"It's Not Just About A Paycheck": Perspectives on Employment Preparation of Students with

Intellectual Disability in Federally-Funded Higher Education Programs

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Abstract

Students with intellectual disability (ID) are increasingly attending postsecondary education institutions and acquiring work experiences while completing their studies. One of the main motivations for students with ID to seek higher education is to broaden and increase their chance for finding fulfilling, paid employment in their communities. Findings from a qualitative study on staff perspectives regarding career development and employment supports and services provided to students attending Transition and Postsecondary Education Programs for Students with Intellectual Disability (TPSID) model demonstration programs in the U.S. are presented. Results reflect consensus across program staff regarding the goals and expectations for employment of TPSID students. Programs vary considerably in their institutional context, their partnership with other entities, and the structure of employment services, as well as the emphasis placed on paid versus unpaid employment. Some of the key strategies shared by staff regarding successful student employment practices involved outreach and engagement, visibility on campus, improving access to career services, and cultivating partnerships. As higher education continues to expand its offerings to students with ID, PSE programs need to continue to emphasize and honor the importance of paid employment, and continue to seek the best methods to achieve this outcome for students with ID.

Keywords: intellectual disability, higher education, postsecondary education, employment, workbased learning

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When building a pathway to a career, success may be influenced by a combination of postsecondary academic experiences as well as authentic work experiences that build applied knowledge. Until recently these pathways were not accessible to Americans with intellectual disability (ID) who wanted to pursue a career. Youth with ID have the lowest rates of engagement in school, work, or preparation for work shortly after high school compared to youth with other disabilities (Wagner, Newman, Cameto, Garza, & Levine, 2005; Lipscomb, Haimson, Liu, Burghardt, Johnson, & Thurlow, 2017). They are also among those least likely to be expected to attend postsecondary education (PSE) programs among their peers with disabilities (Wagner, Newman, Cameto, Garza, & Levine, 2005). Only 50% of students with ID with an individualized education program (IEP) expect to obtain postsecondary education, and their parents' expectations are even lower (Lipscomb, Haimson, Liu, Burghardt, Johnson, & Thurlow, 2017).

Students with ID also face barriers in obtaining employment in the community as they transition from high school into the workforce. Gaps in service delivery and a lack of opportunity for integrated work are factors impacting post-school outcomes for students with ID (Green, Cleary, & Cannella-Malone, 2017). The impact of these barriers is evident in employment rates. In 2016, working-age adults with disabilities were employed at half the rate of working-age adults without disabilities (34.3% compared to 73.6%), and for people with ID these disparities were even wider (StateData, 2018). The employment rate for working-age adults with a cognitive disability, a broader category than ID, was 24.8% (StateData, 2018).

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Postsecondary education (PSE) programs can have a significant role in closing these disparities. Emerging research demonstrates favorable employment and financial outcomes for individuals with ID who attend PSE programs. Ross, Marcell, and William's (2013) study of 125 youth who completed a PSE program found 84% were employed several years after they graduated, and 88% were financially independent by paying their own expenses with earnings and/or benefits. Sannicandro, Parish, Fournier, Mitra, and Paiewonsky (2018) found that individuals with ID who attended PSE programs had increased employment and earnings and decreased reliance on Social Security income, as compared to those who did not. Data from TPSID programs have indicated 61% of students with ID who attend TPSIDs are employed one year after completing a program (Papay, Trivedi, Smith, & Grigal, 2017).

The National Core Indicators Adult Consumer Survey found adults with ID who attended college were much more likely to be employed in the community (37%) compared to their non-student counterparts (13%; National Core Indicators, 2017). Other studies have found higher employment rates for individuals with ID after attending PSE compared to the general population of people with ID (Moore & Schelling, 2015; Southward & Kyzar, 2017; Butler, Sheppard-Jones, Whaley, Harrison, & Osness, 2016).

The benefits of individuals with ID obtaining higher education have also been recognized by the U.S. Department of Education and legislators by the passage of the Higher Education Opportunity Act (HEOA) of 2008. HEOA contained several provisions increasing access to higher education for individuals with ID. In 2010, Congress authorized the creation of a new model demonstration program, the Transition and Postsecondary Education Programs for Students with Intellectual Disability (TPSID). The TPSID initiative aimed at creating, expanding, or enhancing high-quality, inclusive higher education experiences to support

employment outcomes for individuals with ID. In 2010, the Office of Postsecondary Education (OPE) awarded five-year grants to 27 institutions of higher education (IHEs) in 23 states and were implemented on 42 campuses across the nation (Grigal, Hart, Smith, Domin, & Sulewski, 2013).

The Office of Postsecondary Education also awarded a TPSID National Coordinating Center (NCC) grant to the Institute for Community Inclusion at the University of Massachusetts Boston. Among the responsibilities and activities of the TPSID NCC was the development of a valid and reliable evaluation framework for the TPSID programs (Grigal et al., 2013), increase knowledge and best-practices to develop and implement high-quality inclusive higher education programs (Think College, n.d.), and recommend standards for TPSIDs (U.S. Department of Education, 2015). Grants were awarded again in 2015 to a second cohort of 25 IHEs to develop or enhance TPSID programs between 2015 and 2020. In 2017, the year that the present study was conducted, 25 TPSID grants were implemented on 44 college or university campuses in 19 states. The National Coordinating Center for TPSID programs was also reauthorized in 2015 to continue to support coordination, training, and evaluation (Grigal, Hart, Papay, Domin & Smith, 2017).

TPSID grantees are expected to deliver certain outcomes to their students, including building the social and career skills that lead to gainful employment. Other directives include working with the NCC, partnering with local educational agencies, and creating and offering a meaningful credential for students with ID upon the completion of the model program (U.S. Department of Education, 2015).

In addition to the establishment of TPSID programs, the past decade has witnessed the development and expansion of other higher education programs for students with ID. In 2009, a

national survey identified 149 such programs in 39 states (Grigal, Hart, & Weir, 2012). As of November 2019, the Think College national directory of PSE programs enrolling students with ID listed 280 programs in 49 states, reflecting an 88% increase since 2009 (see www.thinkcollege.net) (Think College, 2019). An estimated 6,440 students with ID are enrolled in these colleges and universities and the numbers are growing every year (Grigal, Papay, Hart, & Weir, in preparation).

Higher education programs for students with ID vary widely. A 2019 review of a sample of 257 PSE programs from the Think College national directory found that all states except West Virginia had a program. The majority of programs (89%) were operated by an IHE, with fewer programs operated by a school district in partnership with an IHE, an external service provider, or an adult service provider. Eighty-three percent of programs were located at a public IHE compared with 17% at a private IHE. Slightly over half (57%) were at a four-year college or university, and 40% were at a two-year community college. Program length varied from one to four or more years, with the most common length being two years, adopted by 35% of the programs. Housing for students with ID was offered by one third of programs (Grigal et al., in preparation). There was a great deal of variation across TPSID programs in employment services and work-related supports offered to students (Smith, Grigal, & Papay, 2018).

Although there is diversity in PSE programs, employment has grown as a key outcome area for many PSE programs and particularly for TPSIDs (Thoma, 2013). One means to improved employment outcomes specifically for youth in high school is through work-based learning (WBL) (Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009). WBL can include a wide range of paid or unpaid opportunities such as internships, co-ops, transitional jobs, on-the-jobtraining, or apprenticeships (Cahill, 2016); experiences such as job shadowing or volunteer work

(Martinez, Manno, Baird, Fraker, Honeycutt, Mamun, & Rangarajan, 2008); or informational interviews, workplace tours, or service learning (Luecking & Gramlich, 2003). Some of these WBL activities, including completing internships and paid work experiences, have been identified as common predictors of postschool outcomes for transition-age youth (Test, et al., 2009).

A few studies have provided insights regarding the employment services and supports available for people with ID attending college to obtain WBL experiences (Petcu, Chezan, & Van Horn, 2015; Scheef, Barrio, Poppen, McMahon, & Miller, 2018). In one national study, Petcu et al. (2015) conducted a survey of higher education programs serving students with intellectual and developmental disabilities (IDD) in the United States (both TPSID and non-TPSID). The researchers found most of these programs offered employment preparation supports, but few offered access to paid work experiences. In 2015, Scheef surveyed PSE programs to identify strategies used to facilitate and support paid work experiences. Findings revealed that programs worked with employers by building trust, soliciting feedback about a student's placement, and negotiating job scope so that a work experience was mutually beneficial. Staff also reported that they matched students' interests with potential positions while also giving students an opportunity to connect their workplace experience with what they were learning in the classroom. Lastly, PSE programs implemented strategies of natural supports and on-site training in the workplace (Scheef, 2019).

Although paid work experiences in high school for students with disabilities are a strong predictor of postschool paid work (Landmark, Ju, & Zhang, 2010; Carter, Austin, & Trainor, 2012; Luecking & Luecking, 2015), fewer studies have examined if the same link is found between paid work experiences in a postsecondary setting and later employment outcomes

(Qian, Johnson, Smith, & Papay, 2018). In one study of students who attended TPSID programs, Grigal, Papay, Smith, Hart, & Verbeck (2018) found students who obtained a paid job while enrolled in their college or university program were almost 15 times more likely to have a paid job at exit than those who did not obtain a paid job while enrolled.

However, a link between PSE and employment outcomes for students with ID, specifically through the services of the vocational rehabilitation (VR) system, has been explored. With the passage of the Workforce and Innovation Opportunity Act (WIOA) in 2014, a more direct relationship was established between VR and PSE programs (Thelin & Grigal, 2019). Some VR agencies play key partnership roles within PSE settings by helping to establish employment for students with ID, paying for eligible individuals with ID to attend college, and providing direct services and supports to students (Plotner & Marshall, 2015; Grigal, Hart, Smith, Papay, & Domin, 2018). Some studies have been conducted on outcomes of clients who received PSE services through VR agencies. An examination of data from the Rehabilitation Services Administration 911 (a public access database that captures individual characteristics, services provided, and employment outcomes at the point of closure from VR services) found that youth with ID who received PSE services as a part of their individualized plan for employment through VR agencies had higher employment rates and higher wages than youth with ID who did not receive PSE services (Smith, Grigal, & Shepard, 2018). Another study of VR service recipients in California found that individuals with ID who completed PSE had higher earnings compared to those who did not complete PSE (Miller, Sabia, & Tucker, 2019). An expansion of VR and IHE partnerships shows promise in terms of making PSE more accessible to a larger number of students with ID who want to pursue it.

Providing WBL experiences to students with ID in higher education settings can present a number of challenges. One primary challenge is the staffing required to prepare students for employment in the community and support students at their job placement (Petcu, Chezan, & Van Horn, 2015) as well as inadequate staff hours to provide work experience opportunities (Scheef, Barrio, Poppen, McMahon, & Miller, 2018). PSE program directors expressed that "facilitating meaningful work opportunities" (p. 63) was a barrier to PSE program development (Plotner & Marshall, 2015).

Furthermore, few PSE directors and program staff were collaborating with state VR agencies for employment supports (Scheef, 2019), and where there was collaboration, VR's role was limited (Plotner & Marshall, 2016). Other barriers to effective WBL may include employer perceptions, transportation, and student scheduling (Scheef et al., 2018). Yet Scheef (2019) found that strategies that could potentially address these challenges, such as training PSE staff on job development, educating employers about working with people with disabilities, tapping into employer networks, and inviting employers to be more engaged with the program, were not often used.

Some TPSID programs appear to be drawing upon the evidence base for specific WBL strategies to guide employment services. For example, Green, Cleary, and Cannella-Malone (2017) describe an Ohio-based TPSID program that includes "career development" as one of four pillars of a postsecondary program for students with ID and offers a series of internships to students during college with the goal of progressing to permanent employment. Although data on the structure of successful employment programs within higher education institutions is still emerging, it is clear the majority of PSE programs have a career development component (Smith, Grigal, & Papay, 2018).

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Given the importance of including employment in postsecondary experiences, we sought to better understand the role PSE programs play in facilitating employment experiences of their students with ID. TPSIDs were intentionally targeted for this study (as opposed to other PSE programs) because they have a directive to ensure that enrolled students are prepared for gainful employment (U.S. Department of Education, 2014). In exploring the practices and perspectives of TPSID program staff and sharing our findings with the TPSIDs, our study fulfilled part of the NCC's mandate to provide evaluation, training and TA to TPSIDs to support their program goals. Using the data the NCC collects from TPSIDs also allowed us to focus in on programs with the most positive employment outcomes, in hopes of exploring the more effective employment strategies within PSE settings.

To gain deeper insight into the practices used by TPSIDs to support students in obtaining paid employment, the NCC conducted a qualitative study exploring the perspectives of employment services staff who provide career and job supports to students with ID in inclusive higher education programs. The study addresses the following research questions:

- 1. What are key strategies used in TPSID programs to promote paid employment?
- 2. How do TPSID employment staff view the relationship between unpaid work experiences in college and paid employment after college?
- 3. What are common challenges and opportunities with respect to employment approaches among TPSIDs?

Method

Research Design

A series of focus groups was conducted with TPSID employment staff to understand their perspectives on paid employment for their students and approaches to supporting students' employment goals. Researchers sought out staffers who were most knowledgeable about employment practices of their respective programs. A qualitative approach was used to complement the quantitative data on employment collected by the TPSID NCC's Think College Data Network and to obtain a fuller picture of employment practices. Specifically, focus groups were used in this exploratory study to generate discussion and allow participants to compare and contrast their perspectives on key topics (Krueger & Casey, 2015).

Site Selection and Recruitment

Using purposive sampling, the research team sought to identify TPSID sites for recruitment of staff to participate in the study. Data used to identify eligible TPSID sites were collected by the TPSID NCC via the Think College Data Network, an online database into which the 44 TPSIDs reported program and student evaluation data on an annual basis. Our goal was to identify staff who had substantial applied experience with the paid employment experiences of students in their programs. To do this, we used a two-tiered sampling process. We first identified a list of TPSIDs that had a higher percentage of students with paid jobs 90 days after exiting the program. The 90-day benchmark was based on a standard measure of success used by VR agencies. We then looked at the number of students served to ensure the percentage employed represented a sufficient number of students.

Researchers selected 15 sites in the highest tiers on both measures, resulting in ones that (a) served eight or more students enrolled during the 2014–2015 and 2015–2016 academic years and (b) had 33% or more of their students in paid jobs within 90 days of exiting the program during those years. The principal investigator (PI) at each selected TPSID site was contacted and

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asked to identify one TPSID staff member who was most knowledgeable about employment services for students with ID at the TPSID. Of the 15 identified programs, 14 staff designated by PIs agreed to participate.

The staff that participated in the study came from programs that varied in terms of IHE type, location, and program size, as shown in Table 1, and were distributed geographically across the United States. Seven out of 14 participating sites reported in the Think College Data Network that they had a partnership with VR at the time of the study. Each program was structured differently, but most programs had a combination of administrative and direct support staff. Some programs had a more robust system of employment supports than others. Six participants reported their employment staff included at least five individuals, serving an array of functions. For example, one program had an entire team working on paid employment, including the executive director, a vocational specialist, a job placement coordinator, a vocational program assistant, and job coaches. However, almost half of the programs had three or fewer employment staff, and one program only had a single position supporting student employment. Most programs employed staff, interns, and/or volunteers working as job coaches and peer mentors with students. Peer mentors were used heavily by several programs; six TPSID sites reported they involved peer mentors to support TPSID students in their jobs. A few participants also noted that their programs collaborated with other systems to provide employment supports to their students, involving personnel from their IHE, partnering school districts, and nonprofit organizations.

Table 1 *Insert here*

Participant Characteristics

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The roles of participants varied by program. One participant was a professor, while others' job titles fell into three categories: director (e.g., Director of Community and Employment Services or TPSID Project Director), program specialist (e.g., Vocational Specialist), or coordinator (e.g., Career Success Coordinator or Internship and Employment Coordinator). Participants' roles ranged from general responsibilities to more targeted duties related to paid employment. Some participants oversaw all aspects of employment, while others coordinated and supervised internships, or worked with students on employment preparation. Some participants' roles included serving as a job/internship developer or a job coach. One participant taught employment- and internship-related courses, and another built relationships with on-campus employers. At the time of the focus groups, on average, participants had almost seven years of job development experience and had worked at the TPSID for almost five years (see Table 2).

Table 2 *Insert here*

The training and professional qualifications of employment staff also varied across the sites. Several participants had degrees in rehabilitation counseling or special education. Most of the individuals had previously worked in the supported employment field as job developers/coaches or program coordinators/managers. Several participants indicated they had prior experience working with transition-age youth. Only two participants stated they did not have specific training in job development, but, like several others, they had advanced degrees in education or related fields.

Procedures

Data collection.

Data were collected via a series of focus groups and a supplemental short survey. The focus group questions, along with a link to a pre-focus-group survey, were sent to participants in advance. The pre-focus-group survey was used to obtain informed consent and gather information on the participants and their respective college or university program. It included a set of open-ended questions about staff roles, professional qualifications and experience of the TPSID employment staff, and the staffing structure related to employment at the TPSID program. The survey also asked participants if they needed any accommodations or technical support prior to participating in the focus group. The focus groups were conducted in an online format using GoToMeeting (GTM), a video conferencing tool. GTM was selected because it is easy to use, requiring only an Internet connection and a computer, and because it had the ability to record the sessions. Participants were asked to download the software, sent via a web link, onto their computers a few days prior to the start of the focus group sessions. Participants were offered a "tech check" prior to the sessions to ensure their comfort with the technology. Focus groups were held during four sessions in April 2017, lasting 90 minutes each.

To facilitate constructive dialogue, group size was kept small, with three to four participants, two moderators, and one observer in each session. The participant makeup of the focus groups is summarized in Table 3. The two moderators were NCC research staff and the observer was a graduate assistant. The two NCC researchers rotated between lead and support roles as moderators. The lead researcher's role was to give participants an overview of the study, review their rights as participants, facilitate introductions, set the ground rules, and ask the core questions. The support researcher's role was to ask follow-up questions, monitor participation, engage individuals who hadn't answered a question, and make note of questions that might have been unclear to make modifications for subsequent focus groups. The graduate assistant's role

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was to conduct a backup recording of the focus groups in case technical difficulties arose, tally the participants, monitor the chat box (a feature of GTM), and note any potential improvements in format for subsequent focus group administration. All sessions were recorded on GTM with the permission of participants, downloaded into MP4 files, and sent to a professional transcription service. Focus groups were conducted in a synchronous format, meaning they were in real time, on a private forum, and were only open to participants who signed up for a specific time slot.

Table 3 *Insert here*

The focus groups were semi-structured and used open-ended questions. An interview guide was created with input from NCC research and training staff. It comprised the following five main questions:

- 1. What do you believe is the role of TPSID programs related to paid employment?
- 2. What strategies do you use, if any, to support students in obtaining paid jobs while in the program? How do you think these strategies are working?
- 3. How are unpaid career development experiences connected to securing paid employment for students?
- 4. What role do existing organizations both internally (e.g., on-campus career services) and externally (e.g., VR) play in establishing paid employment for your students?
- 5. Is the level of focus in the TPSIDs on paid employment insufficient, sufficient, or overemphasized? How would you change things if you could?

As needed, facilitators were instructed to define or clarify terms, give examples, and ask followup questions. The questions were piloted with staff from three former TPSIDs not included in this study and then revised for clarity before finalizing and sharing with the participants.

Data analysis.

The four focus group transcripts were entered into Atlas.ti qualitative data software for thematic analysis using procedures described by Miles, Huberman, and Saldaña (2014). As a first step in identifying themes, two NCC researchers and a graduate assistant reviewed the research questions and the content of one selected focus group transcript to develop a list of preliminary codes. The two researchers and a graduate assistant then coded the selected transcript individually and met to compare and discuss. The code list was clarified and refined, and a consensus was reached on how to apply codes consistently. The remaining three transcripts were first coded by a single researcher; the other researcher then reviewed the coded documents and edited the codings as needed.

The next stage of analysis was conducted by yet another pair of researchers using an iterative process, drawing on principles of grounded theory (Charmaz, 2006). Adding another set of researchers' perspectives at this stage of analysis was a form of investigator triangulation that enhanced the quality of analysis (Archibald, 2016). For this phase of analysis, the researchers read each coded transcript and wrote memos. From this process, they identified four key themes to organize subsequent analysis: goals and expectations, institutional contexts, external entities, and structure and sequence. They then used the Atlas.ti software to produce data reports related to these key themes, consisting of coded quotations with metadata. The researchers analyzed the data reports to summarize the findings on each theme, draw connections, and formulate arguments. These results were then reviewed by the primary researcher, and the three researchers further developed the analysis through a series of discussions and written memos. In doing so, a fifth theme was added and developed: unpaid versus paid employment. The results of analysis are presented below according to the five identified themes.

Results

Goals and Expectations for Employment

There was consensus across focus group participants on the goals and expectations for employment for students attending TPSID programs. Most participants agreed college is a critical part of the path toward adulthood, community living, and independence, and employment is needed to achieve those goals. Further, participants agreed students with ID should have experiences in college and expectations for employment that mirror their peers without ID. Specific expectations differed based on the type of host institution; for example, some employment staff noted there was more of a focus on vocational training at community colleges than at liberal arts institutions. In addition, students' ideas about employment varied quite a bit, including the extent to which they wanted to pursue paid employment at all. Program staff wanted to honor the dreams and interests of the students while helping them develop "realistic job goals."

The expressed focus in these programs was preparation for long-term careers. One participant emphasized the integral role employment should play in having a meaningful and fulfilling life:

I appreciate the emphasis on competitive, meaningful employment, that we want our students to be in a field that they enjoy, that they can build a career ... It's not about just making a paycheck. It's being supported. It's having your community. I mean it's why any of us stay at the job we're at or why we choose to go somewhere else ... It's an important goal that we should all be focused on.

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Another theme was the role TPSID programs played in raising expectations for students with ID held by others, including parents, college staff, and potential employers. One participant put it this way:

I think we still fight expectations or lack of expectations everywhere we go. ... When we started this program, I said, "We're not working towards the grocery store unless that's what the student wants to do." Because that seems to be what the standard is: "Well, they can work at the grocery store." Well, any of our students right now can walk into Kroger tomorrow and get a job. That's not what we're preparing them for.

Participants also agreed students with ID should have access to experiences similar to those of their peers without ID. Regarding employment, they believed students with ID in college should have the opportunity to develop personal career "interests and passions" and engage in educational and work experiences relating to those interests. In order to realize those aspirations, participants indicated employment preparation should include opportunities to build a resume, acquire foundational ("soft") skills and career-specific skills, obtain credentials, and develop a professional network. Participants emphasized the role TPSIDs have in either providing these opportunities or helping students access them. They also made a distinction between less personally fulfilling jobs and meaningful careers:

I think we've set up our program to help the students explore the possibilities that are out there, and not just entry-level burger-flipping kind of thing, but something that they really want to do. And then we prepare them to be competitive when they're applying for that job.

Whereas there was general agreement about long-term goals for students, program staff differed in their expectations for employment during college. Some expected students to engage in paid or unpaid work while enrolled at the college, considering this a critical step towards developing careers. Others emphasized employment as a long-term goal but not a primary focus throughout the college program. One participant explained that their program focuses on career preparation only towards the end of the program and after it is completed, seeing their approach as more broadly facilitating the transition to adulthood: "Upon graduation, we understood, as with any college student, you're going into the big, bad world. It's a lot of transition. There's a lot of things happening, so how can we make this transition as smooth as possible?"

While there was consistency among the participants that students should have the opportunity for fulfilling careers, they had different perspectives about how to prepare students for those careers during college. The practices they used to achieve this goal varied and seemed to reflect the contexts in which they worked.

Institutional Contexts

The participants in this study were employed at 14 different college and university systems. These institutional contexts varied widely, based on the type of institution, the structure of the TPSID program, and how connected the program was to outside entities. The employment and career development opportunities for students with ID were impacted by the TPSID program's relationship with its host institution. Access to existing programs and opportunities—including campus career centers, connections to service learning through academic courses, or departmental employment opportunities for TPSID students—impacted TPSID employment practices and chances for collaboration.

One focus group participant described the university setting and how the TPSID facilitated employment opportunities within that context:

Our program is a two-year program. When the students come, I have already a list of designated job sites, [but] I'm hoping through TPSID that we gain more accessibility and visibility on campus, because right now I'm buying people lots of cups of coffee and bagels just so I can secure decent internships and employment options.

Participants discussed the role of several internal entities, systems, and structures at the university or college as they pertained to the employment of students with ID such as human resources, academic departments, and career services. TPSID staff worked with these systems to enhance the visibility of their programs within their institution and to increase employment opportunities for their students. One participant described a close relationship with the human resources department at their institution:

I work a lot with human resources at [the university]. When somebody is getting closer to

graduation, they ask me to give them a summary of who's graduating, what their interests are, if they're interested in working at [the university]. Then we go from there, because [the university] actually created a position for our students that can be customized to any department. So, we just have to find a manager that's on board and a need, obviously, in a department, and they will customize a position for a graduate of the [TPSID] program. In addition to on-campus jobs, some participants noted an emphasis on service learning, as part of integrated coursework or a college-wide graduation requirement, could set up opportunities for TPSID students. Service learning allows students with ID to engage with their peers in volunteer work, which may lead to identifying career interests or even to paid employment. According to participants, the role of the TPSID was to both facilitate the participation of their students in these programs and encourage the expansion of existing programs campus-wide, as discussed by one participant:

There's an emphasis on campus here from the administration to get as many classes as they possibly can doing some kind of community service thing or field work ... So, you have someone who learns more by doing than listening, and they could choose that option. We don't want to create a special one, but we would like that to be expanded here and so we're working with [faculty] on that.

There was an emphasis in the focus groups on facilitating access to existing resources on campus offered to all students rather than "building a whole separate silo" for TPSID students. Career services exist at virtually every institution, but their relationships with TPSIDs varied from campus to campus. Some participants reported good relationships with career centers; others said career services were not offered to TPSID students or existing services were not designed to be accessible to students with ID. Most reported at least some career service staff were willing to help TPSID students, but TPSID staff had to advocate for their participation. In some cases, TPSIDs were successful in creating intentional partnerships with career centers and facilitate students' use of career services, such as career fairs, workshops, mock interviews, and internship and job databases. As one participant described:

We partner with our university's Career and Talent Development office, and they provide a variety of career workshops and events across the university that's open to all university students ... So that's been very helpful, having both the partnership with Career and Talent Development, and then also putting together a semester-by-semester tracking sheet that students can see what are all of the workshops that they can participate in.

Some TPSIDs stated they were trying to further these partnerships and improve the accessibility of these services for students with ID. In addition, TPSID staff provided schedules and

information about career events and resources directly to their students and urged them to participate:

We encourage our students to attend anything that's on campus. So, often, there's several workshops during the year on employment, so we encourage them to attend those. And we do encourage them to meet with the career center on campus.

While there was quite a range in institutional contexts, participants sought out opportunities for furthering relationships with their host institutions to increase opportunities for TPSID students.

External Entities

TPSID employment staff and students also worked with external entities, including employers and employment service providers, in obtaining paid employment. Employment service providers are state agencies and/or nonprofit organizations that support individuals with ID to find work. However, relationships with these entities varied by TPSID. Some TPSIDs had facilitated student engagement with outside entities such as state agencies (e.g., VR or state intellectual/developmental disabilities agencies) or other employment service providers (e.g., community rehabilitation providers). In some cases, the TPSID program staff simply provided a referral to an external entity, and in others there was an intentional or structured partnership between the TPSID program and an outside agency. Engagement with businesses as external entities was a key point of discussion. However, little consistency was evident in the TPSID programs' approaches to engaging businesses around employment of TPSID students—either during or after college. Connecting with outside entities was sometimes framed as a challenge. As one focus group participant described:

It's just, employment is so huge. And although our focus is more so preparing the job readiness, if we could have an opportunity with voc rehab, and work collaboratively like

[other TPSID staff] has been able to ... if there was something that I could change it, it would be with those outside resources, governmental resources.

Employment service provider roles may include job preparation, job development, job placement, and long-term supports for employment during and/or after the TPSID program. Considering VR specifically, there was very little consensus about what is or should be the role of VR for students with ID both during and after exiting a TPSID program. TPSID program relationships with VR ranged from nearly non-existent to a strong partnership. In one example, all TPSID students applied and were found eligible for VR services with an assigned VR counselor who attended monthly TPSID program meetings. At a TPSID in another state, employment staff reported it was a requirement for TPSID students to be clients of VR. Other TPSIDs described VR's role in specific terms, such as helping students get summer jobs, or conducting a two-week job preparation workshop, or in financial terms: paying tuition. On the other hand, some TPSIDs described no role for VR, citing reasons such as timelines, resources, and a mutual lack of understanding of the services offered by TPSIDs and VR.

In many cases, at some point in the process of student attendance or upon completion of the TPSID program, an outside entity became involved in delivering services geared toward post-program employment. In some programs, this transition was seamless, with TPSIDs contracted directly as an employment service provider. In other TPSID programs, students were taken on by state agencies or community rehabilitation providers as cases. This transition could be gradual (service providers began working with TPSID participants during the program) or abrupt (there was a "handoff" to the external agency at the end of the TPSID program).

Regardless of how employment services were provided or facilitated, employers were involved in some capacity. While most agreed business relations were an important facet of

supporting and facilitating student employment, the focus group participants offered a small number of concrete strategies for engaging businesses. There was very little discussion of systematic approaches to building business relations. As one participant described the approach, "We hit up everybody and anybody we know." Another participant described the dynamic between the TPSID and employer:

I would also say it's one of the biggest challenges ... It takes a lot of time with building those relationships and then explaining what our office does, giving a little bit more background on our students and explaining how we want to support the student and the employer through this experience. We want it to be beneficial for everyone.

The role of employers seemed most often to be relegated to "giving" students employment opportunities (as opposed to the student being at the table as an active partner). The roles differed somewhat for university-based employers and external businesses. As one participant described it, "We don't really have any relationships with outside employers. If anything, some on-campus jobs." Overall, it was difficult to measure the capacity of TPSID programs to engage in strategic or systematic business relations activities from these data.

Structure and Sequence of Employment-related Experiences

Most employment programs at TPSIDs either lacked structure or had an inconsistent structure for delivering employment services to students. No two programs were alike, and they tended to take a trial-and-error approach. TPSID staff reported a large range of activities and services, including career planning, job search and "soft" skills training, unpaid work activities (e.g., job shadowing), internships (paid and unpaid), jobs only paid by the TPSID, on-campus jobs (career-oriented and not), or integrated competitive employment. One participant summarized the program's employment activities as follows: "TPSID programs provide

authentic community-based vocational experiences, the vocational training, the soft skills development ... through both paid and unpaid internships throughout the four years the students participate."

The sequence of work experiences varied across programs. At some TPSIDs, there was a sequence of work experiences (going from unpaid to paid), while at others employment staff pursued what was available on campus and where they had connections. For some students, unpaid jobs converted to paid jobs at the end of a training period. One program provided supports for students to get and keep employment for one year after program completion, calling it an "alumni year."

Examples of sequencing as reported by participants are as follows: 1) on-campus job in the first semester, then volunteer positions/unpaid internships at off-campus employers; 2) on-campus internship, then off-campus internship, "working towards" employment; and 3) unpaid job shadow, perhaps followed by a paid internship. Examples of timing of employment services and WBL experiences reported by respondents include: 1) job skills training in the classroom, then mock interviews at the end of the program (year two); 2) job search skills spread over two years, with layering and revisiting; and 3) on-campus job shadow in the second semester. One participant offered a detailed description of the sequencing and the logic behind the TPSID activities and services around employment:

We will escalate from starting with an on-campus internship to an off-campus internship, hopefully moving in a path towards a career, but what we found is that, as with many college students, year two and year three, the jobs that people are looking for and the careers that they're looking for are changing dramatically from the time that they enroll in the program. So, we try to have multiple internship experiences over the period of four

years starting in year two, and hopefully there's a continuum there, starting on-campus to off-campus, working towards where the employment ends up being in the end.

There was some variation in how students were paid for employment across TPSID programs. Some situations were straightforward: a student was employed and paid directly by a business. In other programs, a TPSID program paid students a stipend for activities described as "job training," as in this example:

We spend about four hours a day, four days a week at job trainings. And we do a lot of fundraising in order to be able to pay the students a stipend for that job training. So, we are actually paying them rather than the employer paying them. And it's not quite minimum wage, but it is enough for them to understand the relationship between working and receiving a paycheck. But it's not quite minimum wage until the employer decides to hire them, in which case they take over the pay and would pay the minimum wage or more.

This participant highlighted the importance of associating work with a paycheck, and the program was willing to provide the funds to support that learning experience for students.

Unpaid vs. Paid Employment

Our study reflected the focus and expertise of the employment staff at TPSIDs was on unpaid work experiences, not paid employment. TPSID employment staff indicated paid employment was a long-term goal, but it was not prioritized while students were enrolled. Instead, there was a focus on using the student's interests and coursework to cultivate unpaid work training experiences.

TPSID employment staff indicated many students did not have much or any work or volunteer experience prior to entering the TPSID program. Some said students had to start

somewhere, and unpaid employment experiences were a reasonable option. TPSID staff held different views on the importance of unpaid work experiences for students in obtaining employment. Some indicated the TPSID program avoided unpaid work, while others saw value in unpaid work experiences, observing that these experiences helped students refine their interests and figure out what they wanted to do. Staff also stated that unpaid work experiences fostered development of general job and life skills such as self-advocacy and social skills. Additionally, unpaid work experiences were seen as networking opportunities, important for developing social capital, building skills, and strengthening resumes as a prelude to a paid job down the road. Others described how these experiences also enhanced employers' knowledge of students' potential as employees. For example, one participant noted:

Managers have mentioned to me that it's opened their eyes to a whole other workforce that they can consider working in their departments, or if they're businesses, which is really cool, it's just exposing the community to another facet of diversity.

In this way, students' work experiences are not just individually beneficial but can also contribute more broadly to the visibility of individuals with disabilities in the workforce.

Discussion

Recent studies reflect the potential of higher education to positively impact employment outcomes for youth and adults with intellectual disability, both in terms of increased rates of employment as well as increased earnings (Moore & Schelling, 2015; Sannicandro et al., 2018; Smith, Grigal, & Shepard, 2018). The employment practices used in PSE settings vary widely (Scheef, 2019) and include a mix of WBL, job training, and in some cases access to paid employment (Grigal, Hart, et al., 2018). Much of what PSE programs offer depends upon the number of dedicated employment staff and the training of those staff as well as the expected

outcomes of the program. The TPSID model demonstration projects funded in 2015 offer a mechanism to capture the perspectives of the program staff charged with providing employment services to college students with ID in terms of the goals of the program, the activities conducted, and the impact on student employment outcomes. The present study provided the opportunity to learn about practices used by employment staff at TPSIDs with positive employment outcomes for its students.

Our findings suggest there is general consensus across TPSID employment staff on the goals and expectations for employment of TPSID students. TPSID employment staff expected students with ID to have experiences in college and employment after PSE that mirror the experiences of their peers without ID. However, there was some variability in the emphasis on paid employment during college, and no single approach was used to provide career development, WBL, or employment supports. Staff reported their programs varied widely with regard to the institutional contexts, external entities, structure and sequences of employment related activities, and use of unpaid versus paid employment experiences. Employment services staff indicated there was less focus on helping students find employment at or after program completion and more focus on general preparation for employment. The programs' ability to provide direct support and services in job development was largely dependent upon the availability of dedicated employment services staff. Students' experience with employment services was also shaped by the program's relationship with other internal employment-related entities, such as career services, or external entities like VR.

Despite inconsistencies in employment service delivery across the programs, the staff who participated in the focus groups were from TPSID sites that were more successful than others in terms of student employment outcomes. Within these programs, most had an

experienced employment specialist or other professional who focused on job development. As previously noted, participants averaged almost seven years of job development experience, and at the time of the focus group had worked at the TPSID for almost five years. This level of dedicated and experienced staff may have been one critical element of success.

Grigal and Hart (2010) argue that experienced and well-trained employment staff are needed to help students with obtaining, retaining, and even changing jobs in a way that is reflective of how people without disabilities navigate the labor market. Despite a need for well-trained job developers and employment specialists, professionals and para-professionals without training in this area historically have performed these duties, resulting in unemployment or under-employment of students with ID (Grigal & Hart, 2010). Furthermore, Scheef (2019) found that training PSE staff on job development techniques was not used as frequently as it should have been considering the vital role properly trained staff have in facilitating paid work experiences during PSE.

All programs represented by focus group participants aimed to develop internal and external partnerships for employment and saw value in these partnerships. Although the structure and delivery were variable from program to program and student to student, the programs offered a range of opportunities for students to gain employment skills through pre-employment, paid and unpaid internships, volunteer work, and service learning. As staff described their approach to career development, one quality stood out: Programs appeared to be flexible in accommodating students' changing interests.

Strengths of Employment Approaches Used by TPSIDs

There was consensus across focus group participants on the employment expectations for students with ID: All TPSID employment staff expected these students would work after leaving

PSE. This contrasts with the low expectations for students with ID to achieve competitive employment found in other studies. For example, the low expectations for high school students with ID translated into them being more likely to have transition plans with goals for sheltered employment and less likely to have goals of competitive employment than students with other disabilities (Grigal, Hart, & Migliore, 2011).

Expectations are of particular importance in determining the employment outcomes obtained by youth with ID. Papay and Bambara (2014), in a secondary analysis of the National Longitudinal Transition Study 2 (NLTS2) data, found parental expectations for employment and postsecondary education were some of the strongest predictors of successful postschool outcomes for youth with ID. Youth whose parents expected they would be employed after high school were 58 times more likely to be employed up to two years out and 50 times more likely to be employed between two and four years out of high school than youth whose parents did not expect they would be employed (Papay & Bambara, 2014). The results of the present study suggest TPSID programs may create an environment supporting higher expectations for employment success than some other education settings.

It is encouraging that TPSID employment staff were focused on preparing students with ID for careers rather than entry-level positions, and there was agreement that students' goals and interests should drive their career choices. This distinction between entry-level jobs and careers may be important in the long run. Lindstrom, Hirano, McCarthy, and Alverson (2014) conducted a longitudinal case study of early employment experiences of four young adults with ID. Although all were expected to achieve employment and were in fact employed when they left their school transition programs, their outcomes did not reflect any significant career advancement. They appeared stuck in entry-level service industry jobs with stagnant wages, and

most were earning below the federal poverty threshold (Lindstrom et al., 2014). The study demonstrates that without structured, long-term career goals, people with ID are at risk of remaining in dead-end jobs. As the findings of the present study reveal, TPSIDs can have a positive impact in this area by maintaining their commitment to long-term career preparation and promoting high expectations.

The partnerships reported by TPSID employment staff, both internally on their college or university campuses and externally with other organizations, are another positive practice evidenced in the focus group findings. Some participants reported establishing good relationships with the career center on campus, university human resources, and on-campus employers. Similarly, some but not all TPSID employment staff reported they had established relationships with VR and other state agencies as well as community rehabilitation providers. Given the relative newness of PSE programs for students with ID, partnerships between college program staff and VR staff are still in the development stage (Grigal & Whaley, 2016). In a nationwide survey of program directors and coordinators of PSE programs for students with ID, Plotner and Marshall (2015) addressed PSE professionals' perceived level of collaboration with VR. When asked about their ratings of collaboration with VR, 40% of the respondents stated they had a high level of collaboration. Approximately one quarter reported a moderate level of collaboration, and 35% reported weak or no collaboration. The rates of collaboration with VR were higher in the TPSID programs, with 40 of the 52 IHEs operating TPSIDs (77%) partnering with VR programs (Grigal & Smith, 2016). However, it could be in the best interest of both entities to further these collaborations (Grigal & Whaley, 2016; Plotner & Marshall, 2015) as VR clients with ID who receive support to attend PSE have been found to have higher rates of employment as well as higher wages (Smith, Grigal, & Shepard, 2018; Migliore & Butterworth, 2008).

Limitations of Employment Approaches Used by TPSIDs

Employment staff demonstrated a strong commitment toward employment, yet there was not a consistent goal of helping students attain paid employment while they were attending their PSE program. This highlights that the current approach toward employment services may be limiting student outcomes.

The focus on employment preparation appears to be highly varied in its application.

Some programs use internships or volunteer experiences, others use work training and service learning, and none of their guidelines about how long each experience should last appear to be data-based. If there is a time limit, it is based upon the student's tenure in the program, not on committing to an area of career interest or to working on specific job skills to improve their chances of attaining paid employment in that field. Programs provide flexibility in terms of meeting students' needs and being responsive to their interests, adhering to the tenets of personcentered planning as required by the TPSID programs. However, more consistency in how TPSIDs offer career preparation would benefit all students in these programs.

The services and activities aimed at enhancing students' *eventual* employability mirror some of the practices secondary transition educators use with high school students. These practices, though well-intentioned, are not always based upon an established or research-based model or created in a response to a student's expressed desire, but instead may be implemented based upon what is available, nearby, or already established (Grigal & Hart, 2010). Given the primary and most consistently used employment preparation practice was to provide unpaid career development experiences (Smith, Grigal, & Papay, 2018), more work is needed to ensure the career development experiences provided to students in PSE programs are based on evidence-based practices supporting the attainment and retention of paid employment. This issue

is not limited to PSE programs with TPSID funding, as other PSE programs in the U.S. have been found to focus on employment preparation supports instead of access to paid work experiences (Petcu et al., 2015).

The related lack of focus on cultivating paid employment experiences for students during the PSE program could also be limiting. Early paid employment is a strong predictor of later paid employment for youth with disabilities (Carter, Austin, & Trainor, 2012). To be included in this study, staff had to come from programs whose student employment rate at exit met a certain benchmark (33%). Therefore, some students enrolled in the participating TPSIDs were employed when they left their programs. But the input from participants clearly indicated programs as a whole did not prioritize paid employment as much as they prioritized employment preparation. This may have implications for the students' employment status at exit. As previously mentioned, a recent study of TPSID data indicated students who obtained a paid job while enrolled in the TPSID program were almost 15 times more likely to have a paid job at exit than those who did not obtain a paid job while enrolled (Grigal, Papay et al., 2018). To give students the best opportunity to obtain paid work in the future, paid employment experience needs to be a strong priority while students are enrolled in PSE.

Study Limitations

This study was conducted remotely via online focus groups due to the various locations of TPSIDs in multiple states across the U.S. Our study team employed a variety of tactics to facilitate comfort with the format and to ensure that potential participants received any support needed to participate. However, it is possible the methods used (e.g., computer, microphone, and video) may have limited participation to personnel who had a greater comfort level with technology. It is also possible participants might have shared different information if the focus

group had been conducted in person. The focus groups were conducted by research staff who worked for the NCC, which is charged with evaluating the TPSID programs, so it is possible TPSID employment staff refrained from sharing information that might cast their program in a negative light. Finally, these findings only represent 14 TPSIDs that were selected based on percentage of students who were employed in two academic years. Therefore, findings may not represent employment practices across all of these federally funded programs or other non-TPSID PSE programs.

Implications for Policy

For students with ID, the transition from college to competitive employment requires thoughtful coordination across the higher education program and the adult service system. The positive role of VR in supporting college students with ID during and after graduation has been documented (TransCen, 2018). Students benefit from VR staff who are aware of the emerging best practices for coordination with higher education programs to support students pre-college, in college, and in making a seamless transition from college to work (Domin & Sulewski, 2019). Employment staff from the participating TPSIDs indicated VR was seen as a partner, but the support of VR was not always consistent. Despite language in the WIOA regulatory preamble clarifying that VR funds may be used to support students in PSE programs, subsequent guidance or interpretations of guidance are leading to the denial of VR services for some students in those programs (Lee, Rozell, & Will, 2018). There is a need for clearer federal and state guidance for VR to support PSE as a pathway to employment.

Similarly, additional guidance from the Office of Postsecondary Education would be helpful regarding the expectations for grantees to address paid employment as part of their scope of work in future TPSID projects. Currently the charge from the Office of Postsecondary

Education is for TPSIDs to "provide a focus on integrated work experiences and career development skills that lead to gainful employment" (U.S. Department of Education, 2015). This language provides significant latitude and does not require TPSIDs to commit to supporting students to attain paid employment during or even immediately after enrollment. If employment is one of the many critical outcomes of PSE experiences, those seeking federal funds to create and implement these model PSE programs could be expected to help students reach a higher bar than being "employment ready."

Implications for Practice

Many staff participating in our focus groups had years of experience providing employment services and supports to students with disabilities. However, there was a discrepancy in the number of staff members and their experience levels across the TPSID programs. As other PSE programs seek to address employment for the students with ID they serve, staff training should be prioritized. Students entering a PSE program may not have had prior work experience (Grigal, Papay, et al., 2018). Therefore, staff need to have the skills and tools to assess students' career interests via situational assessment, job shadowing, and timelimited job tryouts. Staff also must have the training necessary to establish employment networks, conduct informational interviews, and work with employers to meet their staffing needs by matching them with qualified student workers. As Scheef (2019) suggests, the role played by PSE employment staff extends beyond their work with students to include tapping into employer networks, such as the local Chamber of Commerce, and offering training to businesses to improve capacity for working with individuals with disabilities. In addition to the provision of training, PSE program leadership should consider how they can budget to hire and retain dedicated employment staff (job developers, employment specialists) who can focus on the

structure and implementation of effective employment services across all aspects of the PSE program.

The diversity of approaches used to address employment in PSE programs has been documented in previous reports about the TPSID programs (Grigal, Hart, et al., 2018) as well as other programs (Petcu et al., 2015). While a broad range of approaches to employment services is to be expected, the programs have a responsibility to assess if their approach is effective. At a minimum, programs should annually evaluate how and when students participate in various exploration activities, when and how often students are applying and retaining employment, and the expertise offered by program staff toward these goals. Honest and consistent appraisal of existing practices will help to ensure PSE programs are positioned to support students to achieve their desired employment outcomes.

Improving and expanding upon the employment services provided by TPSIDs as well as other non-federally funded PSE programs for students with ID can be approached in a variety of ways. Employment staff can establish clear goals for paid employment and timelines for all students, prioritize paid jobs for student work experiences, and monitor whether student job experiences build towards long-term career goals. Furthermore, leadership must set and reiterate program and college expectations for employment, and ensure there is sufficient staff, training, and support to meet those goals.

PSE program staff can also engage employment stakeholders to share the program mission. This could include connections with staff from university departments or offices such as career services, state agencies like VR and adult services agencies, and local Chambers of Commerce or on- or off-campus employers. Time must be spent on sharing the mission of the program, providing clarity about the anticipated student employment experiences, and gaining

input on the availability of access to support. Additionally, PSE program leadership and staff need to learn about the services offered by various departments and offices on campus, and how students with ID can gain access. Outreach and engagement with potential employment partners during planning and on an ongoing basis may support more positive employment outcomes for students with ID. Access to these resources can ensure a seamless transition from college to adulthood. Once partnerships are formed, PSE program staff should communicate regularly with external and internal partners and establish and revisit goals and roles. Programs can celebrate successful collaborations and provide opportunities for partners to connect with others from different systems.

PSE program staff can cultivate opportunities for college and university faculty/staff to hear about the program and student successes as well as highlight and celebrate strong partnerships, so others can see the possibilities of working with the program. Some PSE programs host open houses for faculty and staff; others host annual celebration events to thank their campus partners. PSE program staff should determine how internships and service-learning opportunities are addressed for typical college students and explore how students with ID can access these experiences. Program staff can also promote access to campus resources. For example, staff can determine what is and is not available from the career services office, and focus on creating and improving access to existing services rather than duplicating them.

Conclusion

The purpose of this study was to take an in-depth look at how TPSIDs with the highest rates of employment outcomes at exit approached employment services and supports as part of overall PSE programs serving students with ID. By conducting focus groups targeting front-line staff responsible for providing these services, the goal was to identify promising and emerging

practices across programs. Employment staff from federally funded TPSID programs offered a unified vision that students with ID can and should be employed. Yet their methods and approaches toward this outcome varied significantly, ultimately reflecting a disparity seen in other PSE programs in the U.S. This also limits our ability to draw conclusions about what approaches are most effective, given the lack of consensus across program staff.

Improving and expanding upon the employment services provided by TPSIDs as well as other non-federally funded higher education programs for students with ID can be approached in a variety of ways. Some of the key strategies shared by staff regarding successful student employment practices involved outreach and engagement, visibility on campus, improving career services, and cultivating partnerships. This study serves as an important starting point for investigation into employment services and supports for students with ID in the TPSID programs, as little was previously known about how programs are approaching this aspect of the postsecondary experience.

Adding the voice of the TPSID program staff primarily responsible for providing employment services and supports provides insights from the front line of service delivery about the current state of the art. As higher education continues to expand its offerings to students with ID, PSE programs need to emphasize and honor the importance of paid employment, and continue to seek the best methods to achieve this outcome for students with ID. Additional data collection and research exploring the type of employment services, and the number and sequence of work-based learning experiences during college that lead to positive post-school outcomes, is needed to build an evidence base for best practices.

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Table 1

Participating TPSID Site Characteristics

IHE type	N	%
Public 4-year	9	64%
Private 4-year	3	21%
Community college	2	14%
Region		
Northeast	4	29%
South	4	29%
Midwest	2	14%
West	4	29%
Size	Range	Mean
Number of students	3-35	17

Table 2

Participant Characteristics

Job title	N	%
Director	5	36%
Program specialist	3	21%
Coordinator	5	36%
Faculty	1	7%
Years of experience	Range	Mean
In employment services	0-16	6.82
At TPSID	0.5-13	4.64

Table 3

Focus Group Participation

	IHE type	Position	Years in job development	
Focus	s group 1			
1	Public 4-year	Program specialist	3.5	
2	Private 4-year	Director	4	
3	Public 4-year	Coordinator	6	
Focus	s group 2			
4	Public 4-year	Director	0	
5	Public 4-year	Program specialist	7	
6	Public 4-year	Coordinator	7	
Focus group 3				
7	Public 4-year	Coordinator	2	
8	Private 4-year	Coordinator	5	
9	Community college	Director	10	
10	Public 4-year	Program specialist	16	
Focus group 4				
11	Private 4-year	Faculty	10	
12	Public 4-year	Director	7	
13	Public 4-year	Coordinator	13	
14	Community college	Director	5	