

Developing Registered Apprenticeships within Inclusive Postsecondary Education: Next Steps at Vanderbilt

By Megan Macon

INTRODUCTION

Next Steps at Vanderbilt, an inclusive postsecondary education program at Vanderbilt University, aims to equip students with skills and experiences to gain competitive employment. Next Steps has two primary goals:

- 1. Increase opportunities for students to gain targeted skills in career fields of interest**
- 2. Create new career development initiatives that positively impact employment outcomes of graduates, such as type of employment, wages, and benefits**

In the Fall of 2021, Next Steps developed an Early Childhood Educator registered apprenticeship program in partnership with the Vanderbilt Child and Family Center. This is the first Early Childhood Educator apprenticeship program in the state of Tennessee. Students enrolled through Next Steps can participate in this apprenticeship program to work toward a US Department of Labor industry-recognized credential in Early Childhood Education.

In this brief, you will learn about the key components of apprenticeships, the reasons why apprenticeships are a promising practice in inclusive postsecondary education (IPSE), and the steps to develop registered apprenticeship programs. Information about the Early Childhood Education pilot apprenticeship program is shared as an example of the use of apprenticeships in inclusive postsecondary education programs.

OVERVIEW

“Apprenticeship is an industry-driven, high-quality career pathway where employers can develop and prepare their future workforce, and individuals can obtain paid work experience, classroom instruction, and a nationally-recognized, portable credential.”

—US Department of Labor

Apprenticeship programs provide individuals the opportunity to develop targeted career skills through on-the-job learning. There are over 2,000 apprenticeship occupations, both competency-based and time-based. Competency-based occupations require apprentices to develop key job-related functions and skills to earn the credential. Time-based occupations require apprentices to complete a set number of on-the-job learning hours to earn the credential.

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Many stakeholders are interested in the establishment and operation of apprenticeship programs. You can consult and consider each of these stakeholders as you develop your apprenticeship program. Next, we explain key stakeholders and components of apprenticeships.

Apprenticeship Stakeholders:

- **Apprenticeship Sponsor:** An organization, business, or educational institution responsible for operating the apprenticeship program. With Next Steps, the inclusive postsecondary education program serves as the apprenticeship sponsor.
- **Employer:** A business or organization offering paid on-the-job learning and mentorship to apprentices as part of the apprenticeship program. With Next Steps, The Acorn School at Vanderbilt serves as the employer.
- **Training Provider:** An educational institution or online training platform that provides the required related instruction hours. With Next Steps, the inclusive postsecondary education program serves as the training provider.
- **Apprentice:** An individual completing the registered apprenticeship program. With Next Steps, the student must be enrolled in an inclusive postsecondary education program and apply to the apprenticeship program.
- **State Department of Labor and Workforce Development:** Office that can serve as a resource on your state's current apprenticeship initiatives, connect you to the state or regional Apprenticeship Director, and connect you to funding support.
- **State or Regional Apprenticeship Director:** Your state's or city's representative who can serve as support in the application and development phase.
- **College or University Leadership:** Persons or groups who will most likely need to review forms prior to submission to the US Department of Labor. You can learn more about this in the Developing Apprenticeships section of this brief.

Components of Apprenticeship Programs:

There are several key components to include in any registered apprenticeship program design.

- **Related Instruction (RI):** Classroom instruction on critical soft skills and career skills.
- **On-the-Job Learning (OJL):** The apprentice completes a set number of OJL hours with an employer to prepare for a certain career.
- **Pay:** The apprentice earns a competitive wage from their employer while completing OJL with a set wage progression schedule as they develop competencies.
 - » A wage progression schedule is an outline of the apprentice's wage, which increases over the course of the apprenticeship. The wage at the end of the apprenticeship should equal the journey worker wage, which is the entry-level wage for the occupation. For example, if an Early Childhood Educator typically makes \$20/hour, the final apprenticeship wage for this registered apprenticeship should be \$20 an hour. The apprentice's wage would increase to the next level after completing a set number of OJL hours or upon mastering a set number of competencies.
- **Mentorship:** OJL and support take place under an experienced mentor with the employer.
- **Credential:** Upon completing the apprenticeship, the apprentice earns an industry-recognized credential from the US Department of Labor.

Apprenticeships serve as an opportunity to better prepare students enrolled in inclusive postsecondary education programs for competitive employment upon graduation.

WHY ARE APPRENTICESHIPS BENEFICIAL FOR STUDENTS WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES?

Benefits of Apprenticeships

Apprenticeships serve as an opportunity to better prepare students enrolled in inclusive postsecondary education programs for competitive employment upon graduation. The US Department of Labor reports that “94% of apprentices who complete an apprenticeship program retain employment, with an average annual salary of \$70,000” (US Department of Labor, 2020).

While research on apprenticeships within inclusive postsecondary education programs is limited, previous research on predictors of paid employment upon exiting these programs may provide insight into the benefits for students enrolled in IPSE programs completing apprenticeship programs.

According to research on Transition and Postsecondary Programs for Students with Intellectual Disability (TPSID), when students earned a credential awarded by the institution, it doubled their chances of paid employment after graduation. This speaks to the benefit of a recognized, meaningful credential such as those awarded through apprenticeship programs. In addition, data show that students who have paid jobs while enrolled in an IPSE program were 15 times more likely to exit with a paid job (Grigal, et al., 2019).

With the development of registered apprenticeship programs in inclusive postsecondary education, students can earn an industry-recognized credential from the US Department of Labor. Students graduate with a credential that employers are familiar with and that communicates a certain level of preparation for relevant jobs. Additionally, given that paid OJL is a key component of apprenticeships, increasing registered apprenticeship programs in inclusive postsecondary education increases paid employment while enrolled.

In addition to having access to paid OJL and earning a nationally-recognized credential, students completing an apprenticeship program in inclusive postsecondary education have the support of a mentor, who can extend beyond just supporting OJL to also providing advice and support with the job search, application, and interview processes. Registered apprenticeship programs also provide a well-planned, strategic scope of study within a targeted field with clear learning expectations, mirroring traditional degree programs at colleges and universities. Additionally, registered apprenticeship program requirements can include college courses relevant to the occupation field.

Employers have reported benefits of apprenticeship programs, including improved productivity among employees, reduced turnover and increased retention of workers, a customizable training program, well-trained workers coming out of the apprenticeship programs, and an increase in diversity among staff (US Department of Labor, 2020).

Researchers have found numerous benefits to apprentices. Employers that suggest the use of apprenticeships within the field of inclusive postsecondary education may have many positive outcomes, though more research is still needed. As of now, about 30% of students graduating from inclusive postsecondary education programs leave with a credential (Walters et al., 2021), further illustrating the need to support the development of credentialing in IPSE programs. Apprenticeships offer a unique opportunity to do so.

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DEVELOPING APPRENTICESHIPS

For inclusive postsecondary education programs interested in developing apprenticeships, here is an overview of steps to consider and questions to ask in the development stages:

First, review the [apprenticeship occupation finder](#) and evaluate which occupation(s) match your program structure, college/university courses and offerings, and your community's business market. Once you have identified an occupation, determine an employer partner. When considering an apprenticeship occupation and potential employer partner, Next Steps asks the following questions:

- What occupations do Next Steps students seem consistently interested in?
- What occupations have a need in the community for well-trained employees?
- Will a registered apprenticeship program and industry-recognized credential positively impact employment outcomes for students?
- What occupations match Vanderbilt's offerings and expertise?
- What occupations do we have a strong employer partner to collaborate with on the development of the pilot program?

As you develop a pitch to the employer about the proposed apprenticeship, use [apprenticeship.gov](#) to include information on the benefits of apprenticeships for employers.

Connect with your state's Department of Labor and Workforce Development Office – particularly staff managing state apprenticeship programs – to learn about the registration process and initiatives in your state. If you do not have a contact in your state's office, you can express interest through the [apprenticeship.gov website](#).

Once an employer is confirmed, begin developing the apprenticeship program. To register an apprenticeship program, the sponsor and employer need to complete and submit three forms to the US Department of Labor:

1. [Appendix A - Work Process Schedule and Related Instruction Outline](#)
2. [Appendix D - Employer Acceptance Agreement](#)
3. [Registered Apprenticeship Standards Form](#)

As you complete these forms, plan for and consider the following questions:

- **Related Instruction:** What college classes or workshops do we have where apprentices can develop soft skills and/or specific job skills relevant to the occupation?
- **On-the-Job Learning (OJL):**
 - » Will the OJL outline be time-based, competency-based, or hybrid? If the apprenticeship is competency-based, go to the [apprentice.gov](#) occupations search and search for the occupation. You can then download the Work Process Schedule. This outlines the competency requirements.
 - » How many OJL hours or competencies are required for the chosen occupation?
 - » How many semesters will students need to complete their OJL?
 - » What will the hour requirements be per semester?
 - » What skills will be addressed and how will they be taught each semester?
 - » Who from the employer partner will serve as mentors for apprentices?

Registered apprenticeship programs also provide a well-planned, strategic scope of study within a targeted field with clear learning expectations, mirroring traditional degree programs at colleges and universities.

- » How will the sponsor check in with the mentors and employer partner, and how often will they check in?
- » What steps do apprentices need to take with the employer for onboarding and pay?
- » What will the wage progression be over the course of the apprenticeship?
- » What will the application, interview, and selection processes be for the apprenticeship program? Determine who will be eligible to complete the program. Is it open to all students, or do they need to complete an internship or have previous experience in the field prior to starting the apprenticeship?

Will a registered apprenticeship program and industry-recognized credential positively impact employment outcomes for students?

Once you have developed the program and completed the US Department of Labor forms, the college/university should review the forms and sign. Next Steps' apprenticeship paperwork needed to be reviewed by the following groups for approval:

- The Employer partner (Vanderbilt Child and Family Center) and their leadership team
- Vanderbilt's Office of General Counsel
- Vanderbilt's Human Resources Department
- University Administrators – Vanderbilt's Vice Chancellor of Administration

Once you collect all signatures, submit the paperwork to the Department of Labor. Next Steps submitted paperwork through the Middle Tennessee Apprenticeship Director.

NEXT STEPS AT VANDERBILT – EARLY CHILDHOOD EDUCATION EXAMPLE

Planning for Next Steps at Vanderbilt's pilot registered apprenticeship program began in Fall 2020 after identifying apprenticeships as a promising practice to meet the program's career development goals. When identifying an apprenticeship occupation to target, Next Steps considered apprenticeship occupations that met the following criteria:

1. There is consistent interest among students enrolled in Next Steps
2. There is a demonstrated need in the community for well-trained employees
3. There is coursework and expertise at Vanderbilt within the field
4. There is a strong employer partner to collaborate with on the development of the pilot program

Given these criteria, Next Steps chose to focus on developing an Early Childhood Educator apprenticeship. Students within each cohort express interest in this field, there is a high need in Nashville and across the country for well-trained early childhood educators, and Next Steps is part of Vanderbilt's Peabody College, a renowned college of education.

For the employer partner, Next Steps presented the opportunity to the Vanderbilt Child and Family Centers (VCFC) to partner and provide the OJL component at The Acorn School. VCFC had previously demonstrated a strong commitment to partnering with Next Steps through hosting student interns and hiring a program alumnus. The Executive Director and team at VCFC were enthusiastic partners in the development of this innovative apprenticeship opportunity.

Through collaboration and technical support from the Middle Tennessee Apprenticeship Director, Next Steps and The Acorn School completed the three required US Department of Labor Forms as they developed the program over the spring and summer of 2021. These forms included:

1. Appendix A—Work Process Schedule and Related Instruction Outline,
2. Appendix D—Employer Acceptance Agreement, and
3. Registered Apprenticeship Standards Form.

Next Steps' Early Childhood Educator apprenticeship is competency-based, meaning apprentices must demonstrate key job functions and skills on the job. [Read more about the required competencies for apprenticeship occupations, including Early Childhood Educator.](#)

To receive the credential, apprentices must:

- Complete 144 hours of related instruction, which includes coursework on employment soft skills, education-related Vanderbilt coursework, and experiential seminars. These are independent courses of studies with a weekly seminar in which students choose their area of study and develop individualized syllabi with program staff.
- Complete paid OJL at The Acorn School under the support of a mentor-teacher.
- Demonstrate key job functions and skills (required competencies) most or all the time as reported on self-evaluations, mentor-teacher evaluations, and Next Steps staff classroom observations. Next Steps developed these documents to monitor apprentice progress on competencies and skill development.

Next Steps and VCFC designed the apprenticeship to be completed over the course of an apprentice's senior year, focusing on three job functions in the fall semester and three job functions in the spring semester. Alternatively, apprentices could complete the program over their junior and senior years, focusing on one or two job functions per semester. See Table 1 for key job functions and skills.

Three students enrolled in Next Steps, applied for and interviewed with The Acorn School, and were selected to pilot the apprenticeship. Two apprentices were seniors, completing the program over the course of one year, and one apprentice was a junior who would complete the program over the course of her junior and senior year. All applied because of their passion for working with children, their goals of working in education after graduating from Vanderbilt, and their desire for more autonomy in the classroom. The senior apprentices worked in toddler classrooms, and the junior apprentice worked in the 4-5-year-old classroom.

Each apprentice was matched with a mentor-teacher and worked in the classroom for 15-20 hours per week. Apprentices reflected each week on self-evaluations; met weekly with mentor-teachers to recap, ask questions, and review progress; and completed online training through VCFC, as designated in the Work Process Schedule.

To measure competency development, Next Steps staff created an evaluation form for apprentices and mentor-teachers to complete each semester. As part of the form, apprentices and mentors rated the apprentice on each of the job skills, using the following scale. To meet the job skill, apprentices and mentors both had to rate the apprentice at a "3", applying the skill most of the time, or "4", applying the skill all the time.

4	3	2	1
I understand this skill and can apply it on my own in the classroom all the time	I understand this skill and can apply it on my own in the classroom most of the time	I understand this skill, but I need help figuring out how to apply it in the classroom	I do not know about this skill

If the student or mentor noted scores lower than a 3, the apprentice, mentor, and Next Steps staff brainstormed tools and accommodations to help the apprentice apply the skill most or all the time in the classroom. For example, one apprentice needed support learning about children's cultural backgrounds to best value and respect the diversity in the classroom. Next Steps staff found online training about cultural diversity in the classroom and had the apprentice work with a job coach to complete these training sessions. The mentor-teacher then worked with the apprentice on applying what she learned in the classroom.

TABLE 1: KEY JOB FUNCTIONS AND SKILLS INCLUDE:

<p>Job Function 1: Establishes and maintains a safe, caring, inclusive, and healthy learning environment</p>	<p>Job Function 2: Plans and implements intentional and developmentally, culturally, and linguistically appropriate learning experiences</p>	<p>Job Function 3: Observes, documents and assesses children’s learning and development</p>
<p>Skills:</p> <ul style="list-style-type: none"> • Maintains a safe and enriching play environment • Complies with state licensing requirements and company policies about safety (health, cleaning, sanitation) • Complies with relevant federal, state, and local requirements around mandated reporting, child study, and supports for children with disabilities • Maintains accurate and coherent records and reports, and shares information only when age-appropriate • Acclimates children to the school environment so the transition between home and school is smooth • Takes cues from children when they are unwell or need help 	<p>Skills:</p> <ul style="list-style-type: none"> • Interacts with children according to their individual learning style and developmental period (0-6 years) with physical, socio-emotional, and linguistic activities • Offers early symbolic language with underpinnings in reading and math that is appropriate • Reads, understands, and follows state early learning guidelines • Collaborates with other early childhood educators in the development, implementation, and continuous improvement of early learning activities • Guides and assists children in the development of positive interpersonal relationships between peers and models conversation, eating, dressing, sleeping, and toilet habits • Models and supports compassionate behavior 	<p>Skills:</p> <ul style="list-style-type: none"> • Assesses and celebrates each child’s unique variations to better design curricula and instruction to support their development and learning needs • Makes evidence-based decisions to support each child based on their developmental needs • Observes and records work samples (including anecdotes) from children over time, including taking dictation of children’s reflections and ideas to show progress • Plans and offers activities, purposeful play opportunities, and educational programs, which include key learning development areas • Tracks children’s developmental and academic progress to plan next steps and shape learning
<p>Job Function 4: Develops reciprocal, culturally responsive relationships with families and communities</p>	<p>Job Function 5: Advances and advocates for an equitable, diverse, and effective early childhood education profession</p>	<p>Job Function 6: Engages in reflective practice and continuous learning</p>
<p>Skills:</p> <ul style="list-style-type: none"> • Culturally responsive to children of different backgrounds • Respects and values families • Plans activities so all feel included • Uses different types of assessments • Discusses children’s progress and plans with families • Works with other staff to reflect and plan for children’s growth • Works with families to help them see their role in children’s development • Communicates effectively, sensitively, and confidentially 	<p>Skills:</p> <ul style="list-style-type: none"> • Learns about each child’s cultural background • Plans activities so all children feel included • Plans and leads activities • Sets up purposeful play • Serves as an advocate for the field • Advocates for the needs of children and their families • Complies with inclusivity and equity policies • Promotes equality of opportunity and anti-discriminatory practices 	<p>Skills:</p> <ul style="list-style-type: none"> • Participates in professional development and learning opportunities • Openly receives critique and feedback and improves • Maintains effective, professional communication • Engages in continuing professional development and reflection to improve • Models and promotes compassionate behavior

In addition to this measure, Next Steps staff scheduled observations at least once to observe and report on the apprentice's skills in the classroom. The goal is for apprentices to demonstrate meeting the competencies through the evaluation forms and classroom observations by the end of their senior year, earning their credential as they graduate.

Two seniors completed their apprenticeship and have received their credentials, and the other apprentice is continuing in the kindergarten classroom during her upcoming senior year (second year of the apprenticeship). Of the two first apprenticeship graduates, one was hired as a full-time teacher assistant in a local preschool, and one started working full time at a summer program for young children with disabilities while seeking full-time employment in early childhood education in her home state.

As Next Steps staff look forward to the second year of the Early Childhood Educator apprenticeship, they are creating an Early Childhood Education Apprenticeship Handbook for apprentices, mentor-teachers, and program staff. The team is also considering which apprenticeship occupation to target and develop next.

Note: Next Steps welcomes sharing an example of their Appendix A or any other forms developed for this apprenticeship to those interested in developing registered apprenticeship programs.

Please reach out to the Director of Career Development Megan Macon by email at megan.macon@vanderbilt.edu if you are interested.

ADDITIONAL RESOURCES

[Apprenticeship.gov](https://www.apprenticeship.gov)

[Apprenticeship Industries](#)

[Expanding Apprenticeships as a Career Pathway for Youth and Young Adults with Disabilities](#)

[Partnership on Inclusive Apprenticeship](#)

[Apprenticeship Inclusion Models \(AIM\) For Youth and Adults with Disabilities: Using Universal Design for Learning in Apprenticeship](#)

[Inclusive Apprenticeship A Summary of What We Know about Apprentices with Disabilities](#)

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