or resisted services/supports that could help them overcome personal barriers because they did not know how or when to ask for help, did not perceive themselves as needing help, or "didn't want to be singled out like that."

Second, negative behaviors also created roadblocks to employment. One mother discussed her son's difficulty "letting go" of negative situations at work, which "interfere[d] with his ability to maintain employment." A father described how his son "struggles with the idea of authority" at work, resulting in negative behaviors that once made a coworker cry. Another mother described a situation where her son "refused to sweep the floor" and her fears that her son's mental health issues, including extreme anxiety and his tendency to "just get enraged," will cost him a job someday.

Third, individuals with ISN seeking employment also experienced physical health-related barriers to competitive employment. Many participants lamented that health barriers such as seizures, asthma, complications with medications, and fatigue prevented their family member from succeeding at work or pursuing work in which they are interested. A mother described how her son's epilepsy limited his employment options, "He could do the conveyor belts [at the airport] and he could lift other stuff. The only problem we would have is with the heat, because of his Topamax [for seizures]. He doesn't perspire well."

Fourth, another barrier regarding individuals with ISN includes issues related to indecision/motivation. Participants reported that some individuals with ISN do not know what profession they want to pursue or lack motivation to pursue a job. One individual

with cerebral palsy discussed her "second thoughts" regarding a career path in college and "not knowing what [she] wants to do." Another mother described the difficulty she experienced motivating her son to do "something other than video games."

Fifth, participants consistently reported issues related to hidden disabilities, including, but not limited to, concerns with social and communication skills. This theme applied to individuals with various types of disabilities, but was most problematic for individuals with autism that "present on the surface to be so high functioning," but have significant support needs related to social or communication skills.

**Barriers related to families.** Barriers in this theme include (a) families needing improved knowledge, (b) inaction among families, and (c) families feeling overwhelmed with stress.

First, families reported needing more/improved knowledge, education, and information. Many families described feeling lost, confused, insecure, and discouraged by their inadequate information: "I've just been floundering around trying to figure out the pieces." One mother stated, "I am feeling more like I have maybe a tenth of the knowledge that I need about Voc[ational] Rehab[ilitation]." While describing her own experiences seeking information about services and supports for her son as he prepares to graduate, one mother described life for parents transitioning their children with ISN out of school: "If you're new at it, you're going to fail, and these parents just don't know."

Second, participants described how families fail to take action in support of their family member's employment. For instance, although they indicated that families need more information, participants claimed that many families will not show up for meetings

or trainings designed to increase knowledge or provide support. One mother of a young adult with ISN who also works in the disability field expanded on this issue:

I'm speaking from a parent point of view as well as a case manager. I struggle with getting parents to participate in group things. I struggle with getting parents to attend the *FEAT* training, knowing that their child is transitioning to adult services.

Other participants suggested that families often fail to take action by adequately planning for the future or "worst case scenarios." This included families failing to seek out knowledge, support, and resources to prevent their family members with ISN from experiencing unemployment. This also involved families not planning for life after high school early enough. A parent expressed her frustration with her friends who are not yet planning for their family members' transitions out of school:

And they ask me well, why do I need [information]? And I tell them, well why don't you? Well I only have a 10 year old. Well that 10 year old is going to turn into a 12 year old; it's going to turn into that 14 and 16 year old. Get started now people. Don't wait 'til they're 16, because then you're in the soup.

Third, the amount of stress that families who have members with ISN experience may explain their inaction and also their feelings of guilt. Participants indicated that families with members who have ISN quickly become overwhelmed juggling work, raising children, seeking out information, and advocating for services and supports for their family members with ISN. Families often "do a lot on [their] own," leaving them feeling exhausted and discouraged. Many participants also cited additional areas of stress (e.g., terminal illness, mental health emergencies, parental death, substance abuse, sexual

abuse, adoption, single parenthood) that exacerbated feeling overwhelmed and defeated. A father described his family's experiences supporting his son with ISN in the midst of other family circumstances:

I mean we know everybody. I have family and extended family here. We have financial resources or whatever. I own a business, so I've got flexibility. So we thought we had all of that, but even with that, raising [his son] has been more than we could do. It's been beyond us.

This father goes on to speculate how difficult it must be for "that single mother" who does not have the support and financial means that his family experiences. Although families indicated that they needed more information, they also felt overloaded by information and experienced difficulty remembering available services and supports:

Half the time, I'll forget which damn waiver he is on. It's easy [to forget] when you live a life that has been filled with so much stress for so many years. You forget the toll that it takes on you and your health and memory because you just think it's normal.

Given the amount of stress and responsibilities that families with members with ISN deal with, it is not surprising that parents frequently blamed themselves for their family member's unemployment. Parents blamed themselves for not supporting their children enough or for supporting them the wrong way. One mother remarked, "I did the best I could, but not expecting enough out of [her son] and doing too much for him when he was really little...[was something] I goofed on."

**Barriers related to agencies and programs.** Participants noted barriers related to agencies and programs, including (a) appropriateness or effectiveness of services and

supports provided; (b) availability, accessibility, and affordability of services and supports; (c) agency and program staff; (d) waste; and (e) confusion.

First, although a few participants made positive remarks about agencies and programs (e.g., Vocational Rehabilitation, case managers, Centers for Independent Living, Social Security), they all cited barriers related to these entities. Participants reported that agencies and programs do not provide appropriate or effective services/supports. Many participants indicated that employment agencies and programs fail to "think outside of the box" about employment possibilities for individuals with ISN. Participants reported that agency and program staff "take one scenario and try to use it for every person when it doesn't work that way" because "what works for this person may not work for that one." A mother recalled an instance when a Vocational Rehabilitation counselor failed to consider her son's strengths, needs, and interests while applying for jobs:

They took this dyslexic kid with a learning disability and a functionality between a 3<sup>rd</sup> and 5<sup>th</sup> grader and had him take a computer test. How do you think he felt? And then he walked away without the job. He was so demoralized.

Second, participants described the availability and accessibility of services and supports as another barrier. Many participants remarked that services and supports are unavailable, unsubstantial, unfunded, underfunded, or at risk of losing funding. They also frequently cited a lack of available and affordable transportation and job coaching services as barriers. One mother also noted that, although her son's employer wanted "him to do the cash register" and "work over the lunch hour," her son's school did not have the resources to "accommodate him" and Vocational Rehabilitation would not help

her son "until six months before graduating high school." Some participants discussed issues related to eligibility (e.g., family income is too high/family member is too "high functioning" to qualify for services). They also described issues associated with the "wait to fail" model used by many agencies and programs. For example, one mother stated that her son's "case manager said they're waiting for him to fall flat on his face and fail, then we can go back to Social Security and they might reconsider him [for program eligibility]."

Third, issues related to agency and program staff mark additional barriers in this theme. Participants reported high staff turnover, undesirable staff, and poor communication with staff as barriers. They also indicated that agency and program staff are often unaware of services, supports, and opportunities available to individuals with ISN. A mother, who also worked as a case manager, described her frustration not getting the "adequate training [she] wanted" to support the individuals she serves.

Fourth, participants cited waste and ethical concerns as another barrier associated with agencies and programs, In particular, one father and active member of several local government and advocacy groups described the "gross amount" of "wasted money" and general "abuse in the system" he witnessed. He went on to describe his experiences:

I see a huge amount of waste in the system and I'm saying this as an advocate, but I'm also saying this as a board member [of a local agency] for 12 years and for all of these groups that I've served.

Fifth, a final barrier in this theme is that services, supports, agencies, and programs are difficult to understand, interpret, or navigate. One mother remarked, "It's kinda like a full-time job...trying to figure [agencies/programs] out." Another mother

highlighted her experiences with Social Security; "I have a doctorate. I can't read an SSI letter to save my soul. How is [my son] going to understand?" These experiences resulted in stress, frustration, and anger among families.

**Barriers related to low expectations.** Participants identified low expectations (expectations that individuals with ISN are unable or are unlikely to work in competitive employment) from (a) families, (b) schools, (c) agency and program staff, and (d) community businesses as barriers to competitive employment.

First, participants remarked that many families do not expect that their family members with ISN will work in competitive positions or "tend to look at the negative," which sabotages potential for competitive employment. One mother stated, "Many families are just content." She went on to state that parents often have the mindset that, 'Well, they'll get Social Security when they turn 18.'"

Second, participants also noted that school teachers and staff commonly hold low expectations for individuals with ISN, underestimating their abilities and not preparing them for life after school. One mother described her son's experiences: "[The school] told me that as long as he made D's he would graduate just fine, and I said he's got an IQ of 136 and you're going to accept a D?!" Another mother bemoaned that, although her son would benefit from "a cash register to practice [with]" and a "job coach" to volunteer more hours at his job, his school "already [has] their priorities...they're putting Astroturf down on the football field."

Third, participants reported that low expectations from agency and program staff also created barriers for individuals with ISN. For example, participants described agencies refusing to work with people with more significant support needs because they

"don't want to invest the money" in individuals they believe are incapable of completing competitive work. This also applies to staff working at sheltered workshops. Although the premise behind sheltered workshops is to prepare individuals with ISN for competitive work outside of the workshop, participants suggested that workshop staff do not expect individuals to advance to competitive employment. One frustrated mother exclaimed:

I don't believe that day service providers make enough effort to help a person with a disability to find competitive employment. Why should they? In my son's case, if he becomes competitively employed they lose \$63.00 a day for providing day services. I don't feel [Vocational Rehabilitation] has done a good job trying to help him.

Fourth, participants stated that low expectations from community businesses hinder successful employment outcomes. They expressed the belief that most community employers think hiring individuals with ISN is too much of a "big chance" because they anticipate that these individuals are unable to perform job requirements. They also believed that employers think that individuals with ISN would take too much time, creativity, support, money, and planning to employ. Additionally, families indicated that employers often only offer individuals with ISN temporary positions (e.g., employment during the summer only) or menial/stereotypical positions (e.g., shredding, watering plants) for minimal hours/pay.

**Barriers related to the economy.** Participants identified the economy as a final barrier. They cited the current state of the U.S. economy as contributing to a limited number of available positions for all Americans, but especially for those with ISN.

Families also believed that the poor economy was a catalyst for community employers to feel less likely to "take a risk" and hire individuals with ISN. One mother described the influence that the struggling economy had on her son's employment: "So this has been a mixed blessing that the coffee shop has been going really well [for her son], and the owner is trying to sell it. So I'm not sure what is going to happen."

# Study Findings and Bronfenbrenner's Theory

It is easy to think of a spider web when using Bronfenbrenner's theory to organize and develop recommendations based on the findings of this study. A disturbance in any area of a spider web reverberates through the entire web, affecting the spider at the center. A disturbance can be small or large and positive or negative (e.g., an unsuspecting fly, a poorly thrown baseball). The location, type, and number of disturbances influence the web in different ways. The spider also influences the web as she addresses or ignores the disturbances.

Like the delicate and sensitive nature of a spider web, barriers to competitive employment in any of Bronfenbrenner's systems influence people with ISN at the center, just as individuals with ISN influence the systems that surround them. Therefore, studying a single barrier or even several barriers within a single system in isolation prevents a comprehensive understanding of the issues that families and people with ISN experience. It is also essential to consider how strategies to address barriers will influence people with ISN and other systems.

Bronfenbrenner's theory enables families, professionals, policy makers, and researchers to (a) isolate barriers in a system in which they are involved or have power to change; (b) begin tackling specific barriers from a "bottom up" (microsystem) and/or

"top down" (exo- and macrosystems) approach; and (c) recognize and address how barriers and steps to mitigate barriers in each system influence other systems. Participants in this study identified barriers in each of Bronfenbrenner's systems, in addition to barriers related to individuals with ISN at the center of the systems. In this section I use Bronfenbrenner's theory to organize barriers from this study and offer recommendations to address the barriers.

# **Barriers to Competitive Employment**

Individuals with ISN. In this study I placed individuals with ISN aged 16 and older in the center of Bronfenbrenner's theory. It is important to consider individuals at the center because they influence the development and behavior of individuals and structures in the systems that surround them, just as individuals and structures within the systems influence them. Participants identified many barriers associated with the personal needs of individuals with ISN on the survey and during interviews. Barriers associated with people with ISN identified in this study included: (a) severity of disability (including severity of needs and level of support required for success); (b) behavior; (c) physical health; (d) motivation; and (e) hidden disabilities (including poor social/communication skills).

**Microsystem.** This system includes individuals that have direct contact with the individual with ISN. Although each of the five systems influences individuals with ISN, the microsystem has the most direct and profound influence (Paquette & Ryan, n.d.). Microsystem barriers participants identified on the survey and during interviews included (a) poor knowledge, inaction, and stress among families; (b) negative experiences with

agency and program staff; (c) lack of employer flexibility; and (d) low expectations from families, schools, and agency/program staff.

**Mesosystem.** The mesosystem involves collaboration among individuals in the micro- or exosystems. Collaborative partnerships among schools, employment professionals, and families enhance competitive employment outcomes (Bronfenbrenner, 1986; Timmons et al, 2011). Interview data identified one barrier in this system (i.e., poor communication among agency/program staff and families).

Exosystem. The exosystem includes structures such as employment agencies and programs that provide services and supports to individuals with ISN. Employment-related services and supports provided by agencies and programs mitigate employment obstacles that people with ISN encounter (Hall & Parker, 2010), thus enabling them to experience success in the workplace (Burge et al., 2007; Hall & Fox, 2004; Johannesen, McGrew, Griss, & Born, 2007; Morgan & Alexander, 2005; Rehabilitation Act, 1973). Exosystem barriers identified on the survey and in interviews included: (a) lack of supported service providers; (b) inappropriate or ineffective services and supports; (c) unavailable, inaccessible, or unaffordable services and supports; (d) waste among agencies and programs; (e) confusing agencies and programs; and (f) low expectations from community businesses.

**Macrosystem.** This system includes societal structures such as values and laws. Barriers related to values and laws influence individuals with ISN because they provide overarching guidance for schools and agencies/programs (Hall & Fox, 2004). On the survey families cited "low expectations from society" as a barrier associated with the

macrosystem. Low expectations from community businesses could also be considered a macrosystem barrier as part of the "corporate culture" of a business.

**Chronosystem.** The chronosystem involves change that occurs over time and incidents that a person experiences as they age. During interviews families identified barriers associated with this system, including (a) the need for early transition planning, (b) the reluctance of agencies and programs to participate transition planning prior to six months before graduation, and (c) negative experiences with agency and program staff. These barriers overlap with barriers found in micro- and exosystems.

### Recommendations

I developed two major recommendations based on the barriers that participants in this study identified: increased/enhanced (a) education and (b) support. These recommendations do not reflect all potential interventions or solutions that could prevent or mitigate barriers to competitive employment, but rather address the most prevalent barriers from this study. As a result, these recommendations influence all of Bronfenbrenner's systems.

Education. The results of this study indicate that individuals with ISN, families, and professionals in the micro-, exo-, and macrosystems would benefit from increased knowledge provided through quality education. Knowledge gained through education is more than just knowing information; it involves knowing how to *use* information. Knowledge gained through quality education can improve competitive employment outcomes for people with ISN (Timmons et al., 2011). Greater/enhanced education would address many barriers that participants identified, including barriers related to the (a) needs of individuals with ISN (e.g., hidden disabilities); (b) microsystem (e.g., poor

knowledge among families); (c) mesosystem (i.e., poor communication); (d) exosystem (e.g., confusing agencies and programs); (e) macrosystem (e.g., low expectations from society); and (f) the chronosystem (e.g., negative experiences with agency and program staff).

Individuals with ISN would benefit from increased knowledge provided through quality education from the microsystem to help them (a) identify their strengths/areas of need; (b) express employment interests and preferences; (c) identify the services and supports they will need on the job; (d) determine how/if they should disclose their disability; (e) determine how/when to ask for help on the job; and (d) access services and supports found in the exosystem and macrosystem. Although people with ISN would benefit from education, individuals in the microsystem are often unequipped to provide this education (Chambers, Hughes, & Carter, 2004; Timmons et al., 2011).

In order appropriately educate people with ISN, the microsystem needs a collaborative education (mesosystem) from the exosystem (e.g., employment agencies, school districts, universities) and macrosystem (lawmakers). Enhanced knowledge gained through education would increase their ability to offer accurate information about available services and supports, provide effective person-centered services, and maximize individual strengths to improve competitive employment outcomes.

Similarly, people with ISN and the microsystem can educate the exo- and macrosystems about their needs and successful strategies they use to gain competitive employment, including effective collaboration as part of the mesosystem. Professionals in the exosystem should also make efforts to educate themselves about effective competitive employment strategies supported by current research. This knowledge can result in

positive changes in practices, policies, and laws. Increased knowledge can also influence values/customs found in macrosystem, as people with ISN gain employment more frequently and working in competitive employment becomes the new cultural "norm."

Support. Similar to education, findings from this study indicate that individuals with ISN, families, and professionals in the micro-, exo-, and macrosystems would benefit from increased support to improve competitive employment outcomes. Effective support would mitigate multiple barriers that participants identified in this study, including barriers related to the (a) needs of individuals with ISN (e.g., the severity of disability/level of support needed); (b) microsystem (e.g., stress among families); (c) mesosystem (i.e., poor communication); (d) exosystem (e.g., availability, accessibility, and affordability of services and supports); (e) macrosystem (e.g., employers' expectations for individuals with ISN); and (f) the chronosystem (e.g., need for early transition planning).

High expectations for competitive employment increases the likelihood that people with ISN will earn competitive employment (Lindstrom et al., 2011). However, even with knowledge, it can be difficult to maintain high expectations without appropriate support (Francis et al., 2013b). People with ISN and their families would benefit from increased financial, material, emotional, and informational support (Turnbull, 2006) from the microsystem (e.g., education and employment professionals), exosystem (e.g., employment agency and program staff), and macrosystem (e.g., positive society and laws), in ways that are individualized to specific family needs and environments. Individuals with ISN may also benefit from support provided by self-advocates, just as families may benefit parent-to-parent support found in the micro- or

exosystems (Kerr & McIntosh, 2000). People with ISN and the microsystem would also benefit from support provided through increased collaboration in the mesosysem.

Individuals with ISN and the microsystem could influence the type and level of support they receive by collaborating and advocating among the exo- and macrosystems (mesosytem). For example, most employment agencies and programs (exosystem) will not participate in transition planning at school until individuals with ISN turn 18 and are eligible for services (National Disability Rights Network, 2012). However, individuals with ISN and the microsystem could advocate for a more proactive approach among employment agencies and programs (exosystem) and lawmakers (macrosystem) to improve employment outcomes.

## **Discussion**

The purpose of this study was to explore the issues families cite as barriers to competitive employment for people with ISN. I also organized barriers using Bronfenbrenner's ecological theory and developed recommendations to address those barriers. Quantitatively, the top five barriers families identified on the *FEAT* Follow-up Survey included:

- 1. a. Poor social skills
  - b. Need for extensive or ongoing support;
- 2. Lack of supported employment service providers;
- 3. Severity of disability;
- 4. Lack of employer flexibility; and
- 5. Low expectations from society and employment agencies.

Interview data revealed barriers related to (a) individuals with ISN; (b) families; (c) agencies and programs, (d) low expectations; and (e) economy.

Qualitatively, survey responses aligned with interview data. The first and third barriers cited most frequently on the survey (i.e., poor social skills/need for extensive or ongoing support, and severity of disability) both fall under the qualitative theme of "barriers related to individuals with ISN." The second barrier cited most frequently on the survey (i.e., lack of supported employment service providers) overlapped with the theme of "barriers related to agencies and programs." Finally, the fourth and fifth barriers cited most frequently on the survey (i.e., lack of employer flexibility, and low expectations from society/employment agencies) correspond with the theme of "barriers related to low expectations." These findings suggest that families generally perceive that barriers related to (a) individuals with ISN, (b) agencies and programs, and (c) low expectations (especially from employers, society, and employment agencies) are the most significant and underlying barriers to competitive employment for individuals with ISN. Moreover, participants identified numerous barriers associated with individuals with ISN and the micro- and exosystems (compared to the other systems) As a result, program and policy efforts, including increased/enhanced education and support, should concentrate on mitigating barriers associated with (a) individuals with ISN, (b) agencies and programs, and (c) low expectations in the micro- and exosystems.

Findings from this study reinforce current literature on barriers to competitive employment. Numerous researchers report barriers related to individuals with ISN, including barriers related to basic skills, behavior, health, motivation, self-esteem, cognitive ability, and severity of disability (Blitz & Mechanic, 2006; Corbière et al.,

2004; Hall & Fox, 2004; Hall & Parker, 2010; Schmidt & Smith, 2007). Research also documents barriers related to agencies and programs, such as uninformed staff (Hall & Parker, 2010) and poor communication between agency/program staff and families/individuals with ISN (Timmons et al., 2011). Barriers related to low expectations are also well documented (Olson et al., 2001; Morgan & Alexander 2005; National Council on Disability, 2010; Schmidt & Smith, 2007; Schur et al., 2005; Timmons et al., 2011). However, this study contributes to literature on barriers to competitive employment in several ways.

While numerous researchers report barriers and interventions to competitive employment (see Table 1), few studies on individuals with disabilities study these constructs in an ecological content (Gable, 2006), even though Bronfenbrenner's theory "has the potential to generate new knowledge and influence practice" related to individuals with disabilities (Sontag, 1996, p. 338). Further, of the 21 research studies included on Table 1, only 26% included family units as participants. Only two of these studies used mixed-methods design. This study adds to the literature by pinpointing the most significant and underlying barriers (i.e., barriers related to individuals with ISN, agencies and programs, and low expectations), as identified by family units (including members with ISN). This study's use of mixed-method design also adds richness to literature on barriers to competitive employment.

### Limitations

This study includes two primary limitations. First, only one Spanish-language participant returned the survey (12 Spanish-speaking participants submitted Pre/Post-Questionnaires in 2010 and 2011). This occurred despite the provision of all survey

materials in both English and Spanish and the translation of materials into "neutral" or "universal" Spanish (Eremenco et al., 2005).

Second, this study's demographics are not totally representative of the population of Kansas. Although the race/ethnicities and languages spoken by participants reflect the population of Kansas (U.S. Census Bureau, 2012), the levels of education and income do not. Nearly 90% of survey participants and 100% of interviewees went to college compared to 61.1% of the general population in Kansas. Only one participant without some level of college education offered to participate in an interview, but I was unable to contact her. Moreover, the number of participants who reported household incomes of \$75,000 or more a year (44.2% of survey respondents and 45% of interviewees) is comparable with Kansas statistics (41.7%) (U.S. Census Bureau, 2012). However, the percentage of participants who reported incomes of \$24,000 or lower (3.8% of survey respondents and 0% of interviewees) is not proportionate with the average Kansan household (14.7%). Despite these limitations, this study provides many implications for future research.

### **Future Research**

This study provides a basis for many avenues for future research on competitive employment. Future research may consider analyzing the relationship among various barriers and employment outcomes (e.g., a lack of supported employment service providers influences attainment of a job/average hours worked weekly). Future research should also explore how families overcome barriers. These findings could result in substantiated solutions to issues many families experience. Further, this study examined the perspectives and experiences of families. Future research should analyze and compare

information from other stakeholders, including professionals, employers, individuals with ISN (without their families), and policy makers. Given the relative homogeneity of participants in this study, researchers should also seek information from more diverse participant groups (including individuals from varied socioeconomic statuses and linguistic backgrounds). Baker and Moon (2008) noted that there is "a lack of data on the positive impacts of accommodating (persons with disabilities) in the workplace." Future research should not only examine possible solutions to barriers, but also research the efficacy of proposed solutions. Future research may influence polices/laws by using a policy analysis framework (Gallagher, 1981) to target needs (i.e., education/support) and barriers (e.g., expectations) identified in this study.

Based on my analysis using Bronfenbrenner's theory as a framework, future research should focus on increasing/enhancing education and support among all systems (with particular emphasis on people with ISN and the micro- and exosystems). Training programs are one way to address these issues. *FEAT*, a knowledge-based training program, increased participant expectations, knowledge, behavior, and competitive employment outcomes one to two years following the training (Francis, Gross, & Turnbull, 2013a; Francis et al., 2013b). However, this study provides a basis for improvements to the program that could enhance education and support. Potential improvements include, (a) more time for networking among individuals in the microsystem; (b) education on how to collaborate effectively (mesosystem); (c) individualized content/activities created through interest inventories completed prior to attending the program (people with ISN/microsystem); and (d) increased follow-up technical assistance (micro- and exosystems).

FEAT was designed for families (including their members with ISN). Future researchers should expand FEAT from a family-centered program to an ongoing professional development program for professionals in the mirco- and exosystems. In this capacity, the program could (a) increase collaboration among individuals in the micro- and exosystems; (b) increase education about barriers and effective strategies for competitive employment among the micro- and exosystem; (c) facilitate professional communities of practice; (d) facilitate earlier/enhanced support from the exosystem; (e) build partnerships with macrosystem (e.g., community businesses), and (f) facilitate program and policy change (micro, exo-, and macrosystems).

Last, *FEAT* could develop into a transition-based program designed for students with ISN in high school. As a program designed for teachers to implement in schools, *FEAT* could address barriers associated with individuals with ISN identified in this study by improving knowledge and providing support that students with ISN will need as they transition from school to adult life. Future research on *FEAT* as a family-centered, professional development, and transition program would contribute to literature on the ability of knowledge-based training programs to mitigate barriers to competitive employment and increase competitive employment outcomes.

#### Conclusion

This study adds to literature on barriers that prevent or have the potential of preventing individuals with ISN from working in competitive positions. This study also adds to an understanding of barriers that families identify, which is important considering families strongly influence the employment of their members with ISN. Alternatively, this study is innovative in its approach to using Bronfenbrenner's ecological systems

theory to organize barriers to competitive employment and develop implications for research, policy and practice. Families, people with ISN, professionals, policy makers, and researchers should consider this approach as they begin to address barriers to competitive employment to target the greatest areas of need and develop solutions that positively influence barriers throughout multiple systems.

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## Appendix A

FEAT Follow-up Survey

English \$

#### intro

#### Hello!

We are FEAT team members from the Beach Center on Disability in the Department of Special Education at the University of Kansas. We are eager to learn more about how FEAT impacted you following your attendance.

This survey should take approximately 20 minutes to complete and contains questions about basic demographics, your expectations for employment, experiences gaining employment, knowledge of transitioning to employment, barriers you have encountered, and use of FEAT training information and employment resources.

If you are a parent, family member, or individual with a disability and multiple members of your household participated in FEAT, we request that you *collaborate* to complete a single survey for *each* family member with a disability for whom you attended the training (e.g., families with two or more family members with a disability who need support transitioning into or maintaining employment will collaborate to complete two surveys, one for each family member's employment experiences). Please answer survey questions with your family member in mind.

If you are a parent/guardian/family member of an individual with a disability, you will also be asked if you would like to participate in a follow-up phone interview. The interview will focus on barriers to competitive employment that you have encountered and how you addressed these barriers. It should take approximately 20-30 minutes of your time. If you would like to participate in the interview, answer "yes" on your survey and please provide a phone number and preferred time for us to call. A member of our FEAT team will respond to you within one week. Please feel free to call or email with any questions about the interview or to request the interview questions beforehand (see contact names and numbers below). If you change your mind about participating in the interview, you may email or call any of the investigators and express your disinterest. To show our appreciation, we will provide families we interview with \$20.00.

If you are a professional (e.g., teacher, service provider) who did not attend FEAT to support a family member with a disability, please answer the survey considering the individuals you work with.

If you are a student or adult with a disability, please answer survey questions with yourself in mind.

Completing this survey and/or participating in the interview are completely confidential and voluntary. Also, you may choose not to answer any or all of the questions and may terminate your participation at any time. If you choose not to participate, it will not affect your relationship with us, any services you may be receiving, or the University of Kansas. Your survey responses will help us to understand the effectiveness of FEAT, and we will use insight gained from completed surveys and interviews to make improvements to future trainings and technical assistance.

We do not believe there are any risks associated with your involvement in this study. It is possible, however, with Internet communications, that through intent or accident someone other than the intended recipient may see your response. By completing this survey and/or participating in an interview, you will have the satisfaction of knowing that other individuals with disabilities, parents, and professionals may benefit from the feedback you provide.

Completion of the survey and/or interview indicates your willingness to participate in this project and that you are 18 years of age or older. If you have any additional questions about your rights as a research participant, you may call (785) 864-7429 or (785) 864-7385 or write the Human Subjects Committee Lawrence Campus

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(HSCL), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7563, email HSCL@ku.edu If you would like additional information concerning this study before or after it is completed, please feel free to contact us by phone, email, or mail. Sincerely, Judith Gross – jgross@ku.edu Rud Turnbull – rud@ku.edu Grace Francis – glucyf@ku.edu Research Co-Director Maria Adela Pijem- mariela@ku.edu Beach Center on Disability Study Investigators 1200 Sunnyside Ave., Room 3111 Beach Center on Disability University of Kansas Lawrence, KS 66045-7534 1200 Sunnyside Ave., Room 3123 University of Kansas (785) 864-7610 Lawrence, KS 66045-7534 (785) 864-7603 **FEAT** attendance Did you attend a Family Employment Awareness Training (FEAT) in 2010 or 2011? I attended in 2010 I attended in 2011 I attended both years I did not attend FEAT Which location did you attend? Select all that apply. Lawrence ■ Wichita Garden City Topeka Overland Park ☐ Hays Everybody demographics How many transition or employment-related trainings (including in-service trainings and webinars) have you attended in the last two years? FEAT was the only training I attended I attended 1-2 trainings in addition to FEAT I attended 3-4 trainings in addition to FEAT

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I attended 5 or more trainings in addition to FEAT
 I attended more than one FEAT training

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Please select one role that best describes you.

Note: If you attended FEAT to learn how to support a family member with a disability, please select "family member" as your primary role.

(	Family member(s) (e.g., parent, guardian, foster parent, sibling, grandparent, other relative)
(	Adult/Student with a disability
(	Service provider (e.g., case manager, social worker, employment specialist, workforce center staff)
(	Educator (e.g., general or special education teacher, paraprofessional, transition specialist)
(	Educational advocate

#### Expectations

How would you describe your level of expectation for individuals with disabilities to work in competitive employment (work in the community with peers who do not have disabilities for minimum wage or higher)?

	Very High they can get competitive jobs	Average they are somewhat likely to get competitive jobs	Very Low they cannot get competitive jobs
Expectations for individuals who do not need workplace supports, accommodations, or modifications	0	0	0
Expectations for individuals who need workplace supports, accommodations, or modifications an average of 1-2 times a month or	0	0	0
Expectations for individuals who need workplace supports, accommodations, or modifications an average of 1 to 2 times a week	0	0	0
Expectations for individuals who need workplace supports, accommodations, or modifications daily	0	0	0

Please indicate how much you agree or disagree with each of the following statements.

Note: We recognize that many people have multiple roles (e.g., family member and professional). However, please answer this question based on the role you identified earlier in this survey. For example:

- If you selected "family member" as your primary role, please respond thinking of the family member for whom you attended FEAT
- If you selected "individual with a disability" as your primary role, respond thinking of yourself
  If you selected a professional role (e.g., educator, service provider), respond thinking of the individuals you work with

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
There are many competitive employment opportunities in my community for individuals with disabilities	0	0	0	0	0
FEAT raised my expectations for competitive employment for individuals with disabilities	0	0	0	0	0
Individuals with disabilities are unlikely to get jobs my community	0	0	0	0	0
I expect that most individuals with disabilities can get competitive jobs in my community, if they want them	0	0	0	0	0
Individuals with disabilities can work any job, given the right support	0	0	0	0	0
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Currently, I expect that people with disabilities in my community will work in sheltered workshops	0	0	0	0	0
I believe that anyone who wants to can work in my community	0	0	0	0	0
People with disabilities can work any job they are interested in	0	0	0	0	0
Competitive jobs are too complex for individuals with disabilities	0	0	0	0	0
Competitive jobs are a realistic option for individuals with disabilities	0	0	0	0	0

#### Knowledge

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•	knowledge about transition and employment resources, including services and supports, duals with disabilities.
O Excellent	
O Good	
O Average	
O Fair	
O Poor	
	knowledge about ways of constructing "outside of the box" competitive employment positions h disabilities (e.g., supported, customized, carved, created, self-employment positions).
for individuals wit	
for individuals with	
for individuals with  Excellent  Good	

Please indicate how much you agree or disagree with each of the following statements.

Note: If you selected "family member" as your primary role, please respond thinking of the family member for whom you attended FEAT. If you selected "individual with a disability" as your primary role, respond thinking of yourself. If you selected a professional role (e.g., educator, service provider) as your primary role, respond thinking of the individuals you work with.

	Strongly Agree	Agroo	Neither Agree nor	Disagree	Strongly Disagree
	Strongly Agree	Agree	Disagree	Disagree	Strongly Disagree
I know that there are local, state, and national employment resources available for individuals with disabilities	0	0	0	0	0
FEAT improved my knowledge about employment resources	0	0	0	0	0
I have a good understanding of how to find employment resources for individuals with disabilities	0	0	0	0	0
I feel confident about my ability to contact various employment resources for individuals with disabilities	0	0	0	0	0
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I do not know of any resources to help individuals with disabilities at work	0	0	0	0	0
Before FEAT I did not know much about employment resources for individuals with disabilities	0	0	0	0	0
I know about several different types of competitive job options for individuals with disabilities, such as self-employment and carved jobs	0	0	0	0	0
I know enough about employment resources to take steps toward competitive employment for individuals with disabilities	0	0	0	0	0
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
I am unsure where to find employment services and supports for individuals with disabilities	0	0	0	0	0
I am aware of employment resources available to individuals with disabilities	0	0	0	0	0
I know about various employment programs, agencies, supports and services for individuals with disabilities	0	0	0	0	0

#### Employment resources accessed and used

Have you used the information and materials you	ı received from FEAT?
O Yes	
○ No	
Please describe how you have used the information	or materials since attending FEAT. Check all that apply.
Looked at/used web resources	☐ Shared information with community employers
☐ Shared information with friends	☐ Shared information with colleagues or people you work for
☐ Shared information with family	$\hfill\Box$ Completed steps on an action plan for employment developed at FEAT
Shared information with professionals (school teachers and staff, a case manger, Vocational Rehabilitation counselor)	Other
☐ Shared information with advocacy groups	
Please indicate the resources you have accessed or	used since attending FEAT. Check all that apply.
Benefits specialist from Working Healthy, Social Security, or other organization	☐ Working Healthy
☐ Job coaching services	☐ Work Opportunities Reward Kansans (WORK)
☐ Natural supports in the workplace (help from coworkers)	☐ Transportation
Assistive technology (assessment, trial, consultation)	☐ Impairment Related Work Expenses (IRWE)
☐ A community rehabilitation/supported employment provider	☐ Plan for Achieving Self-Support (PASS)
Community Developmental Disability Organization (CDDO)	☐ Kansas Council on Developmental Disabilities
Community Mental Health Center (CMHC)	☐ Small Business Development Center (SBDC)
Center for Independent Living (CIL)	SCORE – Counselors to America's Small Businesses
☐ Case manager	☐ Kansas Commission on Disability Concerns service maps
Career One-Stop/Workforce Center	☐ ADA technical assistance centers
☐ Vocational Rehabilitation	☐ Project SEARCH Kansas
☐ Ticket to Work	Other
☐ Home and Community Based Services (HCBS) Waiver	

#### **Technical Assistance**

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O Yes	
O No	
	nt do you agree or disagree with the following statement:
	technical assistance I received was helpful."
"The support/t	technical assistance I received was helpful."
"The support/to O Strongly Agr O Agree	technical assistance I received was helpful."
"The support/to O Strongly Agr O Agree	technical assistance I received was helpful."

The following list includes common barriers experienced by individuals with disabilities.

Please select the <u>top 5 barriers</u> you believe impact competitive employment (work in the community with peers who do not have disabilities for minimum wage or higher) for individuals with disabilities.

Note: If you selected "family member" as your primary role, please respond thinking of the family member for whom you attended FEAT. If you selected "individual with a disability" as your primary role, respond thinking of yourself. If you selected a professional role (e.g., educator, service provider) as your primary role, respond thinking of the individuals with whom you work.

☐ Poor social skills	☐ Low expectations for competitive employment from society/employment agencies
Low expectations for competitive employment from families	□ A lack of supported employment service providers (e.g., job coaches)
Poor self-confidence	☐ Lack of transportation
Lack of education, training, or work experience	Poor economy/job market
☐ Negative past work experiences	$\hfill \square$ Inadequate funding for workplace accommodations/modifications in the workplace
Lack of information or misinformation about employment resources	Low expectations for competitive employment from teachers
Low motivation/self-determination	☐ Ineffective or nonexistent accommodations/modifications
Severity of disability or intensity of needs	Poor employer or coworker attitudes
Need for extensive or ongoing supports at work	Unsupportive coworkers
☐ Isolation/no social support	$\hfill \Box$ Confusing employment resources and systems (e.g., difficult to access and/or navigate)
Inadequate/poor collaboration between schools, professionals, and families	Lack of employer flexibility (e.g., unwillingness to rearrange a work schedule or modify job tasks)
Discrimination	☐ Inaccessible work environments (e.g., architectural or technological barriers)
Loss of financial support/benefits when working	Other
Limited funding for employment services (e.g., wait lists)	

Please indicate how much you agree or disagree with each of the following statements.

Note: If you selected "family member" as your primary role, please respond thinking of the family member for whom you attended FEAT. If you selected "individual with a disability" as your primary role, respond thinking of yourself. If you selected a professional role (e.g., educator, service provider) as your primary role, respond thinking of the individuals with whom you work.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
The barriers I selected above impact individuals with disabilities more than individuals without disabilities	0	0	0	0	0
I am able to use my knowledge of employment resources to overcome employment barriers for individuals with disabilities	0	0	0	0	0
If I knew more about employment resources, there would be fewer barriers to competitive employment for individuals with disabilities	0	0	0	0	0
The majority of employment barriers people with disabilities experience is a result of a lack of knowledge about resources	0	0	0	0	0
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Barriers to employment are easier to overcome when a person has knowledge about employment resources	0	0	0	0	0
More knowledge = fewer barriers	0	0	0	0	0
I believe that knowledge of employment resources can overcome many barriers to competitive employment for individuals with disabilities	0	0	0	0	0
I feel that barriers to competitive employment make it very difficult for individuals with disabilities to get a job	0	0	0	0	0
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Barriers make obtaining competitive employment nearly impossible for individuals with disabilities	0	0	0	0	0
Although there may be barriers to competitive employment, I expect that individuals with disabilities can overcome them	0	0	0	0	0
There are some employment barriers that are impossible for individuals with disabilities to overcome	0	0	0	0	0

#### Family employment outcomes

Please describe the steps your family has taken toward employment. Select all that apply.
☐ Met with a team to plan/brainstorm
☐ Contacted or met with a service agency/organization (e.g., Vocational Rehabilitation)
Developed a personal employment goal (identified a personal aspiration or vision for employment)
Developed an employment goal on an Individualized Education Plan (IEP) or transition plan through school
☐ Developed an employment goal on a Person-Centered Plan
<ul> <li>Developed an employment goal on an Individualized Plan for Employment (IPE) through an employment agency such as Vocational Rehabilitation or community rehabilitation specialist</li> </ul>
☐ Completed steps on our action plan for employment that we developed at FEAT
☐ We have not taken steps toward employment
Other
Describe the employment of your family member with a disability. Select all that apply.
Describe the employment of your family member with a disability. Select all that apply.  My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)
☐ My family member is competitively employed (working in the community with peers without disabilities for minimum wage
My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)
<ul> <li>My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)</li> <li>My family member is completing an internship or trying out different jobs in the community through a school program</li> </ul>
My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)  My family member is completing an internship or trying out different jobs in the community through a school program  My family member gained competitive employment, but later quit
<ul> <li>My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)</li> <li>My family member is completing an internship or trying out different jobs in the community through a school program</li> <li>My family member gained competitive employment, but later quit</li> <li>My family member gained competitive employment, but lost the job</li> </ul>
My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)  My family member is completing an internship or trying out different jobs in the community through a school program  My family member gained competitive employment, but later quit  My family member gained competitive employment, but lost the job  My family member works in segregated employment (enclave, sheltered workshop, day program)
My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)  My family member is completing an internship or trying out different jobs in the community through a school program  My family member gained competitive employment, but later quit  My family member gained competitive employment, but lost the job  My family member works in segregated employment (enclave, sheltered workshop, day program)  My family member is not currently employed
My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)  My family member is completing an internship or trying out different jobs in the community through a school program  My family member gained competitive employment, but later quit  My family member gained competitive employment, but lost the job  My family member works in segregated employment (enclave, sheltered workshop, day program)  My family member is not currently employed
My family member is competitively employed (working in the community with peers without disabilities for minimum wage or higher)  My family member is completing an internship or trying out different jobs in the community through a school program  My family member gained competitive employment, but later quit  My family member gained competitive employment, but lost the job  My family member works in segregated employment (enclave, sheltered workshop, day program)  My family member is not currently employed  We have not yet sought employment

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On average, how	many hours a week does your family member work or intern at their competitive job?
0-5 hours a week	
O 6-10 hours a wee	yk
11-15 hours a we	ek
O 16-20 hours a we	ek
21-25 hours a we	ek
<ul> <li>26-30 hours a we</li> </ul>	ek
31-35 hours a we	ek
<ul> <li>36-40 hours a we</li> </ul>	ek
help my family me	you agree or disagree with the following statement: "FEAT positively influenced the way I mber with a disability gain and/or maintain a competitive job."
<ul><li>Strongly Agree</li></ul>	
O Agree	
Neither Agree no	r Disagree
<ul> <li>Disagree</li> </ul>	
O Strongly Disagre	3
We need YOUR h	elp!
choose to participate employment for in	families to participate in a brief phone interview about their employment experiences. If you ate, we will use your family's story to help us understand more about the journey to dividuals with disabilities. We will use this information to improve future trainings and ctiveness of FEAT.
We will keep all pe	ersonal information (including you and your family members' identities) confidential.
We value your tim participate in this i	e and appreciate your family's story. To show our appreciation, we will provide families who nterview \$20.00.
Would you or your experiences?	family unit like to participate in a brief interview about your family member's employment
O Yes	
O No	

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Your name	
Your relationship(s) to the individual with a disability	
Your telephone number	
Times we should call	
nember's employment experienc	nation (positive or negative) you would like to share about your family es (e.g., job search, accessing resources, experiences working on the job hat we will use to improve future trainings. elow for your response.
pple with ISN employment outc	omes_
Please describe the steps you ha	omesve taken toward employment. Select all that apply.
Please describe the steps you ha	ve taken toward employment. Select all that apply.
Please describe the steps you ha  Met with a team to plan/brainstorm  Contacted or met with a service age	ve taken toward employment. Select all that apply. ency/organization (like Vocational Rehabilitation)
Please describe the steps you ha  Met with a team to plan/brainstorm  Contacted or met with a service age  Developed a personal employment	ve taken toward employment. Select all that apply. ency/organization (like Vocational Rehabilitation) goal (identified a personal aspiration or vision for employment)
Please describe the steps you ha  Met with a team to plan/brainstorm  Contacted or met with a service age  Developed a personal employment  Developed an employment goal on	ve taken toward employment. Select all that apply.  ency/organization (like Vocational Rehabilitation)  goal (identified a personal aspiration or vision for employment)  an Individualized Education Plan (IEP) or transition plan through school
Met with a team to plan/brainstorm Contacted or met with a service age Developed a personal employment Developed an employment goal on Developed an employment goal on	ve taken toward employment. Select all that apply.  ency/organization (like Vocational Rehabilitation) goal (identified a personal aspiration or vision for employment) an Individualized Education Plan (IEP) or transition plan through school a Person-Centered Plan
Please describe the steps you ha  Met with a team to plan/brainstorm  Contacted or met with a service age  Developed a personal employment  Developed an employment goal on  Developed an employment goal on	ve taken toward employment. Select all that apply.  ency/organization (like Vocational Rehabilitation) goal (identified a personal aspiration or vision for employment) an Individualized Education Plan (IEP) or transition plan through school a Person-Centered Plan an Individualized Plan for Employment (IPE) through an employment agency such as
Please describe the steps you ha  Met with a team to plan/brainstorm  Contacted or met with a service age  Developed a personal employment  Developed an employment goal on  Developed an employment goal on  Developed an employment goal on  Vocational Rehabilitation or commu	ve taken toward employment. Select all that apply.  ency/organization (like Vocational Rehabilitation) goal (identified a personal aspiration or vision for employment) an Individualized Education Plan (IEP) or transition plan through school a Person-Centered Plan an Individualized Plan for Employment (IPE) through an employment agency such as

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Describe your employment. Select all that apply.
I am competitively employed (working in the community with peers who do not have disabilities for minimum wage or higher)
I am completing an internship or trying out different jobs in the community through a school program
I gained competitive employment, but later quit
I gained competitive employment, but lost my job
I work in segregated employment (e.g., enclave, sheltered workshop, day program)
I am not currently employed
I have not yet sought employment
Did your employment or intership occur before or after attending FEAT?
O Before FEAT
O After FEAT
On average, how many hours a week do you work or intern at your competitive job?
O 0-5 hours a week
O 6-10 hours a week
O 11-15 hours a week
O 16-20 hours a week
O 21-25 hours a week
O 26-30 hours a week
31-35 hours a week
○ 36-40 hours a week
To what extent do you agree or disagree with the following statement: "FEAT positively influenced my employment or steps toward employment."
O Strongly Agree
O Agree
Neither Agree nor Disagree
O Disagree
O Strongly Disagree
Do you have any additional information (positive or negative) you would like to share about your employment experiences (e.g., job search, accessing resources, experiences working on the job)? Your input will provide an insight that we will use to improve future trainings. Please use the space provided below for your response.

rvey Software	https://s.qualtrics.com/ControlPanel/Ajax.php?action
rofessional employment outcomes	
To what extent do you agree or disagree help individuals with disabilities gain and	e with the following statement: "FEAT positively influenced the way I d/or maintain competitive jobs."
O Strongly Agree	
O Agree	
Neither Agree nor Disagree	
O Disagree	
Strongly Disagree	
working with individuals with disabilities	(positive or negative) you would like to share about your experiences as they are transitioning out of school, seeking employment and/or
working? Your input will provide insight that we will Please use the space provided below to	ill use to improve future trainings. or your response.
Your input will provide insight that we wi	ill use to improve future trainings. or your response.
Your input will provide insight that we wi	ill use to improve future trainings. or your response.
Your input will provide insight that we wi	ill use to improve future trainings. or your response.
Your input will provide insight that we wi	ill use to improve future trainings. or your response.
Your input will provide insight that we wi	ill use to improve future trainings. or your response.
Your input will provide insight that we will please use the space provided below for	ill use to improve future trainings. or your response.
Your input will provide insight that we wi	ill use to improve future trainings. or your response.

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O Female

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Wh	nat is your race/ethnicity?
0	White/Caucasian
0	Black/African American
0	Hispanic or Latino
0	Asian/Asian American
0	Native American/American Indian
0	Pacific Islander
0	Multiple races/ethnicities
0	Other
Wh	nat is the primary language used in your home?
0	English
0	Spanish
0	Chinese
0	Korean
0	Other
Ple	ase describe the area where you live.
0	Urban (e.g., a highly populated area with many residential and nonresidential structures, compared to surrounding areas)
0	Suburban (e.g., a moderately populated area that is mostly residential, usually located on the outskirts of a highly populated area)
0	Rural (e.g., an area with a smaller population, typically characterized by countryside and/or wilderness)
Wh	nat is the average annual income for your household?
_	below \$15,000
	\$15,000 - \$24,999
_	\$25,000 - \$34,999
	\$35,000 - \$44,999
	\$45,000 - \$54,999
	\$55,000 - \$64,999
0	
0	\$75,000 - \$84,999
0	\$85,000 - \$94,999
0	
	·

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Please describe the highest level of education obtain	ned by the people living in your home.
○ Some high school	
High school diploma	
○ Some college	
Trade school/ technical degree	
2 year college degree	
4 year college degree	
Graduate degree	
How old is your family member with a disability?	
What is your family member's primary disability? Plea	ase select one.
My family member experiences more than one disability	Orthopedic Impairment
O ADD/ADHD	Speech/Language Disorder
O Autism	Traumatic Brain Injury
Health Impairment/Medically Fragile or At-Risk	○ Visual Impairment/Blind
Hearing Impairment/Deafness	O Down Syndrome
Clearning Disability	Cerebral Palsy
<ul> <li>Intellectual or Developmental Disability</li> </ul>	<ul> <li>Suspected but Undiagnosed Disability</li> </ul>
Neurological Impairment	Other
How would you describe the level of support your far	mily member with a disability needs to be successful at
work?	,
None: My family member does not need workplace support	rts, accommodations, or modifications
Minimal: My family member needs workplace supports, acc	commodations, and/or modifications 1-2 times a month
O Moderate: My family member needs workplace supports, a	accommodations, and/or modifications 1-2 times a week
Extensive: My family member needs workplace supports, a	accommodations, and/or modifications daily
How old are you?	

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I experience more than one disability	Orthopedic Impairment
O ADD/ADHD	Speech/Language Disorder
O Autism	Traumatic Brain Injury
Health Impairment/Medically Fragile or At-Risk	○ Visual Impairment/Blind
Hearing Impairment/Deafness	O Down Syndrome
Learning Disability	Cerebral Palsy
<ul> <li>Intellectual or Developmental Disability</li> </ul>	<ul> <li>Suspected but Undiagnosed Disability</li> </ul>
Neurological Impairment	Other
<ul> <li>Moderate: I need workplace supports, accommodation</li> <li>Extensive: I need workplace supports, accommodation</li> </ul>	
rvice provider demographics	
Please describe the area where you work.	
Urban (e.g., a highly populated area with many reside	ential and nonresidential structures, compared to surrounding areas)
<ul> <li>Suburban (e.g., a moderately populated area that is m populated area)</li> </ul>	nost residential, usually located on the outskirts of a highly
Rural (e.g., an area with a smaller population, typically	v characterized by countryside and/or wilderness)

## Appendix B

### FEAT Interview Protocol

#### Introduction

My name is Grace and I'm a doctoral student at KU. I'm also a member of the group that helps plan *FEAT* trainings. I'm interested in learning more about your family's employment journey, including employment obstacles that your family encountered and how you had addressed these obstacles. I think it's important to uncover successes and barriers so that we can make improvements to trainings such as *FEAT*. In the past, this interview has lasted from 20-45 minutes, but we can be as brief or talk as long as you feel comfortable. Do you have any questions about this study or the consent form? May I tape record this interview?

#### Demographic information:

#### 1. Tell me about your family.

**Prompts** 

Who lives in your house?

Would you describe where you live as rural, suburban, or urban?

What primary language does your family use?

How old is your child(ren)?

What types of support does your child(ren) need at home/work?

Has your child(ren) gained employment since attending FEAT?

Is your child(ren) currently employed?

#### Description of employment/barriers to employment:

#### If currently employed:

1a. Tell me about your child's job.

Follow-up

Are you and your child happy with your child's job?

#### 1b. Tell me about how your child gained employment.

**Prompts** 

Who did you contact?

Have there been any changes to your child's IEP?

Follow-up

Did attending *FEAT* impact your child gaining employment? Why not?/How?

#### If not currently employed:

#### 1c. Tell me more about your experiences helping your child gain employment.

**Prompts** 

Have you contacted anyone?

Have there been any changes to your child's IEP?

Has your child interviewed with anyone?

Follow-up

Did attending *FEAT* impact your child's road to employment?

Why not?/How?

# 2. Lots of families experience bumps on the road to employment. Can you think of a specific story about a "bump" you encountered?

**Prompts** 

What contributed to your family experiencing this barrier?

Describe your experience working with your child's school.

Describe your experience working with professionals (Vocational

Rehabilitation, Social Security, case manager, etc.).

Describe your experience working with employers.

Describe your experience negotiating pay/hours/benefits.

Describe your experience teaching/empowering your child.

Describe your experience figuring out paperwork/benefits/transportation.

Describe your experience securing workplace

accommodations/modifications.

# 3. Can you recall a specific instance when you overcame a challenging circumstance?

Prompts

What contributed to your family experiencing this success?

Describe tools/strategies you used.

Describe steps you took.

Describe any help you received and how you got that help.

Describe any ideas you have to tackle barriers that you haven't encountered yet.

#### 4. What issues or barriers continue to cause problems?

**Prompts** 

Why do you think these issues continue to cause problems?

What ideal supports or services might mitigate these problems?

Do you foresee your family overcoming these barriers?

# 5. Describe any issues that you have not encountered, but fear becoming problems in the future.

# 6. How would you describe your expectations for individuals with disabilities attaining/maintaining community employment on a scale from 1-5; 1 representing Extremely Low and 3 representing Extremely High expectations?

Follow-up

Does that rating change for individuals with low needs, versus moderate or significant needs?

Do you feel that your expectations for community employment have changed since you attended *FEAT*?

If so, how? Increased? Decreased?

Tell me about the experiences impacted this rating.

- 7. How would you describe your knowledge about employment resources on a scale of 1-5; 1 representing Poor and 5 representing Excellent transition/employment knowledge?
- 8. How would you describe your knowledge about different types of competitive employment (e.g., "outside of the box" ideas such as supported employment, business within a business)?

Follow-up

At *FEAT*, if you recall, trainers asked you to rate your knowledge after attending the training. Do you think your knowledge has changed since then?

If so, how? Increased? Decreased?

Tell me about the experiences that impacted this rating.

## 9. What are your suggestions to improve/enhance future *FEAT* trainings?

**Prompts** 

How can we help other families avoid or conquer barriers your family experienced?

How can we help other families replicate the successes your family experienced?

#### Closing

Thank you so much for your time. May I get back to you if I have questions when I go over the interview? Do you have any questions for me?