

# Availability of and Access to Career Development Activities for Transition-Age Youth With Disabilities

Career Development for Exceptional Individuals  
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## Abstract

Equipping youth with and without disabilities for the world of work has been the focus of ongoing legislative and policy initiatives. The authors examined the extent to which career development and vocational activities were available to and accessed by youth with severe disabilities or emotional and behavioral disorders attending 34 urban, suburban, and rural high schools. Although school-level representatives (e.g., administrators, guidance counselors, student services directors) identified an array of career development opportunities offered by their schools, participation by youth with disabilities in these experiences was reported to be fairly limited. Potential factors influencing the participation of youth included disability-related needs and limited professional development opportunities for educators. The authors present recommendations for improving research and practice aimed at better preparing youth with disabilities for their future careers.

## Keywords

school-to-work, transition assessment, employment, high school, adolescence

Preparation for adulthood and the world of work begins early in life and evolves over time as students progress through elementary, middle, and high school (Kohler & Field, 2003; Weidenthal & Kochhar-Bryant, 2007). Efforts to promote career awareness and encourage occupational exploration are typically introduced early in and continue throughout the school curriculum to increase youths' awareness of the array of career possibilities that lies ahead and to assist them in discovering their interests, preferences, and strengths (Sitlington & Clark, 2006). But it is the experiences that youth have during high school that are especially salient in equipping them for their future careers. Adolescence represents a critical developmental period during which most youth participate in curricular, job, and community experiences that can help them acquire important work skills and values, inform their career decision making, and shape their aspirations for the future (Benz, Lindstrom, & Yovanoff, 2000; Vondracek & Porfeli, 2006). Recognizing these benefits, high schools have long played a role in designing, offering, or sponsoring experiences that further youths' preparation for their future careers (Phelps & Hanley-Maxwell, 1997). Indeed, high school redesign efforts are now calling on secondary schools to offer educational experiences that integrate a rigorous academic curriculum with relevant, authentic learning experiences (Joselowky, 2007).

These career development and vocational experiences are especially critical for youth with disabilities (Rusch, Hughes, Agran, Martin, & Johnson, 2009; Test, 2004). Indeed, early work-related experiences during high school comprise one of the most consistent predictors of post-school employment outcomes for youth with disabilities. Research indicates that school-sponsored work experiences, vocational education enrollment, and afterschool jobs are all empirically linked to more favorable employment outcomes during early adulthood (Baer et al., 2003; Benz et al., 2000; Corbett, Clark, & Blank, 2002; Fabian, 2007). In addition, a range of other activities related to career assessment, planning, exploration, instruction, and connecting are advocated as important components of recommended secondary education aimed at increasing the employability of youth (LeConte, 2006; National Alliance for Secondary Education and Transition, 2005; Sitlington & Clark, 2006). Recognition of this link between what happens during high school and successful post-school outcomes is challenging educators and administrators to be much more intentional about the experiences they provide for all youth—particularly those with disabilities.

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Yet, the post-school outcomes experienced by substantial numbers of youth with disabilities suggest that too many youth with disabilities are exiting school without the skills, attitudes, experiences, and linkages that will launch them successfully to the world of work and/or inform their career path. Despite modest improvements evidenced during the last two decades, unemployment, underemployment, and segregated employment still characterize the vocational landscape for many young adults with disabilities—especially youth with severe disabilities (i.e., intellectual disabilities, autism, multiple disabilities) or emotional and behavioral disorders (EBD; Rusch & Braddock, 2004; Wagner, Newman, Cameto, & Levine, 2005). For example, only 25% of young adults with intellectual disabilities, 32% of youth with autism, and 36% of young adults with EBD were employed two years out of high school, compared to 46% of youth with learning disabilities, 58% of youth with speech/language impairments, and 63% of youth without disabilities (Wagner, Newman, Cameto, Garza, & Levine, 2005). Indeed, youth with severe disabilities or EBD consistently experience more disappointing in-school and post-school employment outcomes than virtually any other group of high school students. It is these youth who represent the focus of this study.

The dramatically different post-school pathways experienced by these youth with disabilities may be influenced—in part—by the career development and vocational experiences they are or are not afforded during high school. Although the contributions of early work and career development experiences have been clearly documented for adolescents with disabilities, little is known about whether these youth are accessing these experiences. The extent to which career development preparation comprises the secondary curriculum of youth can shape the skills they acquire, the resumes they develop, the relationships they build, their engagement in the community, and ultimately, their aspirations for the future. Guy, Sitlington, Larsen, and Frank (2009) examined the extent to which employment preparation courses were available at 51 high schools in Iowa and found that a variety of offerings were potentially available to youth. As Johnson (2004) noted, however, “professionals and parents often lack an awareness of the array of programs and services available to support a young adult’s employability” (p. 244). Additional research is needed to determine whether these experiences are involving youth with disabilities (Test, 2004). The availability of career development activities in high schools may not necessarily ensure their widespread use. The literature suggests a number of potential barriers to classroom and school participation, including the attitudes and experiences of educators, the availability of needed supports, concerns about behavioral challenges, and the perceptions and preferences of youth (e.g., Dupoux, 2008; Siperstein, Norins, &

Mohler, 2007). In this study, we focused on identifying potential gaps between activities offered and accessed, which could spur schools to focus on ensuring that high school redesign efforts impact all youth.

Determining the extent to which youth served under different disability categories have similar access to these experiences may also be instructive. Zhang, Ivester, and Katsiyannis (2005) surveyed 105 middle and high school special educators about the types of work- and school-based experiences offered at their schools. Although these educators reported that a variety of experiences were available, they perceived the quality of these experiences to be somewhat limited. However, the authors did not document the extent to which youth with disabilities accessed these opportunities or whether youth with different disabilities experienced similar involvement. Administrators, guidance counselors, student services directors, vocational educators, and others may automatically assume that all youth within their high school enjoy uniform and equitable access to career development activities within their school. Research is needed to examine further issues related to both accessibility and equity within the career development programming of high schools. The perspectives of these school-level staff may be especially germane to this discussion, as schools across the nation attempt to respond meaningfully to access to the general curriculum and accountability mandates that may appear to compete with an emphasis on career and vocational preparation (Bassett & Kochhar-Bryant, 2006; Krentz, Clapper, Thurlow, & Johnson, 2001).

The purpose of this study was to examine school-level practices that may influence the preparation youth with disabilities receive related to employment from the perspectives of school administrators. To address current gaps in the literature addressing career development offerings for youth with severe disabilities or EBD, we sought to answer the following questions: What career development and vocational education activities do high schools make available to transition-age youth? To what extent are youth with severe disabilities or youth with EBD accessing these career development and vocational education activities? We anticipated that the career development experiences of these youth would be limited to a fairly narrow range of activities, with youth with severe disabilities experiencing more limited involvement than youth with EBD.

## Method

### *Participating Schools and Respondents*

We asked administrators and other school-level representatives from 34 high schools to provide information about the career development and vocational experiences available to youth with and without disabilities at their respective schools.

These high schools were participating in a broader project examining factors that impact youth employment and community participation outcomes during the school year and summer months. Located within 26 school districts, we purposely selected these schools because they served geographically, economically, and culturally diverse populations of youth with disabilities within the state.

Student enrollment at each of the high schools ranged from 135 to 2,386 students ( $M = 1,311$ ;  $SD = 630$ ) and schools primarily served rural (32.4%), suburban (29.4%), or urban (38.2%) communities. Average race/ethnicity of youth across schools was African American 10.4% ( $SD = 19.6\%$ ; range, 0.3–89.7%), Asian American 4.2% ( $SD = 4.9\%$ ; range, 0–21%), European American 77.3% ( $SD = 25.6\%$ ; range, 4.0–98.7%), Latino 7.1% ( $SD = 8.6\%$ ; range, 0–43.9%), and American Indian 1.1% ( $SD = 1.4\%$ ; range, 0–7.1%). The percentage of youth receiving special education services in each school averaged 15.9% ( $SD = 8.6\%$ ) and those receiving free or reduced price lunch averaged 26.6% ( $SD = 22.7\%$ ). An average of 1.7% youth at these schools received services under the disability category of cognitive disabilities, 0.6% under the category of autism, and 2.7% under the category of emotional behavioral disability. Information about the prevalence of youth with multiple disabilities was not available in this state. Most schools offered summer school programs (91.2%), English as a second language (ESL) or bilingual education programs (79.4%), gifted and talented programs (73.5%), dropout prevention programs (64.7%), and extended school year (ESY) programming (61.8%).

Although study invitations were mailed to school-level administrators, the cover letter indicated that questionnaires could be completed by any school-level staff person familiar with the career, vocational, and other transition-related programs available at the high school. Respondents included principals and assistant principals ( $n = 16$ , 47.1%), student services directors ( $n = 9$ , 26.5%), school counselors ( $n = 4$ , 11.8%), and other school staff ( $n = 5$ , 14.7%; e.g., transition coordinators/director). They reported having an average of 10 years experience at their school ( $SD = 7.1$ ; range, 2–33 years), and the majority was female (58.8%).

### Career Development Activities Questionnaire

We designed a questionnaire to gather information on the career development and vocational education activities offered by schools and to gauge the extent to which youth with severe disabilities or youth with EBD participated in these various activities. Survey items were derived through a review of the transition literature (e.g., Phelps & Hanley-Maxwell, 1997), transition textbooks (e.g., Flexer, Baer, Luft, & Simmons, 2005; Sitlington & Clark, 2006), and national datasets and projects (e.g., National Education Longitudinal Study, 1988;

National Longitudinal Survey of Youth, 1997; National Longitudinal Transition Study–2, 2001; Silverberg, Warner, Fong, & Goodwin, 2004) addressing career development activities schools may offer to youth with and without disabilities. Preliminary drafts of the survey were reviewed by three researchers with expertise in secondary transition and three graduate students in special education—all of whom were on the project team.

The primary section of the questionnaire addressed the availability of career development and vocational education activities offered by each school, as well as the extent to which youth with severe disabilities or EBD were participating in these offered experiences. We asked respondents to indicate which of 20 different career development and vocational education activities were offered through or sponsored by their school during the current school year. Activities, identified through a review of the career development literature, addressed career assessment and planning (career or job counseling, career interest assessments, written career plans, career aptitude assessments), exploration (tours of local businesses or industries, job-shadowing programs, tours of colleges or technical schools, college fairs or college days, speakers brought in from local businesses), instruction (career exploration courses, tech-prep programs, interviewing or resume-writing practice), connecting (job fairs or career days, job placement services for students, career or job resource center, mentorship programs with employers), and hands-on work experiences (school-based enterprises or businesses, paid or unpaid internships, cooperative education programs, apprenticeship programs). We also provided space for respondents to identify additional activities not included on our list. For each activity offered by the school, we asked respondents to estimate the extent to which (a) students with severe disabilities (i.e., students with cognitive disabilities, autism, multiple disabilities) and (b) students with EBD at their school were involved in each activity. Responses were made on a four-point Likert-type scale ranging from 1 (*none*) to 4 (*most*). We provided additional space for respondents to include comments or questions.

The other section of the questionnaire consisted of five questions designed to gather information about the school's related programs. First, we asked respondents to indicate which (if any) of six programs were offered by their school (i.e., ESL and bilingual education; summer school; ESY programs; job placement for graduating seniors; gifted and talented programs; dropout prevention programs). Second, we asked whether the school had a community service requirement for graduation and, if so, how many hours were required for graduation; whether students received academic credit for participation; and whether all students receiving special education services had to meet this

requirement. Third, we asked respondents to identify all areas in which vocational education courses were offered in their school (i.e., agriculture and renewable resources; business, marketing, and distribution; child care and education; food service and hospitality; health care; public and protective services; technology and communications; trade and industry). We provided space for respondents to specify any additional vocational education areas not included in the list. Fourth, we asked respondents to identify which of seven career-related student organizations had active chapters at their school: Business Professionals of America (BPA), Distributive Education Clubs of America (DECA), Future Business Leaders of America (FBLA), Future Farmers of America (FFA), Health Occupations Students of America (HOSA), National Postsecondary Agricultural Student Organization (PAS), and Technology Student Association (TSA). We provided space for respondents to specify any additional organizations not included in the list. Fifth, we asked respondents to report whether professional development opportunities had been provided to teachers or other school staff during the previous 12 months in the areas of (a) integrating academic and career education; (b) developing linkages with local employers; (c) developing linkages with technical schools, colleges, and other postsecondary education programs; (d) developing or implementing school-to-work programs; and (e) implementing community resource mapping. We provided space to list other career development-related training not included in this list.

### Data Collection and Analysis

During the spring semester, we mailed a questionnaire packet to administrators at each of the 34 high schools participating in our research project, which included a cover letter requesting his or her participation, a copy of the survey, and a return postage-paid envelope. Respondents were told that the purpose of the survey was to increase understanding of the ways schools were preparing youth to transition to life after high school. Estimated completion time was less than half an hour. Follow-up mailings were made to obtain unreturned questionnaires, yielding a final return rate of 100%—one questionnaire from each school. We analyzed data in two steps. First, we calculated descriptive statistics to summarize administrator responses across high schools. Second, we used the nonparametric Wilcoxon signed-rank two-tailed tests to analyze the extent to which students with severe disabilities and students with EBD differed in their involvement in career development and vocational education activities within the schools. This decision was made because normality of data could not be assumed and responses for the two groups were not independent. However, paired samples *t* tests produced comparable results.

## Results

### What Career Development Activities Are Available to and Accessed by Youth With Disabilities?

A wide variety of career development opportunities were available to students with disabilities at these high schools. Overall, schools offered a median of 14 different career development and vocational activities (range, 5–20; *SD* = 3.8). All of the 20 activities listed were offered by at least one third of participating schools (see Table 1). The most frequently offered activities were career interest assessments (91.2%), tours of colleges or technical schools (85.3%), job-shadowing programs (82.4%), interviewing or resume-writing practice (76.5%), and speakers brought in from local businesses (76.5%). The least frequently offered activities were mentorship programs with employers (34.4%), job placement services for students (44.1%), school-based enterprises or businesses (52.9%), and cooperative education programs (52.9%). The only additional career development activity written in by a respondent was supervised job placement (*n* = 1).

When offered by a school, however, participation in these activities varied widely for youth with disabilities (see Table 1 and Figure 1). More than half of respondents indicated that some or most youth with severe disabilities at their school participated in career or job counseling (77.3%), career interest assessments (75.8%), written career plans (72.2%), tours of local businesses or industries (68.2%), interviewing or resume-writing practice (65.2%), job fairs or career days (63.1%), and job placement services (53.4%). For the remaining 13 activities, more than half of schools indicated that none or few youth with severe disabilities participated.

Patterns for youth with EBD were somewhat different. More than half of schools indicated that some or most of youth with EBD at their school participated in career interest assessments (96.6%), career or job counseling (95.9%), written career plans (95.0%), career aptitude assessments (79.2%), job fairs or career days (72.8%), interviewing or resume-writing practice (69.3%), career exploration courses (68.0%), tours of local businesses or industries (62.5%), tours of colleges or technical schools (58.6%), career or job resource center (57.1%), tech-prep programs (54.6%), and speakers brought in from local businesses (50.0%). For the remaining eight activities, more than half of schools indicated that none or few youth with EBD participated.

We conducted Wilcoxon signed-rank tests for each career development and vocational activity listed to evaluate whether participation differed significantly for youth with severe disabilities or EBD (see Figure 1). The results indicated that youth with severe disabilities were significantly less likely than youth with EBD to participate in 9 of 20 activities, including career interest assessments ( $z = -3.40$ ,  $p = .001$ ), tours of colleges or technical schools ( $z = -3.37$ ,

**Table 1.** Availability and Accessibility of Career Development Activities for Youth With Disabilities

Activities	Schools Offering (%)	Youth With Severe Disabilities						Youth With EBD					
		In Schools Offering the Activity (%)				M	SD	In Schools Offering the Activity (%)				M	SD
		None	Few	Some	Most			None	Few	Some	Most		
Career interest assessments	91.2	3.4	20.7	31.0	44.8	2.2	0.9	0.0	3.3	23.3	73.3	2.7	0.5
Tours of colleges or technical schools	85.3	28.0	40.0	16.0	16.0	1.2	1.0	3.4	37.9	34.5	24.1	1.8	0.9
Job-shadowing programs	82.4	16.0	48.0	12.0	24.0	1.4	1.0	7.1	50.0	35.7	7.1	1.4	0.7
Interviewing or resume-writing practice	76.5	4.3	30.4	39.1	26.1	1.9	0.9	0.0	30.8	38.5	30.8	2.0	0.8
Speakers brought in from local businesses	76.5	13.6	59.1	0.0	27.3	1.4	1.1	11.5	38.5	19.2	30.8	1.7	1.1
Career exploration courses	73.5	9.5	52.4	9.5	28.6	1.6	1.0	0.0	32.0	36.0	32.0	2.0	0.8
College fairs or college days	73.5	26.1	43.5	17.4	13.0	1.2	1.0	16.0	44.0	28.0	12.0	1.4	0.9
Tours of local businesses or industries	73.5	0.0	31.8	45.5	22.7	1.9	0.8	0.0	37.5	41.7	20.8	1.8	0.8
Career or job counseling	70.6	4.5	18.2	18.2	59.1	2.3	1.0	0.0	4.2	29.2	66.7	2.6	0.6
Career aptitude assessments	70.6	4.8	47.6	23.8	23.8	1.7	0.9	0.0	20.8	29.2	50.0	2.3	0.8
Apprenticeship programs	70.6	68.2	22.7	4.5	4.5	0.5	0.8	25.0	62.5	12.5	0.0	0.9	0.6
Paid or unpaid internships	67.6	35.0	30.0	20.0	15.0	1.2	1.1	19.0	61.9	19.0	0.0	1.0	0.6
Job fairs or career days	64.7	10.5	26.3	26.3	36.8	1.9	1.1	0.0	27.3	36.4	36.4	2.1	0.8
Tech-prep programs	64.7	15.8	68.5	10.5	5.3	1.1	0.7	4.5	40.9	45.5	9.1	1.6	7.3
Career or job resource center	61.8	5.3	57.9	15.8	21.1	1.5	0.9	4.8	38.1	38.1	19.0	1.7	0.9
Written career plans for students	58.8	0.0	27.8	27.8	44.4	2.2	0.9	0.0	5.0	30.0	65.0	2.6	0.6
Cooperative education programs	52.9	46.7	33.3	0.0	20.0	0.9	1.2	27.8	38.9	16.7	16.7	1.2	1.1
School-based enterprises or businesses	52.9	11.8	52.9	11.8	23.5	1.5	1.0	22.2	50.0	22.2	5.6	1.1	0.8
Job placement services for students	44.1	0.0	46.7	26.7	26.7	1.8	0.9	7.7	46.2	38.5	7.7	1.5	0.8
Mentorship programs with employers	34.4	11.1	77.8	0.0	11.1	0.8	0.6	20.0	80.0	0.0	0.0	0.8	0.4

Note: Percentages in the columns labeled None, Few, Some, and Most include only those schools reporting that they offered the activity. EBD = emotional and behavioral disorder.

$p = .001$ ), career aptitude assessments ( $z = -3.12, p = .002$ ), tech-prep programs ( $z = -2.81, p = .005$ ), career exploration courses ( $z = -2.64, p = .008$ ), apprenticeship programs ( $z = -2.50, p = .013$ ), job fairs or career days ( $z = -2.45, p = .014$ ), career or job counseling ( $z = -2.27, p = .023$ ), and speakers brought in from local businesses ( $z = -2.124, p = .034$ ). No significant differences were associated with the remaining activities.

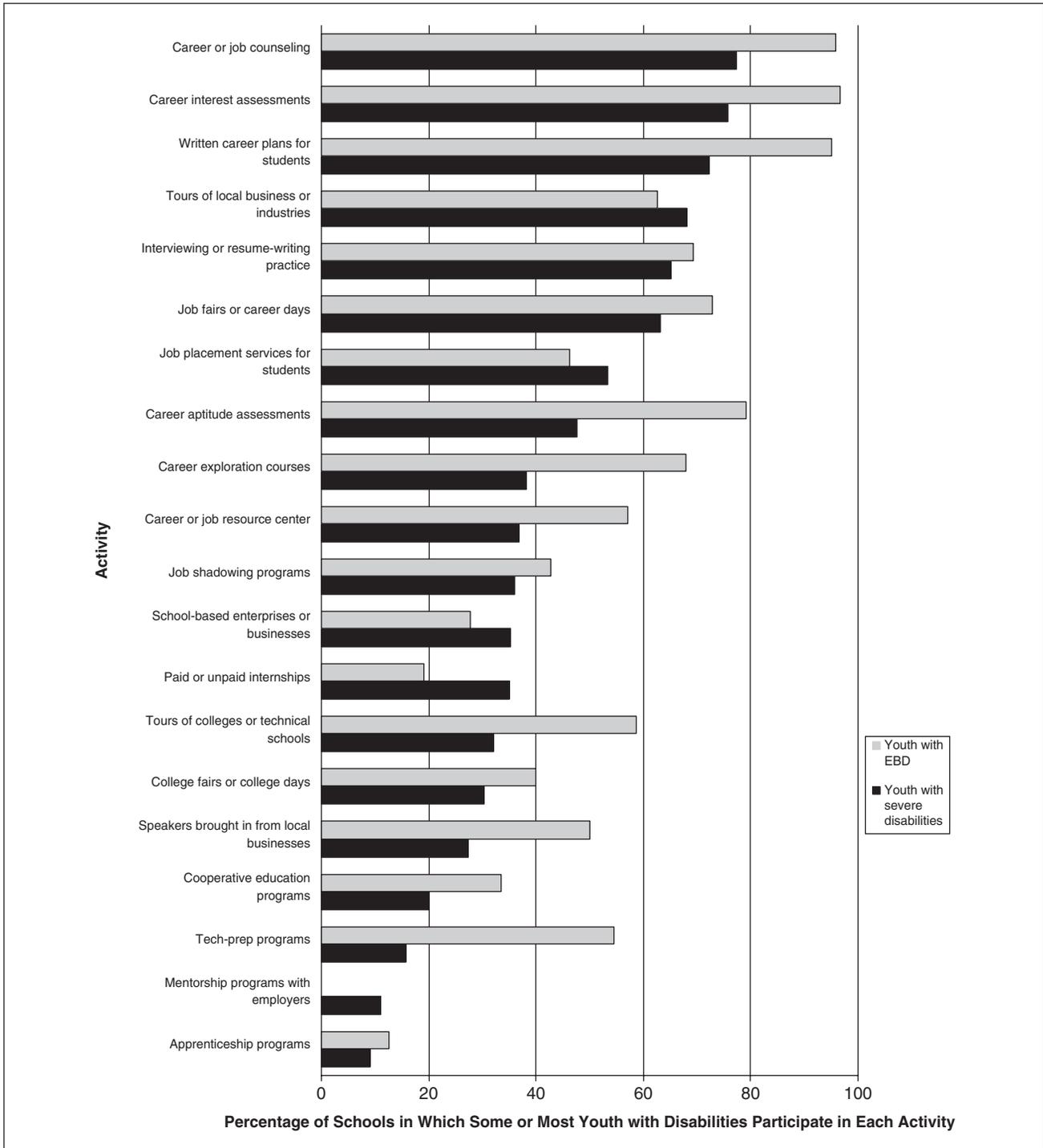
### *In Which Vocational Education Areas Do Schools Offer Courses?*

We asked respondents to report vocational education courses offered in their school. Overall, the median number of different areas in which high schools offered vocational courses

was 6.5 (range, 0–9;  $SD = 2.1$ ). Most schools reported offering vocational courses in the areas of business (88.2%), technology and communications (82.4%), marketing and distribution (79.4%), trade and industry (76.5%), childcare and education (76.5%), food service and hospitality (70.6%), and agriculture and renewable resources (50.0%). Few schools reported offering courses in the areas of health care and public and protective services. The only additional area written in by respondents was auto technology ( $n = 2$ ).

### *What Opportunities for Participating in Career-Related Organizations Exist in Schools?*

We asked respondents to identify the career-related student organizations with active chapters at their school. Overall,



**Figure 1.** Percentage of Schools for Which Some or Most Youth With Severe Disabilities or Youth With EBD Were Reported to Be Participating in Each Career Development Activity  
 Note: EBD = emotional and behavioral disorder.

the median number of different organizations at a high school was 2 (range, 0–5; *SD* = 1.3). The most frequently cited active chapters were Future Business Leaders of

America (50.0%), Distributive Education Clubs of America (50.0%), and Future Farmers of America (47.1%). Relatively few schools had active chapters of Health Occupations

Students of America (17.6%) or Technology Student Association (2.9%) and none had active chapters of National Postsecondary Agricultural Student Organization or Business Professionals of America. Additional organizations written in by respondents were Family Career and Communication Leaders of America ( $n = 1$ ), Family and Community Service ( $n = 1$ ), Vocational Industry Clubs of America ( $n = 2$ ), and Model United Nations ( $n = 1$ ).

### *What Career-Related Professional Development Opportunities Are Offered by Schools?*

More than half of the schools indicated they offered training on developing or implementing school-to-work programs (55.9%), followed by integrating academic and career education (52.9%), and developing linkages with technical schools, colleges and other postsecondary education programs (47.1%). Relatively few schools offered training related to developing linkages with local employers (35.3%) and implementing community resource mapping (14.7%). Additional professional development opportunities written in by respondents were career cruising ( $n = 1$ ), agriscience advisory committee ( $n = 1$ ), career clusters ( $n = 1$ ), state transition conference ( $n = 1$ ), and junior achievement program training ( $n = 1$ ).

### *What Community Service Graduation Requirements Exist at Schools?*

When asked about their schools' community service requirements for graduation, only six respondents (18.2%) indicated their school had such a requirement. At these six schools, two required 20 hours of service, three required 24 hours of service, and one required 40 hours of service. None of these schools reported that students received academic credit for participating, and all indicated that students receiving special education services were also expected to meet this requirement.

## **Discussion**

Equipping youth with disabilities for the world of work has long been considered a central focus of effective transition programming (Halpern, 1985; Kohler & Field, 2003; Phelps & Hanley-Maxwell, 1987). We found that despite the availability of myriad vocational and career-related program offerings at many high schools, the participation of youth with disabilities in these efforts can be described as generally uneven and fairly limited. Our findings reaffirm calls to increase access to a broader range or greater depth of career development experiences for youth with disabilities during high school (Carter & Lunsford, 2005; Rusch et al., 2009). The results of this study extend the literature on career

development preparation for youth with disabilities in several important ways.

First, we found that high schools generally offered an array of avenues for promoting the skills, knowledge, attitudes, and experiences that can prepare youth for their future careers. Although national trends and policy initiatives suggest narrowing the emphasis of the secondary curriculum toward addressing core academic standards (Bassett & Kochhar-Bryant, 2006; Guy et al., 2009; Sitlington & Neubert, 2004), schools appear to still be making efforts to equip youth with the vocational and collateral skills that can further their career development. For example, a large majority of schools offered career interest assessments, job-shadowing programs, interviewing and resume-writing practice, speakers, and career exploration courses. Indeed, schools reported offering an average of 14 different activities during the previous year, in addition to an average of 2 different career-related student organizations and vocational education coursework in an average of 6 different areas. The availability of these diverse learning options bodes well for youth with disabilities and their transition-planning teams, who could potentially draw on a range of opportunities to tailor a sequence of activities that builds on the strengths, needs, interests, and preferences of youth with disabilities. The extent to which special educators are familiar with these opportunities and feel confident designing and delivering needed supports, however, remains unexplored.

Unfortunately, the three career development activities least commonly available at these high schools may be especially beneficial for youth with severe disabilities or EBD. For example, school-based enterprises (offered at only 52.9% of schools) enable youth to acquire work-related experience without leaving the campus, circumventing oft-cited transportation barriers and integrating vocational learning within the academic curriculum (Ross, 2002). Job placement services (offered at only 44.1% of schools) can also assist youth in making direct connections to local employment opportunities that align with their interests, strengths, and goals for post-school careers. Such activities can be especially beneficial for youth with severe disabilities who typically require support to make employer connections (Certo et al., 2003) and youth with EBD who often experience difficulty finding sustainable job matches (Carter & Wehby, 2003). Finally, the identification of a mentor or a relationship with a caring adult—particularly with a local employer who can convey information about work expectations—has been advocated as a recommended transition practice (Whelley, Radtke, Burgstahler, & Christ, 2003). For youth with EBD, this may represent a critical element in promoting school engagement and completion (Sinclair, Christenson, & Thurlow, 2005). Yet, barely one third of schools offered mentorship opportunities for any students. Efforts to expand these programmatic

offerings hold potential to enhance the transition experiences of all youth.

Second, our data suggest that access to the myriad career development activities offered by high schools may be especially restricted for youth with severe disabilities or EBD. As with many other aspects of the secondary school curricula, it is not simply the limited availability of opportunities that constitutes the primary barrier for youth with disabilities. Even when activities were offered within the high school curriculum, relatively few youth with severe disabilities were reported to participate. Indeed, more than one quarter of schools reported that *none* of their students with severe disabilities participated in paid or unpaid internships, apprenticeship programs, cooperative education programs, college or technical school tours, or college fairs. These students may be missing out on important, relevant experiences that hold potential to shape and broaden their goals for their future and aspirations for life after high school. Transition-planning teams may need to be more deliberate about ensuring that the full range of curricular and preparation options are considered for students with the most extensive support needs, as well as ensuring that adequate adaptations and modifications are available to guarantee their accessibility. Such efforts are likely to be enhanced by strong cross-departmental collaboration among special education case managers, vocational teachers, transition teachers, and other school staff (Li, Bassett, & Hutchinson, 2009; Michaels & Ferrara, 2005).

Not all activities, however, appear to go untapped for youth with disabilities. More than half of schools indicated that some or most youth with disabilities at their school participated in (a) career or job counseling, (b) career interest assessments, (c) written career plans, (d) tours of local businesses or industries, (e) interviewing or resume writing practice, (f) job fairs or career days, and (g) career aptitude assessments. Given the central role assessment plays in effective planning and service delivery (Carter, Trainor, Sun, & Owens, 2009; Morningstar & Liss, 2008), the attention given to these transition assessment and planning activities is somewhat promising. Indeed, the Individuals With Disabilities Education Improvement Act (2004) now mandates that the postsecondary goals of transition-age youth be “based upon age-appropriate transition assessments related to training, education, employment, and, where appropriate, independent living skills” (20 U.S.C. § 1414(d)(1)(A)(i)(VIII)(aa)). Unfortunately, none of the six most common career development activities accessed by youth with severe disabilities involved direct work-related experiences. Yet, research has consistently found that it is early, hands-on, and frequent work experiences that are among the most consistent predictors of improved post-school employment outcomes (Benz et al., 2000; Fabian, 2007; Rabren, Dunn, & Chambers, 2002). Additional research is

needed to explore how schools might expand the hands-on employment options that comprise the high school experiences of youth with disabilities, including school-based enterprises, school-sponsored work experiences, internships, and afterschool or summer jobs (Carter, Ditchman, et al., in press).

Third, little is known about potential factors influencing the extent to which youth with disabilities access these activities both within and across participating high schools. We documented substantial differences in the participation of youth with severe disabilities and youth with EBD across almost half of the 20 activities, suggesting that disability-related support needs may represent one salient factor limiting the participation of certain youth. Participation in general education, vocational education, extracurricular and other transition-related activities historically has been especially limited for adolescents with severe disabilities, perhaps more so than any other disability category (Kleinert, Miracle, & Sheppard-Jones, 2007; Williamson, McLeskey, Hoppey, & Rentz, 2006). Indeed, special educators who serve these youth often identify an array of issues that influence their decisions to limit or promote involvement in school and community activities, such as the nature of students’ instructional needs, challenging behaviors, and availability of needed supports (Brozovic, Stafford, Alberto, & Taber, 2000; Trainor, Carter, Owens, & Swedeen, 2008).

The limited availability of professional development and training opportunities focused on including youth with disabilities in career development programming may represent a second factor influencing the participation of youth in activities at these high schools. We found that career-related professional development opportunities were infrequently available at participating high schools. Educators may lack an awareness of the importance of promoting inclusion within this aspect of the school curriculum, as well as possess limited knowledge about effective strategies for supporting the inclusion of youth with extensive support needs (cf., Carter & Hughes, 2006; Washburn-Moses, 2005). Research also suggests that limited preservice training addressing career development continues to be available to special educators (Anderson et al., 2003; Kohler & Greene, 2004) and that virtually no efforts have been made to integrate such information into the professional development of vocational educators, guidance counselors, and other secondary-level staff (Agran, Cain, & Cavin, 2002; Fives, 2008).

The literature on secondary inclusion suggests that a combination of barriers may coalesce in ways that limit consideration of the full range of career development experiences for youth with disabilities. For example, the attitudes of high school teachers toward including students with disabilities, accessibility of programs and curricula, administrator support, scheduling, transportation, availability of school-wide resources, attitudes of employers or

community members, expectations of teachers or family members, and the expectations youth hold for themselves have all been cited as factors influencing the employment-related experiences of youth with disabilities (e.g., Carter & Hughes, 2006; Grigal & Neubert, 2004; Morgan & Alexander, 2005; Trainor et al., 2008; Wandry et al., 2008; Zhang et al., 2005). Unfortunately, most research on secondary inclusion has narrowly addressed participation in core academic or elective courses, with less attention given to career-related experiences. Additional research is needed (a) to explore the extent to which any or all of these represent salient barriers to career development and (b) to identify promising planning, instructional, and support models that address these cited barriers and expand involvement in the array of career development activities occurring outside the classroom.

Fourth, several additional offerings at these schools may represent potential avenues for addressing the career development of youth. For example, service learning is frequently advocated as an authentic context for integrating academic and vocational learning within meaningful service activities, providing students with a more motivating context to learn important skills and attain career awareness (Dymond, Renzaglia, & Chun, 2008). Expanding the access of youth with severe disabilities to these experiences, however, requires both intentional planning and a shift in focus from youth as primary “recipients” of service activities to actual “providers” of service (Carter, Swedeen, Moss, & Pesko (in press)). Similarly, extracurricular programs focused on career development (e.g., DECA, FBLA, FFA) can enhance career awareness, provide resume-building experiences, promote social relationships among classmates with shared interests, and provide mentoring relationships. Such extracurricular experiences, however, must be coupled with deliberate planning and adequate support. Fortunately, all of these activities can serve as an adjunct to learning within the general curriculum and can begin much earlier than high school. Indeed, researchers, policy makers, and educators have advocated devoting earlier attention to promoting career development (Weidenthal & Kochhar-Bryant, 2007).

### *Limitations and Future Research*

Future research should address several limitations of this study. First, we documented somewhat limited involvement among youth with disabilities in an array of career development opportunities offered through their schools. However, we directly examined only two factors that may contribute to this limited involvement (i.e., disability label, professional development offerings). Future researchers should query stakeholders about prominent barriers to the participation of youth with disabilities in various career development activities and recommendations for addressing these issues. Youth themselves represent a particularly relevant source

of information about the factors they perceive hinder their own involvement (Kortering, Braziel, & Tompkins, 2002). Second, we focused only on two groups of youth with disabilities. Although this decision was made because the employment outcomes of these students have historically been among the most disheartening, career development experiences hold similar value for youth served under other disability categories (e.g., learning disabilities, hearing impairments), as well as youth without disabilities. Additional research is needed to explore factors influencing the involvement of these students.

Third, although we documented the extent to which high school students are accessing an array of career development activities, we still do not know which of these experiences—or combination of experiences—contribute most strongly to improved employment outcomes during and after high school. All transition experiences are not the same, and the needs of different students may vary considerably. Additional research is needed that more directly links effective school programs and experiences to specific outcomes for youth with specific support needs (cf., Benz et al., 2000; Corbett et al., 2002). In other words, a more sophisticated knowledge base is needed that addresses which experiences predict which outcomes for which students. Fourth, although the 34 high schools participating in this project were selected to represent schools serving geographically, economically, and culturally diverse communities, our decision not to randomly select schools for this project ultimately limits the generalizability of our findings. Additional research should explore the extent to which these participation patterns are typical within other schools serving similar and divergent communities.

Fifth, we did not ask schools to provide information that would enable us to assess the format and quality of available career development activities, including whether such activities were inclusive, meaningfully integrated within the curriculum, or informed by evidence-based practices. Moreover, because we did not offer explicit definitions and examples of these 20 activities, it is possible that variations existed in the ways respondents understood or implemented each of these activities at their schools. The extant literature documents divergent findings regarding what schools consider to be adequate transition assessment, planning, instruction, and exploration activities (e.g., Morningstar & Liss, 2008). The quality of these experiences is as important to attend to as their availability. Sixth, we queried respondents about the accessibility of career development activities, rather than directly measuring course and activity involvement in this study. Although this introduces potential for biased report, we would presume any bias would fall in the direction of assuming more involvement in these activities than exists. If so, the overall picture may be somewhat bleaker than we are reporting.

## Conclusions

Our findings underscore the importance of strengthening efforts to ensure that high schools are providing *all* students with experiences and meaningful opportunities that will prepare them well for the world of work. The limited involvement of youth with disabilities in these experiences and opportunities suggests that low employment-related expectations may continue to be pervasive among educators, parents, or even youth with disabilities themselves. To ensure that youth with disabilities are able to achieve their career-related aspirations for life after high school, additional efforts are needed to design high school experiences that meaningfully couple rigorous instruction with relevant learning experiences.

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