

Pre-employment transition services: Provider experiences with design and delivery

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Abstract.

BACKGROUND: Pre-employment transition services (Pre-ETS) are designed to build upon school-based transition services to support students with disabilities in developing skills to meet their post-school goals around competitive integrated employment.

OBJECTIVE: This study examines Pre-ETS providers' experiences assisting students with disabilities in developing skills for transition through Pre-ETS activities.

METHOD: Through an electronic survey, the insights of 96 providers of Pre-ETS were examined in relation to the planning, delivery, and impact of different activities.

RESULTS: A lack of consistency in the process of planning Pre-ETS instruction exists across providers, though most report individualizing at the student or group level. Additionally, providers report using multiple methods to plan Pre-ETS delivery focused largely on Pre-ETS curriculum and transition websites. The types of services and activities implemented and the reported impact of each varies across providers.

CONCLUSION: We offer recommendations focused on policy and practice for Pre-ETS providers to support students with disabilities as they transition into competitive integrated employment.

Keywords: Transition, students with disabilities, vocational rehabilitation

1. Introduction

The transition to adulthood is a critical juncture for youth with disabilities. As they prepare for life after high school, students must acquire the skills, knowledge, aspirations, and experiences needed to pursue their valued outcomes after graduation. For example, most youth with disabilities anticipate entering the world of work after high school or pursuing a college degree to prepare them for a future career

(e.g., Bouck et al., 2021; Wu et al., 2023). Although schools are specifically charged with providing individualized transition services that will equip students with disabilities to attain their postsecondary goals in these and other areas, post-school success still remains uncertain and uneven. Scores of studies suggest that early outcomes related to employment and further education are still elusive for large numbers of young adults with disabilities (e.g., Lund, 2020; Prince et al., 2018; Yamamoto, 2022).

The advent of pre-employment transition services (Pre-ETS) has brought renewed attention and additional resources to the task of equipping youth with disabilities for college and career. Introduced in

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2014, Pre-ETS are designed to complement special education transition services in preparing students for post-school success. According to the Workforce Innovation and Opportunity Act (WIOA; 2014), Vocational Rehabilitation (VR) agencies must set aside at least 15% of their federal funds to provide these services to students with disabilities who are eligible—or would potentially be eligible—for VR services. These required services fall within five primary categories: (a) job exploration counseling, (b) work-based learning experiences, (c) postsecondary education counseling, (d) workplace readiness training, and (e) instruction in self-advocacy. When combined with school-provided transition services, Pre-ETS holds great promise for impacting the trajectories of youth and young adults with disabilities (McDonnall et al., 2022; Smith et al., 2021).

As states have rolled out Pre-ETS, they have each wrestled with how best to design and deliver these services in meaningful and widespread ways (Miller et al., 2018). For example, recent reviews of state policy documents indicate there is considerable variation in the policies states are adopting in response to the WIOA mandates (e.g., Carlson et al., 2020; Taylor et al., 2022). Although these policies can (and should) impact how Pre-ETS is practiced, surprisingly little empirical attention has focused on the actual implementation of Pre-ETS by providers in local communities. In addition to examining prevailing policies, it is also critical to understand how services are being introduced each day to students with disabilities. Looking more closely at how providers design and deliver Pre-ETS would provide much-needed insights into whether these services are likely to prepare students well for future success.

To date, only a few studies have explored the perspectives of Pre-ETS providers on their work with secondary school students. Awsumb et al. (2020) surveyed 166 VR providers in one state about their knowledge of and early experiences with implementing Pre-ETS. Although most respondents reported having some experience implementing practices in each of the five Pre-ETS categories, they varied widely in their knowledge of how to do so in alignment with current policies. Neubert and colleagues (2018) surveyed 538 VR counselors in 15 states about the importance they placed on various Pre-ETS activities, as well as their preparation to perform them. Although both ratings tended to be high, respondents were not asked about their actual implementation. In a survey of 209 staff from multiple VR agencies across the country, Sherman and colleagues (2019) explored

how respondents perceived the challenges of incorporating Pre-ETS and its anticipated impact. Finally, Pacheco and colleagues (2022) held focus groups involving ten secondary special educators and community rehabilitation professionals (CRPs) to address the complexities of collaborating related to Pre-ETS. Partnerships in this area were still in their infancy and marked by numerous barriers.

Although each of these studies provides key insights into the views of providers, none focused specifically on the actual provision of Pre-ETS. Moreover, each was conducted in the early phases of the Pre-ETS rollout. As a result, the portrait of actual practices still remains quite thin. Two areas, in particular, would be helpful to explore more fully. First, it is important to understand how providers approach planning related to Pre-ETS. States are given considerable latitude in how they structure these services; the same may be true for their local providers. Knowing how providers assess student needs, structure activities, develop lessons, and serve schools could provide insights into the choices they must make when approaching Pre-ETS. Second, it is critical to examine which practices they are actually implementing. Although five areas of Pre-ETS are mandated, there are dozens of discrete practices that fall within these categories. It is unclear which of these practices are emphasized most in work with local schools. Despite nearly a decade of federal and state investment in Pre-ETS, this promising area of transition service delivery is still poorly understood.

The purpose of this study was to explore the experiences and insights of providers regarding the delivery of Pre-ETS activities. Specifically, we examined these five questions:

1. How do providers describe planning for delivery of Pre-ETS activities?
2. To what extent do the roles of two types of provider staff—community rehabilitation provider (CRP) and transition school to work personnel (TSW)—vary from each other?
3. What Pre-ETS activities do providers implement with students with disabilities?
4. How do providers describe the impact of the Pre-ETS activities they delivered?
5. What needs must be fulfilled for providers to deliver high-quality Pre-ETS activities?

Although some studies have spanned multiple states with varying policies and structures, our interest was in understanding the planning and implementation practices that comprised Tennessee's

current investment in Pre-ETS. As a provider of technical assistance and training, our focus was understanding the current landscape of our entire state in order to design stronger professional development, resources, and policy recommendations.

2. Methods

2.1. Participants

Participants were 96 providers of Pre-ETS for students with disabilities across Tennessee. To be included, they must have worked in the state of Tennessee and served students with disabilities in one of four roles: CRPs (21.1%), TSWs (47.9%), pre-employment transition specialist (22.9%), or a Pre-ETS supervisor (8.3%). CRPs are outside agencies contracted through vocational rehabilitation (VR) to deliver Pre-ETS to students with disabilities. TSW personnel are employees of the local education agency whose salary is predominantly funded by VR to deliver Pre-ETS to students with disabilities. Pre-ETS specialists are employees of VR who support CRPs and TSWs in delivering Pre-ETS and manage Pre-ETS paperwork within assigned districts. Pre-ETS supervisors manage Pre-ETS specialists, CRPs, and TSWs.

Most participants were female (91.2%); 7.4% were male. Participant ages ranged from 18–24 (2.9%), 25–34 (14.5%), 35–44 (18.8%), 45–54 (30.4%), 55–64 (27.5%), and 65 and over (4.4%). Participants identified their race/ethnicity as white (73.9%), Black (23.2%), or Hispanic/Latinx (7.3%); 8.9% preferred not to disclose this information. Most providers reported earning a bachelor's degree (37.7%) or a master's degree (31.9%); the remainder had some college (11.6%), an associate's degree (5.7%), a high school education or less (4.4%), a doctoral degree (2.9%), or not disclosed (5.7%).

Most participants (88.5%) reported that at least half of their caseload was made up of students. They served these students in a variety of settings, including public schools (98.6%), private schools (17.4%), charter schools (15.9%), home school (10.1%), juvenile justice systems (7.3%), and/or residential facilities (5.8%). Participants partnered with a median of 3.0 (range, 1–56) schools. Most participants (66.7%) worked primarily in rural areas; the remainder worked primarily in urban areas (20.3%) or suburban areas (13.0%).

2.2. Procedures

Data collection lasted for two months between October and December 2021. We identified eligible Pre-ETS providers through the Tennessee Department of Human Services-Vocational Rehabilitation, who shared agency and provider contact information with us (i.e., agency name, role, email, phone number). We sent each provider an invitation by email that explained the purpose of the survey, provided a link to the online survey (REDCap; Harris et al., 2009), confirmed that their individual responses would remain anonymous, and asked that they also forward the invitation to all other eligible providers of Pre-ETS within their agency. We noted that the information they and their colleagues shared would be used to identify resource and within the state. To encourage broad participation, we offered a \$20 gift card to each eligible participant who completed the survey. Once the survey was completed, participants were directed to an additional survey where they entered their name, address, email, and phone number to receive a gift card. The two surveys were not connected; therefore, it was not possible to identify each participant's survey. If participants did not wish to receive a gift card, they did not need to provide identifying information about themselves (i.e., name and contact information). We estimate a response rate of 78.7%. However, agencies may have had additional staff in their agency delivering Pre-ETS of whom we were not aware or who did not receive the invitation.

2.3. Survey instrument

We developed a statewide survey (available by request) to address the overall quality of Pre-ETS delivery. Questions explored participants' knowledge of and planning for Pre-ETS activity delivery, their actual provision of Pre-ETS, and their perceived training needs. Our research team included faculty and staff with transition expertise and experience related to Pre-ETS and school-based special education services. We developed items based on the emerging Pre-ETS literature (e.g., Awsumb et al., 2020; Frentzel et al., 2021; Mazzotti & Plotner, 2014; Nubert et al., 2018; Plotner et al., 2014). We used a consensus approach within our team to develop preliminary items and revise them. We then sent the draft to state-level Pre-ETS supervisors and VR leadership for additional review before finalizing. In this manuscript, we focus on findings from two overarching sections of the survey addressing (a) their overall

planning of Pre-ETS and (b) actual implementation of Pre-ETS specific activities. Each is detailed below (additional survey sections are discussed in a separate working manuscript).

2.3.1. Overall planning of pre-ETS

This section of the survey addressed four areas related to the overall design of Pre-ETS. Responses to 32 Pre-ETS design items were provided on a 4-point, Likert-type scale: 1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree. Table 1 lists all items. Cronbach's alpha for this section was 0.88, indicating high internal consistency.

2.3.1.1. Assessing student needs. We asked whether participants used each of seven approaches to learn about their students' needs (e.g., I meet with their teacher to understand their needs; I review their IEP).

2.3.1.2. Structuring Pre-ETS activities. We asked about nine ways in which Pre-ETS might be structured for students (e.g., Student schedules dictate how students are grouped; I group students based on individual needs).

2.3.1.3. Developing lessons. We asked about six approaches by which Pre-ETS lessons might be developed (e.g., I use a curriculum for Pre-ETS/transition skills; I learn from my colleagues).

2.3.1.4 Serving schools and students. We asked about ten issues related to working with local students and schools (e.g., I am serving more than half of the eligible students with disabilities in each of my schools; I am able to get into all the schools I have been assigned).

2.3.2. Implementation of Pre-ETS Activities

This section of the survey addressed two areas related to the implementation of specific Pre-ETS activities. Table 2 lists all items. Cronbach's alpha for this section was 0.98, indicating high internal consistency.

2.3.2.1 Frequency of activity delivery. We asked about the extent to which participants implemented each of 37 distinct activities falling under five major areas of Pre-ETS: job exploration counseling ($n=4$ items), work-based learning experiences ($n=10$ items), counseling on postsecondary education ($n=8$ items), workplace readiness training ($n=7$ items), and instruction in self-advocacy ($n=8$ items).

Responses were provided using a 4-point, Likert-type scale: 1 = never, 2 = rarely, 3 = sometimes, 4 = often.

2.3.2.2. Benefits to students. For each activity that participants indicated they implemented to some extent (i.e., rarely, sometimes, often), we asked whether they felt their students with disabilities gained important postsecondary skills as a result. Responses were provided using a 4-point, Likert-type scale: 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree.

2.3.2.3. Provider needs. We asked participants to indicate what they felt they needed to be able to implement all five Pre-ETS. Ten responses were provided: more training/professional development, more time to prepare for instruction, more time for instruction/time with students, a better relationship with my schools, more staff, more guidance, more support, curricular, or other. More than one could be selected. We also asked participants to respond to one open-ended question: What do you need to increase the quality of services and experiences you provide to students with disabilities? No length restrictions were imposed when responding.

2.4. Data analysis

We used descriptive statistics (i.e., percentages, means and standard deviations) to summarize responses to all questions. For items related to planning, we used independent samples t tests to compare the ratings of CRPs and TSWs. In Tennessee, CRPs and TSWs are responsible for planning and delivering Pre-ETS to students with disabilities, thus, we were interested in whether individuals in these two roles differed in their approaches to planning for delivery of Pre-ETS for students with disabilities. We used Cohen's d to report the magnitude of any group differences. Effect sizes are interpreted using Cohen's (1988) guidelines: 0.2 small, 0.5 moderate, and 0.8 large. Finally, we used general thematic coding to identify primary needs identified within the open-ended responses of participants.

3. Results

Study findings are organized by each of the four research questions. Descriptive findings are presented in Tables 1 and 2.

Table 1
 Planning for Pre-ETS activity delivery (N=96)

Item	Strongly disagree %	Disagree %	Agree %	Strongly agree %	M (SD)	Role ^a
To learn about my students' needs, I:						
... assess my students' knowledge during instruction.	4.94	6.17	62.96	25.93	3.10 (0.72)	0.37
... assess my students' knowledge after instruction.	6.17	13.58	56.79	23.46	2.98 (0.79)	0.37
... meet with their teacher to understand their needs.	4.94	12.35	54.32	28.40	3.06 (0.78)	0.42
... research curriculum that meets their learning needs.	6.17	9.88	54.32	29.63	3.07 (0.80)	0.22
... assess my students' knowledge prior to instruction.	6.17	17.28	53.09	23.46	2.94 (0.81)	0.13
... review their IEP.	3.70	18.52	44.44	33.33	3.07 (0.82)	-0.15
... meet individually with each student.	7.41	28.40	38.27	25.93	2.83 (0.91)	-0.30
Structure of Pre-ETS:						
I develop group activities based on each group's needs.	4.94	11.11	69.14	14.81	2.94 (0.68)	<0.001
I develop group activities that are individualized for each student.	4.94	24.69	64.20	6.17	2.72 (0.66)	-0.72*
I develop individual activities based on each student's needs.	4.94	24.69	59.26	11.11	2.77 (0.71)	-0.12
I develop activities to build on what is already happening in the classroom.	8.64	20.99	59.26	11.11	2.73 (0.78)	-0.52
Student schedules dictate how students are grouped.	6.17	16.05	51.85	25.93	2.98 (0.82)	0.03
I group students based on individual needs.	9.88	30.86	46.91	12.35	2.62 (0.83)	-0.50
I decide how to group students for instruction.	9.88	28.40	46.91	14.81	2.67 (0.85)	-0.41
The school decides how to group the students for instruction.	18.52	30.86	37.04	13.58	2.46 (0.95)	0.60*
The school groups students based on individual needs.	14.81	39.51	35.80	9.88	2.41 (0.86)	0.28
Development of Pre-ETS activities:						
I use a curriculum for Pre-ETS/transition skills.	3.75	11.25	61.25	23.75	3.05 (0.71)	0.80*
I use transition websites (e.g., Transition Tennessee, WINTAC, NTACTION).	1.25	13.75	57.50	27.50	3.11 (0.68)	1.00*
I create classroom activities.	3.75	17.50	56.25	22.50	2.98 (0.75)	0.19
I learn from my colleagues.	5.00	21.25	53.75	20.00	2.89 (0.78)	-0.05
I set up school-based experiences.	7.50	25.00	50.00	17.50	2.78 (0.83)	-0.25
I set up community-based experiences.	6.25	28.75	43.75	21.25	2.80 (0.85)	-0.02
Serving your schools and students						
My students spend 50% or more of their day in general education classes.	5.56	19.44	63.89	11.11	2.81 (0.71)	-0.73*
The Pre-ETS activities and experiences my students participate in support their postsecondary goals.	0.00	5.56	54.17	40.28	3.35 (0.59)	0.07
I am serving more than half of the eligible students with disabilities in each of my schools.	12.50	29.17	45.83	12.50	2.58 (0.77)	-0.37
My students benefit from Pre-ETS.	1.39	1.39	45.83	51.39	3.47 (0.60)	-0.24
I am able to get into all the schools I have been assigned.	2.78	18.06	43.06	36.11	3.13 (0.80)	-0.83*
My students are in a self-contained classroom.	9.72	43.06	43.06	4.17	2.42 (0.73)	0.54
My students spend less than 50% of their day in general education classes.	15.28	54.17	29.17	1.39	2.17 (0.69)	0.72*
I am serving less than half of the eligible students with disabilities in each of my schools.	22.22	50.00	18.75	2.78	2.08 (0.77)	0.82*
I am having trouble getting into some of my schools.	33.33	40.28	23.61	2.78	1.96 (0.83)	0.53
I am serving all eligible students with disabilities in each of my schools.	8.33	58.33	20.83	12.50	2.38 (0.81)	-0.39

^aCohen's d; positive effect sizes are in the direction of Community Rehabilitation Providers. *Statistical tests were significant at $p < 0.05$.

Table 2
Implementation of Pre-ETS activities (N=96)

Item	I implement the following activities					Students gain postsecondary skills from the following activities*		
	Never %	Rarely %	Sometimes %	Often %	Strongly disagree %	Disagree %	Agree %	Strongly agree %
Job exploration counseling								
Career awareness	5.71	2.86	27.14	64.29	0.00	3.03	60.61	36.36
Labor market exploration	14.29	14.29	34.29	37.14	0.00	10.17	61.02	28.81
Career student organizations	22.86	34.29	27.14	15.71	3.77	30.19	54.72	11.32
Career speakers	20.00	28.57	38.57	12.86	1.79	25.00	60.71	12.50
Work-based learning experiences								
Simulated tools and workplace experiences	17.14	15.71	24.29	32.86	3.45	15.52	55.17	25.86
Paid and non-paid work experiences	21.43	11.43	35.71	31.43	0.00	16.36	56.36	27.27
Job shadowing	17.14	15.71	38.57	28.57	3.45	13.79	58.62	24.14
Service learning and volunteering	20.00	14.29	38.57	27.14	0.00	16.07	55.36	28.57
School-based enterprises	22.86	10.00	40.00	27.14	3.70	14.82	57.41	24.07
Informational interviews	17.14	12.86	48.57	21.43	1.72	13.79	63.79	20.69
Career mentoring	20.00	17.14	42.86	20.00	5.36	25.00	50.00	19.64
Worksite tours and field trips	20.00	25.71	34.29	20.00	1.79	23.21	51.79	23.21
Paid and non-paid internships	34.29	24.29	22.86	18.57	0.00	28.26	56.52	15.22
Career-related competitions	44.29	27.14	18.57	10.00	2.56	35.90	51.28	10.26
Counseling on postsecondary education								
Information and guidance on PSE options	8.57	2.86	30.00	58.57	1.56	4.69	57.81	35.94
Learn about financial aid options	11.43	4.29	37.14	47.14	0.00	6.45	56.45	37.10
Identify career clusters	12.86	10.00	35.71	41.43	0.00	9.84	62.30	27.87
Explore inclusive higher education programs	17.14	14.29	41.43	27.14	0.00	18.97	51.72	29.31
Earn college credit in high school	25.71	20.00	37.14	17.14	1.92	23.08	59.62	15.39
Tours of PSE programs	24.29	15.71	45.71	14.29	1.89	20.76	58.49	18.87
Class shadows	32.86	22.86	31.43	12.86	2.13	19.15	68.09	10.64
Collaborate on the SOP	35.71	30.00	25.71	8.57	3.13	33.33	48.89	11.11

Workplace readiness training								
Understanding employer expectations	5.71	4.29	17.14	72.86	0.00	6.06	42.42	51.52
Job-seeking skills	5.71	5.71	17.14	71.43	1.52	6.06	36.36	56.06
Social/interpersonal skills	7.14	4.29	18.57	70.00	0.00	4.62	36.92	58.46
Independent living skills	7.14	1.43	22.86	68.57	0.00	3.08	47.69	49.23
Soft skills	7.14	4.29	21.43	67.14	1.54	1.54	43.08	53.85
Financial literacy	7.14	4.29	34.29	54.29	0.00	7.69	50.77	41.54
Orientation and mobility skills	10.00	22.86	34.29	32.86	0.00	19.05	50.79	30.16
Instruction in self-advocacy								
Resume development	8.57	8.57	28.57	54.29	0.00	7.81	46.88	45.31
Self-assessments	8.57	7.14	31.43	52.86	0.00	7.81	50.00	42.19
Disability disclosure in postsecondary education	8.57	8.57	37.14	45.71	0.00	10.94	53.13	35.94
Assertiveness	7.14	8.57	42.86	41.43	0.00	12.31	50.77	36.92
Disability disclosure in the workplace	11.43	4.29	31.25	30.21	0.00	11.29	51.61	37.10
Mentorship	10.00	25.71	37.14	27.14	0.00	25.40	44.44	30.16
Community resource mapping	11.43	21.43	40.00	27.14	0.00	25.81	48.39	25.81
One page profile development	15.71	27.14	31.43	25.71	1.70	27.12	42.37	28.81

*Participants responded to this question if rarely, sometimes, or often was selected when sharing implemented activities.

3.1. How do providers describe planning for delivery of pre-ETS activities?

3.1.1. Assessing student needs

Providers reported engaging in variety of approaches for learning about their students' needs (see Table 1). Providers agreed or strongly agreed that they assessed student knowledge during (88.9%) and after (80.3%) instruction; fewer reported assessing knowledge prior to instruction (76.6%). Additionally, most providers reported that they researched curriculum (84.0%), met with the students' teacher (82.7%), received their IEPs (77.8%), and/or met with individual students. We found no significant differences in the ratings of CRPs and TSWs.

3.1.2. Structuring pre-ETS activities

Providers addressed a variety of ways in which they structured Pre-ETS for their students with disabilities (see Table 1). Most providers agreed or strongly agreed that they delivered service in groups based on group needs (84.0%) and that student schedules dictated how students were grouped (77.8%). Many providers also agreed or strongly agreed they developed: (a) individual activities based on individual needs (70.4%), (b) activities to build on classroom instruction (70.4%), and (c) individualized activities (70.4%). Somewhat fewer providers agreed or strongly agreed that they played a role in deciding how to group students for instruction (61.7%) and that they did so based on individual needs (59.4%). Half of providers (50.6%) agreed or strongly agreed that the school made the decision on how to group students and (45.7%) indicated that the school grouped students based on individual needs.

Ratings among CRPs and TSWs were significantly different in just two areas. CRPs were less likely to agree that they developed individualized group activities, $t(20.84) = -2.08$, $p = 0.03$, $d = -0.72$. In contrast, CRPs were more likely to agree that the school decided how to group their students for instruction, $t(54) = 2.02$, $p = 0.02$, $d = 0.60$.

3.1.3. Developing lessons

When asked about the ways Pre-ETS activities are developed, most providers agreed or strongly agreed they used transition websites (85.0%), curriculum for Pre-ETS/transition (85.0%), and/or created classroom activities for their students (78.8%). Most also reported learning from their colleagues (73.8%), setting up school-based experiences (67.5%),

and setting up community-based experiences (65.0%).

Ratings among CRPs and TSWs were significantly different in just two areas. CRPs were significantly more likely to report using a Pre-ETS/transition curriculum, $t(20.02) = 2.23$, $p = 0.19$, $d = 0.80$. Additionally, CRPs were significantly more likely to report using transition websites to develop Pre-ETS activities $t(53) = 3.73$, $p < 0.001$, $d = 1.00$.

3.1.4. Serving students and schools

Responses to questions regarding the schools providers worked in and the students they worked with were more varied than the previous three sections. Most providers agreed or strongly agreed they were able to access all schools assigned to their caseload (79.2%). Once in the school, according to providers, the students they serve spent half or more of their day in general education classrooms (75.0%) and providers were serving more than half of the eligible students in their schools (58.3%). However, only 33.3% of providers agreed or strongly agreed they were serving all eligible students and 30.0% reported that their students spent less than half of their day in a general education classroom. Additionally, 47.2% of providers agreed that their students spent their days in a self-contained classroom. Nevertheless, providers overwhelmingly agreed or strongly agreed that their students benefitted from Pre-ETS (97.2%) and that Pre-ETS activities and experiences support their students' postsecondary goals (94.5%).

Ratings among CRPs and TSWs were significantly different in several areas. CRPs were significantly less likely than TSWs to agree they could get into each of their assigned schools, $t(13.50) = -1.91$, $p = 0.04$, $d = -0.83$. CRPs were also less likely than TSWs to report that their students spent half or more of their day in general education classes, $t(47) = -2.18$, $p = 0.02$, $d = -0.73$. Conversely, CRPs reported significantly higher agreement when asked if their students spent less than half of their day in general education classes, $t(47) = 2.15$, $p = 0.02$, $d = 0.72$. Likewise, CRPs were more likely to agree they were serving less than half of their eligible students in each school $t(47) = 2.48$, $p = 0.008$, $d = 0.82$.

3.2. What pre-ETS activities do providers implement with students with disabilities?

Overall, participants reported most often delivering activities under workplace readiness training, followed by instruction in self-advocacy, job

exploration counseling, counseling in postsecondary education, and work-based learning. Out of 37 activities listed across the five Pre-ETS categories, nine (24.3%) activities were reported as being delivered often by more than half of providers. Those activities included: understanding employer expectations (72.9%), job-seeking skills (70.0%), independent living skills (68.6%), soft skills (67.1%), career awareness (64.3%), information and guidance on postsecondary education options (58.6%), financial literacy (54.3%), resume development (54.3%), and self-assessments (52.9%). The remaining 28 activities were reported as being delivered less frequently than often (i.e., sometimes, rarely, or never).

In Tennessee, providers are required to address each of the five Pre-ETS. Yet, some providers reported not meeting this requirement. Specifically, 28.1% of providers reported never delivering work-based learning activities, 22.9% were not delivering counseling on postsecondary education, 18.8% were not delivering instruction in self-advocacy, 16.7% were not delivering job exploration counseling, and 15.6% were not delivering workplace readiness training. For example, at least one fifth of participants reported *never* delivering the following activities: career-related competitions (44.3%), collaborating on the summary of performance (35.7%), paid and non-paid internships (34.3%), class shadows (32.9%), earning college credit in high school (25.7%), tours of postsecondary education programs (24.3%), career and student organizations (22.9%), school-based enterprises (22.9%), paid and non-paid work experiences (21.4%), career speakers (20.0%), service learning and volunteering (20.0%), career mentoring (20.0%), and worksite tours and field trips (20.0%).

3.3. *How do providers describe the impact of the pre-ETS activities they delivered?*

For each of the Pre-ETS activities that providers implemented, the majority of providers agreed or strongly agreed that students gained important postsecondary skills (see Table 2). Those activities in which at least one fourth of providers disagreed or strongly disagreed that students gained such skills fell within four of the five Pre-ETS categories: job exploration counseling (i.e., career student organizations, 34.0% and career speakers, 26.8%), work-based learning experiences (i.e., career-related competitions, 38.5%, career mentoring, 30.4%, and paid and non-paid internships, 28.3%), counseling on postsec-

ondary education (i.e., collaborating on the summary of performance, 40.0% and earning college credit in high school, 25.0%), and instruction in self-advocacy (one-page profile development, 28.8%, community resource mapping, 25.8%, and mentorship, 25.4%). None of these activities fell under workplace readiness training.

3.4. *What needs must be fulfilled for providers to deliver high-quality pre-ETS activities?*

When asked what they would need in order to be able to offer all five Pre-ETS, 38.5% indicated more funding, 33.3% indicated more training/professional development, 31.3% indicated more staff, 28.1% indicated curricula, 26.0% indicated more time for instruction/time with students, 22.9% indicated more support, 18.8% indicated more guidance, 11.5% indicated more time to prepare for instruction, and 10.4% indicated a better relationship with their schools. When asked to share what they needed to increase the quality of services and experiences provided to students with disabilities, eight categories of responses emerged: (a) collaboration (e.g., “better connection with teachers” “collaboration with other programs in other schools”), (b) funding/staff/large caseloads (e.g., “[funding to] hire additional staff” “my caseload is too large”), (c) guidance (e.g., “what’s expected of me”), (d) resources/curricula (e.g., “step-by-step curriculum that I can go to and teach/modify for the students.”), (e) professional development/training (e.g., “viable strategies, resources, and means to scale my services to reach and teach more students with disabilities.”), (f) community supports (“more businesses to work with our students with disabilities” “more work-based learning opportunities”), (g) time (e.g., “more time to spend with students” “more time at each location”), and (h) evaluation/outcomes (e.g., “have my services evaluated” “ways to measure success with data” “quality improvement tools”).

4. Discussion

The purpose of this study was to examine how providers approach planning and implementation of Pre-ETS in Tennessee. Although there is growing commitment to expanding access to Pre-ETS across the country, few studies have focused on the actual provision of Pre-ETS at the local level. We surveyed nearly 100 providers about their experiences

planning and implementing Pre-ETS as a pathway for improving the postsecondary outcomes of youth with disabilities. These findings extend the transition literature in key ways.

First, providers shared about the multiple ways in which they planned for instruction. Most providers reported making at least some efforts to understand the needs of their students when planning for instruction. This included assessing students' knowledge before, during, or after instruction, speaking with their teachers, reviewing IEPs, and, though somewhat less so, meeting with students. Indeed, 84% of participants reported adopting at least one of these approaches. Additionally, participants shared new insights into the ways in which activities are delivered and students are grouped for instruction. For example, some providers focused more on the collective needs of the groups of students, while others tried to individualize activities based on the unique needs of each student. The approach to student groupings also varied. In some cases, providers reported having the primary say in how students are grouped for instruction. In other cases, these decisions were made by the school and based on student schedules, needs, or other factors. Each approach certainly has implications for how well aligned instruction is to the transition goals of individual students and warrants further examination. This is important because good instruction must be founded on person-driven planning and meaningful assessment (Shogren & Wehmeyer, 2020; Test, 2012). However, there is a lack of guidance in the literature, policy, and elsewhere as to what information or input providers should consider when designing Pre-ETS activities.

Second, the insights providers offered regarding the development of classroom activities was especially intriguing. Most, but not all, relied on an existing Pre-ETS curriculum, used transition websites, designed their own classroom activities, or reported drawing upon the experiences of fellow providers. Providers indicated drawing upon an average of 2.7 of these four approaches, with the highest percentage relying on curricula and transition websites. This reliance on multiple approaches to developing content could be promising; however, this depends on the quality of the curricula and transition websites they draw upon, the effectiveness of their fellow colleagues, and the training they have in lesson planning. Interestingly, CRPs reported using curriculum significantly more than TSWs. In our work with providers of Pre-ETS, it is common for CRPs to ask for curriculum in order to be able to effectively

deliver Pre-ETS activities. This raises the question: Are they really wanting curricula or are they seeking ready-made activities because they lack the time and knowledge required to develop quality, individualized activities? That is, they are perhaps seeking the structure a curriculum can provide. Additionally, if collaboration, as is required by the law (WIOA, 2014), is occurring, rather than using their own curriculum, it may be more important for providers to work with the classroom educator and deliver activities that build upon the curriculum already being taught. Further, is it necessary to have a Pre-ETS curriculum when Pre-ETS are short term in nature and a curriculum is not? It is unclear why decisions about planning and instructional delivery are made one way versus the other; stronger guidance is sorely needed here. In the absence of a clear or consistent pre-service pathway, providers may be unlikely to have the knowledge and skills needed to plan instruction and activities that have clear and positive educational and transition implications for students with disabilities. That is, CRPs and TSWs will have different requirements for pre-service training by nature of being contracted employees. While both CRPs and TSWs are awarded contracts from VR to provide Pre-ETS, CRPs are employed by a company that may have different degree, pre-service training, and professional development requirements than TSWs who are employed by a school district. Even across school districts, pre-service and in-service training for TSWs may look different based on if they were already employed by the school or brought in as a new role. This is clear based on the varied degrees held by CRPs and TSWs ranging from high school or less to doctoral degrees.

Third, across the five areas of Pre-ETS, a wide range of activities are possible. We were struck by the variability with which different activities were implemented. For example, although it is contractually required, only 63.5% of providers addressed all five areas of Pre-ETS with the students they served. We presented 37 activity options within the five Pre-ETS categories. The infrequency of delivery of 28 of these activities further supports the need for preparation of Pre-ETS providers in developing activities to instruct their students. However, more than a quarter of providers indicated that ten of these activities were not helping students build skills for their future. Yet, these services all have strong research support (e.g., paid and non-paid internships, mentorships). What, then, is leading providers to perceive these services are not beneficial for their

students? A number of factors may contribute, such as providers not individualizing services, not feeling adequately prepared to deliver quality activities, considering “short-term in nature” to mean a one-time or isolated activity, lacking sufficient time for instruction, being constrained by school policies and procedures, or needing quality community partnerships. For any of this to happen well, providers need to have content training, instructional training, and strong collaborations. This is supported by the requests from providers to have more time to prepare for instruction, more training/professional development, more time for instruction, the request to have their services evaluated to understand outcomes, and more collaboration. Although we are unable to speak directly to the quality of implementation in this study, it is apparent that most providers considered these activities to be effective ways of equipping students with postsecondary skills.

4.1. Limitations and future research

Several limitations to this study suggest areas for future research. First, we focused on practices within one state, which may differ from other states in the type of guidance provided and the preparation for the planning and delivery of Pre-ETS. Our interest was in diving deeper within one state in which a unified set of policies and procedures had been established. Replicating this study in across states would yield a more complete picture of Pre-ETS across the country. Second, we asked participants to respond to questions about their whole caseload rather than focusing on individual students. Engaging with providers about their individual students could reveal nuances that would be missed by examining caseloads of students as a whole. Because the transition needs of each student is so different, the ways in which providers serve each student, even in a group setting, likely varies. Thus, examining Pre-ETS at student-level in addition to the group- and systems-level would be advantageous. Third, the study addresses reports of preparation and the provision of services rather than direct observations of planning and service delivery. Further, for any given item, participants were asked if they partake in the practice and in the case of Pre-ETS activities, how often for each. However, this does not provide information regarding the actual quality of those services. Future studies should move beyond perspectives of participants to examining actual lesson plans and quality of instruction and service delivery. Fourth, this study focused on

a single point in time. Longitudinal examinations of Pre-ETS could enhance the field’s understanding of the preparation experiences and outcomes of students with disabilities as they move through high school into adulthood.

5. Conclusion

5.1. Implications for practice and policy

These study findings have several implications for the planning and delivery of Pre-ETS. First, providers must receive training and professional development to be prepared to instruct students with disabilities. Specifically, providers would benefit from a standard pre-service and in-service pathway that includes Pre-ETS content, but also how to prepare for and instruct students with disabilities. Providers of Pre-ETS do not have a clear educational pathway for preparation, and it is unclear what training current providers of Pre-ETS have had beyond accessing websites, colleagues, and existing curriculum. Further, three years after our initial Pre-ETS needs assessment (Awsumb et al., 2020), more than half of providers completing the survey still desired additional training in each of the five Pre-ETS categories. Given these study results, this state’s VR agency added a requirement of a minimum of 10 hours of professional development into provider contracts starting with the 2022-2023 school year. This is a small step towards ensuring providers are receiving proper preparation to deliver high-quality Pre-ETS.

Second, the results of this study punctuate the importance of collaboration and pre-planning services. Providers adopted a variety of approaches to learning about their students, structuring Pre-ETS, and developing lessons. Each also reported different experiences with regard to how their students were grouped and the ways schools were set up. Through collaboration with teachers, providers could get to know students and their needs and build off what is already occurring in the classroom, which is the foundation of Pre-ETS (WIOA, 2014). This collaboration may allow for meaningful pre-planning of activities based on the individual needs of students and the ability to maximize in-person instruction with students. This may reduce some of the variability among strategies and lack of clarity about why certain decisions are made, as well as provide the foundation for a model for planning and delivering Pre-ETS.

Third, our findings can be used to inform policies at the state level. Every three years, VR develops their comprehensive statewide needs assessment (CSNA) and distributes it to VR customers, Pre-ETS providers, transition stakeholders, WIOA partners, and VR staff. The findings from the CSNA assists VR in forming policies, procedures, and information dissemination across the state. VR has requested to incorporate our findings in the final report, which will ultimately help inform Pre-ETS policies for the next three years. The data from this survey could provide VR with a picture of how providers are: (1) getting to know students receiving Pre-ETS, (2) structuring Pre-ETS, (3) developing Pre-ETS activities, (4) and serving each assigned school and student. In addition, it can provide a starting point for training opportunities based on provider responses to Pre-ETS activities they are currently delivering and their students' skill gains from each activity. Ultimately, the survey can be used as supporting information for training and professional development policies set by VR for providers of Pre-ETS.

As Pre-ETS becomes more firmly established nationwide, it is essential to evaluate providers' knowledge, planning, and delivery of Pre-ETS. Ultimately, the purpose of Pre-ETS is to build upon school-based transition services to ensure students are prepared to emerge into adulthood and achieve their goals. This study suggests there is much more clarity needed around provider preparation, instructional planning, and Pre-ETS delivery, in particular, quality of Pre-ETS instruction. This study should serve as a basis for further examination of Pre-ETS across the country to elevate services to support successful transition outcomes for students with disabilities.

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Conflict of interest

The authors report no conflict of interest.

Ethics statement

This study was approved by the Institutional Review Board of Vanderbilt University (STUDY#211945).

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Informed consent

This study did not require informed consent because survey responses were anonymous.

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