

## Parent and Sibling Perspectives on the Transition to Adulthood

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*Abstract: The purpose of this investigation was to extend research on parent and sibling perspectives concerning the transition of family members with significant cognitive disabilities to adult life. Eight parents and eight siblings of high school students with significant cognitive disabilities completed questionnaires addressing transition outcomes. Results indicate that parents and siblings believe that they lacked knowledge with respect to post-school options, and parents report assuming more active roles in the transition process than did siblings. Although future employment and independent living were important to respondents, both parents and siblings anticipated that after high school, their family member with a disability would work in a segregated employment setting and would live in the parent's home. Implications for future research and practice are discussed.*

The transition to adulthood is both an exciting and challenging time for young adults and their families. Although this period is critical for all individuals, for persons with significant cognitive disabilities, development of appropriate supports during the transition process is crucial. Indeed, individuals with significant cognitive disabilities may be described by the supports they need in relation to the demands of specific environments (Thompson et al., 2002). For example, these individuals may have support needs in areas of intellectual functioning, adaptive skills, motor development, sensory functioning, health care, or communication (Turnbull, Turnbull, Shank, Smith, & Leal, 2001), which necessitate identifying strategies and supports that will assist these individuals in being successful and achieving desired outcomes.

Unfortunately, post-school outcomes attained by many young adults with significant cognitive disabilities are bleak when compared to those of other individuals with less intense disabilities (Johnson, McGrew, Bloomberg, Bruininks, & Lin, 1997). Persons with significant cognitive disabilities often earn less money, hold their jobs for shorter periods, and have less opportunities to inter-

act with other people at work compared to employees with less intense disabilities (Mank, Cioffi, & Yovanoff, 1998). In addition, many reside with family members or in residential group home settings rather than in more independent living situations (Johnson et al.). Although there is evidence that social involvement increases over time, individuals with cognitive disabilities typically experience isolation and segregation in their communities (Eliason, 1998; Gaylord & Hayden, 1998). With respect to both home- and community-based leisure and recreation activities, individuals with cognitive disabilities typically participate less often than persons without disabilities (Hoge & Dattilo, 1995). Furthermore, for the few individuals with significant cognitive disabilities who participate in post-secondary education on college campuses, the programs in which they are enrolled generally are segregated from other college classes and activities (Neubert, Moon, Grigal, & Redd, 2001).

The Individuals with Disabilities Education Act of 1997 (PL 105-17) encourages the active involvement of parents in their child's education through participation on Individualized Education Program (IEP) and evaluation teams for students with disabilities. Involvement of families is especially critical during the transition to life after high school, the success of which requires ongoing collaborative efforts by professionals and families (Wehmeyer, Morningstar, & Husted, 1999).

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Given that students, parents, siblings, and other family members are all affected by the transition process and its outcomes, these individuals should be collaborative partners in transition planning and decision making. In addition, because the support networks of persons with significant cognitive disabilities typically are composed of family members, it is important to identify families' involvement in the transition process and families' perceptions of transition outcomes to determine post-school outcomes that are valued. This information could guide transition teams in developing goals that are supported by families.

Researchers have addressed parent perceptions of an array of outcomes associated with transition. Concerns of parents of students with cognitive disabilities have been identified for transition areas such as vocational options, future residential living options, social networks, and available assistance (Cooney, 2002; Hanley-Maxwell, Whitney-Thomas, & Pogooff, 1995; Whitney-Thomas & Hanley-Maxwell, 1996). Additional information, however, is needed with respect to parents' perceptions regarding a variety of post-school areas such as employment, residential and daily living, post-secondary education, social networking, and leisure and recreation. By determining families' expectations, level of involvement, knowledge, and concerns with respect to these post-school areas, professionals may be able to better align services to address families' needs.

In addition, few studies addressing transition or future planning have included siblings as participants. Griffiths and Unger (1994) surveyed parents and siblings of adults with mental retardation to better understand family perceptions of demands associated with future caregiving. However, family members with disabilities in this study were older adults who already had exited from school. Although sibling involvement was not specifically addressed in the IDEA legislation, the perspectives and input of siblings are essential during transition planning. Prior research has indicated that siblings without disabilities are "socialized" to expect caregiving responsibilities as a part of their future (Begun, 1989; Grossman, 1972; Stoneman & Berman, 1993). Although siblings have been referred to as "the next generation of family caregivers" (Krauss, Seltzer, Gordon, & Friedman, 1996), many

may not be prepared or willing to assume caregiving roles. By involving siblings in the transition process, desired roles of siblings can be identified, siblings can acquire knowledge of existing services and supports, and siblings can become better prepared to assume more active roles.

In summary, knowledge of parent and sibling perceptions could assist professionals in addressing family needs and developing strategies to enhance the transition process in order to improve adult outcomes. Therefore, the purpose of this study was to expand the field's knowledge of both parent and sibling perceptions of the transitions of their family members with significant cognitive disabilities to adult life. Survey methodology was utilized to investigate the following research questions: (a) What are parents' perceptions regarding specific life domains (i.e., employment, social, leisure and recreation, residential and daily living, post-secondary education) as their child prepares to exit high school? (b) What are siblings' perceptions regarding these domains as their brother or sister prepares to exit high school? (c) How do parent and sibling perceptions compare?

## **Method**

### *Setting*

Student participants were enrolled in seven of 11 comprehensive high schools in a large urban school district. All high schools were contacted to identify potential participants. Only seven of the schools served students with significant cognitive disabilities whose families met criteria for participation (see below). Student enrollment in the seven schools ranged from 875 to 1966. Mean ethnicity of students across schools was 57% African American (range, 30% to 80%), 35% Caucasian (range, 16% to 59%), and 8% other ethnicities (range, 1% to 20%). Approximately 32% of students from these schools exited school by dropping out (range, 7% to 47%).

### *Participants*

Participants were selected according to certain criteria. First, the family had a member with a significant cognitive disability (i.e., intellectual functioning in the severe to pro-

found range of intellectual performance and limitations in two adaptive behavior areas as documented in the IEP) who was 14 years of age or older and currently receiving transition services in an integrated public school setting. Second, the family had a parent and a sibling (14 years or older) who consented to participate in the study. To recruit participants who fulfilled these criteria, all high school teachers ( $N = 16$ ) of students with significant cognitive disabilities in the participating school district were asked to identify all families who met the above criteria.

The teachers initially nominated seventeen families. Consent forms were sent by teachers to each family in order to gain permission to contact them regarding study participation. Eight families consented to be contacted. A second consent letter was sent to families that did not respond to the first letter, yielding two additional families. Two families were released from the study because the sibling did not meet age requirements (i.e., sibling was too young). A study consent form was sent home to the eight remaining families via each student participant. This form provided information with respect to the purpose and procedures of the study and requested consent to participate. Two days after sending home the study consent form, the first author contacted the eight families via telephone. The telephone call enabled this author to verbally explain the study and establish an appointment to meet with the family members in person. All families consented to participation by completing the study consent form and arranging an appointment in order to complete the questionnaire.

*Students with significant disabilities.* Families of eight students (3 females and 5 males) with significant cognitive disabilities participated in the study. Mean student age was 18 years (range, 14 to 21). Ethnicity of students (and their parents and siblings) was African American ( $n = 5$ ), Caucasian ( $n = 2$ ), and Caribbean American ( $n = 1$ ). These students were served in two types of high school settings: (a) 5 students were served in self-contained classrooms on high school campuses and (b) 3 were served in community-based transition programs. Students either lived with two parents ( $n = 3$ ) or with their mother ( $n = 5$ ). Four of the students received free or reduced

lunch. Additional student information is found in Table 1.

*Parents.* Seven of eight parent participants were mothers. Parents reported their ages as falling within one of the following year ranges: 25 to 35 ( $n = 2$ ), 36 to 45 ( $n = 4$ ), or 46 to 55 ( $n = 2$ ). Parents' level of education included master's degree ( $n = 1$ ), some college or an associate's degree ( $n = 1$ ), a general equivalency diploma ( $n = 1$ ), a high school diploma ( $n = 4$ ), and some high school ( $n = 1$ ). Six parents were employed, one was unemployed, and one was a full-time homemaker. Three parents reported being married, three were divorced, and two had never been married. Parents reported having attended 1 to 5 or more IEP meetings during the time their children had entered high school.

*Siblings.* Eight siblings participated in the study. Siblings ranged in age from 14 to 33 years ( $M = 22$ ), with the majority being female ( $n = 5$ ). Three siblings reported attending some college or receiving an associate's degree. The remaining siblings were high school graduates ( $n = 1$ ), currently attending high school ( $n = 3$ ), or currently attending middle school ( $n = 1$ ). The majority of the siblings was employed ( $n = 6$ ) and had never been married ( $n = 6$ ). Only three siblings reported having ever attended an IEP meeting of their brother or sister.

### *Procedures*

*Questionnaire development and description.* Two questionnaires (i.e., parent and sibling versions) were developed addressing the three research questions. The sibling and parent questionnaires consisted of two sections: (a) demographic information and (b) transition-related questions. On the first section, respondents were asked to provide the following demographic information: age range (parent) or age (sibling), gender, ethnicity, marital status, level of education, employment status, and number of IEP meetings in which the respondent had participated. Respondents were also asked to provide information about the family member with a disability, including age, gender, ethnicity, and current classroom placement (i.e., general education classroom, resource classroom with some general education, self-contained special education class-

**Table 1**

**Participant Information**

<i>Participant</i>	<i>Diagnosis, IQ Assessment</i>	<i>Adaptive Behavior Assessment<sup>a</sup></i>
Student 1	Severe mental retardation, orthopedic impairment 40 <sup>b</sup>	Communication = 40 Daily Living = 44 Socialization = 65 Composite = 49
Student 2	Autism, profound mental retardation, identified in records as “untestable”	Communication < 20 Daily Living < 20 Socialization < 20 Composite < 20
Student 3	Severe mental retardation, IQ information not available	Communication = 69 Daily Living = 69 Socialization = 63 Composite = 57
Student 4	Severe mental retardation, speech impairment, 40 <sup>c</sup>	Composite = 77
Student 5	Autism, severe mental retardation, IQ information not available	Communication = 53 Daily Living = 62 Socialization = 53 Composite = 54
Student 6	Severe mental retardation, 42 <sup>d</sup>	Communication = 37 Daily Living = 29 Socialization = 51 Composite = 36
Student 7	Severe mental retardation, 42 <sup>d</sup>	Communication = 36 Daily Living = 25 Socialization = 52 Composite = 35
Student 8	Severe mental retardation, hearing impairment, 45 <sup>d</sup>	Composite = 48

<sup>a</sup> Vineland Adaptive Behavior Scale. <sup>b</sup> Wechsler Adult Intelligence Scale III. <sup>c</sup> Wechsler Intelligence Scale for Children—Revised. <sup>d</sup> Stanford-Binet Intelligence Test.

room, self-contained classroom with some general education, and other).

The second section was composed of transition-related questions (see Tables 2-6), which were generated from a review of the literature related to transition practices and outcomes. This section was identical on both parent and sibling questionnaires except for two features. First, sibling questionnaires used the words “sibling” or “brother or sister” to refer to the family member with a disability, while parent questionnaires used the word “child.” Second, the sibling questionnaire had one additional item. This item asked siblings whether they were willing to let their brother or sister with a disability live with them in the future (item 18a). Items on the second section of the questionnaire contained questions addressing the following areas: employment (13 items), residential and daily living (10 items

for siblings, 9 items for parents), post-secondary education (7 items), social relationships (6 items), and leisure and recreation (7 items). In addition, one question asked respondents to identify the transition area they felt was most important to their family member with a disability.

Response choices varied depending on the questionnaire item. Answer choices ranged from “extremely” to “not at all,” “daily” to “never,” or “a lot” to “nothing.” Other answer options were item-specific. For example, for the item “Which of the following areas do you feel is most important for your child when he or she finishes high school?,” response options were “job,” “friendships,” “financial stability,” “independent or supported living,” “leisure and recreational activities,” and “post-secondary education.”

Three researchers, one doctoral student in

special education, and one parent of a student with a significant cognitive disability reviewed drafts of both questionnaires. These individuals were asked to recommend additional items, to suggest deletion of items, and to make revisions to the existing items. From their recommendations, another draft of each questionnaire was written and used in a field test of the questionnaires with two siblings and one parent. Based on the field test, final drafts of the sibling and parent versions of the questionnaire were written, with only minor changes in formatting.

*Questionnaire administration.* The parent questionnaire (i.e., demographic and transition-related question sections) was four pages in length. The demographic section of the sibling questionnaire was one page in length. The second section of the sibling questionnaire was administered on a laptop computer utilizing QASKER (Tapp, 2002). The QASKER computer program simultaneously displays and reads each question to the respondent using pre-recorded audio files and was chosen because it (a) reduces variability in responses due to limitations in respondents' reading abilities, (b) provides more consistent administration of a questionnaire, and (c) maintains respondent confidentiality. As each question appears, the computer reads the question and waits for a participant's response. After selecting the desired answer using a mouse, responses are confirmed by having the respondent click "next" to obtain the next question. Response data are stored on the computer in a spreadsheet (i.e., Microsoft Excel) and denoted for individual participants. When administering questionnaires, the first author set up the QASKER program on a laptop computer that she provided. The sibling was then shown how to work the mouse, click on a response, replay the sound file to listen to a question again, and move on to the next question. After receiving instructions on how to operate the QASKER program, the sibling was directed to answer the questions.

Administration of questionnaires was held at a location and time agreed upon by the first author and each respondent. Locations included families' homes ( $n = 7$ ) and a local restaurant ( $n = 1$ ). First, the author explained that the questionnaire items were designed to solicit respondents' perceptions about their

family member with a disability and that all answers would be kept confidential. Next, the author provided the parent with both sections of the questionnaire and provided the sibling with the demographic section. The sibling was instructed to complete the demographic items on the paper copy and then use the provided laptop computer for the second section. Each sibling wore earphones to enable him or her to hear the questions being read by the computer and to give the sibling privacy when completing the questions. Parents and siblings sat separately from one another while completing the questionnaire. If a respondent had a question, the first author would offer assistance or information; otherwise, she remained silent until respondents had completed their questionnaires. Types of assistance given to respondents by the first author included providing examples of work sites and reiterating choosing just one response if stated on the questionnaire. Upon completion, the parent and sibling questionnaires were sealed in an envelope and the second section of the sibling questionnaire was saved in a database on the laptop computer.

#### *Data Analysis*

Questionnaire items were categorized by life domains (i.e., employment, residential and daily living, post-secondary education, social relationships, and leisure and recreation). Next, responses per category were tallied separately for parents and siblings to allow comparison. Responses then were added together to obtain a total of sibling and parent responses per answer choice per question item. Responses also were analyzed by age, gender, and educational placement of the student with a disability and by age and educational status of sibling (i.e., attending or not attending high school).

### **Results**

#### *Importance of Post-school Areas*

Respondents were asked which post-school area (i.e., job, friendships, financial stability, independent and supported living, leisure and recreation activities, or post-secondary education) they felt was most important for their family members (item 1). Five of the eight

parents indicated independent or supported living as principle. Other parents indicated that having a job ( $n = 2$ ) or attending post-secondary education ( $n = 1$ ) was most important. Siblings judged the following to be most important: being financially stable ( $n = 3$ ), participating in post-secondary education ( $n = 2$ ), having a job ( $n = 1$ ), having friendships ( $n = 1$ ), and independent or supported living ( $n = 1$ ).

### *Employment*

Responses related to the employment domain are shown in Table 2. All parents judged their child's having a job to be "extremely" or "very" important, whereas only half of the siblings considered this outcome to be "very" important (item 3). If the family member were to engage in employment, both parents ( $n = 6$ ) and siblings ( $n = 7$ ) indicated that receiving pay for a job was "extremely" or "very" important (item 4). All respondents expressed concerns related to an employer's willingness to hire their family member for pay and whether their family member would receive necessary supports in a job setting (items 5 and 11). Parents indicated that they planned to be more involved than did siblings in choosing employment, finding a job for the family member, and supporting the family member in keeping his or her job (items 8, 9, and 10).

Only 4 parents and 3 siblings identified working alongside people without disabilities as "extremely" or "very" important for their family member (item 6). The majority of participants' responses indicated that having a job to establish friendships was "somewhat" or "very" important (item 14). When asked where their family member would most likely work, 7 parents and 6 siblings identified work environments typically designed for people with disabilities (i.e., work activity or day center, sheltered workshop, and enclave; item 7). In addition, neither parents nor siblings felt they knew much about job options for people with disabilities (item 2). Siblings reported discussing job interests with their family members less frequently than parents reported (item 12). In addition, parents and siblings indicated infrequently discussing their family members' job interests with each other (item 13).

### *Residential and Daily Living*

Table 3 reports items and participants' responses related to residential and daily living. No participant indicated knowing "a lot" about living options for people with disabilities (item 15). The majority of respondents indicated that their family members with significant cognitive disabilities would most likely live with parents (item 19) and reside in a family member's home in the future (item 20). Only one parent thought the best place for her child to live was in his own apartment or house (item 21). Although siblings overwhelmingly stated they are willing for their siblings to reside with them (item 18a), no sibling planned on his or her brother or sister living with him or her after high school (item 19).

All parents reported being "extremely" or "very" involved in decision-making regarding future residential placement (item 18b) and assisting with daily activities (item 22). All parents planned to maintain this level of involvement after their child finished high school (item 23). Siblings' reported involvement in current and future residential and daily living activities (items 18b, 22, and 23) was consistently less than parents' reported involvement. Living options were discussed infrequently between parents and students, siblings and students, and parents and siblings (items 16 and 17).

### *Post-secondary Education*

Responses to post-secondary education items are included in Table 4. None of the parents and siblings indicated knowing "a lot" about post-secondary education options for people with disabilities (item 24). Although the majority of respondents ( $n = 14$ ) felt like post-secondary education was "extremely" or "very" important to their family members' futures (item 26), parent and sibling respondents did not foresee their family members participating in post-secondary education (item 27). Instead, they indicated that their family members would enter vocational training ( $n = 11$ ) or no post-secondary education ( $n = 5$ ).

Parents reported being more involved in their child's preparation for education after high school than did siblings (item 25). If the family member were to participate in educa-

tion after high school, parents and siblings anticipated being similarly involved (item 28). Parents and siblings reported talking infrequently with each other or their family members with respect to their family members' desire to participate in education after high school (item 29 and 30).

### *Social Relationships*

In Table 5, questions and responses are itemized for the social relationship domain. Having friends without disabilities for the family member with a disability was reported as moderately important to most parents and siblings (item 31), whereas most respondents reported being "extremely" or "very" concerned about their family members' social life after high school (item 32). Parents and siblings generally perceived having similar involvement (i.e., "very") in helping their family members make friends now and in the future (items 35 and 36). Both parents and siblings reported talking to the students more often than to each other regarding the students' friends (items 33 and 34).

### *Leisure and Recreation*

Items and responses for the leisure and recreation domain are included in Table 6. Most respondents felt that leisure and recreation participation was "extremely" or "very" important for their family members (item 37), although no respondent reported knowing "a lot" about leisure and recreation options for people with disabilities. Parents reported being more involved than siblings in choosing leisure and recreation activities for the family member (item 41). Most parents and siblings reported being "extremely" or "very" involved currently in supporting their family members in leisure and recreation activities (item 42) as well as planning to be in the future (item 43). Parents reported talking to their children with a disability more often than siblings reported talking to their parents or family members about their family members' participation in leisure and recreation activities (items 39 and 40).

Further analysis of responses revealed few differences related to student's age, gender, or educational placement (i.e., self-contained classroom on general education high school

campus or community-based transition program) other than (a) siblings reported being more involved in helping younger (ages 14-17 years) than older (ages 18-21 years) family members make friends and (b) siblings predicted a similar pattern of involvement after the family member left high school. Analysis of siblings' responses by age (14-18 years vs. 28-33 years) and educational status (i.e., attending or not attending school) revealed that younger siblings currently attending school planned to (a) be more actively involved in helping their family member choose and find a job, decide where to live, and perform daily activities after high school and to (b) provide more educational support should the family member continue his or her education than did older siblings not attending school.

### **Discussion**

This study examined perceptions of parents and siblings of high school students with significant cognitive disabilities concerning the transition to adult life. Findings reveal that both parents and siblings believe that they lacked knowledge with respect to post-school options for people with disabilities. Parents reported assuming more involvement in the transition process than did siblings. Post-school outcomes such as future employment and independent living were perceived as important to respondents, yet both parents and siblings predicted that after high school their family members with disabilities would (a) work in segregated employment settings (i.e., work activity or day center, sheltered workshop, enclave) for adults with disabilities and (b) live in their parents' homes. Parents and siblings also indicated that they rarely discussed post-school options with each other or with their family members with significant cognitive disabilities. Our findings extend the literature on family involvement in the transition process in several important ways.

First, we investigated both parent and sibling perceptions of the transition process for students with significant cognitive disabilities. We know of no studies that have evaluated sibling's perspectives regarding the transition to adult life for students with significant cognitive disabilities. Previous studies have focused on (a) parents during the transition process (e.g., Blue-Banning, Turnbull, &

**Table 2**

**Participants' Responses to Items in the Employment Domain**

<i>Item</i>	<i>Frequency of Responses</i>				<i>Do Not Expect to Work</i>
	<i>Extremely</i>	<i>Very</i>	<i>Somewhat</i>	<i>Not at All</i>	
3. How important is it for your child (sibling) to have a job AFTER he or she finishes high school?					
Parent	1	7	0	0	N/A <sup>a</sup>
Sibling	0	4	3	1	N/A
4. How important is it that your child (sibling) receive pay for his or her job?					
Parent	1	5	2	0	0
Sibling	6	1	1	0	0
5. How concerned are you regarding an employer's willingness to hire your child (sibling) for pay?					
Parent	2	3	3	0	N/A
Sibling	2	5	1	0	N/A
11. How concerned are you about your child (sibling) receiving adequate support to enable him or her to be successful in a job setting?					
Parent	4	4	0	0	N/A
Sibling	4	4	0	0	N/A
6. How important is it that your child (sibling) work alongside people WITHOUT disabilities?					
Parent	1	3	3	1	N/A
Sibling	0	3	3	2	N/A
8. How involved will you be in CHOOSING the type of job your child (sibling) will hold after he or she finishes high school?					
Parent	4	4	0	0	N/A
Sibling	2	2	3	1	N/A
9. How involved will you be in assisting your child (sibling) to FIND a job after he or she finishes high school?					
Parent	4	3	1	0	N/A
Sibling	2	1	4	1	N/A
10. How involved will you be in supporting your child (sibling) to KEEP his or her job after he or she finishes high school?					
Parent	6	1	1	0	N/A
Sibling	3	1	3	1	N/A
14. How important is having a job to helping your child (sibling) establish friendships?					
Parent	1	5	1	1	N/A
Sibling	1	3	4	0	N/A

Pereira, 2002; Cooney, 2002; Kraemer & Blacher, 2001; Kraemer, Blacher, & Marshal, 1997) and (b) students with milder disabilities or participants with a range of disabilities

(e.g., Kraemer & Blacher) or ages (e.g., Blue-Banning et al.).

Second, our findings corroborate and extend previous research (e.g., Whitney-Thomas

**Table 2—(Continued)**

	<i>Frequency of Responses</i>					<i>Will Not Work</i>
	<i>Work Activity or Day Center</i>	<i>Sheltered Workshop</i>	<i>Enclave</i>	<i>Competitive Employment</i>	<i>Other</i>	
<hr/>						
7. Where will your child (sibling) MOST LIKELY work after completing high school?						
Parent	3	1	3	0	1	0
Sibling	2	2	2	1	1	0
	<i>A Lot</i>	<i>Some</i>	<i>Not Much</i>	<i>Nothing</i>		
<hr/>						
2. How much do you know about job options for people with disabilities?						
Parent	0	5	3	0		
Sibling	0	4	2	2		
	<i>Daily</i>	<i>Almost Once a Week</i>	<i>About Once a Month</i>	<i>A Few Times a Year</i>	<i>Never</i>	
<hr/>						
12. How often do you talk to your child (sibling) about his or her job interests?						
Parent	1	4	1	1	1	
Sibling	0	3	0	4	1	
13. How often do you talk to your child's brothers or sisters (your parents) about their sibling's (your brother or sister's) job opportunities for after he or she finishes high school?						
Parent	1	1	4	1	1	
Sibling	0	3	2	2	1	

*Note.* Item numbers indicate order in which items were presented to respondents.

<sup>a</sup> The response “do not expect to work” was only an option for item 4. Other items are accompanied by “N/A” indicating “not applicable.”

& Hanley-Maxwell, 1996) in which families reported concerns regarding the employment of their family member with a significant cognitive disability. In our study, both parents and siblings generally were “extremely” or “very” concerned about an employer’s willingness to hire their family member for pay and whether their family member would receive adequate support to enable success on the job. These concerns may have influenced the majority of respondents to identify segregated work settings (e.g., sheltered workshop) as potential work environments for their family member, perhaps in anticipation of a protective, accepting work setting. In contrast, Blue-Banning et

al. (2002) found that most parents participating in focus groups anticipated that their children with disabilities would transition to competitive employment. Parents in their study, however, were members of family support groups and may have been more aware of an array of employment options for individuals with disabilities than were families in our study. Indeed, no respondent in our study indicated knowing “a lot” about employment options for people with disabilities. Further, less than half of our respondents identified their family member working alongside people without disabilities as important. This finding may relate to lack of awareness of sup-

**Table 3**

**Participants' Responses to Items in the Residential and Daily Living Domain**

<i>Item</i>	<i>Frequency of Responses</i>					
	<i>A Lot</i>	<i>Some</i>	<i>Not Much</i>	<i>Nothing</i>		
15. How much do you know about living options for people with disabilities?						
Parent	0	4	4	0		
Sibling	0	4	3	1		
	<i>With Parents</i>	<i>With Sibling</i>	<i>With Roommate</i>	<i>With Personal Assistant</i>	<i>Alone</i>	<i>Other</i>
19. Who will your child (sibling) MOST LIKELY live with after finishing high school?						
Parent	6	0	0	2	0	0
Sibling	8	0	0	0	0	0
	<i>Family Member's Home</i>	<i>Group Home</i>	<i>Own Apartment or House</i>	<i>State Residential Facility</i>	<i>Other</i>	
20. Where will your child (sibling) MOST LIKELY live after finishing high school?						
Parent	6	2	0	0	0	0
Sibling	8	0	0	0	0	0
	<i>Family Member's Home</i>	<i>Group Home</i>	<i>Own Apartment or House</i>	<i>State Residential Facility</i>	<i>Other</i>	
21. Where do you think would be the BEST place for your child (sibling) to live after high school?						
Parent	5	2	1	0	0	0
Sibling	7	1	0	0	0	0
	<i>Yes</i>	<i>No</i>	<i>Unsure</i>			
18a. <sup>a</sup> Are you willing to let your sibling live with you in the future?						
Sibling	7	0	1			
	<i>Extremely</i>	<i>Very</i>	<i>Somewhat</i>	<i>Not at all</i>		
18b. <sup>b</sup> How involved will you be in deciding where your child (sibling) will live after high school?						
Parent	5	3	0	0		
Sibling	2	2	3	1		
22. CURRENTLY, how involved are you in helping your child (sibling) with daily activities at home?						
Parent	3	5	0	0		
Sibling	1	3	3	1		
23. How involved will you be in supporting your child's (sibling's) daily activities AFTER he or she finishes high school?						
Parent	5	3	0	0		
Sibling	2	3	3	0		

**Table 3**—(Continued)

	Frequency of Responses				
	Daily	Almost Once a Week	About Once a Month	A Few Times a Year	Never
16. How often do you talk to your child (sibling) about living options for after high school?					
Parent	0	2	1	2	3
Sibling	0	2	0	3	3
17. How often do you talk to your child's brothers and sisters (your parents) about their sibling's (your brother or sister's) living options for after he or she finishes high school?					
Parent	0	1	2	4	1
Sibling	0	2	2	3	1

*Note.* Item numbers indicate order in which items were presented to respondents.

<sup>a</sup> Item included only on the sibling questionnaire. <sup>b</sup> Item included on both sibling and parent questionnaires.

ported employment, an option based on the notion that individuals with more significant disabilities can work productively in integrated employment settings with co-workers without disabilities.

Third, most parents in our study reported independent and supported living as the greatest priority they envisioned for their children, and 7 of 8 siblings indicated that they would allow their brother or sister with a disability to reside with them in the future. However, both parents and siblings overwhelming expected that students would live with their parents after high school. Parents also indicated being more involved than did siblings in deciding where family members would live after high school and supporting family members in daily living. Parents and siblings also indicated talking infrequently with each other about living options for their family member. Parent and sibling perceptions raise several concerns. First, previous research has indicated that siblings anticipate future caregiving roles (Begun, 1989; Grossman, 1972; Stone- man & Berman, 1993). If siblings indeed plan on their brothers or sisters living with them in the future, they should become more involved in current planning so that they may be prepared to assume greater supportive roles for their family members in the future. One indication that such a trend may be occurring is that younger sibling respondents who were

still in school anticipated being more involved in supporting their brothers or sisters with a disability after high school than did older, out-of-school siblings. Second, families should prepare for unexpected events that may leave parents unable to care for their children with disabilities; consequently, key family members should plan ahead by discussing living options with each other. Finally, to what extent did family's views relate to their reported lack of knowledge of residential options for persons with disabilities and why are families not receiving this information?

Fourth, both parent and sibling respondents indicated that post-secondary education was an important post-school outcome for their family members. Nevertheless, no respondent predicted that their family member would enter an academic post-secondary education option even though programs for students with significant disabilities are increasingly becoming available on college campuses (Grigal, Neubert, & Moon, 2001; Neubert, Moon, & Grigal, 2002). Respondents did not indicate knowing "a lot" about education opportunities after high school for people with disabilities, which may have resulted in respondents not anticipating that their family members would participate in programs at 4-year or community colleges. Further, few parent or sibling respondents had themselves attended college, which may have limited

**Table 4**

**Participants' Responses to Items in the Post-secondary Education Domain**

<i>Item</i>	<i>Frequency of Responses</i>				
	<i>A Lot</i>	<i>Some</i>	<i>Not Much</i>	<i>Nothing</i>	
24. How much do you know about education opportunities after high school for people with disabilities?					
Parent	0	4	4	0	
Sibling	0	4	3	1	
	<i>4-Year College</i>	<i>Community College</i>	<i>Vocational Training</i>	<i>None</i>	
27. Which of the following education options would your child (sibling) MOST LIKELY enter after high school?					
Parent	0	0	6	2	
Sibling	0	0	5	3	
	<i>Extremely</i>	<i>Very</i>	<i>Somewhat</i>	<i>Not at All</i>	
26. How important is it to your child's (sibling's) future that he or she participates in education after high school?					
Parent	4	3	1	0	
Sibling	5	2	1	0	
25. How involved are you in your child's (sibling's) preparation for education after high school?					
Parent	2	5	1	0	
Sibling	1	1	4	2	
28. If your child (sibling) were to continue in education after high school, how involved would you be in providing your child (sibling) with educational support?					
Parent	4	2	2	0	
Sibling	1	4	3	0	
	<i>Daily</i>	<i>Almost Once a Week</i>	<i>About Once a Month</i>	<i>A Few Times a Year</i>	<i>Never</i>
29. How often do you talk to your child (sibling) about his or her desire to participate in education after high school?					
Parent	1	2	0	4	1
Sibling	0	1	2	4	1
30. How often do you talk to your child's brothers or sisters (your parents) about their sibling's (your brother or sister's) options for continuing education after high school?					
Parent	0	2	2	4	0
Sibling	0	1	4	2	1

*Note.* Item numbers indicate order in which items were presented to respondents.

**Table 5**

**Participants' Responses to Items in the Social Relationship Domain**

Item	Frequency of Responses				
	Extremely	Very	Somewhat	Not at All	
31. How important is it for your child (sibling) to have friends WITHOUT disabilities?					
Parent	0	5	2	1	
Sibling	2	2	2	2	
32. How concerned are you about your child's (sibling's) social life AFTER high school?					
Parent	3	4	1	0	
Sibling	3	5	0	0	
35. CURRENTLY, how involved are you in helping your child (sibling) make friends?					
Parent	0	6	2	0	
Sibling	1	3	3	1	
36. AFTER your child (sibling) finishes high school, how involved do you plan to be in helping your child (sibling) make friends?					
Parent	1	5	2	0	
Sibling	0	5	3	0	
		<i>Almost Once</i>	<i>About Once</i>	<i>A Few Times</i>	
	<i>Daily</i>	<i>a Week</i>	<i>a Month</i>	<i>a Year</i>	<i>Never</i>
33. How often do you talk to your child (sibling) about his or her friends?					
Parent	3	1	1	1	2
Sibling	2	3	1	1	1
34. How often do you talk to your child's brothers or sisters (your parents) about their sibling's (your brother or sister's) friends?					
Parent	1	1	3	2	1
Sibling	2	2	1	1	2

*Note.* Item numbers indicate order in which items were presented to respondents.

their expectations for post-secondary education for their children.

Fifth, respondents overwhelmingly indicated being “extremely” or “very” concerned about their family members’ social lives after students exited high school. These findings coincide with previous reports (e.g., Whitney-Thomas & Hanley-Maxwell, 1996) indicating parents’ identified concerns regarding social networks of students with disabilities as they prepare to transition. In contrast to participants in the Blue-Banning et al. (2002) study, however, only half of respondents felt that friendships with people without disabilities were highly important for their family mem-

bers. Although inclusive environments in which students with disabilities have the opportunity to learn and establish friendships with people without disabilities are considered “best practices,” inclusion did not appear to be a priority for the majority of family members. Siblings of younger versus older students, however, did report more involvement in promoting friendships for their brother or sister with a disability, which suggests a possible trend toward the increasing value of inclusive friendships among families. Similarly, although parents indicated being more involved than siblings in choosing leisure and recreational activities for the family member,

**Table 6**

**Participants' Responses to Items in the Leisure and Recreation Domain**

<i>Item</i>	<i>Frequency of Responses</i>				
	<i>Extremely</i>	<i>Very</i>	<i>Somewhat</i>	<i>Not at All</i>	
37. How important is participation in leisure or recreational activities for your child (sibling)?					
Parent	3	5	0	0	
Sibling	3	2	3	0	
	<i>A Lot</i>	<i>Some</i>	<i>Not Much</i>	<i>Nothing</i>	
38. How much do you know about leisure and recreational activities for people with disabilities?					
Parent	0	3	5	0	
Sibling	0	4	3	1	
	<i>Extremely</i>	<i>Very</i>	<i>Somewhat</i>	<i>Not at All</i>	
41. CURRENTLY, how involved are you in CHOOSING leisure or recreational activities in which your child (sibling) participates?					
Parent	3	4	1	0	
Sibling	0	2	5	1	
42. CURRENTLY, how involved are you in SUPPORTING your child (sibling) when participating in leisure or recreational activities?					
Parent	2	4	2	0	
Sibling	1	4	2	1	
43. How involved do you plan to be in your child's (sibling's) leisure and recreational activities AFTER he or she finishes high school?					
Parent	4	3	1	0	
Sibling	1	4	3	0	
	<i>Daily</i>	<i>Almost Once a Week</i>	<i>About Once a Month</i>	<i>A Few Times a Year</i>	<i>Never</i>
39. How often do you talk to your child (sibling) about his or her leisure or recreational activities?					
Parent	1	3	1	2	1
Sibling	0	2	2	3	1
40. How often do you talk to your child's brothers or sisters (your parents) about their sibling's (your brother or sister's) leisure or recreational activities?					
Parent	1	2	2	3	0
Sibling	0	1	4	2	1

*Note.* Item numbers indicate order in which items were presented to respondents.

parents and siblings reported similar current and planned involvement in supporting the family members in leisure and recreation participation.

Several limitations of the study suggest areas for future research. First, participants reflect a small sample of parents and siblings of students with significant cognitive disabilities, restricting the generalizability of the findings to other families. Future researchers should include additional participants as respondents in order to minimize the influence of factors that may be unique to a particular population. Second, information gained from respondents was based on participants' perceptions versus direct observation of respondents' behavior. In the future, researchers should corroborate responses with direct observation of (a) participants' actual involvement in supporting family members with disabilities and (b) students' involvement in social, educational, employment, and recreational activities in their everyday lives. Third, it is not known if families tended to identify only post-school outcomes of which they were knowledgeable, and that not choosing an option (e.g., supported employment or supported living) simply meant that they were not aware of it rather than being opposed to it. Future investigators should assess families' specific knowledge of post-school options and compare these findings to preferred options identified for family members with disabilities. In addition, researchers should systematically investigate the extent to which parents' (a) employment, income, and academic status influences their expectations and post-school option preferences for students with disabilities and (b) expectations for their children with and without disabilities compare.

Findings of this study have important implications for practitioners. First, participants' limited knowledge of post-school options highlights the need for professionals to provide students and families with (a) information on post-secondary options in a timely fashion in order that students may apply early and be included on waiting lists for preferred options and (b) opportunities to experience and explore a wide range of options such as post-secondary education on college campuses and employment in the community. Second, our findings suggest that parents and siblings themselves may need support in order

to promote more inclusive, challenging, and rewarding post-school outcomes for students with disabilities. Third, siblings reported being less involved than parents in the transition process. Because future family responsibilities may eventually reside with siblings (Stoneman & Berman, 1993), this finding presents a need for involving siblings in early transition planning so that they may be better equipped for substantial supportive roles.

Identifying parent and sibling perspectives on the transition process is a first step in developing strategies to support families in accomplishing their children's and their visions for the future. Involving other family members such as siblings in the transition and decision-making process may potentially develop stronger support networks for students with significant cognitive disabilities. Efforts to maximize families' knowledge and resources may support young adults with disabilities in obtaining more desirable and successful post-school outcomes.

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