Characteristics and Experiences of Youth who are Deaf-Blind

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In 2015, the National Center on Deaf-Blindness' (NCDB) Deaf-Blind Child Count identified 8,937 children and young adults (aged 3 to 21) with deaf-blindness (NCDB, 2016). These youth are one of the lowest incidence groups of students who receive special education services (NCDB, 2016). Youth who are deaf-blind are also an extremely heterogeneous group (NCDB, 2016; Nelson & Bruce, 2016). Most youth with deaf-blindness have some degree of vision and/or hearing, and approximately 90% have other impairments in addition to their sensory losses, such as physical disabilities, cognitive disabilities, complex medical needs, and/or behavioral challenges (NCDB, 2016). Only 1,408 students between the ages of 3 and 21 were identified as deaf-blind on the Office of Special Education Programs' (OSEP) Special Education Child Count. The discrepancy between the Deaf-Blind Child Count and OSEP's count is thought to be due to schools reporting students with deaf-blindness in other disability categories, such as developmentally delayed, multiply disabled, visually impaired, and/or hearing impaired, rather than deaf-blind (NCDB, 2016). Little research has been conducted with youth who are deaf-blind, perhaps due in part to the heterogeneity and extremely low incidence of this condition.

Some of the characteristics and experiences of transition-age youth with deaf-blindness have been documented in two reports and one journal article (Peracchio & Stetler, 2009/2010; Petroff, 2001, 2010). These publications include results from surveys of parents/guardians of youth with deaf-blindness that were conducted in 1999 (Petroff, 2001), 2007 (Peracchio & Stetler, 2009/2010), and 2009 (Petroff, 2010). About two thirds of youth who are deaf-blind participated in vocational programs in secondary school; however, few had competitive or supported employment experiences (Petroff, 2001, 2010). Approximately half of these youth graduated from secondary school with a diploma (Petroff, 2001; Peracchio & Stetler, 2009/2010). After leaving secondary school, few youth participated in postsecondary education, most lived at home, and few worked for pay (Petroff, 2001). Despite some increases since Petroff's 1999 survey, post-school independent living and employment rates remain low for this population (Peracchio & Stetler, 2009/2010; Petroff, 2010).

The National Longitudinal Transition Study-2 (NLTS2) included a nationally representative sample of youth from all federally identified disability categories, including deaf-blindness, with data collected between the years of 2001 and 2009. Compared to the surveys

described in the prior section, NLTS2 included multiple perspectives (i.e., parents, youth, and teachers) and more detailed information on a range of topics, and thus can be helpful in expanding our knowledge of the school and post-school experiences of these youth. Although several NLTS2 summary reports included some basic descriptive statistics for youth with deaf-blindness (e.g., Newman et al., 2010; Newman et al., 2011), most results were combined with youth with multiple disabilities who are not deaf-blind.

The purpose of this report is to provide a picture of a nationally representative sample of deaf-blind youth during the 2000s (from 2001 to 2009). The literature about transition-age youth with deaf-blindness is extremely limited; thus, this report will provide a description of the characteristics, secondary school experiences, academic achievements, postsecondary school attendance, and employment experiences of this population from the perspectives of parents/guardians, youth, and teachers.

Method

Data Source

Data in this report are from the NLTS2 dataset. The NLTS2 is a longitudinal study (consisting of five waves of data collection) conducted between 2001 and 2009 by SRI International, under contract from the U.S. Department of Education's Office of Special Education Programs. It consists of a nationally representative sample of students receiving special education services aged 13 to 16 and in at least 7th grade in December 2000. NLTS2's sampling process involved two stages. A stratified sample of Local Education Agencies (LEA) was first selected based on three factors (region, student enrollment, and community wealth), and then students in each disability category were selected randomly from LEAs and special schools (Wagner, Kutash, Duchnowski, & Epstein, 2005). Due to the low-incidence of deaf-blindness, all students with deaf-blindness at the selected LEAs and schools were selected for participation (Newman et al., 2011).

NLTS2 data collection methods consisted of interviews or mail surveys with youth and their parents/guardians, surveys of school personnel, and direct assessments of youth.

Parent and Youth Surveys. *Parent Survey* data collection took place every 2 years throughout the study beginning in Wave 1, and *Youth Survey* data collection took place every 2 years beginning in Wave 2. Youth surveys were only completed by youth if their parents indicated that they were able to answer the questions by themselves. Depending on the wave, the

percentage of surveys completed by youth ranged from 38.4% to 50.0%. Most parent and youth surveys were done by phone using computer assisted telephone interviewing; however, mail surveys were available upon request and to those who did not have access to a telephone. The surveys covered numerous topics such as youth characteristics, household characteristics, services received, academic performance, social adjustment, independence, and post-school outcomes.

School Personnel Surveys. For youth who had at least one general education class, a *Teacher Survey* on classroom practices and youth performance in that class was sent by mail to a general education teacher. The *School Program Survey* was mailed to a special education teacher (or someone else who could best describe the youth's school program) to collect information about the school program and the youth's overall performance in his or her classes. A *School Characteristics Survey*, which covered school characteristics, policies, and performance, was sent by mail to a principal or administrator at each participating youth's school.

Direct Assessments. Within the first two waves of the study, youth also completed a *Direct Assessment* and an in-person interview. The *Direct Assessment* included measures of academic performance in areas of reading, math, social studies, and science. The in-person interview, conducted at the same time as the *Direct Assessment*, covered domains such as self-concept, self-determination, and school motivation. An *Alternate Assessment* was administered for youth who were unable to complete the *Direct Assessment* and in-person interview (per teacher report). The *Alternate Assessment* was completed by a parent or teacher and included measures of youths' independent functioning, adaptive behaviors, and problem behaviors.

Sample

The sample consisted of youth with deaf-blindness identified as their primary disability. For all other disabilities, identification of the students' disabilities was based on how the schools and LEAs participating in the study classified their primary disability. Despite federal guidelines for making disability category assignments, criteria and methods for identifying student primary disability vary across states and sometimes districts within states, potentially resulting in variation in the nature and severity of disabilities included in the categories (Wagner, Newman, Cameto, Levine, & Marder, 2007). For students with deaf-blindness, district variation in assigning to categories routinely results in some students being assigned to hearing impairment, visual impairment, or multiple disabilities as their primary disability. Therefore, students who

were reported to have both a hearing and vision loss by either their parents or the school district were assigned to the NLTS2 deaf-blind category. This increased the number of youth in this category from approximately 20 (based on school district classification) to 170 (Wagner et al., 2007).

The number of youth with deaf-blindness who have parent and/or youth survey data available in each wave of the NLTS2 is: (a) Wave 1 - 170, (b) Wave 2 - 130, (c) Wave 3 - 110, (d) Wave 4 - 110, and Wave 5 – 100 (note that numbers have been rounded to the nearest 10). Accordingly, the sample sizes for the analyses in this report differ based on the available data for the variables of interest; the largest available sample size for any analysis is approximately 170.

Variables and Data Analyses

Variables for this report were obtained from multiple NLTS2 measures from all five waves of the study. Demographic, disability, and personal information variables came from the *Parent Survey* in Wave 1 (with the exception of SSI data, which is reported for Waves 1-5). Secondary school experiences variables are from the *Parent/Youth Survey* (Waves 1-5), *School Program Survey* (Waves 1-2), *Teacher Survey*, *School Characteristics Survey*, *Direct Assessment*, and *Alternate Assessment*. Variables related to post-school experiences and post-school employment came from the *Parent/Youth Surveys* in Waves 2-5, and from *Parent/Youth Surveys* in Waves 1-4 for secondary school employment. To maximize the available sample, some variables from multiple waves or measures were combined when the same question was asked across waves/measures.

Statistical analyses were conducted using SAS version 9.4. Descriptive statistics were used to present information regarding the characteristics and experiences of youth who are deaf-blind. NLTS2 is a restricted-use dataset, managed by the Institute of Education Sciences (IES). To meet the reporting requirements of IES, all sample sizes included in this report are rounded to the nearest 10. Furthermore, all analyses used adjusted standard errors and sampling weights to account for the sampling design used in NLTS2. The sampling weights, provided by SRI International for use with the data, are intended to represent the national estimate of approximately 3,200 students with deaf-blindness ages 12 to 17 in 1999 (SRI International, 2011).

Results

I. Demographics, Disability, and Personal Information

The majority of the population of deaf-blind youth in secondary school in 2001 were male and of White race. They were between the ages of 13 and 17 and in grades 7 through 11, or in ungraded classrooms. More than one-third had been held back a grade at some point in school (34.5%, SE=2.97). Most lived with their parents in households with incomes below $50,000. A higher percentage of families with deaf-blind youth were in lower income categories compared to the general population in 2001 (DeNavas-Walt & Cleveland, 2002). Although only approximately 30% of youth were receiving SSI benefits in 2001 (at Wave 1), the percentage who received benefits increased at every wave. Detailed demographic information is provided in Table 1 and Figure 1 presents percentages of youth receiving SSI benefits by wave.

Table 1: *Demographics*

Variable	**Percent**	**Standard Error**
Gender		
Male	63.4	3.79
Female	36.7	3.79
Race/Ethnicity		
White	62.4	4.64
African-American	14.7	2.82
Hispanic	19.5	3.77
Asian/Pacific Islander	2.9	1.51
Multi-race/Other	0.6	0.56
Age		
13	7.8	1.80
14	26.3	3.08
15	22.2	2.64
16	21.8	2.81
17	22.0	2.80
Grade		
7	21.4	2.70
8	21.9	2.73
9	13.9	2.43
10	16.0	2.60
11	6.4	1.59
Ungraded	16.1	4.13
Unknown (>7 unspecified)	4.2	2.56
Living situation		
Parent(s)	88.8	2.30
Another relative	4.0	1.66
Residential school	0.7	0.73
Group home/assisted living	0.7	0.75
Hospital/medical facility	0.6	0.03
Household income		
$25,000 or less	34.8	3.73
$25,001 – 50,000	36.9	3.27
$50,001 or more	28.2	2.85

Note. Percentages are weighted population estimates based on samples ranging from approximately 150 to 170.

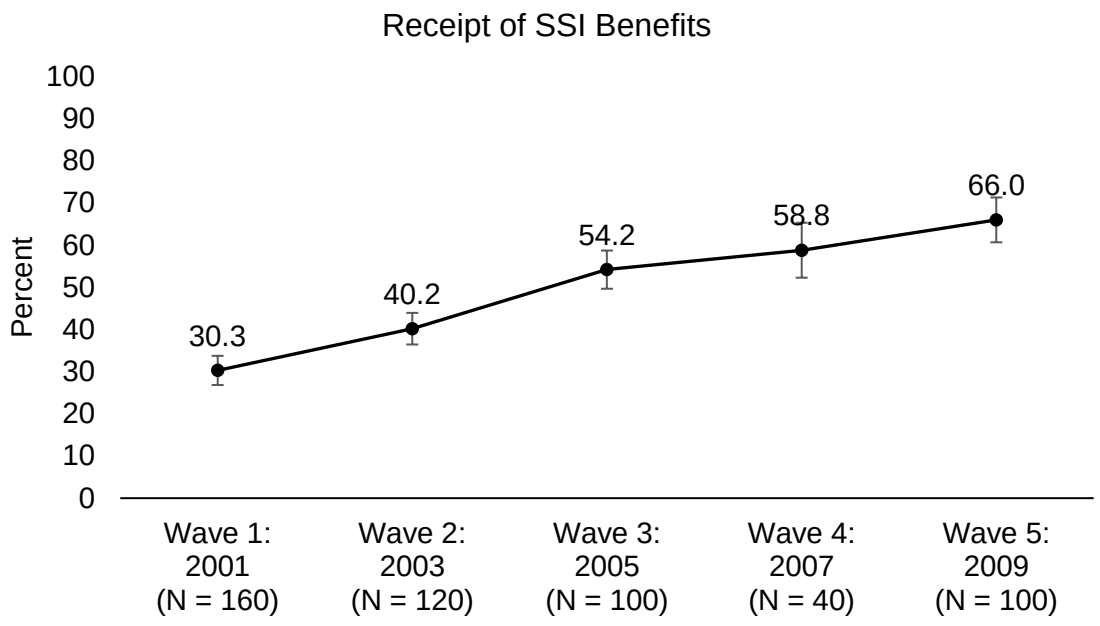

Figure 1. Percentage of youth receiving SSI benefits by wave. Error bars represent standard errors.

General Health and Disabilities. A majority of the population was in excellent or very good health, with another large portion in good health. Only 7.4% (SE=2.12) reported that they used medical equipment or devices. Almost half of the youth had profound hearing loss, and more than half had "a lot of trouble seeing" or could not see at all. Most youth experienced their disability at birth, although not all began receiving services at that time. Approximately two-thirds of the population used some type of visual aid (such as glasses, contacts, or magnification devices) and almost as many used a hearing aid. Most youth had at least one additional disability, and approximately 70% of the youth received early intervention services. Full information about the youths' disabilities, aids used, and services received, including the most common types of additional disabilities reported by parents, is provided in Table 2.

Table 2: *Youths' Disabilities, Aids Used, & Early Service Receipt*

Variable	**Percent**	**Standard Error**
Health		
Excellent	29.3	3.69
Very good	24.0	3.91
Good	26.6	4.18
Fair	12.7	2.43
Poor	7.4	2.30

Hearing loss		
Mild	20.9	3.39
Moderate	30.1	3.25
Profound	49.1	3.92
How well youth sees (with correction if used)		
Sees normally	17.9	2.87
Has a little trouble	31.3	3.61
Has a lot of trouble	35.7	3.71
Does not see at all	15.1	3.04
Age of onset		
0	69.2	4.10
1 – 3	14.3	2.87
4 – 6	5.2	2.05
7 – 9	8.4	2.19
10 – 12	2.9	0.98
Age started receiving services		
0	45.1	3.83
1 – 3	30.3	3.63
4 – 6	10.4	2.44
7 – 9	11.2	2.30
10 – 12	2.9	1.27
Received early intervention services	69.8	3.95
Uses visual aids	66.6	3.57
Uses hearing aids	64.7	3.66
Number of additional disabilities		
0	36.8	3.57
1	20.7	3.37
2	19.7	3.67
3 or more	22.8	3.98
Other disabilities (as reported by parents)		
Health impairment	33.7	3.59
Physical or orthopedic impairment	24.2	2.98
Learning disability	17.5	2.62
Speech or communication impairment	17.7	3.20
Attention deficit disorder	15.0	2.79
Cerebral palsy	13.9	2.78
Seizure disorder/epilepsy	13.6	3.41
Mental retardation	12.1	2.31
Autism	5.6	2.31
Emotional disturbance/behavior disorder	5.6	1.52

Note. Based on parent-reported data. Percentages are weighted population estimates based on samples ranging from approximately 110 to 170.

Communication. Youth used several different communication methods, with oral speech and sign language the most commonly reported. For those youth who used sign language to communicate, 73.4% (SE=4.68) of members of their households also used sign language. Almost 30% of parents reported that their child did not have any trouble communicating, and 35.4% (SE=3.78) reported that their child understands what people say as well as other children.

Table 3: *Youths' Communication Methods*

Communication method	**Percent**	**Standard Error**
Oral speech	77.0	3.77
Sign language	46.7	4.32
Lip reading	35.5	3.94
Cued speech	16.7	2.86
Communication board/book	13.9	2.87
Other	18.7	3.41

Note. Percentages are weighted population estimates based on a sample of approximately 140.

Approximately one-third of youth were reportedly able to converse as well as other children, while the remainder had varying levels of conversational abilities. Complete information about youths' communication methods is provided in Table 3, and Figure 2 provides information about youths' communication abilities.

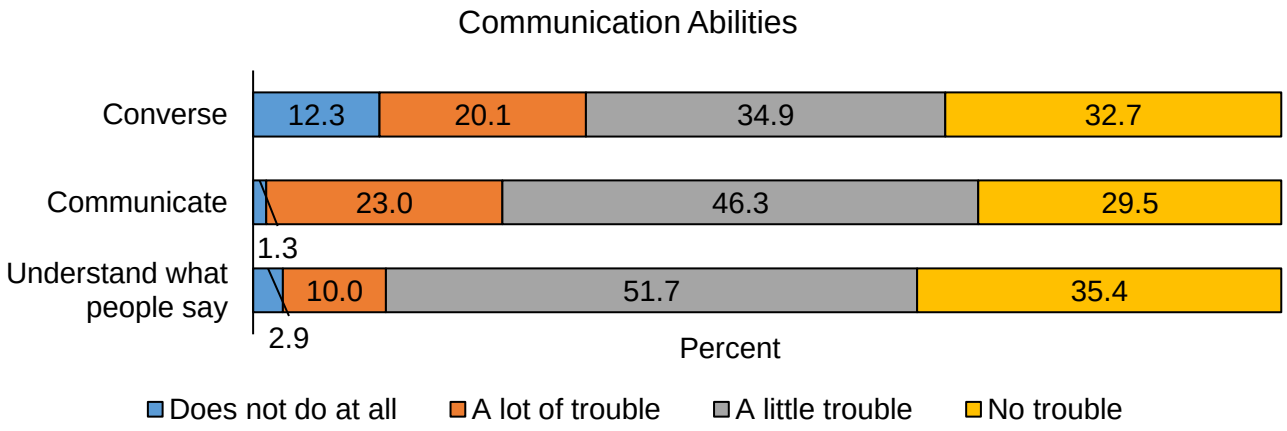

Figure 2. How well youths converse, communicate, and understand what other people say. Percentages are weighted population estimates based on a sample of approximately 150.

Self-care, Functional, and Household Responsibility Skills. Most youth had good self-care skills, which consisted of the ability to dress and feed themselves. The majority (56%, SE=4.16) scored in the high range on the self-care skills scale, while the remaining youth scored

in the medium (29.1%, SE=3.01) or low (14.9%, SE=2.61) range. Youth had varying abilities on the functional mental skills scale, which included how well youth looks up telephone numbers, tells time, reads and understands signs, and counts change. See Figure 3 for these results.

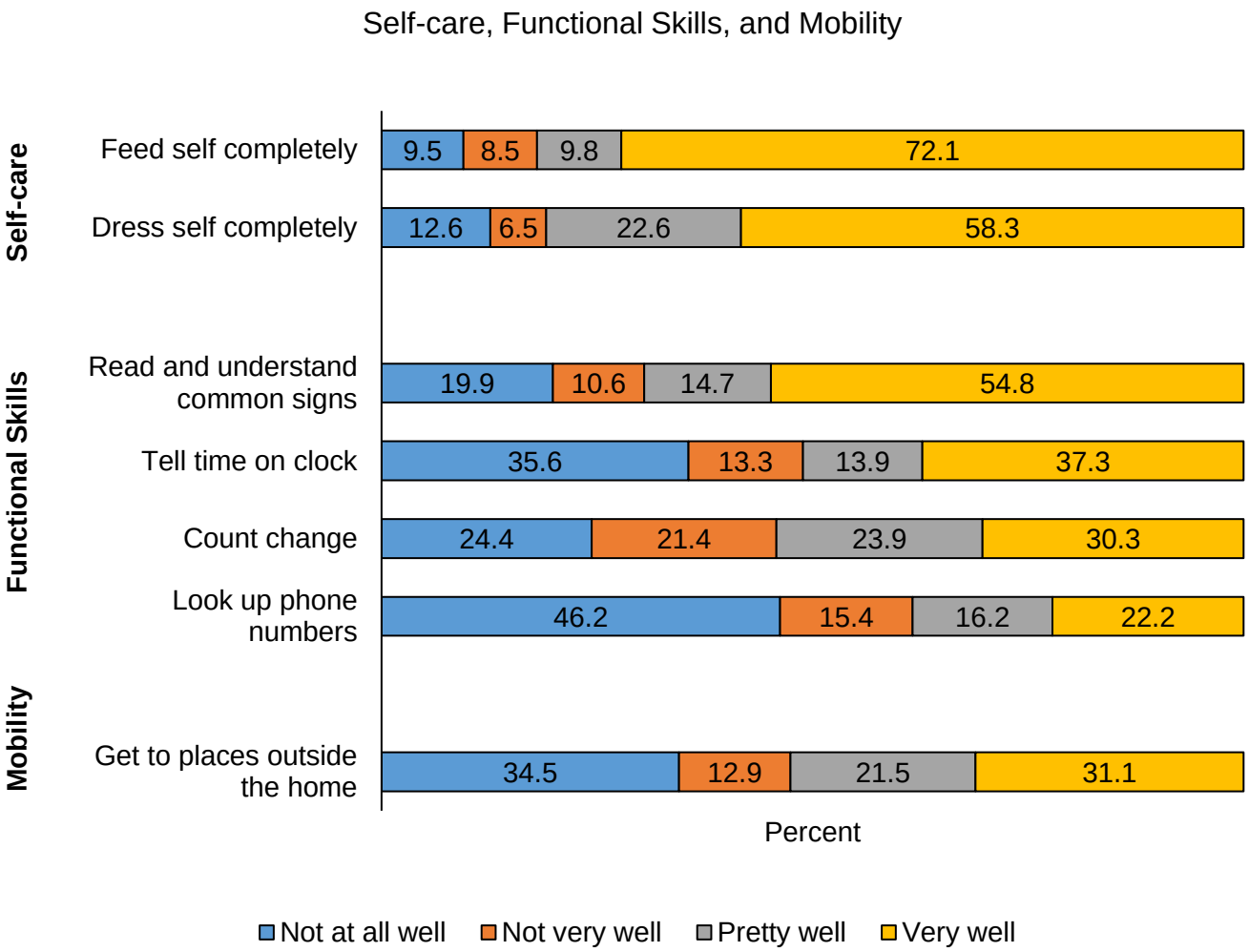

Figure 3. How well youth performs self-care, functional, and mobility tasks. Percentages are weighted population estimates based on samples of approximately 150 to 160.

Most youth scored in the low to medium range on the household responsibilities skills scale, which included how often youth fixes own breakfast or lunch, does laundry, straightens own room, and buys a few things at the store (see Figure 4).

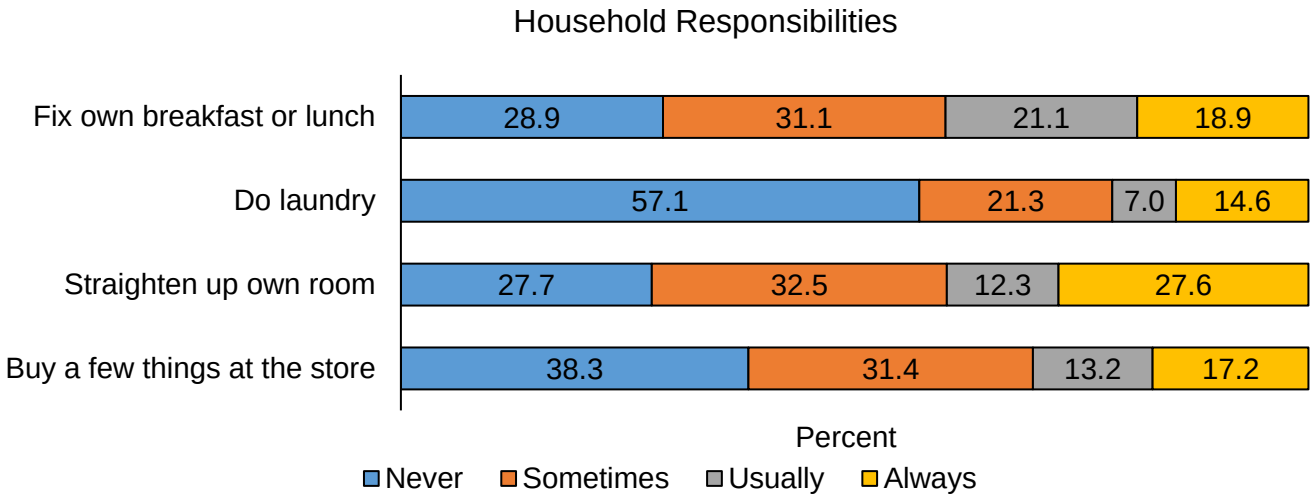

Figure 4. How often youth performs household responsibility tasks. Percentages are weighted population estimates based on a sample of approximately 160.

Behavior. Cooperation with family members varied among the youth, with 41.5% (SE=3.67) cooperating very often, 44.9% (SE=3.46) cooperating sometimes, and 13.6% (SE=3.03) never cooperating. The majority of youth were in the mid-range on the social self-control scale, which included ability to end disagreements calmly, stay out of trouble situations, receive criticism well, and control temper when arguing with peers (see Figure 5).

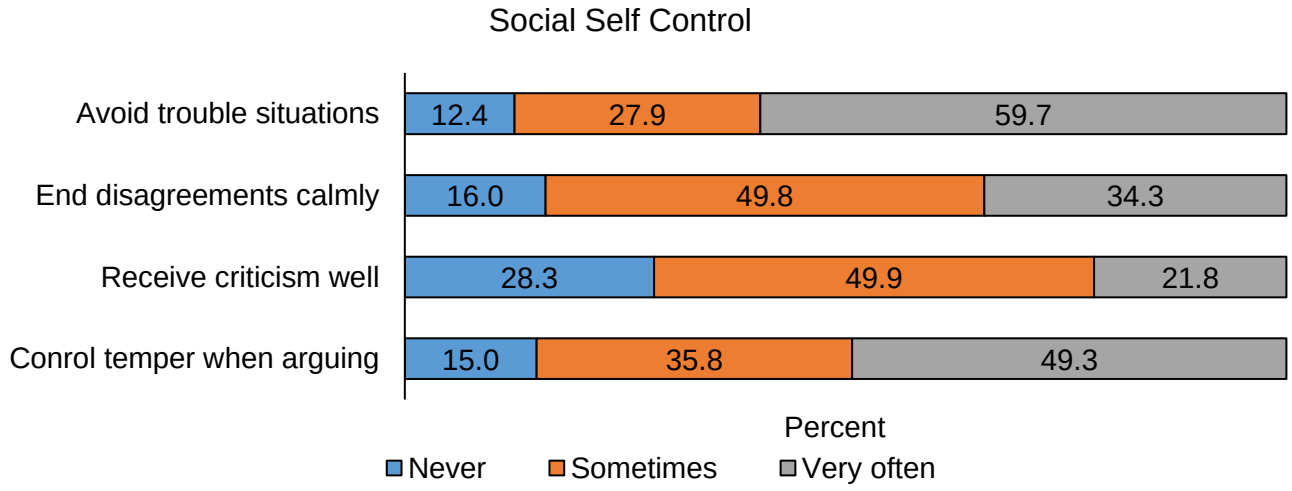

Figure 5. How often youth avoids trouble, ends disagreements calmly, receives criticism well, and controls temper. Percentages are weighted population estimates based on samples of approximately 150 to 160.

Mobility. Youth differed in their ability to travel independently outside of the home (see Figure 3). Almost one-third used a white cane for mobility (32.6%, SE=4.43). Most youth did not use other types of mobility equipment or aids to get around. For the 13.5% (SE=2.57) who did use equipment, most used a wheelchair (90.7%, SE=4.70), followed by a walker (27.8%, SE=4.65), leg braces (13.9%, SE=4.64), and other devices 13.9%, SE=6.63).

II. Secondary School Experiences

Academic

Type of School. The majority of youth who are deaf-blind attended a mainstream school (54.7%, SE=3.76), while a large proportion attended a special school for children with disabilities (41.4%, SE=3.40) and the remainder attended some other type of school (e.g., charter or alternative school) or received home instruction. Only 20.2% (SE=3.86) of the youth lived at their schools. Most youth attended schools in an urban area (56.3%, SE=5.87), followed by suburban (36.7%, SE=5.93) and rural (7.0%, SE=1.69).

School Poverty. The percentage of students within a school eligible for free or reduced-price lunch (FRPL) is considered a proxy measure for school poverty, and is divided into four categories: low poverty (25% or less who receive FRPL), mid-low poverty (26% - 50% FRPL), mid-high poverty (51% - 75% FRPL), and high poverty (more than 75% FRPL). The percentage of deaf-blind youth attending each category of school is provided in Table 4, along with percentages in each category by type of school attended (regular vs. special school for students with disabilities). A comparison of the percentage of students across the nation attending public schools in each category in the 1999-2000 school year is also provided. As illustrated in the table, deaf-blind youth were much more likely to attend schools with higher levels of poverty, but the majority of this percentage came from youth who were attending special schools.

Table 4: *Percentages of Students Attending Schools Based on Poverty Level*

School Poverty Level	**All Deaf-Blind Youth**		**Attending Regular School**		**Attending Special School**		**National[a]**
	Percent	SE	Percent	SE	Percent	SE	Percent
Low poverty	18.3	4.25	28.4	4.21	7.0	5.35	44.9
Mid-low poverty	28.3	5.95	35.8	6.16	20.7	10.79	25.4
Mid-high poverty	20.9	5.74	20.0	4.85	20.7	10.16	16.0
High poverty	32.5	5.89	15.8	3.90	51.5	12.26	12.2

[a] National data is for 1999-2000 school year, obtained from Digest of Education Statistics 2012, table 116
Note. Percentages are weighted population estimates based on a sample of approximately 120.

Academic Instruction and Classroom Behavior. The majority of students received their academic instruction in special education classrooms (see Table 5 for specific percentages for each subject). For students who attended a mainstream school, 78% (SE=4.60) spent at least part of their day in a special education classroom. Approximately 80 youth had a classroom behavior scale score available, which measures how frequently the youth completed homework on time, took part in group discussions, stayed focused on work, and did not withdraw from activities. Scores could range from 4 to 16, with higher scores indicating better behavior in these areas. The average score for all the students was 11.69 (SE=0.29). Scores covered the entire range of the scale (i.e., 4 to 16), with 12 being the most commonly occurring score, followed by 16.

Table 5: *Instructional Setting for Academic Subjects*

Subject	**General Ed Classroom**		**Special Ed Classroom**	
	Percent	Standard Error	Percent	Standard Error
Language Arts	22.6	2.90	75.0	3.43
Mathematics	21.2	3.96	81.2	3.91
Science	31.3	4.44	67.2	4.89
Social Studies/History	31.9	3.26	65.4	3.66

Note. Percentages are weighted population estimates based on sample sizes ranging from approximately 70 to 90. Youth data were available for those whom a school program survey was completed and who received instruction in the specific subjects. A very small percentage received instruction individually or in a different school setting.

Testing and Accommodations. Approximately half of the youth participated in mandated standardized tests, almost all of whom utilized accommodations (48.4%, SE=4.98) while a few did not (1.9%, SE=1.38). Another 25.4% (SE=4.08) took an alternate assessment and 19.2% (SE=4.03) did not take standardized tests. Standardized tests were not mandated for 5.1% (SE=1.56) of youth. Table 6 displays the types of accommodations provided for standardized tests, for those approximately 50 students who took the standardized tests with accommodations.

Table 6: *Accommodations for Standardized Tests and Per IEP*

Accommodation	**Standardized Tests**		**Per IEP**	
	Percent	Standard Error	Percent	Standard Error
Additional time	69.1	5.74	55.5	5.61
Sign language interpreter	46.0	6.61	--	--
Reader provided (instructions, clarifications, and/or test items)	35.9	5.45	22.7	3.55
Braille or large print version	30.6	5.98	33.0	4.48
Alternative setting	27.1	3.64	--	--
Different form of/modified test	18.6	6.43	23.8	3.98
Alternative tests	--	--	38.2	5.30
Modified grading standards	--	--	23.6	5.04
Slower paced instruction	--	--	47.0	4.74
Additional time to complete assignments	--	--	48.2	4.67
Shorter or different assignments	--	--	35.6	3.91

Note. Percentages are weighted population estimates based on samples of approximately 50 and 100.

Information was provided regarding whether specific accommodations were identified on IEPs for approximately 100 students; these results are also displayed in Table 6. Almost all students had one or more accommodations provided. Only 6.0% (SE=2.24) did not require any accommodations, 21.9% (SE=4.01) had one, 20.9% (SE=3.31) had two, 14.9% (SE=2.73) had three, 14.9% (SE=3.38) had four, and 21.5% (SE=4.16) had five or more accommodations.

Table 7: *Grades Received*

Grades	**Percent**	**Standard Error**
Mostly A's	13.0	2.93
Mostly A's and B's	31.1	3.94
Mostly B's	9.7	2.86
Mostly B's and C's	27.1	3.26
Mostly C's	5.0	2.02
Mostly C's and D's	11.0	3.25
Mostly D's	1.0	0.98
Mostly D's and F's	2.0	1.41

Note. Percentages are weighted population estimates based on a sample of approximately 100.

Grades and Academic Achievement. A small majority of deaf-blind youth received grades in the A and B range (see Table 7). Although only a limited number of youth had data available (approximately 50 for reading and 40 for math), information was provided on the discrepancy between youths' current reading and math levels and their grade levels. The majority of

youth with data available were four or more years below grade level in both reading and math achievement (see Table 8).

Table 8: *Discrepancy between Grade Level and Academic Achievement Level*

Years Below Grade Level	Reading		Math	
	Percent	Standard Error	Percent	Standard Error
0 to above grade level	13.0	3.75	26.3	6.81
1	2.2	2.23	7.9	3.68
2 to 3	13.0	3.75	2.6	2.69
4 to 9	65.2	7.64	55.3	9.14
10 to 12	6.5	3.74	7.9	3.84

Note. Percentages are weighted population estimates based on samples of approximately 40 and 50.

Direct and Alternate Assessment Scores. In Wave 1 or 2, youth took either a direct assessment of academic achievement or an alternate assessment, depending on their capabilities. Youth's academic achievement was tested with the Woodcock-Johnson III Tests of Cognitive Abilities; categories of their percentile rank scores on six subscales of the test are provided in Table 9. Approximately 90 youth completed all or part of the academic achievement tests. As displayed in the table, a large majority of youth scored in the lowest quartile on all subscales. Approximately 40 youth received the alternate assessment because the academic achievement assessment was not appropriate for them. These youth were assessed on their social interaction, broad independence, personal living, and community living skills with the Scales of Independent Behavior. The majority of youth scored in the lowest percentile on each scale, which represents no mastery in the skills. Their percentile rank scores on these measures are provided in Table 10.

Table 9: *Academic Achievement: Woodcock-Johnson III Percentile Ranks*

Academic Knowledge Area	0 to 25th Percentile		26 to 50th Percentile		51 to 75th Percentile		76th to 100th Percentile	
	%	SE	%	SE	%	SE	%	SE
Synonyms/Antonyms	76.0	3.76	14.1	2.50	4.8	2.10	5.1	2.26
Passage comprehension	82.1	3.57	8.5	2.81	4.3	1.10	5.1	2.30
Calculation	62.6	3.99	14.7	3.76	16.1	2.94	6.6	2.16
Applied problems	78.2	3.77	11.1	3.44	8.1	2.47	2.6	1.31
Social science	79.2	3.95	13.9	3.01	3.2	1.04	3.7	2.16
Science	78.4	3.93	10.1	2.58	6.4	1.99	5.1	2.17

Note. Percentages are weighted population estimates based on samples ranging in size from approximately 70 to 90.

Table 10: *Alternate Assessment: Scales of Independent Behavior Percentile Ranks*

Behavior	**0.05th Percentile**		**0.1th Percentile**		**0.2th to 25th Percentile**		**26th to 50th Percentile**	
	%	**SE**	**%**	**SE**	**%**	**SE**	**%**	**SE**
Social interaction	59.3	4.83	30.5	5.05	7.9	0.55	2.3	0.16
Broad independence	68.9	4.94	26.0	4.88	5.1	0.35	-	-
Personal living skills	45.2	6.52	37.9	5.57	14.7	4.01	2.3	0.16
Community living skills	63.8	6.41	28.2	6.37	5.1	0.35	2.8	0.19

Note. Percentages are weighted population estimates based on a sample of approximately 40.

Assistive Technology and Computer Use. Youth used a number of devices to help them read or see. Large print was the most common modality used to read, and assistive technology (unspecified type) was used by more than 41% to read or see. Specific device use is described in Table 11. Parents report that the majority of youth used a computer for various activities, which are also described in Table 11.

Table 11: *Assistive Technology, Device, and Computer Use*

Variable	**Percent**	**Standard Error**
Uses technology to see or read	41.5	4.57
Uses other devices to see or read	7.7	2.19
Uses portable braille note taker	15.4	2.81
Uses vision magnification system	27.7	3.83
Uses computer for homework/ school assignments	68.2	3.60
Uses computer for playing games	68.0	3.39
Uses computer for the internet	54.2	3.82

Note. Percentages are weighted population estimates based on a sample of approximately 170.

IEP. Almost all youth had an IEP; only 2.1% (SE=0.93) of parents reported that their child did not receive special education services or have an IEP. A parent or other adult attended most youth's IEP meetings at the school (89.9%, SE=2.51), although only approximately two-thirds of the youth themselves attended (68.5%, SE=3.81). Most youth were involved in their IEP planning, with 45.3% (SE=4.33) providing some input and 12.7% (SE=2.59) taking a leadership role. Most parents felt that their amount of family involvement was about right (73.6%, SE=3.59), but 24.2% (SE=3.55) would like to have been more involved. Most parents reported that the school primarily came up with the IEP goals, although almost half of parents

collaborated with the school or primarily determined goals (see Figure 6). A large majority of parents felt that their child's IEP goals were challenging and appropriate (30.2% strongly agreed [SE=3.48] and 59.2% agreed [SE=3.45]).

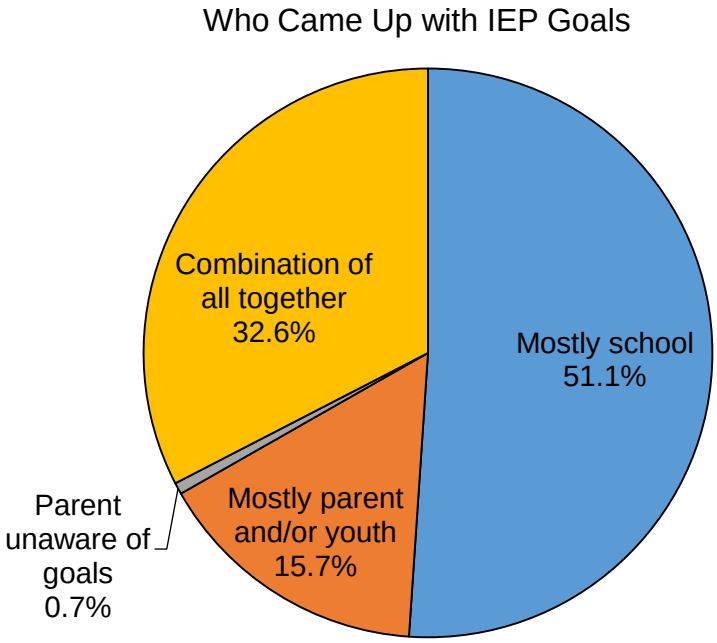

Figure 6. Who mostly came up with IEP goals for youth in Wave 1. Percentages are weighted population estimates based on a sample of approximately 140.

Transition Planning. Almost all youth (95.0%, SE=1.93) received transition planning for adult life from their school. For the majority of youth, this transition planning began at age 14. Primary goals for students after secondary school, for which the educational program was to prepare them, were identified and included on their transition plans. Deaf-blind youths' primary goals are listed in Table 12. The most commonly identified post-secondary school goals were enhance social/interpersonal relationships, maximize functional independence, and live independently. Most youth had some level of involvement in their transition planning (see Figure 7).

Table 12: *Transition Planning: Age Began and Primary Post-high School Goals*

Variable	**Percent**	**Standard Error**
Age transition planning began		
13	4.3	2.09
14	61.9	5.26
15	15.2	3.44
16	14.1	3.36
17	4.4	2.14
Post-high School Goals		
Maximize functional independence	57.8	4.34
Enhance social/interpersonal relationships	57.8	3.94
Live independently	51.2	4.23
2- or 4-year college	35.5	4.78
Competitive employment	33.3	3.71
Supported employment	31.1	4.30
Sheltered employment	30.1	4.45
Postsecondary vocational training program	27.7	4.95

Note. Percentages are weighted population estimates based on a sample of approximately 90.

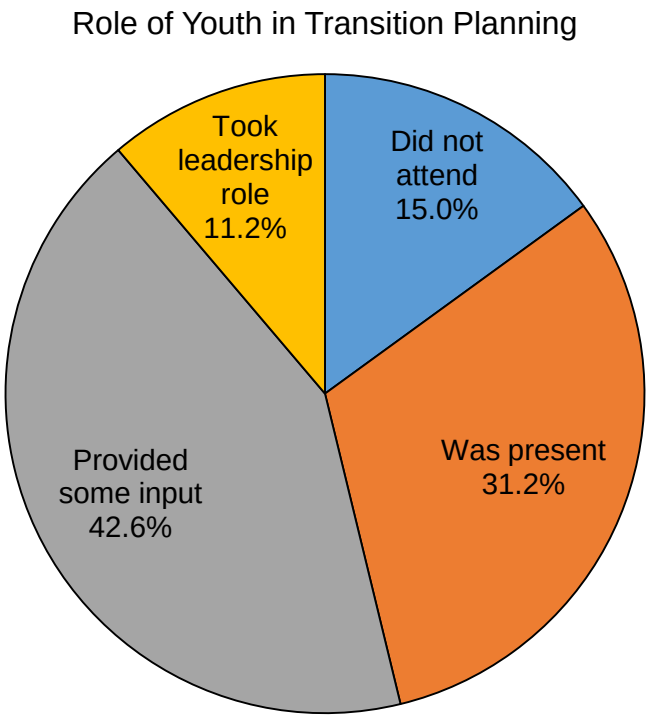

Figure 7. Level of youth's involvement in his or her transition planning. Percentages are weighted population estimates based on a sample of approximately 80.

Post-secondary school needs identified on the transition plan are listed in Table 13. The most commonly identified needs were vocational services, vision services, and postsecondary educational accommodations.

Table 13: *Post-high School Needs Identified on Transition Plan*

Needs Identified on Transition Plan	**Percent**	**Standard Error**
Vocational services	54.4	5.54
Vision services	45.5	5.53
Postsecondary education accommodations	40.0	5.34
Audiology	38.8	4.99
Transportation	37.7	5.22
Supported living	35.5	4.98
Mobility training	26.6	5.09
Speech/communication	26.6	4.61
Social work services	22.2	4.87
Mental health services	18.9	4.78
Behavioral intervention	17.8	3.65
Occupational therapy	15.5	3.89
Physical therapy	15.5	3.71
Nursing/medical services	12.2	2.81
None	7.8	2.75

Note. Percentages are weighted population estimates based on a sample of approximately 90.

Special Services. Almost all deaf-blind youth received special services from their schools; only 6.3% (SE=1.64) did not receive any special services. Parents most often initially requested special services for the child (46.3%, SE=3.47), followed by school staff (40.5%, SE=3.27) and someone else (13.2%, SE=2.42). A wide range of special services were provided; Table 14 provides a list of the services and the percentage of students who received them. Most students received multiple special services; the number of services received is also provided in Table 14.

Table 14: *Special Services Received Through School*

Services	**Percent**	**Standard Error**
Speech/language therapy	60.4	3.73
Transportation	54.6	3.87
Occupational/life skills therapy	49.1	3.80
Audiology	46.6	4.33
Assistive technology devices	45.4	4.53
Orientation & mobility	45.3	3.68
Personal assistant/in-class aide	44.7	3.53
Psychological/mental health	30.7	3.75
Physical therapy	30.3	3.01
Reader or interpreter	29.5	3.43
Social work	29.1	3.48
Medical services for evaluation	26.1	3.23
Tutor	12.5	2.84
Nursing care	10.1	2.78
Total number of services received		
None	6.3	1.64
1 to 3	16.5	2.56
4 to 6	48.9	3.77
7 to 9	22.2	3.35
10 or more	6.1	2.27

Note. Percentages are weighted population estimates based on samples ranging in size from approximately 140 and 160.

School-Sponsored Work. Deaf-blind youth were more likely to participate in school-sponsored work that occurred on-campus rather than off, with approximately half of youth participating in on-campus work and just over one-fourth participating in off-campus work. See Figure 8 for amount of time spent in on- and off-campus sponsored work. Jobs youth participated in for their school-sponsored work varied, but the most commonly identified jobs were food service (21.1%, SE=7.78), cleaning (17.7%, SE=10.9), and child care (9.3%, SE=4.91). Based on parent report, 65.5% (SE=4.50) of youth participated in a school-sponsored work activity at some point during secondary school.

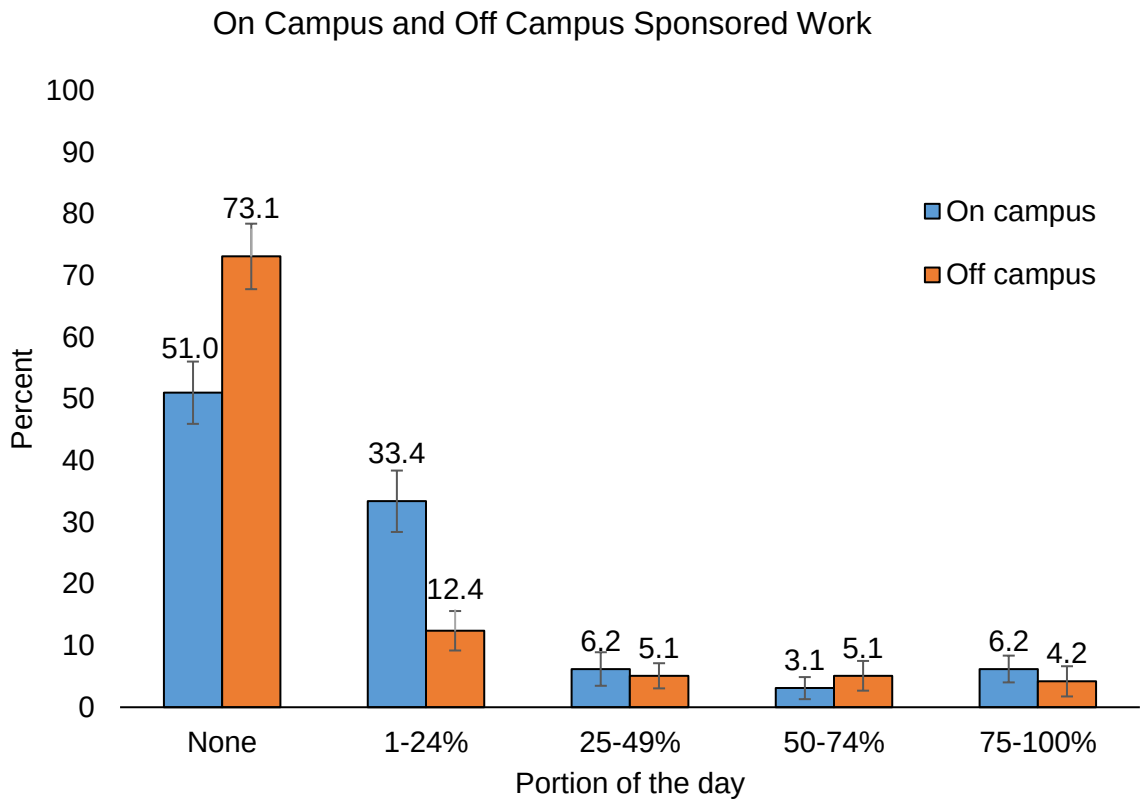

Figure 8. Percentage of youth spending different portions of the day in on-campus and off-campus school-sponsored work. Percentages are weighted population estimates based on a sample of approximately 100. Error bars represent standard errors.

Other Employment Preparation Activities. Deaf-blind youth received a variety of employment preparation classes or services from their schools. The percentage of students who received vocational education, career counseling, career skills assessment, job readiness training, instruction in looking for jobs, internships, work experience, job skills training, job placement support, and a job coach are provided in Table 15. According to parents, 63.4% (SE=3.87) of youth received career counseling while in secondary school, although not all received the service through the school.

Table 15: *Employment Preparation Services Provided by School*

Employment Preparation Service	Percent	Standard Error
Career skills assessment	59.4	4.66
Job readiness training	51.7	5.52
Career counseling	42.8	5.16
Work experience	39.5	4.28
Instruction in looking for jobs	35.2	4.64
Job shadowing/Work exploration	30.7	4.72
Job coach	18.7	3.70
Job skills training	19.8	4.46
Internships	9.9	3.16
Job placement support	7.7	1.75
Career counseling[a]	58.2	3.62

Note. Percentages are weighted population estimates based on samples ranging in size from approximately 90 to 150. Career counseling includes help in finding a job, training in job skills or vocational education.
[a] Based on parent report.

Secondary School Completion. By Wave 5 (data collected in 2009), almost all youth still participating in the study (92.9%, SE=3.12) were out of secondary school. Of the youth who had transcript data available for their final year of secondary school, 41.0% (SE=4.21) graduated with a regular diploma, 19.7% (SE=2.58) received a special diploma, 1.9% (SE=0.97) received an occupational diploma, and the diploma status of 1.9% (SE=1.36) was unknown. The remainder of youth left secondary school without receiving a diploma or certificate (35.4%, SE=4.39). Some of these youth aged out or dropped out, but data were not available to report detailed estimates. The age when youth left school ranged from 15 to 23, with most leaving at either age 18 (30.6%, SE=3.53) or 19 (30.6%, SE=3.25).

Non-Academic

Parental Expectations. Parents were asked about their expectations for their child's future in several areas, including secondary school graduation, attending postsecondary school, living away from home, and working. Expectations in the different areas varied widely, with highest parental expectations in the areas of receiving a secondary school diploma and obtaining a paid job. See Figure 9 for parental expectations results.

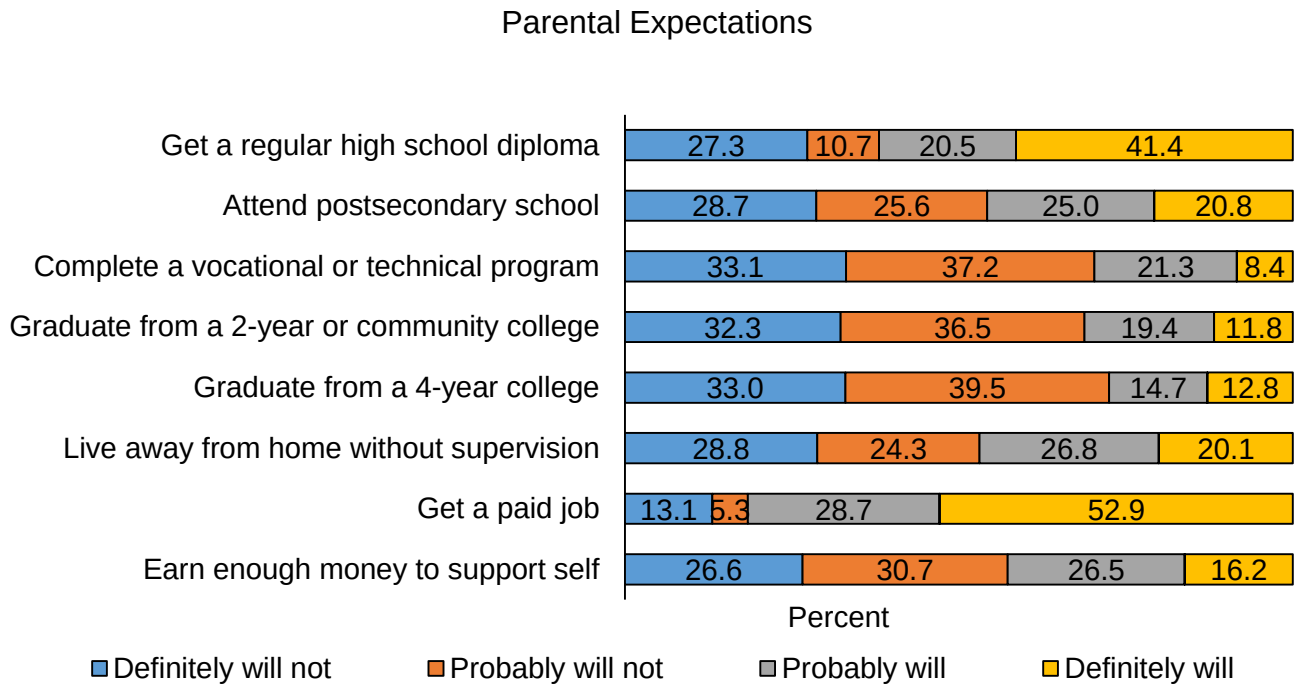

Figure 9. Parents' expectations for how likely youth will do these activities in the future. Percentages are weighted population estimates based on samples of approximately 150 to 160.

Parental Involvement/Support. Parents were asked whether they had attended events or activities at their child's school. Parents were most likely to participate in general school meetings (70.5%, SE=3.27), followed by school or class events (61.8%, SE=3.44) and volunteering (26.5%, SE=3.27). Parents were also asked how frequently they participated in the three activities, on a scale from never (=0) to more than 6 times during the school year (=4). A total score across the three items was developed, which ranged in value from 0 to 12. The most common score was 0 (20.2%, SE=2.68), meaning that the parents had not participated in any of those activities at the school. The average score was 3.13 (SE=0.22). A scale of family support was developed, based on how often an adult spoke to youth about school experiences and helped youth with homework. Scores on the family support scale ranged from 2 to 8, which were divided into four categories as presented in Table 16.

Table 16: *Family Support Scale*

Family Support Scale	Percent	Standard Error
Very low	32.4	4.23
Low	24.2	3.70
Medium	20.3	4.03
High	23.1	3.37

Note. Percentages are weighted population estimates based on a sample of approximately 100.

Problems with Receipt of Services. Although most parents reported that overall their deaf-blind child was receiving enough services (76.4%, SE=3.91), they identified several challenges to the receipt of services for their child. The two most common challenges experienced were not being able to obtain information about services and needed services not being available. See Table 17 for a list of all challenges and the percentage that experienced them.

Table 17: *Problems in Getting Services*

Problems in Getting Services	**Percent**	**Standard Error**
Getting information about services	42.8	4.02
Services not being available	42.5	3.55
Where services are provided	38.4	3.51
Cost of services	37.3	4.31
Poor service quality	32.7	3.47
Transportation	31.6	3.67
Youth not being eligible for services	29.9	3.63
Scheduling conflicts	29.7	3.57
Lack of time for services	28.5	3.77
Language	17.7	3.53
Physical accessibility	11.5	2.68

Note. Percentages are weighted population estimates based on samples ranging in size from approximately 140 to 150.

Social Skills and Social Interactions. Parents rated their children on their social assertion, self-control, and social cooperation skills, which were summed into a social skills scale score that ranged in value from 0 to 22. Most youth had scores that fell in the mid-range of the scale, with an overall social skills mean of 13.22 (SE=0.35). See Figure 10 for percentage of youth with scores in each category (low, medium, and high). A large majority of youth were involved in some type of social interactions in the previous year (85.3%, SE=2.98). Most youth had been invited to social activities in the past 12 months (65.4%, SE=3.42), although far fewer spent much of their time visiting with friends or going out on dates (15.4%, SE=2.71). More than a third saw friends once a week or more; see Figure 11 for the frequency per week that youth get together with friends.

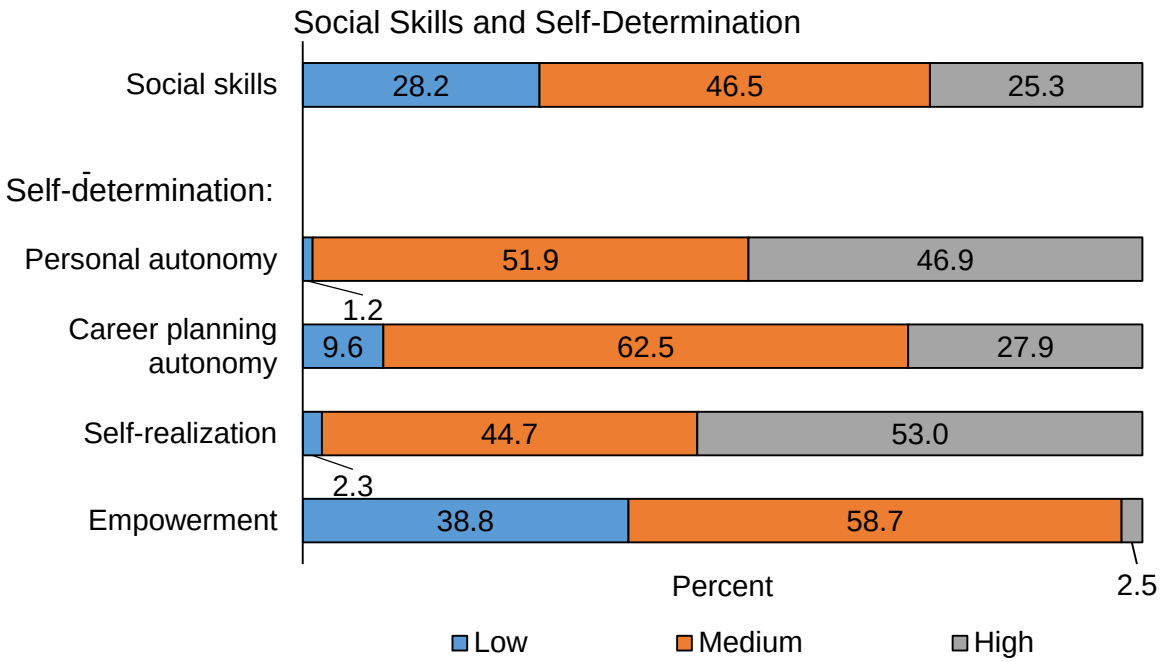

Figure 10. Percentages of youth scoring in low, medium, and high ranges on the social skills and self-determination scales. Social skills includes social assertion, self-control, and social cooperation skills. Percentages are weighted population estimates based on samples of approximately 80 (self-determination) and 150 (social skills).

Self-Determination.

Similar to youth with other disabilities, most deaf-blind youth scored in the middle to high range on the four aspects of self-determination measured in the study. Personal autonomy scores ranged from 18 to 39 (on a scale of 10 to 40), with a mean of 30.16 (SE=0.44). Autonomy in career planning scores ranged from 7 to 20 (on a scale of 5 to 20), with a mean of 13.73 (SE=0.24). Scores for self-realization, which is knowledge of one's strengths and

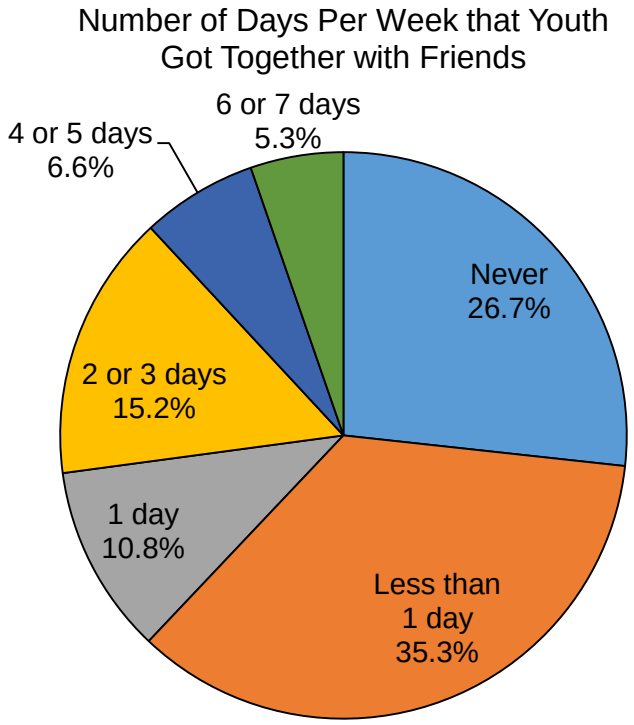

Figure 11. How often youth got together with friends in a typical week in Wave 1. Percentages are weighted population estimates based on a sample of approximately 140.

limitations, ranged from 8 to 20 (on a scale of 5 to 20), with a mean of 15.46 (SE=0.29). Empowerment (belief in one's ability to achieve a desired outcome) scores ranged from 1 to 5 (on a scale of 0 to 6), with a mean of 2.68 (SE= 0.07). See Figure 10 for percentage of youth who scored in the low, medium, and high range of the scales.

Extracurricular Activities & Community Involvement. Most youth participated in some type of activity outside of school (70.9%, SE=3.21), including school-related activities (45.1%, SE=4.28), out-of-school activities (44.7%, SE=3.68), volunteer or community service (34.0%, SE=4.00), and lessons or classes (29.5%, SE=3.50). See Table 18 for some of the specific activities in which youth participated.

Table 18: *Extracurricular Activities*

Youth belonged to:	**Percent**	**Standard Error**
Sports team	28.4	3.82
Religious youth group	27.4	3.52
Performing group	10.7	2.13
Disability-oriented support group	8.4	2.26
Scouting group	6.7	1.85
Special Olympics	4.6	1.83
School subject matter club	4.1	1.61

Note. Percentages are weighted population estimates based on samples of approximately 140.

III. Experiences after Secondary School

Approximately 110 youth had available data from Waves 4 and 5 of NLTS2; thus, percentages in the following section are weighted estimates based on a maximum sample of 110. In Waves 4 and 5, 67.0% (SE=3.53) of youth were engaged in some combination of employment, postsecondary school, and/or job training. Employment alone was the most common form of engagement (25.5%, S.E=3.80), followed by employment plus postsecondary school (23.6%, SE=3.62), and postsecondary school (16.0%, SE=2.45). Some youth who were engaged in employment and/or postsecondary school also received job training, and a few (1.9%, SE=1.39) were only engaged in job training. Since leaving secondary school, 42.2% (SE=4.09) of youth participated in volunteer work or community service.

Postsecondary Education. Of youth who were not enrolled in secondary school, 46.6% (SE=4.04) attended a postsecondary school at some point since leaving secondary school. Most youth who went to a postsecondary school attended a 2-year or community college (30.2%, SE=3.36). Only 20.0% (SE=3.56) attended a vocational school, and 18.1% (SE=2.99) attended a 4-year college or university. The majority of youth who attended 2-year or community colleges

and vocational schools received services or accommodations from their schools (72.0%, SE=4.52 and 70.6%, SE=6.67, respectively). A lower percentage of youth who attended 4-year colleges or universities received services or accommodations from the schools (52.6%, SE=7.27). Few youth had graduated from postsecondary school by the final wave of the study; 9.6% (SE=2.74) graduated from a 2-year or community college, 2.1% (SE=1.07) graduated from a vocational school, and 4.3% (SE=2.04) graduated from a 4-year college or university.

Living Situation. Almost half of youth (49.0%, SE=3.49) lived with their parents in Waves 4 and 5. Others lived with a spouse or roommate (8.7%, SE=2.97), in a group home or assisted living center (8.7%, SE=2.94), on their own (7.7%, SE=2.24), in college housing such as a dormitory (1.9%, SE=0.98), and in other places or their living situation was unknown (24.0%, SE=3.11).

Services and Training

Vocational Services or Job Training Received. Less than half of youth (46.2%, SE=4.73) received vocational services or job training after secondary school. The types of vocational services or job training received by youth and percentages of youth receiving them are provided in Table 19. Of youth who received services, parents indicated that 46.9% (SE=7.04) received the services from a Vocational Rehabilitation (VR) agency.

Table 19: *Types of Post-High School Vocational Services or Job Training*

Service	Percent	Standard Error
Career counseling	37.5	5.15
Basic skills training	32.4	4.38
Instruction in looking for jobs	30.5	4.65
Support in finding a job	29.5	3.91
Career interest testing	27.9	3.98
Job skills training	26.7	3.94
Job shadowing	19.2	3.77
Apprenticeships/Internships	7.6	2.04
Other job-related services	0.0	--

Note. Percentages are weighted population estimates based on samples ranging in size from approximately 100 to 110.

Other Services Received. According to parents, 45.4% (SE=4.95) of youth received some type of life skills training or occupational therapy services after leaving secondary school. The largest percentage of youth received life skills training or occupational therapy in the area of

home care skills (27.1%, SE=4.18), followed by relationship skills (24.5%, SE=4.24), self-care skills (24.3%, SE=4.17), and financial skills (21.5%, SE=3.59). Fewer youth received training in using transportation (19.8%, SE=4.06) and self-advocacy (15.1%, SE=3.22). Youth received a variety of other services after secondary school. See Table 20 for a full list of services received and the percentages of youth who received each service. The most commonly received services were medical diagnosis/evaluation and transportation. About a quarter (26.4%, SE=3.79) of youth did not receive any of the listed services.

Table 20: *Post-High School Services Received, and Needed but Not Received*

Services	**Received**		**Needed**	
	%	**SE**	**%**	**SE**
Medical diagnosis/evaluation	56.5	4.20	5.4	1.87
Transportation	50.0	5.60	18.5	3.38
Vocational services/job training	46.2	4.73	52.2	4.45
Life skills training/occupational therapy	45.4	4.95	55.9	4.26
Audiology	42.6	4.34	6.5	2.52
Assistive technology	37.0	5.16	9.8	3.16
Financial assistance	33.3	3.89	15.2	2.92
Personal assistant/aide	32.4	3.76	5.4	1.64
Reader or interpreter	28.7	4.35	5.4	2.15
Psychological/mental health	26.9	3.76	6.5	2.26
Orientation & mobility	26.2	4.75	10.9	2.57
Social work	24.1	3.79	4.3	1.46
Speech/language therapy	21.5	3.45	12.0	2.94
Physical therapy	18.5	2.86	12.0	2.35
Respite care	14.8	2.77	3.3	1.84

Note. Percentages are weighted population estimates based on samples ranging in size from approximately 90 to 110. Financial assistance includes financial aid, disability waivers, SSI, and Medicaid.

Service Needs and Problems. Parents reported that the majority of youth (76.3%, SE=3.48) needed additional services other than the services they were receiving. The most commonly needed services were life skills training or occupational therapy and vocational services or job training. The percentages of youth needing those and other services are reported in Table 20. Parents also identified a variety of problems in getting or dealing with post-secondary school services for youth; the most frequently reported problems were that services were not available and lack of information about services. See Table 21 for a full list of the problems and the percentage of parents reporting each problem.

Table 21: *Problems with Post-High School Services*

Problem	Percent	Standard Error
Services not available	56.0	4.71
Lack of information	44.0	4.01
Cost	38.4	4.90
Poor quality	35.7	4.27
Scheduling conflicts	34.5	4.78
Transportation	34.5	4.17
Location	33.3	4.19
Youth not eligible	32.1	3.90
Language problems	29.1	4.18
Lack of time	19.0	2.99
Physical accessibility	6.3	1.68
Youth does not want/need services	1.2	1.17
Another problem	1.2	1.17

Note. Percentages are weighted population estimates based on samples ranging in size from approximately 80 to 90.

IV. Employment

In Secondary School

A small majority of deaf-blind youth (56.6%, SE=3.10) did not work for pay at any time while they were in secondary school. In the year preceding Wave 1, more youth worked for pay (19.3%, SE=2.47) than participated in a work study job (11.8%, SE=2.70), while a few did both (3.2%, SE=1.59). The remaining 65.7% (SE=3.69) did not work at all. Some youth who worked for pay worked only during the summer (8.7%, SE=2.02), some worked only during the school year (5.0%, SE=1.77), and some worked all year (8.7%, SE=2.41). The types of jobs youth held while in secondary school varied across 15 broad categories (see Table 22). The most common method youth used to get to work was a ride from a family member (36.7%, SE=5.00), followed by walking or riding bike (26.5%, SE=5.10), a ride from a friend/coworker (8.2%, SE=2.86), and taking public transportation (8.2%, SE=3.56).

Table 22: *Types of Jobs Held by Youth in Secondary School*

Job Category	Percent	Standard Error
Child care	16.3	3.76
Clerical	16.3	4.41
Gardening/Grounds maintenance	14.3	5.00
Cleaning	12.2	3.53
Cashier	6.1	2.07
Food service	6.1	3.52
Assembly work	4.1	0.23
Computer support	4.1	2.05
Production work	4.1	2.10
Animal care	2.0	1.97
Delivery	2.0	2.07
Farm laborer	2.0	2.02
Retail sales	2.0	2.04
Stock clerk	2.0	1.97
Material recording	2.0	0.12
Other	4.1	1.91

Note. Percentages are weighted population estimates based on a sample of approximately 50 (only youth who had work experience in secondary school).

After Secondary School

Most deaf-blind youth (68.0%, SE=4.07) did work for pay at some point after leaving secondary school, although not all of them appear to have had paid jobs with an employer. Approximately half of the youth had no paid jobs since leaving secondary school (49.4%, SE=4.34), while 17.2% (SE=3.86) had one job, 21.8% (SE=2.84) had two or three jobs, and 11.5% (SE=3.10) had more than three jobs. A majority (67.9%, SE=6.26) worked part-time rather than full-time (defined as 35 hours or more per week). Part-time hours were split approximately evenly between fewer than 10 hours per week (23.1%, 4.13), 10 to 20 hours per week (21.2%, SE=3.23), and 20.1 to 34.9 hours per week (23.1%, SE=4.54). Youth held their jobs for varying amounts of time, as presented in Table 23, with a mean length of job tenure of 18.12 (SE=1.47) months.

Table 23: *Longest Job Tenure of Out of Secondary School Youth*

Length of job	**Percent**	**Standard Error**
6 months or less	32.2	5.77
More than 6 months to less than 12 months	8.5	2.87
12 to 24 months	35.6	5.28
25 to 36 months	18.6	3.54
More than 36 months	5.1	2.35

Note. Percentages are weighted population estimates based on a sample of approximately 60.

Earnings, Benefits and Types of Jobs. Most youth had earnings above minimum wage at their jobs after secondary school, but 38.6% (SE=5.18) were earning below minimum wage. Average earnings for youth at Waves 3 through 5 are provided in Figure 12. Most youth did not receive benefits from their jobs: 34.5% (SE=5.33) received paid vacation and sick leave, 20.7% (SE=4.54) received health insurance, and 20.7% (SE=4.79) received retirement benefits. Youth held jobs in 21 broad categories, many of them unique to one youth (see Table 24). Some youth (29.3%, SE=4.20) held jobs at a location that primarily employs people with disabilities.

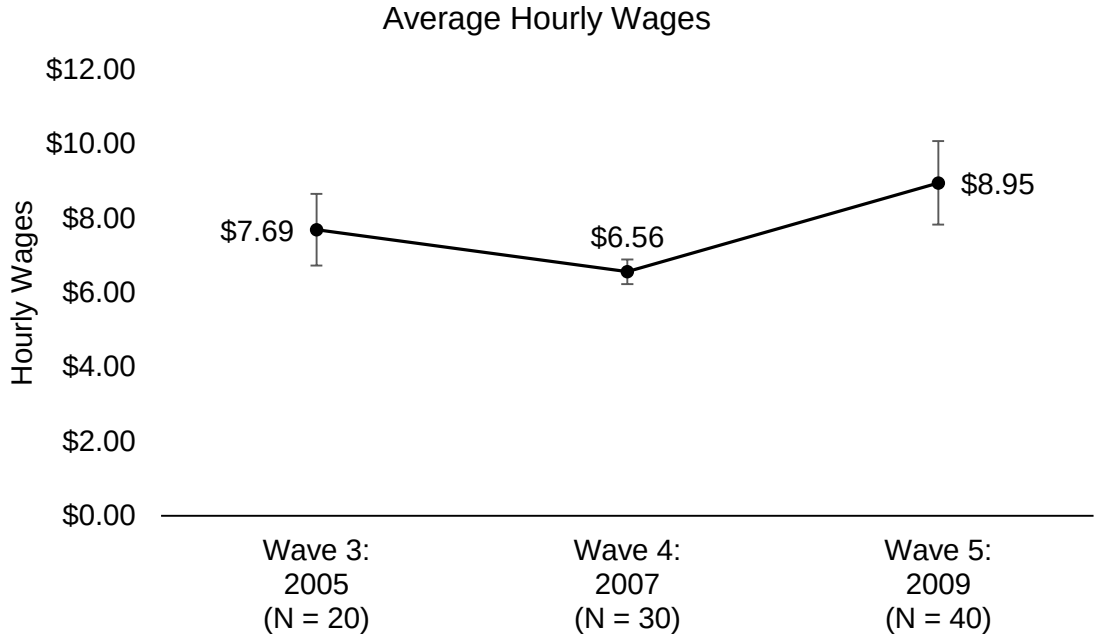

Figure 12. Average hourly wages out of secondary school youth earned at current or most recent job in Waves 3-5. Error bars represent standard errors.

Table 24: *Types of Jobs Held by Youth Out of Secondary School*

Job Category	**Percent**	**Standard Error**
Production work	24.1	3.79
Material moving workers	11.1	3.92
Information and record clerks	5.6	2.64
Material recording	5.6	2.55
Office and administrative support workers	5.6	0.37
Cooks and food preparation workers	3.7	1.93
Building cleaning and pest control workers	3.7	2.67
Animal care and service workers	3.7	3.70
Other personal care and service workers	3.7	1.70
Sales representatives, services	3.7	1.93
Other installation, maintenance, and repair occupations	3.7	2.67
Computer specialists	1.9	1.86
Postsecondary Teachers	1.9	1.86
Preschool, primary, secondary, and special education teachers	1.9	0.12
Other food preparation and serving related workers	1.9	1.77
Personal appearance workers	1.9	0.12
Retail sales workers	1.9	0.12
Financial clerks	1.9	0.12
Secretaries and administrative assistants	1.9	1.77
Assemblers and fabricators	1.9	1.89
Metal workers and plastic workers	1.9	1.85

Note. Percentages are weighted population estimates based on a sample of approximately 50 (only youth who had work experience after secondary school).

How Job Was Found. Most youth had help finding their post-secondary school jobs; only 23.7% (SE=5.35) found their jobs independently. The remaining youth received help from one or more sources, including: an employment agency (16.1%, SE=3.47), a teacher or school (16.1%, SE=3.65), a family member (21.4%, SE=4.22), and a friend (23.2%, SE=5.63).

Transportation to Work. Getting a ride from a family member was still the most common method to get to work for youth out of secondary school (22.5%, SE=4.93), but a smaller percentage used this method compared to when youth were in secondary school. One of the other most common ways for youth to get to work, surprisingly, was driving themselves (20.0%, SE=5.37). Taking public transportation was another popular method to get to work (20.0%, SE=4.92), followed by getting a ride from a friend or coworker (15.0%, SE=4.70), walking or riding bike (10.0%, SE=2.92), and a service agency providing transportation (7.5%, SE=3.56).

Work Accommodations. Fewer than half of deaf-blind youth (43.3%, SE=4.50) received accommodations at their job. Of those who did have accommodations, the most commonly received were: flexible work schedule (38.7%, SE=8.15), additional training/training tailored to individual needs (29.0%, SE=4.88), job coach (25.8%, SE=6.67), personal aide or assistant (25.8%, SE=1.17), more/different supervision or mentoring (19.4%, SE=2.79), reader or interpreter (16.1%, SE=5.48), and altered work station (16.1%, SE=4.91).

Job Search. One-third of unemployed deaf-blind youth who were out of secondary school reported looking for a job (33.3%, SE=3.88). Many of these youth had been searching for a job for an extended period of time: 28.6% (SE=6.88) for 6 to 11 months and 35.7% (SE=7.08) for 12 months or more. The average length of time they had spent searching for a job was 10.95 (SE=1.65) months. The primary reasons provided for unemployed youth not seeking work were that the youth's disability was too severe (41.5%, SE=5.76) or that the youth was in school or a training program (32.1%, SE=5.58).

Discussion

The nationally-representative NLTS2 sample of deaf-blind youth included in this study is extremely heterogeneous in terms of their characteristics, secondary school experiences, academic achievement, and employment experiences. However, there were a few things that most (92% or more) of the youth in this sample had in common. These similarities included:

- most lived with their parent(s) or other relatives (at Wave 1)
- most received transition planning for adult life (with the majority starting at age 14)
- most received special services from their school
- most had one or more accommodation identified on their IEP.

A large majority (75% or more) of youth were similar in the following ways:

- were in good, very good, or excellent health
- communicated via oral speech (as one method; some used multiple methods)
- attended language arts and mathematics classes in a special education classroom
- parents thought they were receiving enough services while in secondary school
- had very low, low, or medium family support scores
- parents expected youth to get a paid job in the future
- parents reported youth needed more services than they received after secondary school.

In terms of differences, there were particularly wide discrepancies in youth's academic abilities. Although some students achieved at grade level and above the 50th percentile in academic areas, the majority of students who participated in the direct assessments had low levels of achievement. The validity of these assessments, as well as the standardized testing conducted at most schools, for youth who are deaf-blind is questionable. Approximately one-third of the youth were not capable of taking the academic achievement tests and were instead provided with an alternate assessment of their independent behavior. All of these youth scored below the 50th percentile, with the vast majority scoring below the 1st percentile.

A small majority of youth attended mainstream schools, while more than 41% attended special schools for children with disabilities. Deaf-blind youth were much more likely to attend schools with mid-high poverty or high poverty levels compared to the general population of students; this was true across all schools but was particularly pronounced for those who attended special schools. Most youth received good grades according to their parents – only 14% received below C's and the majority received A's and B's. The grades received were not in line with youths' academic achievement test results. Although almost half of the youth attended some type of postsecondary school, only 15% had graduated from a postsecondary program by the end of the study.

Having regular chores and responsibilities around the house is an important part of preparing youth for independent living and employment. During secondary school, overall scores on the household responsibilities scale were in the low to medium range for most youth, indicating that these youth did not have regular responsibilities around the house. In fact, most youth did the following tasks *sometimes* or *never*: made their own breakfast or lunch, did laundry, cleaned their own room, or purchased things at the store. The lack of household responsibilities is surprising considering that more than half of youth had primary transition goals that included maximizing functional independence and living independently. In addition, approximately 47% of parents expected that their child would *probably* or *definitely* live away from home without supervision. By the end of the NLTS2, few youth (about 18%) lived independently, in a college dorm, or with a spouse or roommate.

Although most parents were happy with the services their children received while in secondary school, they experienced more trouble with services after secondary school. More than three-quarters of parents reported that their children needed services that they were not receiving

after leaving secondary school. Life skills training/occupational therapy and vocational services/job training were services that were needed by more than half of the youth. The biggest problems with receiving services were that the services were just not available or the parents did not have information about the services.

Less than half of the youth received any type of vocational services or job training after secondary school, and fewer than a third received help in finding a job or instruction in looking for a job. Only 47% of youth who did receive these types of services got them from a state VR agency. This indicates that fewer than 25% of deaf-blind youth received services from VR. This is a very low percentage, especially considering that more than half of parents reported their children specifically needed vocational services. All youth who are deaf-blind and have an interest in working should be referred to VR.

Approximately half of the youth held a paid job at some point after secondary school, and most of them worked part-time at the job. Although most youth had earnings that were above minimum wage, 39% were earning below the minimum wage and 29% were working at a location that primarily employs people with disabilities. Only 43% of the youth received accommodations at their jobs, indicating that perhaps the youth who were employed were less severely disabled. Only one-third of the out-of-secondary school youth who were not employed were actively looking for a job. Of interest is that receipt of SSI benefits increased steadily and substantially over the course of the study – from only 30% receiving benefits at Wave 1 to 66% receiving benefits at Wave 5. Increase in SSI receipt is common after age 18, when SSA changes the way it treats parental income to determine countable income, but receipt of SSI also serves as a disincentive to work as most beneficiaries are not aware of available work incentives (Camacho & Hemmeter, 2013).

Summary

This report is the first overview of the secondary and post-secondary school experiences of a nationally representative sample of youth who are deaf-blind in the U.S. Data were taken from the NLTS2, which has been used extensively to document experiences of other populations of youth with disabilities, but has not previously been used to explore the experiences of youth who are deaf-blind alone. Although other authors have provided valuable snapshots of the characteristics and experiences of deaf-blind youth and young adults (Peracchio & Stetler, 2009/2010; Petroff, 2001; 2010), those samples were not nationally representative and the data

did not provide the depth of information offered by the NLTS2. This report provides a detailed picture of deaf-blind youth in the 2000s (2001 through 2009) who received special education services in schools across the U.S. Given the age of the NLTS2 dataset, it would be valuable to conduct research using more recent data to determine if the characteristics and experiences of deaf-blind youth have changed since the NLTS2 was conducted.

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