

# Career and work-based learning interventions for young recipients of Supplemental Security Income

Mark S. Tucker<sup>a,\*</sup>, Mari S. Guillermo<sup>b</sup> and Vanessa C. Corona<sup>b</sup>

<sup>a</sup>*Department of Administration, Rehabilitation and Postsecondary Education, San Diego State University, San Diego, CA, USA*

<sup>b</sup>*Interwork Institute, San Diego State University, San Diego, CA, USA*

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## Abstract.

**BACKGROUND:** The Workforce Innovation and Opportunity Act prioritized provision of vocational rehabilitation (VR) services to young adults with disabilities, reinforcing the importance of assisting young persons with disabilities to prepare for and engage in employment.

**OBJECTIVE:** The purpose of this investigation was to examine patterns of provision of career and work-based learning interventions to young SSI recipients.

**METHODS:** This investigation was accomplished through analysis of case service data of 1,646 individuals who participated in a multiyear program designed to improve educational and employment outcomes. Discrepancies in career and work-based learning interventions were examined based upon age, gender, disability type, parent employment status, parent education level, and youth and parent expectations about work and education.

**RESULTS:** No differences in interventions were observed by gender, age at enrollment, or type of disability. Affirmative expectations about going to work or attending college after completing high school were associated with higher mean intervention scores for some types of career and work-based learning interventions.

**CONCLUSIONS:** Findings suggest that gender, age, and disability did not contribute to differences in provision of services to young SSI recipients. Additional findings underscore the importance of fostering youth and parent expectations about youth engaging in work after completing high school.

Keywords: Interventions, SSI, youth, transition

## 1. Introduction

Gainful employment, a satisfying career, and economic self-sufficiency are attainments valued by society and often viewed as hallmarks of success

in adulthood. However, employment continues to elude individuals with disabilities with only 29.3% of people with disabilities ages 16–64 employed in 2017, compared to 73.5% of individuals without disabilities; furthermore, 67.4% of individuals with disabilities were classified as not being in the labor force (neither employed nor seeking employment) compared to 23.3% of individuals without disabilities (Bureau of Labor Statistics, 2018). The concept of a career founded upon higher education appears further out of reach for individuals with disabilities, with

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\*Address for correspondence: Mark Tucker, Department of Administration, Rehabilitation and Postsecondary Education, San Diego State University, 5500 Campanile Drive, Mail Code 1127, San Diego, CA 92182, USA. E-mail: mtucker@sdsu.edu.

completion of a bachelor's degree or higher occurring at a rate (18.6%) roughly half that of individuals without disabilities (36.9%) (Bureau of Labor Statistics, 2018). The confluence of these factors negatively impacts the economic self-sufficiency of persons with disabilities. Approximately 20.9% of individuals with disabilities live at or below the poverty level compared to 13.1% of individuals without disabilities (Kraus, Lauer, Coleman, & Houtenville, 2018). In addition, only 4.8% of individuals receiving Supplemental Security Income (SSI) were employed in 2017 (Social Security Administration, 2018b), and only 10% of workers with disabilities had their Social Security Disability Insurance (SSDI) benefits withheld or terminated due to earnings above the substantial gainful activity (SGA) threshold (Social Security Administration, 2018a). Individuals with disabilities want to leave the SSI/DI rolls, and they aspire to have meaningful employment that offers a living wage (Olney, Compton, Tucker, Emery-Flores, & Zuniga, 2014).

Improving the employment outcomes of individuals with disabilities has been an ongoing priority for transition and vocational rehabilitation programs. The Workforce Innovation and Opportunity Act (WIOA) of 2014 reinforced the goal of employment for individuals with disabilities through Title IV (Rehabilitation Act amendments) and prioritized services provided to transition-age youth. The first purpose delineated in the WIOA is "to increase... particularly for those individuals with barriers to employment, access to and opportunities for the employment, education, training, and support services they need to succeed in the labor market" (Sec. 3101(1)). The path to employment, career, and economic self-sufficiency begins in secondary school, and it is especially important for students with disabilities who lag behind their non-disabled peers in these areas. The WIOA has reinvigorated and refocused attention on transition services for students with disabilities in the form of Pre-Employment Transition Services (Pre-ETS) (Workforce Innovation and Opportunity Act of 2014). The literature is replete with evidence of transition strategies and practices that lead to successful post-high school employment for individuals with disabilities (Hasnain & Balcazar, 2009; Taylor & Henninger, 2015; Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009). The most consistent indicator of employment success after high school is the engagement of students in work experiences while they are still in school.

### *1.1. School to work*

The transition from school to work has always been a focus for transition service providers. The literature has consistently shown that work experience participation while still in high school is positively correlated with post-high school employment for students with disabilities (Bellman, Burgstahler, & Ladner, 2014; Carter, Austin, & Trainor, 2012; Cmar, McDonnall, & Markoski, 2018; Mazzotti, Test, & Mustian, 2014; Wehman, Sima, Ketchum, West, Chan, & Luecking, 2015). Utilizing data from the second National Longitudinal Transition Study (NLTS-2), Wehman, Sima, Ketchum, West, Chan, and Luecking (2015) reported 44.8% of students who had a job while in high school were competitively employed post-high school compared to 29.6% of students who did not have a job in high school. Moreover, specific characteristics of the high school work experience have been found to be strongly associated with competitive employment. These characteristics include paid employment (Carter, Austin, & Trainor, 2012); integrated environments (Langi, Oberoi, Balcazar, & Awsumb, 2017); and community-based settings (Carter, Austin, & Trainor, 2012). The evidence is clear that paid work experiences while in high school have long-term benefits for students with disabilities and establishes a strong foundation for employment success post-high school. However, programs and professionals tasked with delivering transition services continue to face persistent and daunting challenges regarding work experiences for students with disabilities (U.S. Department of Education, 2010).

Wittenburg and Loprest (2007) reported a low rate of vocational training participation (21%) for transition-age students receiving Supplemental Security Income (SSI). Analysis of the NLTS-2 data, which included youth with disabilities who were and were not recipients of SSI, revealed less than half of the participants received career awareness training (41.3%) or participated in vocational services (39.7%) in high school (Wehman, Sima, Ketchum, West, Chan, & Luecking, 2015). In a more recent study in the NLTS series (NLTS 2012), participants with an IEP who were between 15–18 years old were less likely to have paid work experience (45%) compared to their peers without an IEP (54%) (Lipscomb, Laco, Liu, & Haimson, 2018). In 2012, only 3.3% of transition-age (14–17 years old) SSI recipients reported earned income (U.S. Government Accountability Office, 2017). The employment

outcome discrepancy between individuals with disabilities and their peers post-high school is not unexpected in light of their divergent experiences in school, in particular how students are prepared (or not prepared) for employment. Hill, Kline, and Richards (2018, p. 2) noted discrepancies in vocational preparation between students with and without disabilities, stating that “Students with disabilities typically engage in pre-vocational training at the precise stage in their academic careers when their non-disabled peers are participating in paid work experiences, internships, and mentorship programs in the community with real-world employers”.

### *1.2. Work-based learning*

In recent years, work-based learning has garnered increased emphasis in general education. “Work-based learning is an educational strategy . . . that uses the workplace . . . to engage high school students and intentionally promote learning and access to future educational and career opportunities” (Darche, Nayar, & Bracco, 2009, p. 3). Work-based learning may include employment preparation activities, career-related training and education, volunteer or unpaid work experience, subsidized or paid work experience, and employment. Under WIOA, VR agencies are required to provide the following pre-employment transition services:

Job exploration counseling; work-based learning experiences, which may include in-school or after school opportunities, experiences outside of the traditional school setting, and/or internships; counseling on opportunities for enrollment in comprehensive transition or postsecondary educational programs; workplace readiness training to develop social skills and independent living; and instruction in self-advocacy (Workforce Innovation Technical Assistance Center, 2016).

If funding is available, VR agencies may offer the following additional pre-employment transition services authorized under WIOA:

Implement effective strategies that increase independent living and inclusion in their communities and competitive integrated workplaces; develop and improve strategies for individuals with intellectual and significant disabilities to live independently, participate in postsecondary education experiences, and obtain and retain competitive integrated employment; provide training to vocational rehabilitation counselors, school transition staff, and others supporting

students with disabilities; disseminate information on innovative, effective, and efficient approaches to implement pre-employment transition services; coordinate activities with transition services provided by local educational agencies under IDEA; apply evidence-based findings to improve policy, procedure, practice, and the preparation of personnel; develop model transition demonstration projects; establish or support multistate or regional partnerships that involve States, local educational agencies, designated State units, developmental disability agencies, private businesses, or others; and disseminate information and strategies to improve the transition to postsecondary activities of those who are traditionally unserved (Workforce Innovation Technical Assistance Center, 2016).

The benefits of work-based learning experiences directly address the employment-related gaps experienced by students with disabilities, which center upon soft skills necessary to acquire employment, hard skills necessary to perform job tasks, and social skills necessary to maintain employment. Career exploration, job shadowing, work sampling, service learning, internship, apprenticeship, and paid work are work-based learning experiences that can be incorporated into transition services for students with disabilities (Cease-Cook, Fowler, & Test, 2015; Luecking, 2009). Work-based learning activities including interviewing guidance, resume writing, and job application preparation are identical to the vocational support needs of youth without disabilities (Bellman, Burgstahler, & Ladner, 2014; Cease-Cook, Fowler, & Test, 2015; Stone, Delman, McKay, & Smith, 2015). Other needs are specific to youth with disabilities including access to assistive technology and availability of job coaching support (Stone, Delman, McKay, & Smith, 2015). Opportunities to participate in work and engage in work-based learning have the potential to narrow the employment gap between young adults with and without disabilities as these experiences influence future decisions about engaging in employment. Consequently, with improved employment outcomes individuals with disabilities and their families can experience increased self-sufficiency and reduced reliance on SSI and other government benefits in the long run. The present study was accomplished through examination of CaPromise, a program designed to promote employment and education aspirations of young recipients of SSI through targeted supports provided to the youth and their families.

### 1.3. Overview of CaPromise

The participants in this investigation were participants in California's Promoting the Readiness of Minors in Supplemental Security Income program (referred to as CaPromise). The long-term goals of the program were increased self-sufficiency and reduced reliance on Supplemental Security Income (SSI) and other benefits. These goals were pursued through employment and education for both individuals with disabilities and their families. This investigation focused on employment-related services provided by CaPromise staff through Local Education Agencies (LEAs) located in California. Given the documented educational and employment disadvantages experienced by youth with disabilities, the evidence supporting work-based learning approaches for youth with disabilities, and the limited research on work-based learning approaches with young SSI recipients specifically, the purpose of this investigation was to explore patterns of service delivery activity carried out by CaPromise staff as they provided work- and education-focused services to young SSI recipients and their families.

Given the scarcity of literature addressing work-based learning interventions for young recipients of SSI, the study was exploratory in nature. The variables assessed for their association with work-based learning interventions were grounded in literature pertinent to other populations that bore varying degrees of similarity to young SSI recipients. Age was examined in this study because Kortering, Brazziel, and McClannon (2010) found grade level (which is often closely associated with age) to be predictive of post-school employment plans for students with learning disabilities. Gender was incorporated into the study based upon the work of Blackhurst and Auger (2008), who found that females expressed preferences for occupations requiring a college education at rates higher than males. The inclusion of disability was supported by the work of Grigal and Neubert (2004), who discovered significant interactions between type of student disability and parent work and postsecondary expectations for the student.

Parent employment status was examined based upon research implicating family socioeconomic status in parental work and independent living expectations for young adults with autism spectrum disorders (Kirby, 2016). Additionally, Rojewski, Lee, Gregg, and Gemici, (2012) observed socioeconomic status to be associated with occupational ambitions of young adults with disabilities; while Reynolds, and Pemberton (2001) found family resources to

be associated with postsecondary education expectations. Research supporting the inclusion of parent education level stems from Kirby (2016), who found mother's education level to contribute to parental expectations of young adults with autism.

Literature addressing the association between parent expectations and education and employment outcomes of youth (Doren, Gau, & Lindstrom, 2012; Holwerda, Brouwer, de Boer, Groothoff, & van der Klink, 2015; Kirby, 2016; Lee & Carter, 2012; Wehman, et al., 2015) supported the inclusion of the parent/guardian expectation construct in the analyses. Youth expectations were included in the analyses in response to the findings of Wagner, Newman, Cameto, Levine, and Marder (2007) which indicated that the expectations of youth with disabilities are often greater than those expressed by their parents.

### 1.4. Research questions

The purpose of this study was to investigate patterns in the provision of career and work-based learning interventions to young recipients of SSI (ages 14–21) and to explore the associations between these services and personal and contextual characteristics of the youth. There were six specific career and work-based learning interventions studied: (1) employment preparation activities; (2) career-related training and education; (3) volunteer work; (4) unpaid work experience; (5) paid work experience; and (6) employment (i.e., efforts to facilitate an employer hiring a CaPromise participant). The following research questions guided this study:

RQ1: Were there any differences in the average number of career and work-based learning interventions provided by youths' demographic characteristics (gender, age, and disability)?

RQ2: Were there any differences in the average number of career and work-based learning interventions provided by parent/guardian level of education and employment status?

RQ3: Were there any differences in the average number of career and work-based learning interventions provided by youth and parent/guardian work and college expectations?

## 2. Methods

### 2.1. Participants

Participants were 1,646 young recipients of SSI who were between the ages of 14 and 16 at the

time of enrollment. Program enrollment commenced in August 2014 and concluded in April 2016. Program participation was voluntary. Those who agreed to participate in the program were randomly assigned to a treatment condition or a control condition after enrollment. This study focused exclusively on the 1,646 youth assigned to the treatment group; those assigned to the control group were excluded from this study. Of the youth enrolled, 1,118 (67.9%) were male and 528 (32.1%) were female. The largest proportion, 36.8%, were age 14 at enrollment, while 30.1% were age 15 at enrollment, and 33.2% were age 16 at enrollment. With respect to primary disability, 5.8% had primary disabilities that were categorized as sensory (including deafness, deaf-blindness, hearing impairment, speech or language impairment, and visual impairment); 36.5% had primary disabilities that were categorized as cognitive/intellectual (including intellectual disability, specific learning disability, and traumatic brain injury); 28.3% had primary disabilities that were categorized as affective/emotional (including emotional disturbance and autism; 21.9% of the total population had a primary OSEP disability of autism and 6.4% had a primary OSEP disability of emotional disturbance); 23.1% had primary disabilities that were categorized as mobility/health (including orthopedic impairment and other health impairment); and 5.0% were identified as having multiple disabilities.

## 2.2. *Setting*

Career and work-based learning interventions were delivered by or coordinated through program staff and provided primarily at the school where the participant was completing high school. Services that were provided after the participant completed high school were usually delivered at the school that the participant had previously attended. It is important to clarify the distinction between interventions, which were the primary data examined in this study, and the youth's participation in career and work-based learning experiences. This study focused on interventions, which were activities that program staff engaged in – sometimes while interacting directly with the youth and their family and at other times while working independently (i.e., working on behalf of the youth or the youth's family) – that supported career and work-based learning experiences for the youth and/or members of the youth's family. If, for example, a youth received four interventions focused upon employment that number does not indicate that

the youth obtained four jobs, but rather the program staff engaged in four actions designed to lead to or support employment. As such, the focus on the analyses that follow is upon the ways that program staff directed their efforts when working collaboratively with young SSI recipients and their families. The interventions serve as primary measures of staff effort.

## 2.3. *Data analysis*

This investigation was accomplished through analysis of case service data of the 1,646 young SSI recipients located in California, who participated in CaPromise and their families. Descriptive statistics, including frequency counts and means, were employed to summarize the career and work-based learning activities of the service coordinators, which are referred to as interventions.

The first research question was addressed using a three-way analysis of variance (ANOVA) to determine if there were significant differences in the mean number of interventions by the independent variables of gender, age, and type of disability. This analysis also permitted an examination of interactions between the independent variables. The second and third research questions were tested using multivariate analysis of variance (MANOVA) to identify significant differences in provision of career and work-based learning interventions between groups defined by parent employment status and parent education level (research question two) and youth and parent expectations about work and college (research question three). In both instances interaction effects were assessed in addition to main effects. All three research questions were tested using a significance level of .05.

## 2.4. *Limitations*

Several limitations related to this investigation warrant consideration when assessing the findings and considering the implications. A primary concern relates to human error that may have occurred when recording the study data. Study data were entered into the program's case management system by direct service staff. Errors in record-keeping and random or systematic data-entry errors might have misrepresented program activity to an unknown extent. Efforts to mitigate concerns about human error were carried out, including judicious design and updating of the case management system and

providing education and guidance to the staff who recorded data in the system.

As mentioned earlier in the manuscript, the distinction between an intervention and the delivery of a service bears repeating as the data at the center of this inquiry serve as indicators of the actions taken by service providers to deliver or coordinate services for program participants. An action taken to deliver or coordinate a service is not always synonymous with delivery of that service and for that reason interventions are not perfect indicators of the delivery of services but more appropriately indicators of the ways staff focused and shaped their efforts. While there is likely a reasonable association between interventions and the ultimate delivery of a service to participants, the relationship is undoubtedly imperfect and had not been explored fully at the time in the life of the program when the study was conducted.

There was also considerable variation with respect to the time, energy, effort, and parties involved in each intervention. As such, treating interventions as a standardized unit of effort has limitations. An e-mail communication composed and sent by a service provider could (and likely was) tracked as a single intervention in much the same way as a more effort-intensive activity, for example, a benefits-counseling session involving a lengthy face-to-face meeting with a family.

Perhaps most importantly, at the time the study was conducted the association between interventions and desired work and education outcomes had not been fully explored for the CaPromise program and its participants. While work and employment outcomes were not the focus of the present study, implicit in the rationale for the study was the assumption that providing career and work-based learning interventions would facilitate participant progress in these domains. Given the expected but uncertain association between these two constructs at the time the study was conducted, caution should be exercised when considering the generalizability of these

findings to tangible employment outcomes of participants. Long-term follow-up and comparison with a control group (which was not a feature of this study) will ultimately result in evidence that sheds light on the effectiveness of providing the career and work-based learning interventions to young recipients of SSI.

### 3. Results

#### 3.1. Number of interventions provided to young SSI recipients

There were six specific career and work-based learning services. The number of interventions related to each of the six types were recorded for each: (1) employment preparation activities; (2) career-related training and education; (3) volunteer work; (4) unpaid work experience; (5) paid work experience; and (6) employment. As indicated in Table 1, a total of 87,456 career and work-based learning interventions were provided to program participants. The total number of each of the six specific service interventions as well as the average number of services for program participants are detailed in Table 1. The interventions provided most frequently were employment preparation activities and career-related training and education. The interventions provided least frequently were unpaid work experience and volunteer work.

#### 3.2. Provision of interventions by gender, age, and type of disability

A three-way analysis of variance (ANOVA) was conducted in order to determine if there were significant differences in the provision of career and work-based learning interventions by gender, age at enrollment (age 14, 15, or 16) or type of disability (sensory, cognitive/intellectual, affective/emotional, mobility/health or multiple). The results of the analysis indicated that there were no significant differences between these groups. Additionally, there were no significant interaction effects observed. Table 2 illustrates the results of the analysis.

#### 3.3. Provision of interventions by parent employment status and education level

In order to examine differences in provision of career and work-based learning interventions

Table 1  
Number of Interventions

Interventions	Total	Average
Employment Preparation Activities	32,653	19.84
Career Related Training & Education	24,474	14.87
Volunteer work	4,816	2.93
Unpaid Work Experience	2,394	1.45
Paid Work Experience	13,493	8.20
Employment	9,626	5.85
Total Interventions	87,456	53.13

Table 2  
Number of Interventions by Age, Gender, and Disability

Source	Type III SS	df	MS	F	p
Gender	425.028	1	425.028	.862	.353
Age at Enrollment	1892.869	2	946.435	1.920	.147
Disability	2110.602	4	527.650	1.070	.370
Gender X Age	244.888	2	122.444	.248	.780
Gender X Disability	1782.233	4	445.558	.904	.461
Age X Disability	6104.646	8	763.081	1.548	.136
Gender X Age X Disability	3216.636	8	402.079	.816	.589
Error	784926.712	1592	493.044		
Total	2526802.000	1622			
Corrected Total	801257.477	1621			

by parent employment status and parent education level, a two-way multivariate analysis of variance (MANOVA) was conducted with parent or guardian employment status represented at one of three levels (employed part-time or full-time, unemployed and seeking work, or unemployed and not seeking work) and parent education recorded at one of four levels (not a high school graduate, high school graduate or GED, associate's degree, or bachelor's degree or above). The results of this analysis indicated a significant finding with respect to the main effect of parent/guardian employment status for the dependent measure of volunteer work interventions [ $F(2, 1401) = 4.698, p = .009$ ]. Bonferroni *post-hoc* analysis revealed significantly lower mean volunteer work interventions for those whose parents/guardians were unemployed, seeking work ( $M = 1.70$ ) than for those whose parents/guardians were employed part or full time ( $M = 3.00$ ) and those who were unemployed, not seeking work ( $M = 3.35$ )  $p = .001$ .

Significant findings were also observed for the same main effect regarding the dependent measure of unpaid work interventions experience [ $F(2, 1401) = 5.138, p = .006$ ]. Bonferroni *post-hoc* analysis indicated that mean scores for individuals whose parents/guardians were unemployed, seeking employment ( $M = 0.91$ ) were significantly lower than scores for those whose parents/guardians were employed part or full time ( $M = 1.52$ ) and those who were unemployed, not seeking employment ( $M = 1.62$ )  $p = .001$ .

Significant findings were observed regarding the main effect of parent/guardian education level for the dependent measure of career related training and education interventions. Bonferroni *post-hoc* analysis revealed that mean scores for youth with parents or guardians who did not graduate high school ( $M = 13.51$ ) were significantly lower than mean scores for youth with parents who graduated

high school or earned GEDs ( $M = 16.26$ ), those who earned associate's degrees ( $M = 15.38$ ) and those who earned bachelor's degrees and above ( $M = 16.77$ )  $p = .024$ . No other significant findings were observed for the two main effects with respect to the six dependent measures. No significant interaction effects were observed. The results of the MANOVA analysis are detailed in Table 3.

#### 3.4. Differences in interventions by job and college expectations

At enrollment youth and parents/guardians were asked about work and college expectations. Of the youth, 50.2% indicated that they expected to get a job after completing high school and 53.1% indicated that they expected to go to college. Of parents/guardians, 49.4% indicated that they expected to get a job after completing high school and 59.4% indicated that they expected their youth to go to college. A factorial multivariate analysis of variance (MANOVA) was conducted to examine differences in career and work-based learning interventions by youth and parent/guardian expectations that the youth would get a job after completing high school (yes or no) and youth and parent/guardian expectations that the youth would go to college after completing high school (yes or no). These expectations were recorded at program intake. MANOVA results indicated significant findings regarding the main effect of youth college expectation for the dependent measure paid work experience interventions. The mean number of paid work experience interventions for students who indicated that they expected to attend college ( $M = 10.81$ ) was significantly greater than the mean for youth who did not expect to attend college ( $M = 5.75$ ).

Significant findings were also observed for the main effect of youth work expectation for the dependent measure employment interventions. Youth who

Table 3  
Number of Interventions by Parent Employment and Education

Source	Interventions	SS	df	MS	F	p
Parent Employment	Employment Prep. Activities	67.262	2	33.631	.120	.887
	Career Related Training & Educ.	1.390	2	.695	.003	.997
	Volunteer Work	189.441	2	94.721	4.698	.009
	Unpaid Work Experience	58.743	2	29.371	5.138	.006
	Paid Work Experience	260.659	2	130.330	1.478	.228
	Employment	219.264	2	109.632	1.390	.249
Parent Education	Employment Prep. Activities	1812.330	3	604.110	2.153	.092
	Career Related Training & Educ.	2699.690	3	899.897	3.517	.015
	Volunteer Work	26.151	3	8.717	.432	.730
	Unpaid Work Experience	9.956	3	3.319	.581	.628
	Paid Work Experience	278.379	3	92.793	1.052	.368
	Employment	360.645	3	120.215	1.524	.207
Employment X Education	Employment Prep. Activities	1470.413	6	245.069	.873	.514
	Career Related Training & Educ.	2550.920	6	425.153	1.662	.127
	Volunteer Work	73.781	6	12.297	.610	.723
	Unpaid Work Experience	9.992	6	1.665	.291	.941
	Paid Work Experience	365.585	6	60.931	.691	.657
	Employment	834.435	6	139.072	1.763	.103
Error	Employment Prep. Activities	393117.336	1401	280.598		
	Career Related Training & Educ.	358477.540	1401	255.873		
	Volunteer Work	28247.757	1401	20.163		
	Unpaid Work Experience	8008.847	1401	5.717		
	Paid Work Experience	123540.129	1401	88.180		
	Employment	110523.439	1401	78.889		
Total	Employment Prep. Activities	978707.000	1413			
	Career Related Training & Educ.	698194.000	1413			
	Volunteer Work	41082.000	1413			
	Unpaid Work Experience	11145.000	1413			
	Paid Work Experience	225741.000	1413			
	Employment	163874.000	1413			

indicated that they expected to get a job after completing high school had a significantly higher mean number of employment interventions ( $M = 8.71$ ) than youth who did not expect to get a job after high school ( $M = 3.51$ ).

Significant findings were observed for the main effect of parent/guardian work expectation for the dependent measure career-related training and education interventions. Youth of parents/guardians that expected their youth to work after completing high school received a significantly greater mean number of interventions ( $M = 19.71$ ) than youth of parents/guardians who did not expect their youth to work after high school ( $M = 11.38$ ).

A significant first-order interaction effect was observed for the main effects of youth college expectation and youth work expectation for the dependent measure paid work experience interventions. An additional first-order interaction effect was observed for the main effects of youth college expectation and parent/guardian college expectation with respect to the dependent measure paid work experience inter-

ventions. No other significant findings for the four main effects or first-order interaction effects were observed. Results of the MANOVA analysis are illustrated in Table 4.

## 4. Discussion

### 4.1. Patterns of intervention delivery

Over the duration of the program through September 30, 2018, participants received an average of 53.13 career and work-based learning interventions delivered by or facilitated through program staff. Employment preparation activities and career-related training and education were the most prominent interventions, with volunteer work and unpaid work experiences the interventions delivered least frequently. That employment preparation activities and career-related training and education interventions were provided more frequently than work experiences and employment is perhaps not surprising given



Table 4  
Number of Interventions by Youth and Parent Job and College Expectations

Source	Interventions	SS	df	MS	F	p
Youth expectation; college	Employment Prep. Activities	119.598	1	119.598	.455	.500
	Career Related Training & Educ	23.639	1	23.639	.095	.758
	Volunteer Work	2.865	1	2.865	.263	.609
	Unpaid Work Experience	.726	1	.726	.143	.706
	Paid Work Experience	397.398	1	397.398	4.566	.033
Youth expectation; employment	Employment	13.382	1	13.382	.162	.688
	Employment Prep. Activities	352.091	1	352.091	1.340	.248
	Career Related Training & Educ	1.761	1	1.761	.007	.933
	Volunteer Work	13.046	1	13.046	1.196	.275
	Unpaid Work Experience	1.461	1	1.461	.287	.592
Parent expectation; college	Paid Work Experience	.023	1	.023	.000	.987
	Employment	363.306	1	363.306	4.387	.037
	Employment Prep. Activities	266.078	1	266.078	1.013	.315
	Career Related Training & Educ	222.036	1	222.036	.890	.346
	Volunteer Work	.032	1	.032	.003	.957
Parent expectation; employment	Unpaid Work Experience	2.469	1	2.469	.485	.487
	Paid Work Experience	.060	1	.060	.001	.979
	Employment	12.616	1	12.616	.152	.697
	Employment Prep. Activities	375.689	1	375.689	1.430	.233
	Career Related Training & Educ	1054.218	1	1054.218	4.224	.041
Youth college X youth employment	Volunteer Work	.309	1	.309	.028	.867
	Unpaid Work Experience	.027	1	.027	.005	.942
	Paid Work Experience	312.589	1	312.589	3.591	.059
	Employment	1.828	1	1.828	.022	.882
	Employment Prep. Activities	767.351	1	767.351	2.921	.088
Youth college X parent college	Career Related Training & Educ	28.712	1	28.712	.115	.735
	Volunteer Work	.025	1	.025	.002	.962
	Unpaid Work Experience	4.389	1	4.389	.862	.354
	Paid Work Experience	374.505	1	374.505	4.303	.039
	Employment	132.157	1	132.157	1.596	.207
Youth college X parent employment	Employment Prep. Activities	194.032	1	194.032	.739	.391
	Career Related Training & Educ	4.918	1	4.918	.020	.888
	Volunteer Work	1.900	1	1.900	.174	.677
	Unpaid Work Experience	.761	1	.761	.149	.699
	Paid Work Experience	1216.958	1	1216.958	13.982	.000
Youth employment X parent college	Employment	7.429	1	7.429	.090	.765
	Employment Prep. Activities	105.795	1	105.795	.403	.526
	Career Related Training & Educ	52.948	1	52.948	.212	.645
	Volunteer Work	.001	1	.001	.000	.994
	Unpaid Work Experience	.041	1	.041	.008	.928
Youth employment X parent employment	Paid Work Experience	9.057	1	9.057	.104	.747
	Employment	.398	1	.398	.005	.945
	Employment Prep. Activities	221.472	1	221.472	.843	.359
	Career Related Training & Educ	20.552	1	20.552	.082	.774
	Volunteer Work	.121	1	.121	.011	.916
Parent college X parent employment	Unpaid Work Experience	12.117	1	12.117	2.380	.124
	Paid Work Experience	235.865	1	235.865	2.710	.101
	Employment	9.456	1	9.456	.114	.736
	Employment Prep. Activities	173.616	1	173.616	.661	.417
	Career Related Training & Educ	217.394	1	217.394	.871	.351
Youth employment X parent employment	Volunteer Work	19.380	1	19.380	1.776	.183
	Unpaid Work Experience	1.329	1	1.329	.261	.610
	Paid Work Experience	132.476	1	132.476	1.522	.218
	Employment	1.263	1	1.263	.015	.902
	Employment Prep. Activities	173.616	1	173.616	.661	.417
Parent college X parent employment	Career Related Training & Educ	217.394	1	217.394	.871	.351
	Volunteer Work	19.380	1	19.380	1.776	.183
	Unpaid Work Experience	1.329	1	1.329	.261	.610
	Paid Work Experience	132.476	1	132.476	1.522	.218

(Continued)

Table 4  
(Continued)

Source	Interventions	SS	df	MS	F	p
Error	Employment Prep. Activities	95085.362	362	262.667		
	Career Related Training & Educ	90357.555	362	249.607		
	Volunteer Work	3949.740	362	10.911		
	Unpaid Work Experience	1842.703	362	5.090		
	Paid Work Experience	31507.547	362	87.037		
	Employment	29980.896	362	82.820		
Total	Employment Prep. Activities	298470.000	377			
	Career Related Training & Educ	219961.000	377			
	Volunteer Work	6377.000	377			
	Unpaid Work Experience	2592.000	377			
	Paid Work Experience	70105.000	377			
	Employment	55133.000	377			

the ages of the participants. Those who were younger (66.8% of the youth were age 14 or 15 when they enrolled) might have been less focused upon employment as an immediate concern than participants who were older. Additional research with respect to this finding should be conducted to study the effect (if any) of initiating a continuum of work-based learning experiences for transition-age youth and structuring them in a manner that builds from employment preparation activities toward paid employment in integrated settings.

#### 4.2. Youth demographic characteristics

When examining delivery of interventions by personal attributes (gender, age, and type of disability), no significant differences in career and work-based learning interventions were evident. Youth of different genders, ages, and disability types were the recipients of interventions in comparable numbers across all six types of career and work-based learning interventions. This is viewed as an encouraging finding as the observed results suggest that participants' attributes alone did not influence whether or not program staff provided career and work-related interventions. Program staff appear to have delivered interventions focused upon employment and employment preparation independent of considerations linked to gender, age, and type of disability and may have devoted more attention to working with families to determine what types of interventions would be appropriate for participants based on needs or expectations.

#### 4.3. Parent employment status and education level

When examining career and work-based learning differences by parent or guardian employment

status and education level, youth of parents who were unemployed and looking for work received fewer interventions focused upon volunteer work and unpaid work than parents or guardians with other employment statuses (employed, or unemployed and not looking for work). It is possible, but not certain, that the significant differences in volunteer and unpaid work experience interventions associated with parent employment status might be attributable to some extent to financial need. Parents or guardians who were unemployed and seeking work may have had a greater sense of financial urgency than parents or guardians who were employed or unemployed and not seeking work. It is possible that a heightened sense of financial need contributed to the lower number of unpaid and volunteer work interventions associated with youth of parents who indicated they were unemployed and seeking work.

It is also possible that concerns related to SSI benefits may have contributed to the findings that were observed. Parents or guardians who were unemployed and not seeking employment may have been more reliant on their youth's monthly SSI payments than parents in other employment status categories. These monthly payments could be negatively impacted if the youth started to earn income and thus these families when engaging with CaPromise staff might have indicated a preference for unpaid or volunteer work experiences. The fear of losing Social Security benefits is well-documented in the literature as a disincentive to pursuing employment for individuals with disabilities (MacDonald-Wilson, Rogers, Ellison, & Lyass, 2003; Olney, Compton, Tucker, Emery-Flores, & Zuniga, 2014). This challenge reinforces the idea that benefits planning and education for both youth and parents or guardians is necessary to demystify the interaction between work, earnings and benefits, and to address perceived disincentives

to employment and earnings. This type of intervention, if effective, could ultimately lead to diminished reliance on the youth's SSI benefit by the family.

When examining provision of interventions by parent/guardian's highest level of education at enrollment, only one significant difference in career and work-based learning interventions was found across all comparisons. Youth of parents/guardians who did not graduate from high school received a significantly lower mean number of career-related training and education interventions than youth of parents/guardians with higher levels of education. With the exception of that one significant difference, youth with parents of varying levels of education were recipients of interventions in comparable numbers across all six types of career and work-based learning interventions.

#### 4.4. *Youth and parent job and college expectations*

A number of significant differences in provision of career and work-based learning interventions were evident by youth and parent/guardian expectations about the youth getting a job or attending college after high school. Youth who expected to attend college after high school were recipients of a significantly greater mean number of paid work experience interventions. Youth who indicated that they expected to get a job after completing high school received a significantly higher mean number of employment interventions. Youth of parents who expected their youth to get a job after completing high school received a significantly higher mean number of career-related training and education interventions. A significant interaction effect was observed between youth college expectation and youth job expectation for the dependent variable paid work experience interventions, indicating that the association between youth college expectation and paid work experience differed depending upon the youth's job expectation. An additional significant interaction effect was also found between youth college expectation and parent college expectation for the same dependent variable, paid work experience interventions. The interaction effect suggests that the association between youth college expectation and paid work experience differed depending upon the parent's college expectation.

The findings related to youth and parent college and job expectations are in agreement with other stud-

ies where youth, parent, and/or teacher expectations were identified as critical factors related to the services accessed and outcomes realized by participants (Carter, Brock, & Trainor, 2014; Cmar, McDonnell, & Markoski, 2018; West, Sima, Wehman, Chan, & Luecking, 2018). An expectation, in effect, is a goal or desired outcome expressed by the participant, which in turn may be related to the youth and parent being more likely to be engaged in advocating for services and supports associated with that expectation. Moreover, youth and parent expectations provide a framework program staff may use to plan and execute a series of interventions. Expectations of post-secondary education and employment provide a rationale for what, how, and more importantly, why interventions are delivered. Expectations represent dreams about the youth's future, which in turn can fuel a person-driven approach to services. Interestingly, post-high school expectations of work or college did not appear to be mutually exclusive in this investigation. Those who expected to attend college still received a greater total number of paid work experience interventions than those who did not expect to attend college, even though the prospects of full-time employment may be more distant for those who expect to devote time to pursuing a college education.

Finally, and perhaps most importantly, the relatively low proportion of youth in this study who expected to work after completing high school (50.2%) and parents or guardians who expected their youth to work after completing high school (49.4%) suggest opportunities for service providers and policymakers to enact change by facilitating the delivery of information, education and experiences to youth and families that elevate their expectations about preparing for and engaging in work.

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## Conflict of interest

None to report.

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