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Future Goal Aspirations of Students with Extensive Support Needs: Findings from NLTS 2012 --Manuscript Draft--

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Abstract:	<p>This study used data from the National Longitudinal Transition Study 2012 (NLTS 2012) to explore the future goal aspirations of students with extensive support needs who participate in alternate assessments, compared to other students with extensive support needs and to students with other disabilities. We examined students' IEP/transition planning meeting experiences and postschool goals in relation to their functional, communication, and self-advocacy skills, and school and community agency support. Students with other disabilities compared to students with extensive support needs held higher expectations than students with extensive support needs for future participation in postsecondary education, employment, independent living, and financial independence. Differences in student-parent postschool goal expectations were also explored. Implications for future research and practice are discussed.</p>

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Findings from NLTS 2012

Abstract

This study used data from the National Longitudinal Transition Study 2012 (NLTS 2012) to explore the future goal aspirations of students with extensive support needs who participate in alternate assessments, compared to other students with extensive support needs and to students with other disabilities. We examined students' IEP/transition planning meeting experiences and postschool goals in relation to their functional, communication, and self-advocacy skills, and their school/community support. Students with other disabilities held higher expectations than all students with extensive support needs for future participation in postsecondary education, employment, independent living, and financial independence. All students had higher postschool goal expectations than their parents. Implications for supporting students with extensive support needs and directions for future research and practice are discussed.

Keywords: transition planning, postschool goals, extensive support needs

Future Goal Aspirations of Students with Extensive Support Needs:

Findings from NLTS 2012

Participation in Individualized Education Program (IEP)/transition planning meetings is an opportunity for students with disabilities to discuss their strengths, interests, and preferences and set postschool goals (Griffin et al., 2014; Johnson et al., 2020; Shogren et al., 2015). Federal special education policy and research have played a significant role in promoting a student's participation and active role in the planning process. The Individuals with Disabilities Education Act (IDEA) (IDEA, 2004), and numerous studies have documented students' ability to actively engage in the planning process and make independent choices regarding future goals (Griffin et al.; Sanderson & Goldman, 2020; Shogren & Plotner, 2012; Wagner et al., 2012; Wei et al., 2016). Despite this foundation of policy and research, the extent to which students with disabilities have achieved active and meaningful opportunities to participate in discussions about future postschool goals during IEP/transition planning meetings has been limited (Johnson et al.; Shogren & Plotner; Wagner et al.). For the group of students with extensive support needs, including those identified by the 2015 reauthorization of the Elementary and Secondary Education Act (ESEA) as having the most significant cognitive disabilities who participate in state alternate assessments, advocating for their participation and integrating their contributions in setting postschool goals during IEP/transition planning meetings has been an even greater challenge (Johnson et al.).

IDEA 1990 was the first federal special education legislation to require that transition services be included in IEP planning discussions beginning at age 16. With the reauthorization of IDEA in 2004, several provisions strengthened the IEP/transition planning process in relation to discussions and actions that need to occur regarding student goals. First, the planning process

must take into account the student's strengths, preferences, and interests; second, the planning team must consider goals for further education beyond high school as well as employment and community living goals; third, postsecondary goals must be measurable to determine the extent to which a student has achieved their goals; and fourth, the identification of transition services needed to assist students reaching their goals must be included in the IEP (Johnson, 2020).

Transition planning allows students with disabilities and their parents to set goals for postsecondary life, determine related transition services, align annual IEP goals and postsecondary goals, and make necessary agency connections to attain those goals (Test et al., 2009). Research has shown the level of student participation varies by disability category (Lipscomb et al., 2017), level of instruction and support received to become active participants (Martin et al., 2004; Wehmeyer et al., 2007), parent expectations and relationships with teachers (Wagner et al., 2012), and racial and ethnic background (Landmark et al., 2007). Information is needed on the degree to which the participation of students with extensive support needs who participate in states' alternate assessments compares to other students with extensive support needs and all other students with disabilities.

Attention to students with extensive support needs, particularly those who participate in states' alternate assessments, increased dramatically with the 2015 reauthorization of ESEA, which used the term "students with the most significant cognitive disabilities" to indicate those students who participate in states' alternate assessments based on alternate academic achievement standards (AA-AAAS) (Thurlow et al., 2016). ESSA did not provide a definition of these students, instead leaving each state to develop a definition based on factors related to cognitive functioning and adaptive behavior. Students with autism, intellectual disability, and multiple disabilities are most commonly included in the group of students with extensive support

needs who participate in a state's alternate assessment (Thurlow et al.), although not all students in these categories have a "significant cognitive disability." Given the significant needs of students who participate in these assessments, as well as of other students with extensive support needs, it is important to develop a more comprehensive understanding of their postschool goal aspirations and factors associated with these goals.

Studies have found students with extensive support needs experience fewer opportunities for meaningful participation in IEP/transition planning meetings than students in other disability categories (Bouck et al., 2021; Griffin et al., 2014; Wei et al., 2016), and are far less likely to take a leadership role in the meetings (Martin et al., 2004). Bouck et al. found parents reported less than 50% of students with intellectual disability provided input into the transition meeting. Without opportunities to learn, develop, and practice skills that support a student's active role and contribution it is unlikely that this situation will improve (Griffin et al.; Wei et al.).

Goal setting and planning require skills that must be learned. For students with disabilities, goal setting has primarily been studied in the context of self-determination (Shogren et al., 2015). Skills in goal setting and planning have been identified as component elements of self-determined behavior, in addition to other skills such as ability to express preferences, make choices, and self-regulate (Wehmeyer et al., 2007). Self-determination is "a dispositional characteristic manifested as acting as the causal agent in one's life" (Shogren et al., p. 258). Knowing how to set goals and being able to choose goals freely are considered fundamental skills of self-determination, which has been established as a predictor in students' academic and postschool goal attainment (Shogren et al., 2019). Shogren and Plotner (2012) found that students with disabilities were likely to achieve better outcomes when given the opportunity to express a preference for and engage in chosen activities and courses of study.

In addition to support from school staff, involvement of adult community service agencies in the planning process is a keystone strategy for ensuring a successful transition for students with disabilities (Mazzotti et al., 2015; Plotner et al., 2020). Interagency collaboration is an evidence-based practice (Test et al., 2009) positively associated with improved postschool outcomes (e.g., Haber et al., 2016; Mazzotti et al.). Interagency involvement has been difficult to achieve in practice (Haber et al.; Johnson, 2020; Plotner et al.). Parents are also key stakeholders who must be integrated in discussions with community service agencies. To participate, they need information about the agencies and role they can play in supporting their child's postschool goals (Povenmire-Kirk et al., 2015).

In sum, there has been limited large-scale research to date on factors that influence the postsecondary education (PSE), employment, independent living, and financial independence goals that students with extensive support needs aspire to following graduation from high school. Although conducted a decade ago, NLTS 2012 provides the most recent opportunity to examine the future goal aspirations of these students using a nationally representative sample of students with disabilities. It can reveal whether the previous lack of change in IEP/transition meeting participation of students with extensive support needs has been reversed. Research questions of interest in the present study were:

RQ1: To what extent are the IEP/transition planning meeting experiences and postschool transition goals significantly different for students with extensive support needs, including those who participate in states' alternate assessments, and students with other disabilities?

RQ2: To what extent are there differences in student skills (communication, functional, and self-advocacy skills); and school/community support for students with extensive support needs, including those who participate in alternate assessments and their parents,

compared to those for students with other disabilities and their parents?

RQ3: To what extent are the IEP/transition planning meeting experiences, student skills, and school/community support correlated with postschool transition goals for students with extensive support needs, including those who participate in the alternate assessment, and students with other disabilities?

Method

NLTS 2012

The NLTS 2012 is the third in a series of NLTS studies intended to examine the functional abilities, activities in school and with friends, supports received from school and parents, and preparation for life after school for youth with disabilities receiving services under IDEA. The NLTS 2012 sampling process was designed to allow results to generalize to the full population of students receiving special education services in the United States. Data collection was conducted from February-October 2012 and from January-August 2013. Survey administration in 2012 was by computer-assisted telephone interviewing; in 2013, both a web option and field interviews were used. A total of 10,460 parent surveys and 8,960 surveys of youth on IEPs were completed. Youth were ages 12-22 when the interviews took place. All students were enrolled in grades 7-12 or in a secondary ungraded class at the time of the sampling.

Sample

Three student groups were identified in this study: students with extensive support needs who participate in the alternate assessment, students with extensive support needs, and students with other disabilities. To identify samples of students with extensive support needs, including those who participate in the alternate assessment, we included students in three disability categories (autism, intellectual disability, and multiple disabilities). Students with extensive

support needs were separated into two groups - those in the three categories who took an alternate assessment within 12 months of being surveyed (named students with extensive support needs who participate in the alternate assessment) and those who did not (named other students with extensive support needs). Students with other disabilities included students with IEPs who were in all other IDEA disability categories (e.g., specific learning disabilities, emotional disturbance) and who did not take an alternate assessment. Only students with at least one valid response across the four items measuring postschool transition goals were included in the study.

The sample included 1,000 students with extensive support needs who took an alternate assessment (autism: n = 330; intellectual disability: n = 430, multiple disabilities: n = 230), 580 other students with extensive support needs (autism: n = 240; intellectual disability: n = 200; multiple disabilities: n = 150), and 2,470 students with other disabilities who did not take an alternate assessment. The reported unweighted sample size was rounded to the nearest 10, a requirement of the Institute of Education Sciences (IES) for restricted data sets.

In the NLTS 2012 dataset, students' gender, age, race/ethnicity, and free and reduced-price lunch status were provided by districts and race/ethnicity were coded into four categories: *Non-Black*, *Any Black*, *Multi/Other*, and *Hispanic*. Household income and highest parent education were from the parent survey. Table 1 presents student and family demographic information by each student group. Approximately two-thirds were male and one-third female, ages varied somewhat with more students with extensive support needs continuing their enrollment through age 21; no significant differences were noted in race and free and reduced-price lunch eligibility. The majority of the students were non-black for all three student groups (68.5%). For students with extensive support needs participating in the alternate assessment, 66.3% were Non-Black; this is similar to those students who participated in the Dynamic

Learning Maps alternate assessment (Burnes & Clark, 2020). Household income varied somewhat with more than half of the sample and each group coming from households earning \$40,000 or less annually. For students with extensive support needs, the majority of their parent's highest educational attainment was a high school diploma or less than a high school diploma while for students with other disabilities, the majority had a high school diploma and at least some PSE (53.5%).

Overall, significant group differences between students with extensive support needs participating in the alternate assessment and other students with extensive support needs were found in race ($p < .05$) and parent's highest education ($p < .001$). Results of post-hoc tests showed that compared to other students with extensive support needs, students participating in the alternate assessment were less likely to be Hispanic ($OR = 0.55$), their parents were less likely to have less than high school education ($OR = 0.50$) or graduate degree ($OR = 0.64$). However, parents of students with extensive support needs participating in the alternate assessment were more likely to have a high school diploma or GED than parents of other students with extensive support needs ($OR = 1.37$).

Significant group differences were also found in age ($p < .001$), household income ($p < .05$), and parent's highest education ($p < .01$) between students with extensive support needs participating in the alternate assessment and students with other disabilities. On average, students with extensive support needs participating in the alternate assessment ($M = 15.49$, $SE = 0.08$) were older than students with other disabilities ($M = 14.92$, $SE = 0.05$). Results of post-hoc tests showed compared to students with other disabilities, students with significant cognitive disabilities were more likely from households with less than \$20,000 annual income ($OR = 1.32$), but less likely from households with over \$60,000 annual income ($OR = 0.78$). Also, parents of

students with extensive support needs participating in alternate assessments were more likely to have a high school diploma or GED ($OR = 1.50$), but less likely to have 2-4 year college degree ($OR = 0.75$) than parents of students with other disabilities.

Measures

IEP/Transition Meeting Participation, Role, and Contribution

Measures of interest addressed whether: (a) the student was invited to the IEP/transition planning meeting (parent survey), (b) the student attended the meeting (student survey), and (c) the youth's interests, strengths, and preferences were discussed at the meeting (parent survey). These responses were coded 1 = yes and 0 = no. The student's perception of their role in the IEP/transition planning meeting (student survey) and extent of the student's contribution (parent survey) were used in this analysis. The student's perception of their role in the meeting was recoded into three responses to ensure that adequate data were available for our analysis: (1) = *participated very little or not all* (combination of "did not participate" and "participated very little or not at all"); (2) = *provided some input* (same as the original code "provided some input"); and (3) = *took a leadership role* (same as the original code "took a leadership role"). Any response of "doesn't know about any goals" was treated as missing. Student contribution was based on a parent survey item. Multiple survey responses were recoded to ensure adequate data for the analysis. The recoded responses included: 1 = *mostly student* (same as original code for "mostly youth"), 2 = *some contribution by student* (combination of "youth and respondent or other adult equally," "school and youth equally," and "school, respondent, or other adult, and youth equally"), and 3 = *little contribution by student* (combination of "mostly school," "school, respondent, or other adult equally" and "mostly respondent or other adult").

Postschool Transition Goals

Four measures of postschool transition goals were included in this study: (a) PSE (student and parent surveys), (b) employment (student survey, the parent survey did not include this item), (c) independent living (student and parent surveys), and (d) financial independence (student and parent surveys). Responses to each of these measures were coded into dichotomous variables: (a) education beyond high school was coded as 1 = yes or 0 = no; (b) paid job by age 30 was coded as 1 = “definitely will” or “probably will” and 0 = “probably won’t” and “definitely won’t”; (c) where youth would live when 30 years old was recoded as 1 = yes, living independently or 2 = no; and (d) being financial independent by age 30 was coded as 1 = “definitely will” or “probably will” or 0 = “probably won’t” or “definitely won’t.”

Functional, Communication and Self-Advocacy Skills

On a 4-point scale (1 = *not at all well* to 4 = *very well*) parents rated their child’s ability to dress completely, feed her/himself completely, read and understand common signs, understand common signs, count change, look up phone numbers/use a phone, use an ATM, make appointments, and get to places outside the home. Cronbach’s alpha for these items was .90. Items were summed and scores categorized as *low*, *medium*, and *high* to recognize the distribution of scores around the median. Scores of 1 to 16 were considered *low*, 17 to 32 *medium*, and 32 to 48 *high*. Parents rated their child’s ability to carry on a conversation and to understand others. Expressive communication was rated on a 4-point scale (1 = *no trouble carrying on a conversation* to 4 = *doesn’t carry on a conversation*). Receptive communication was rated on a 4-point scale (1 = *no trouble understanding what others say* to 4 = *doesn’t understand at all*). Items viewed by the study team as most related to self-advocacy behaviors were rated on a 2-point scale (1 = *positive*, 0 = *negative*). This included level of effort/trying hard at school, making and keeping friends, making good/important choices for oneself,

communicating one's own preferences, being confident in one's abilities, and other related items. Cronbach's alpha for these items was .69. Items were summed and scores categorized as *low*, *medium*, and *high* to recognize the distribution of scores around the median. Scores of 0 to 10 were considered *low*, 11 to 12 *medium*, and 13 *high*.

School/Community Support

Three measures were used to reflect school/community support, including youth received guidance on classes to take to prepare for what youth plans to do after high school; staff from any community agency took part in the meeting; and youth received information on further education, careers, or community living options. Responses were coded 1 = yes and 0 = no.

Data Analysis

Sampling weights were used in the analysis because we were interested in producing nationally representative findings for the sample of students. Inferential analyses using the sampling weights were not deemed feasible due to high levels of missing data, which limited the number of complete cases for students with extensive support needs. Descriptive statistics were used to depict characteristics of the study sample and to examine measures of students' IEP/transition planning meeting experiences, student postschool transition goals, and parent expectations on student postschool transition goals. Descriptive statistics also were used to describe students' functional, communication, and self-advocacy skills, and school/community service agency support. Chi-square tests of homogeneity were conducted to examine whether there were significant differences between students with extensive support needs participating in the alternate assessment and the two comparison groups in relation to their IEP/transition planning experiences; postschool transition goals; the student's functional, communication, and self-advocacy skills; and school/community service agency support. Additional Chi-square

analyses were conducted to examine parent-youth differences in expectations of youth's postschool goal aspirations and the relationship between parent and youth's expectation on postschool transition goals. A statistically significant difference was set at a probability of .05. Chi-square analyses were also conducted to explore the relationship between student postschool transition goals and student skills (functional, communication, and self-advocacy skills), and school/community support for students in the three groups independently. Post-hoc tests were conducted when the chi-square tests were significant. Statistically significant differences were set at a probability of .05.

Missing Data

The NLTS 2012 survey design allowed participants to skip some items based on their responses to previous items. Thus, no data imputation was performed for the missing data. Across all measures of the IEP/transition meeting experience the missing rates for students with extensive support needs participating in the alternate assessment were from 0% to 33.9%, for other students with extensive support needs were from 0% to 43.3%, and for students with other disabilities were from 0% to 36.5%. Missing rates for each measure are noted in table footnotes.

Results

RQ 1: IEP/Transition Planning Meeting Experiences and Postschool Transition Goals

IEP/Transition Planning Meeting Experiences

Table 2 shows the five IEP/transition planning meeting measures examined in this study. Overall, a large number of students (approximately 25%-35% across the three groups) did not attend their IEP/transition planning meeting. Further, students across the three groups had limited opportunities to take a leadership role and contribute to the discussion about future goals during IEP/transition planning meetings. Chi-square analyses noted significant group differences (p

< .001) in youth's interests, strengths, and preferences being discussed in the meeting between students with extensive support needs participating in the alternate assessment and students with other disabilities, as well as in the student's role and contribution in the IEP/transition planning meeting. No significant difference was found in the IEP transition planning meeting experiences of students with extensive support needs participating in the alternate assessment and other students with extensive support needs. Post-hoc tests showed that compared to students with other disabilities, students with extensive support needs participating in the alternate assessment were significantly more likely to report their role in the meeting as participating a little or not at all ($p < .001$) and significantly less likely to report taking a leadership role ($p < .01$). Post-hoc tests also showed that compared to students with other disabilities, students with extensive support needs participating in the alternate assessment were significantly more likely to report they contributed a little in coming up with goals ($p < .01$) and significantly less likely to report that mostly they came up with goals ($p < .05$).

Postschool Transition Goals

Table 2 shows that students with extensive support needs participating in the alternate assessment and their parents held lower expectations for the postschool transition goals than the other two groups and their parents. Overall, parents' expectations for students' postschool transition goals were lower than youth's expectations for all three groups. Thus, chi-square analyses were conducted to explore group differences in expectations for transition goals and differences between parent and youth expectations.

Group Differences. Chi-square analyses of postschool goals showed students with extensive support needs participating in the alternate assessment compared to students with other disabilities had significantly lower expectations ($p < .001$) for their postschool goals, including

PSE, employment, independent living, and financial independence. Similar results were found for parent expectations for PSE ($p < .001$), independent living ($p < .001$), and financial independence ($p < .001$).

Compared to other students with extensive support needs, students with extensive support needs participating in the alternate assessment had lower expectations for their postschool goals, including PSE ($p < .001$), and independent living ($p < .05$). Compared to parents of other students with extensive support needs, parents of students with extensive support needs participating in the alternate assessment held significantly lower expectations for postschool goals ($p < .001$), including PSE, independent living, and financial independence. Overall, students with extensive support needs participating in the alternate assessment and their parents held lower expectations for postschool transition goals compared to other students with extensive support needs and students with other disabilities.

Parent-Youth Differences in Expectations. Results of chi-square tests showed significantly more students with extensive support needs participating in the alternate assessment reported more positive expectations than their parents did for PSE ($\chi^2 = 26.5, p < .001$), living independently ($\chi^2 = 37.8, p < .001$) and financial independence ($\chi^2 = 66.2, p < .001$). The same pattern was found for other students with extensive support needs (PSE: $\chi^2 = 6.5, p < .05$; living independently: $\chi^2 = 7.6, p < .01$; and financial independence: $\chi^2 = 8.8, p < .01$). Similar results also were found for students with other disabilities for PSE ($\chi^2 = 20.8, p < .001$), and being financially independent ($\chi^2 = 6.2, p < .05$), but not for living independently. Overall, across the three groups, students held higher expectations than their parents for the postschool goals.

RQ 2: Student Skills and School/Community Support

Table 3 reports findings on student's skills (including functional, communication, self-advocacy skills) and school/community support. Chi-square results showed that compared to other students with extensive support needs and students with other disabilities, students with extensive support needs participating in the alternate assessment had more limited functional and communication skills. Self-advocacy skills for both groups of students with extensive support needs were similar, but significantly lower than for students with other disabilities. Students with extensive support needs participating in the alternate assessment were also less likely to receive guidance on classes to take to prepare for what the youth plans to do after high school than the other two groups ($p < .001$). Also, students with extensive support needs participating in the alternate assessment were more likely to have staff from a community service agency take part in the meeting ($p < .05$) and to receive information on further education, careers, or community living options ($p < .001$) than students with other disabilities.

RQ 3: IEP/Transition Planning Meeting Experiences, Student Skills, and School/Community Support Associated with Postschool Transition Goals

IEP/Transition Planning Meeting Experiences and Postschool Transition Goals

Table 4 reports the summary findings for the relationship between IEP/transition planning meeting experiences and four postschool goals. Chi-square results showed that for students with extensive support needs participating in the alternate assessment, the youth's transition goal of obtaining PSE was significantly associated with the youth's role in the meeting ($\chi^2 = 7.5, p < .05$) and the youth's contribution to coming up with transition goals ($\chi^2 = 12.6, p < .01$). Post-hoc tests showed that students with extensive support participating in alternate assessments who took a leadership role were more likely to expect themselves to obtain PSE than other students with extensive support needs providing some input ($\chi^2 = 6.68, p < .05, OR =$

1.94) or who were present in the discussion but who participated very little or not at all ($\chi^2 = 6.10, p < .05, OR = 1.96$) in the meeting; and students contributed most ($\chi^2 = 6.19, p < .05, OR = 4.23$) or at least some ($\chi^2 = 7.62, p < .01, OR = 1.88$) in coming up with goals in the meeting were more likely to expect themselves to obtain PSE than students with extensive support needs with little contribution in the meeting. Also, for this group of students, the transition goal of being financially independent was significantly associated with the youth's contribution to coming up with transition goals ($\chi^2 = 7.99, p < .05$). Post-hoc tests showed that students with extensive support needs who contributed most ($\chi^2 = 6.49, p < .05, OR = 4.33$) in coming up with goals in the meeting were more likely to expect themselves to obtain PSE than students with extensive support needs who made little contribution in the meeting.

For other students with extensive support needs, chi-square results showed that the youth's transition goal of obtaining PSE was significantly associated with the youth's contribution to coming up with transition goals ($\chi^2 = 10.7, p < .01$). Post-hoc tests showed that other students with extensive support needs who contributed some in coming up with goals ($\chi^2 = 10.48, p < .01, OR = 2.85$) in the meeting were more likely to expect themselves to obtain PSE than other students with extensive support needs who contributed a little to coming up with goals in the meeting. Also, the youth's transition goal of independent living was significantly associated with the youth's role in the meeting ($\chi^2 = 6.9, p < .05$) and the youth's contribution to coming up with transition goals ($\chi^2 = 9.7, p < .01$). Results of post-hoc tests showed that other students with extensive support needs who contributed some in coming up with goals ($\chi^2 = 8.89, p < .01, OR = 2.94$) in the meeting were more likely to expect themselves to live independently than other students with extensive support needs who contributed a little to coming up with goals in the meeting; and other students with extensive support needs who took a leadership role ($\chi^2 =$

4.42, $p < .05$, $OR = 2.84$) or provided some input ($\chi^2 = 6.71$, $p < .05$, $OR = 2.79$) in the meeting were more likely to expect themselves to live independently than other students with extensive support needs who were present in discussion but participated very little or not at all in the meeting.

For students with other disabilities, chi-square results showed that the youth's transition goal of obtaining PSE was significantly associated with the youth's interests, strengths, and preferences being discussed at the meeting ($\chi^2 = 4.64$, $p < .05$) and the youth's role in the meeting ($\chi^2 = 8.91$, $p < .05$). Post-hoc tests of youth's role showed that students with other disabilities with a leadership role ($\chi^2 = 8.43$, $p < .01$, $OR = 2.08$) or who provided some input ($\chi^2 = 5.85$, $p < .05$, $OR = 2.02$) in the meeting were more likely to expect themselves to obtain PSE than students who were present in the discussion but participated very little or not at all.

The youth's transition goal of independent living was significantly associated with the youth attending the IEP/transition planning meeting ($\chi^2 = 4.64$, $p < .05$) and the youth's contribution to coming up with transition goals ($\chi^2 = 7.16$, $p < .05$). Post-hoc tests showed that students with other disabilities who contributed some ($\chi^2 = 6.07$, $p < .05$, $OR = 3.06$) in coming up with goals in the meeting were more likely to expect themselves to live independently than students with other disabilities with little contribution in the meeting. The youth's transition goal of being financially independent was significantly associated with the youth's contribution to coming up with transition goals ($\chi^2 = 8.18$, $p < .05$). Post-hoc tests showed that students with other disabilities who contributed most to come up with goals in the meeting were more likely to expect themselves to obtain PSE than students with other disabilities with some ($\chi^2 = 4.21$, $p < .05$, $OR = 13.74$) or little ($\chi^2 = 6.0$, $p < .05$, $OR = 11.54$) contribution in coming up with goals.

None of the IEP/transition planning meeting experiences were significantly associated with the youth's employment goal. Post-hoc tests were conducted to examine the relationship

between the levels of the student's role and contribution in the IEP/transition meeting and the youth's transition goals. Overall, students taking an active role in the meeting and making a contribution to coming up with goals showed significantly higher expectations for their transition goals, compared to students taking a less active role and those making less of a contribution.

Student Skills and School/Community Support and Student Postschool Transition Goals

Table 4 also shows the chi-square results for the association between student skills (functional, communication, and self-advocacy skills) and school/community support and student postschool transition goals. Results indicated a larger number of significant chi-square results for students with extensive support needs participating in the alternate assessment than for students with other disabilities. For youth with extensive support needs participating in the alternate assessment, functional skills were related to goals for PSE ($\chi^2 = 13.0, p < .01$) and independent living ($\chi^2 = 17.6, p < .001$). Post-hoc results showed that students with ESN with medium ($\chi^2 = 9.66, p < .01, OR = 1.96$) to high ($\chi^2 = 11.90, p < .001, OR = 2.44$) functional skills were more likely to expect themselves to obtain PSE than youth with low functional skills and students with extensive support needs with high functional skills were more likely to expect themselves to live independently than students with medium ($\chi^2 = 14.86, p < .001, OR = 2.33$) and low ($\chi^2 = 13.7, p < .001, OR = 2.60$) functional skills. How well the youth carries on conversations (communication) was related to their goals for employment ($\chi^2 = 7.0, p < .05$) and independent living ($\chi^2 = 10.0, p < .01$). Post-hoc results showed that students with ESN with no trouble ($\chi^2 = 5.02, p < .05, OR = 4.19$) or little trouble ($\chi^2 = 6.77, p < .05, OR = 6.17$) to carry conversation were more likely to expect themselves to have a job, as well as to live independently (no trouble: $\chi^2 = 9.75, p < .01, OR = 2.60$; little trouble: $\chi^2 = 5.60, p < .05, OR = 1.93$), than youth with lots of trouble carry on conversation. Similar results were found in how

well the youth understands what is said (communication) was related to goals for PSE ($\chi^2 = 8.9$, $p < .05$) and financial independence ($\chi^2 = 10.0$, $p < .01$). Post-hoc results showed that students with extensive support needs with no trouble ($\chi^2 = 8.63$, $p < .01$, $OR = 2.35$) or little trouble ($\chi^2 = 4.19$, $p < .05$, $OR = 1.72$) to understand what is said to them were more likely to expect themselves to obtain PSE than youth with lots of trouble understood what said to them. Students with extensive support needs with no trouble ($\chi^2 = 9.04$, $p < .01$, $OR = 2.74$) to understand what is said to them were more likely to expect themselves to be financially independent than youth with little trouble. Notably, significant chi-square results for all postschool goals were obtained for the self-advocacy skills of students with extensive support needs participating in the alternate assessment: PSE ($\chi^2 = 8.4$, $p < .05$), employment ($\chi^2 = 14.7$, $p < .001$), independent living ($\chi^2 = 15.1$, $p < .001$), and financial independence ($\chi^2 = 12.5$, $p < .01$). Overall, results of post-hoc tests showed youth with medium and high advocacy skills were more likely to have positive postschool goals for themselves than youth with low advocacy skills (OR ranged from 9.57 to 1.69). Finally, students with extensive support needs participating in the alternate assessment with school/community support (youth received guidance on classes) were more likely to have positive postschool goals for PSE ($\chi^2 = 4.9$, $p < .05$) and financial independence ($\chi^2 = 6.0$, $p < .05$), compared to students with extensive support participating in the alternate assessment who did not receive school/community support.

For other students with extensive support needs, functional skills were related to goals for employment ($\chi^2 = 6.3$, $p < .05$) and independent living ($\chi^2 = 17.6$, $p < .001$). Results of post-hoc tests showed that students with ESN with medium ($\chi^2 = 6.08$, $p < .05$, $OR = 3.90$) to high ($\chi^2 = 5.97$, $p < .05$, $OR = 4.39$) functional skills were more likely to expect themselves to have a job than youth with low functional skills and students with extensive support needs with high

functional skills were more likely to expect themselves to live independently than students with medium ($\chi^2 = 14.54, p < .001, OR = 3.49$) and low ($\chi^2 = 10.11, p < .01, OR = 4.08$) functional skills. How well the youth carries on a conversation (communication) was related to goals for independent living ($\chi^2 = 15.2, p < .001$) and financial independence ($\chi^2 = 6.90, p < .05$). Overall, results of post-hoc tests showed that students with ESN with no trouble ($\chi^2 = 5.41, p < .05, OR = 3.34$) or little trouble ($\chi^2 = 6.41, p < .05, OR = 1.82$) to carry conversation were more likely to expect themselves to live independently and to be financially independent than youth with lots of trouble carrying on a conversation. Similar results were found in how well the youth understands what is said (communication) was related to goals for PSE ($\chi^2 = 11.3, p < .01$) and independent living ($\chi^2 = 13.1, p < .01$). Only one significant chi-square result was found for the self-advocacy skills of other students with extensive support needs; this was with employment ($\chi^2 = 13.0, p < .01$). Results of post-hoc tests showed that students with high self-advocacy skills were more likely to expect themselves to have a job compared to students with low ($\chi^2 = 8.82, p < .01, OR = 9.57$) or medium ($\chi^2 = 6.45, p < .05, OR = 5.41$) self-advocacy skills. For school/community support, (results showed students without support any community service agency taking part in the meeting were more likely to expect themselves to obtain PSE ($\chi^2 = 6.4, p < .05, OR = 2.68$) and to be financially independent ($\chi^2 = 4.3, p < .05, OR = 2.86$). This was different from the variable identified for students with extensive support needs participating in the alternate assessment.

For students with other disabilities, significant results were found only for communication and self-advocacy skills, and only with goals for PSE and independent living. Specifically, how well the youth carries on conversations was significantly related to PSE ($\chi^2 = 9.9, p < .01$) and independent living ($\chi^2 = 9.3, p < .05$). How well the youth understands what is

said showed significant chi-square results for PSE ($\chi^2 = 17.8, p < .001$) and independent living ($\chi^2 = 12.9, p < .01$). Similarly, self-advocacy skills of students with other disabilities were significantly related to goals for PSE ($\chi^2 = 31.3, p < .001$) and independent living ($\chi^2 = 15.2, p < .001$). Results of post-hoc tests showed that students with medium or higher advocacy skills were more likely to hold positive expectations on their PSE and live independently than students with lower advocacy skills. Overall, the three student groups showed different relationship patterns between student skills and school/community support and student postschool goals.

Discussion

This study was conducted to develop an understanding of the extent to which students with extensive support needs who participated in alternate assessments compare to other students with extensive support needs and students with other disabilities in relation to their future goal aspirations for postsecondary education, employment, community living, and financial independence. We examined students' goal aspirations in relation to their IEP/transition planning experiences; functional, communication, and self-advocacy skills; guidance and support received from school staff and community service agencies, and parent expectations.

For students with disabilities, the IEP/transition planning meeting is a primary context within which students' postschool goal-setting occurs. Previous studies have documented that the extent to which students with disabilities play a meaningful role and contribute to the development of postschool goals has been limited (Bouck et al., 2021; Griffin et al., 2014; Johnson et al., 2020; Wei et al., 2016). Although studies, including this analysis, found that the majority of students are being invited to and attending IEP/transition planning meetings, the extent to which they are involved in determining transition goals has been highly limited. No significant differences were found when comparing the three groups of students in this analysis.

We also found that all three groups of students had minimal opportunities to assume a leadership role in setting the direction for discussions on future goals. Less than 10% across all three groups of students were directly involved in coming up with postschool goals. For students with extensive support needs, a presumed lack of social competence, low expectations among professionals and parents regarding the capacity of these young people to pursue meaningful postschool goals, and a lack of opportunity to learn and develop goal setting skills have significantly contributed to this situation (Shogren & Plotner, 2012; Wagner et al., 2012). We found overall that students taking an active role in the meeting and making more contributions in coming up with goals showed significantly higher expectations for their postschool goals, compared to students with a less active role and less involved in coming up with future goals.

When comparing the three groups of students, we found that students with extensive support needs who participated in the alternate assessment had significantly lower postschool goal aspirations when compared to other students with disabilities. Because so few students experience the opportunity to set goals, little empirical evidence exists on how these young people form their own expectations for the future. Research on self-determination and supporting theories underlying this research has offered insights into students' goal setting and attainment (Wehmeyer et al., 2007; Shogren et al., 2015). Self-determination encompasses knowledge and skills and instills a sense of self-efficacy that enables a student to engage in goal-directed, self-regulated, and autonomous behavior (Wehmeyer et al.).

Parents and students can, and the data suggest they likely do, have dissimilar expectations about transition and desired postschool involvements for their child (Powers et al., 2009). We found that parents' expectations for postschool goals were lower than the expectations students reported across all three groups. Parents of students with extensive support needs who

participated in alternate assessments, however, held significantly lower postschool goal expectations compared to parents of other students with extensive support needs and students with other disabilities. This is an important and troubling finding that requires further exploration. To date, limited research has been conducted on parent-child expectations for transition. In one study focused on differences in youth and parent postsecondary expectations, Kirby et al. (2019) found that parents held lower expectations for their child than the youth held for themselves on several postschool goals. This finding underscores the need for all participants to develop clear expectations and plan collaboratively to avoid confusion and potential conflict on future goals during transition planning meetings (Kirby et al). The role that teachers and other school and community service agency professionals can play in raising both student and parent expectations in relation to future goals also needs to be explored. This statement assumes, however, that educators and other professionals presently hold high expectations for students with extensive support needs, an assumption that should be examined further.

For students with disabilities overall, the level of self-advocacy skills (e.g., making good/important choices for oneself, communicating one's own preferences) plays an important role in relation to their postschool goal expectations. Both groups of students with extensive support needs had significantly lower self-advocacy skills when compared to students with other disabilities. Across the three groups, however, students with higher self-advocacy skills held higher expectations for their postschool goals. Self-advocacy skills have been acknowledged as a key component in achieving self-determination among student with disabilities, which has been associated with positive goal setting experiences (Shogren et al., 2019). In terms of school/community service agency support, we found neither the support received from schools nor community service agencies to be associated with student's postschool goal aspirations.

Limitations

Several limitations should be considered when interpreting the data in this study. First, this is a descriptive study examining only the status of the three groups of students. Second, we were limited by the types of IEP/transition planning and goal aspiration questions addressed within the NLTS 2012 student and parent surveys. Third, the group of students with extensive support needs participating in the state's alternate assessment was not a variable used for sample selection in the NLTS 2012 study and is not included in defining the sample structure for the NLTS 2012 study. Further, we examined a limited number of student skills (functional, communication and self-advocacy skills) that have been well documented to influence a student's ability to participate in IEP/transition planning meetings. Finally, the missing rate for some variables was high. This limited some of the analyses that could be conducted, including analyses that would permit the examination of predictors of postschool goals.

Implications for Research and Practice

Because so few students with extensive support needs participating in the alternate assessment (as well other students with extensive support needs and other disabilities) experience the opportunity to set goals for themselves, we know very little about how these students form their own expectations for the future. Based on what we found, students with extensive support needs participating in the alternate assessment held high expectations that they would likely pursue PSE, and see themselves as employed, living independently, and being financially independent 30 years following high school graduation. Further research is needed to develop an understanding of the best practices and strategies to prepare these students to become "informed" decision makers in the IEP/transition planning process. It would be important, for example, to

include additional self-efficacy and self-determination knowledge and skill items in future analyses that go above and beyond goal setting.

All three groups of students had minimal opportunities to assume a leadership role in setting the direction for discussions on future goals and plans. Further work is needed to shift the transition planning process from teacher-led to student-led approaches supported through the development of self-determination and self-advocacy skills (Shogren & Plotner, 2012) and to explore the nature of instruction and the role of educators and parents in developing leadership skills in students with extensive support needs (Johnson et al., 2020).

Direct instruction on transition planning and self-determination have been the primary means used to support a student's goal setting knowledge and skills (e.g., Martin et al., 1996; Wehmeyer & Lawrence, 1995). The merits of these training curricula are well understood and acknowledged, but have too often resulted in "one-off" training opportunities due to teacher lack of familiarity with the available curricula and time constraints to engage students in this instruction. Through numerous efficacy studies, the *Self-Determined Learning Model of Instruction* (SDLMI) has evolved over the past two decades and serves as a teaching model based on theory in self-determination that can be used by teachers (or others trained in its use) to organize instruction and supports to enhance self-regulated goal setting and attainment of students (Shogren et al., 2019). This approach differs from direct instruction on self-determination and by having teachers shape their instruction to be student-directed rather than teacher-directed in developing goals and working toward goal attainment in any content area, including transition planning (Shogren et al.). The IEP/transition planning process serves as an important context within which the SDLMI model can be applied.

Further research is needed on the impact of goal setting examined over the course of the

student's high school experience as well as what the implications are for young people as they age (Di Maggio et al., 2020). Research is also needed to further our understanding of the influence of proximal and distal goal setting strategies on goal attainment and the implications of these findings in supporting a student's role in the IEP/transition planning process.

Attention also needs to be directed to the significant differences noted across the three groups of students and their parents' goal expectations. The extent to which students and their parents have divergent desires and goals for the student's movement into independence has implications for the transition planning process (Powers et al., 2009). More research is needed to understand the effects of parent expectations on youth's postschool goal expectations. Studies examining student and family characteristics and school services and supports in relation to both student and parent expectations would help to identify potential moderators of goal development.

Conclusion

With the reauthorization of ESEA in 2015, renewed attention was paid to the importance of guidelines for student participation in the AA-AAAS and to develop an understanding of who the students are and the supports they require as they pursue educational goals. Our focus in this study was to develop a more comprehensive understanding of transition-age students with extensive support needs participating in states' alternate assessments and their postschool goal aspirations and factors associated with these goals. The group comparisons identified this group as having unique differences and higher needs for support than other students with extensive support needs and all other students with disabilities. Systematic approaches and strategies for identifying and making available supports that provide these young people greater opportunities for meaningful and engaged participation in IEP/transition planning meetings for the purpose of communicating future goals are critically needed.

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Table 1.

Student and Family Characteristics

Characteristics	Students with extensive support needs/alternate assessment			Other students with extensive support needs			Students with other disabilities		
	Unweighted count ^a	Weighted %	SE	Unweighted count ^a	Weighted %	SE	Unweighted count ^a	Weighted %	SE
Total IEP	1,000			580			2,470	949,800	
Gender									
Male	670	68.6	1.8	400	67.8	2.5	1,580	67.7	1.5
Female	320	31.4	1.8	180	32.2	2.5	860	32.3	1.5
Age									
12	60	7.9	1.1	< 10	0.3	0.3	260	12.6	1.3
13	150	17.7	1.5	50	10.6	1.8	480	18.8	1.3
14	140	14.3	1.3	70	16.2	2.2	500	20.8	1.3
15	180	17.3	1.4	90	15.1	1.7	420	18.5	1.2
16	170	16.7	1.4	100	16.0	1.8	410	17.5	1.1
17	140	12.1	1.2	100	15.8	1.6	260	8.5	0.7
18	90	7.4	1.0	80	11.8	1.4	110	2.9	0.4
19	40	3.1	0.6	40	6.4	1.2	20	0.4	0.1
20	30	2.7	0.5	30	4.4	1.0	10	0.1	0.0
21	10	0.8	0.3	20	2.2	0.5			
Race									
Non-Black	680	68.5	2.8	380	66.3	3.5	1,630	68.2	2.2
Any Black	210	22.7	2.5	120	21.3	2.8	490	20.6	1.7
Multi / Other	20	2.4	0.6	10	1.2	0.4	80	3.2	0.7

Hispanic	70	6.5	1.4	50	11.3*	2.1	160	8.1	1.3
Free/reduced lunch									
No	380	42.5	2.5	220	44.0	3.1	900	44.5	2.5
Free	310	40.0	3.0	170	39.1	3.5	730	39.1	2.8
Reduced	50	6.2	1.0	30	5.7	1.2	120	5.3	0.8
Free and reduced	100	11.3	2.1	50	11.2	2.4	250	11.1	1.9
Household income									
\$20,000 or less	280	30.2	2.2	150	32.9	3.0	570	24.2*	1.5
\$20,001 to \$40,000	230	25.6	1.8	130	21.8	2.1	590	25.9	1.6
\$40,001 to \$60,000	150	16.5	1.7	70	13.1	1.7	360	16.4	1.2
Over \$60,000	290	27.6	2.1	170	32.2	2.7	800	33.5*	2.1
Highest parent education									
Less than high school	100	11.0	1.3	90	19.2**	2.4	30	13.4	1.4
High school diploma or GED	390	43.0	2.1	210	36.8*	2.4	310	33.2***	1.7
Tech/trade school degree	50	5.9	0.9	20	3.5	0.9	800	5.2	0.6
2-4 year college degree	340	30.3	1.7	170	26.0	2.1	160	36.6**	1.6
Graduate degree	100	9.7	1.2	80	14.6*	1.8	880	11.7	1.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Longitudinal Transition Study 2012 (NLTS 2012).

^a Unweighted sample sizes weighted to nearest 10.

Missing data across measures ranged from 0.3% to 15.7% for students with extensive support needs who participate in the alternate assessment, and from 0.5% to 19.6% for other students with extensive support needs, and from 0.5% to 19.2% for students with other disabilities.

Table 2.

Student’s IEP/Transition Planning Experiences and Postschool Transition Goals

Characteristics	Students with extensive support needs/alternate assessment			Other students with extensive support needs			Students with other disabilities		
	n ^a	% ^b	SE	n ^a	% ^b	SE	n ^a	% ^b	SE
Student IEP/transition planning experiences									
Youth invited to an IEP/transition planning meeting	390	91.0	1.6	190	88.3	2.3	580	92.7	1.5
Youth attended IEP/transition planning meeting	740	73.3	1.9	400	67.3	2.4	1,570	64.0	1.6
Youth’s interests, strengths, and preferences discussed at the meeting	400	93.9	1.3	190	88.2	3.0	560	91.6	1.4
Youth’s role in the meeting									
Participated little or not at all	240	41.4	2.6	120	36.8	3.3	420	29.4	1.7
Provided some input	240	40.3	2.3	140	42.0	3.0	590	46.8	2.0
Took leadership	100	18.2	1.9	60	21.3	2.5	330	23.8	1.8
Youth's contribution during the meeting									
A little	360	65.8	2.3	200	63.5	3.2	530	57.6	2.4
Some	170	28.8	2.1	90	28.8	2.9	340	33.1	2.1
Mostly youth	30	5.5	1.3	20	7.7	1.6	110	9.3	1.2
Student postschool transition goals									

$\chi^2 = 14.48^{***}$

$\chi^2 = 14.45^{***}$

$\chi^2 = 6.86^*$

Postsecondary education					$\chi^2 = 11.27^{***}$		$\chi^2 = 84.10^{***}$		
	540	56.7	2.3	380	67.2	2.5	2,010	82.6	1.2
Employment							$\chi^2 = 16.82^{***}$		
	440	89.7	1.7	230	89.0	2.0	780	98.1	0.9
Independent living					$\chi^2 = 6.36^*$		$\chi^2 = 105.6^{***}$		
	660	72.0	1.8	450	78.5	2.0	2,250	92.4	0.9
Financial independence							$\chi^2 = 43.75^{***}$		
	400	80.8	2.1	240	84.3	2.8	1,020	95.5	0.9
Parent expectations on student postschool transition goals									
Postsecondary education					$\chi^2 = 17.96^{***}$		$\chi^2 = 101.63^{***}$		
	450	45.3	2.1	360	59.2	2.8	1,850	75.2	1.6
Independent living					$\chi^2 = 24.76^{***}$		$\chi^2 = 190.40^{***}$		
	520	57.0	2.0	390	71.9	2.4	2,170	92.1	0.8
Financial independence					$\chi^2 = 40.19^{***}$		$\chi^2 = 220.62^{***}$		
	520	55.5	2.0	410	74.7	2.3	2,220	92.9	0.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Longitudinal Transition Study 2012 (NLTS 2012).

Missing data ranged from 1.5%-56.8% for students with extensive support needs who participate in the alternate assessment, from 1.4% to 63.7% for other students with extensive support needs, and from 1.2% to 74.8% for students with other disabilities.

^a Unweighted sample sizes weighted to nearest 10. All Chi-square tests were compared to students with extensive support needs who participate in the alternate assessment.

^b Weighted percentage.

* $p < .05$. *** $p < .001$.

Table 3

Functional, Communication, and Self-advocacy Skills, and School and Community Service Agency Support

Characteristics	Students with extensive support needs/alternate assessment			Other students with extensive support needs			Students with other disabilities		
	n ^a	% ^b	SE	n ^a	% ^b	SE	n ^a	% ^b	SE
Functional skills									
Low	240	26.9	1.9	130	23.6	2.3	890	37.6	1.5
Medium	600	59.2	1.8	320	56.0	2.4	1,330	55.7	1.6
High	150	13.9	1.2	130	20.4	2.0	250	6.7	0.7
How well youth carries on a conversation									
No trouble carrying on a conversation	360	40.5	2.1	290	53.8	2.5	1,740	80.9	1.2
Little trouble carrying on a conversation	430	46.0	2.0	190	33.6	2.3	410	17.4	1.2
Lot of trouble understanding	120	12.4	1.3	60	11.5	1.6	50	1.5	0.3
Does not carry on a conversation	10	1.1	0.5	10	1.2	0.5	10	0.2	0.1
How well youth understands what is said to him/her									
No trouble understanding	290	32.2	2.2	270	49.1	2.7	1,600	72.7	1.5
Little trouble understanding	530	57.6	2.1	230	43.8	2.6	560	25.9	1.4
Lot of trouble understanding	90	10.0	1.1	30	6.6	1.3	40	1.4	0.3
Does not understand at all	>10	0.1	0.1	< 10	0.4	0.3	>10	0.0	0.0

$$\chi^2 = 10.23^{***}$$

$$\chi^2 = 32.31^{***}$$

$$\chi^2 = 19.67^{***}$$

$$\chi^2 = 210.3^{***}$$

$$\chi^2 = 23.54^{***}$$

$$\chi^2 = 186.95^{***}$$

Self-advocacy										
Low	200	20.5	1.5	120	19.6	2.0	300	11.4	1.0	$\chi^2 = 48.96^{***}$
Medium	370	37.2	1.8	230	40.0	2.3	810	32.2	1.5	
High	420	42.3	1.9	240	40.4	2.5	1,350	56.5	1.5	
School and Community Service Agency Support										
Youth received guidance on classes to take to prepare for postschool	520	55.7	2.0	340	59.3	2.9	1,510	63.8	1.5	$\chi^2 = 24.60^{***}$
Staff from any community agency took part in the meeting	220	52.5	3.0	70	29.8	3.5	190	27.7	2.8	$\chi^2 = 34.07^{***}$
Youth received information on further education, careers, or community living	280	64.5	2.9	130	64.3	3.8	360	56.4	2.7	$\chi^2 = 4.16^*$
										$\chi^2 = 11.71^{***}$

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Longitudinal Transition Study 2012 (NLTS 2012).

Missing data ranged from 0%-57.2% for students with extensive support needs who participate in the alternate assessment, from 0% to 63.9% for other students with extensive support needs, and from 0% to 75.1% for students with other disabilities.

All Chi-square tests were compared to students with extensive support needs who participate in the alternate assessment.

^a Unweighted sample sizes weighted to nearest 10.

^b Weighted percentage.

* p < .05. ** p < .01. *** p < .001.

Table 4

Summary of Significant Correlations (post-hoc tests) between Student IEP/Transition Planning Experiences Student Skills, and School/Community Support and Student’s Postschool Transition Goals

	Students with extensive support needs who participate in alternate assessment				Other students with extensive support needs				Students with other disabilities			
	PSE	EMP	IL	FI	PSE	EMP	IL	FI	PSE	EMP	IL	FI
Student IEP/transition planning experiences												
Attendance											*	
Youth-focus discussion									*			
Youth’s role	*					NA	*					
Youth's contribution	**			*	**		**	NA				
Student skills												
Functional skills	** (L=M<H)		*** (L=M<H)			*(L<M=H)	*** (L=M<H)					
Carrying on conversation		* (Lot<Little =No)	** (Lot<Little =No)				*** (Lot<Little =No)	* (Little< No)	** (Little< No)		*(Lot=Little <No)	
Understanding what is said to him/her	*			** (Little<No)	** (Lot=Little <No)		** (Lot<Little e<No)		*** (Little< No)		** (Little< No)	

	*	***	***	**		**	***	***
	(L<M=H)	(L<M<H)	(L<M=H)	(L<M=H)		(L=M<H)	(L<M<H)	(L<M=H)
<hr/>								
School/community support								
Receiving guidance for postschool		*		*				
Community service agency attendance					*		*	

Only items significantly correlated with student’s postschool goals were included in the table. Only results of post-hoc tests for student skills included in this table. Results of post-hoc tests were listed in the parentheses ().

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Longitudinal Transition Study 2012 (NLTS 2012).

Note. PSE = Postsecondary education; EMP = Employment; IL = Independent living; FI = Financial independence. NA = Chi-square analysis was not performed because one of the cells with no valid responses. L = Low, M = Medium; H = High; No= No trouble at all; Little= Little trouble; Lot = Lot of trouble or cannot do it. NA: one of the cells’ sample was equal to 0, so no Chi-square analysis was conducted.

* $p < .05$. ** $p < .01$. *** $p < .001$.