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INTRODUCTION

House Bill (HB) 1247, 87th Texas Legislature, Regular Session (2021), requires the Texas Education Agency (TEA), the Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Commission (TWC), collectively known as the Tri-Agency partners, to jointly develop a strategic framework to encourage work-based learning (WBL) in Texas and to submit a report to the legislature on that framework no later than December 31, 2022.

To undertake the implementation of HB 1247, the Tri-Agency partners engaged an interagency workgroup of subject matter experts who had been tasked with implementing the WBL strategies included in the November 2020 Tri-Agency report and in tasks resulting from passage of HB 37671 (87R). The 2020 report, titled “Linking Education and Workforce: Spurring Economic Growth Across Texas,” articulated the Tri-Agency’s three shared priorities developed in response to the Governor’s charges and to stakeholder inputs, as follows:

- Fostering efficient, flexible pathways for students to earn high-value credentials connected to high-wage, in-demand jobs;
- Supporting students at every stage of their education and as they transition into the workforce;
- Optimizing agency collaboration and processes in order to meet and exceed set goals for student outcomes.

These three priorities served as the basis for establishing the Tri-Agency Goals and Strategies called for in HB 3767, which were finalized in October 2022 and are posted at triagency.texas.gov. One of those strategies is work-based learning2.

The Tri-Agency partners recognize the shared work of expanding and improving WBL programs in order to address current and future market demands for a skilled and knowledgeable workforce. To further expand and improve WBL opportunities, this report establishes a comprehensive, functional definition of “work-based learning” and organizes WBL programs by type, such as apprenticeships, internships, and service-learning experiences. The report also provides program implementation, quality assurances, accountability, and support mechanisms for program providers, including streamlined data collection, cross-sector partnerships, and funding options. Finally, a glossary of credentials and credentialing terms is included, along with an appendix that lists existing WBL programs. As a whole, this report focuses on the merits and possibilities of WBL programs to meet the needs of a growing population and a rapidly expanding economy in Texas.

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1 HB 3767: Relating to measures to support the alignment of education and workforce development in the state with state workforce needs, including the establishment of the Tri-Agency Workforce Initiative
2 Tri-Agency Goals and Strategies, Strategy 1.3
Initial efforts to define “work-based learning” and list the types of programs and opportunities that could be classified under this label revealed the need to design a more detailed schema in order to adequately represent all of the components that the term “work-based learning” implies. It quickly became clear that WBL opportunities often extend beyond the parameters of a commonly shared but often limited definition, incorporating events and experiences that form a continuum. To this end, any comprehensive definition should encompass:

- a progression from career exploration, to career preparation and, finally, to career training; and
- a cycle of returning to any of the three stages at various points in an individual’s career pathway.

Illustration 1: Work-Based Learning Continuum

Acknowledging this continuum helped the workgroup form the more comprehensive definition of WBL opportunities as follows:

“Practical, hands-on activities or experiences through which a learner interacts with industry professionals in a workplace, which may be an in-person, virtual, or simulated setting. Learners prepare for employment or advancement along a career pathway by completing purposeful tasks that develop academic, technical, and employability skills”.

The Tri-Agency partners identified distinct examples of WBL opportunities within the context of each of the three stages of the continuum, from worksite tours and job shadowing in the first stage, to pre-apprenticeships and internships in the second, to apprenticeships and other on-the-job training (OJT) experiences in the final stage.
Implementation

Roles and Responsibilities of Providers

Implementing high-quality WBL programs largely depends on dynamic and visionary leadership from a variety of stakeholders, which include public primary and secondary schools, public institutions of higher education (IHEs), Local Workforce Development Boards (Boards), employers, and regional conveners. Descriptions of the roles and responsibilities incumbent on stakeholders are listed below.

Public Primary and Secondary Schools

Local Education Agencies (LEAs) play a critical role in establishing and integrating WBL programs into academic and advising structures. LEAs assess opportunities to scaffold aligned WBL experiences with increasing specificity as students progress through increasingly rigorous courses in a program of study. LEAs collaborate with regional conveners and employers to design and implement developmentally appropriate WBL opportunities and, when appropriate, grant credit for participation. Through classroom and advising structures, LEAs prepare students to participate effectively and appropriately in WBL opportunities and support students in assessing their experiences after participation. LEAs also monitor the success of WBL programs by evaluating and validating skills gained and collecting student feedback to inform continuous improvement of the collaboration.

Illustration 2: Work-Based Learning Stages and Corresponding Models

Career Exploration activities in this stage of the continuum are introductory and usually short-term. They provide participants with an opportunity to learn about industries and employers that may be unfamiliar.

Models include:
• Worksite Tours
• Job Shadowing
• Simulations
• Informational interviews with employers

Career Preparation activities in this stage of the continuum provide participants with extended opportunities to increase their knowledge of a field and gain employability skills and some entry-level technical knowledge or skills.

Models include:
• Internships
• Pre-Apprenticeships
• Cooperative Education
• Service Learning

Career Training activities in this stage of the continuum engage participants as paid employees to gain specific skills, in conjunction with classroom or lab instruction, in a specific industry or occupation.

Models include:
• Apprenticeships
• Youth Apprenticeships
• On-the-Job Training
• Transitional Jobs
Public Institutions of Higher Learning

THECB provides guidance for and oversight in the design, development, operation, and evaluation of Texas public community and technical college workforce education degree and certificate programs. The institutional and personnel requirements in the THECB Guidelines for Instructional Programs in Workforce Education are as follows:

1. Role, Mission, and Institutional Accreditation
2. Program Coordination and Faculty
3. Program and Graduate Credentialing
4. Equipment, Facilities, Classrooms, and Laboratories
5. Career Development Services
6. Qualifications of Workforce Education Program Personnel (faculty, career development personnel, and administrators)
7. Professional Development

In addition, THECB supports and provides oversight and guidance on the design, development, operation, and evaluation of WBL experiences. Examples of those experiences are listed in Appendix B.

Local Workforce Development Boards

The 28 Boards are responsible for recommending services and funding opportunities to local businesses and job seekers. The Boards also plan, manage, and monitor training services developed through collaborative relationships with local industry leaders, employers, and training providers.

Connecting Job Seekers with Training Providers

Boards manage programs connected to multiple funding streams and serve a wide variety of customers—the majority of whom are in search of employment or occupational training. One example of Board programs is the use of Workforce Innovation and Opportunity Act (WIOA) funds in which qualified adults, dislocated workers, and youth may receive paid training for high-growth, high-demand industries and occupations through Eligible Training Providers (ETPs), Youth Service Providers, or other Board-contracted training programs. WIOA funding is directly linked to the requirement that a state’s workforce development programs must be aligned with the needs of both employers and job seekers. These requirements encourage a collaborative environment between the state and the Boards.

Aligning Education and Training Programs with Employer Needs

Another key function of the Boards is to serve as a resource for local stakeholders by collaborating, gathering information, and analyzing to ensure that education and training programs are aligned with employers’ needs. This alignment ensures that learners of all ages are prepared to enter the workforce or progress along a career pathway (or pathways) with the knowledge and skills that employers need.

The Texas workforce system is charged with developing strategies to target high-demand, high-growth, and emerging occupations that are critical to the state and local economies. The alignment described above ultimately leads to development of “Target Occupations” lists made available to stakeholders within each workforce development area. These lists are developed by Boards based on a number of economic indicators and local wisdom and are used to guide workforce customers into aptitude-appropriate and economically relevant training. Key economic data about occupations and in-demand industries, along with information about labor market trends and economic conditions, enable individuals and employers to make informed decisions.
Employers

Employers are critical partners in the implementation of WBL opportunities. They provide insights into labor market needs, develop or collaborate in the development of curriculum, make opportunities available for individuals to learn and apply skills at the workplace, and, in some cases, connect those individuals to mentors. In short, employers provide the expertise, personnel, time, and other resources for WBL opportunities.

Regional Conveners

Regional conveners play an essential role in implementing WBL opportunities and ensuring that those opportunities are widely accessible. They connect employers with education and training providers and manage and support collaboration among educators and employers in the creation, design, and delivery of WBL opportunities. Regional conveners identify and cultivate high-quality WBL opportunities offered by employers and work across education and training providers to match students and learners to the appropriate program, ensuring access to WBL for all students and learners in a region. In addition, regional conveners work with community-based organizations to facilitate supports for learners. Regional conveners also aggregate and analyze participant and employer data to monitor WBL access and outcomes. Greater detail about regional conveners is provided later in this framework under “Coordinated Support.”

Quality Standards for Work-Based Learning Programs

Shared guidelines within a state framework for WBL ensure consistent implementation of high-quality programs. WBL opportunities must be high-quality and rigorous in order to achieve the primary purpose of aligning the skills and competencies gained through WBL programs with the talent needs of employers in in-demand, high-growth industries. Other objectives for WBL include:

- strengthening the talent pipeline by increasing the number of Texans who successfully access and complete WBL programs,
- acquiring skills and knowledge valued by employers, and
- entering and advancing in their careers.

TEA, THECB, and TWC have therefore developed the following framework of seven principles, each with associated quality indicators, to guide the design of high-quality WBL opportunities.

Also provided are examples that correspond to each of the three phases of the Tri-Agency WBL continuum (shown in Illustrations 1 and 2). The examples, which are not intended to be exhaustive, offer suggestions of what each quality indicator might look like in practice at each stage of the continuum. While considering these examples, it is important to keep in mind that the application of the principles and quality standards below will differ by learner age, educational status, and the setting in which WBL opportunities are offered.
**Principle 1: Align to Career Pathways**

Work-based learning experiences build knowledge, skills, and competencies aligned with in-demand careers and support participants in advancing along career pathways, leading to measurable economic success.

**Quality Indicators**

- Employers define the knowledge, skills, and competencies to be gained.
- In-demand industries and occupations are identified using labor market information and validated through employer feedback.
- Skills and competencies developed through WBL are aligned to relevant industry standards.
- WBL participants gain knowledge, skills, and competencies that are valued throughout an industry, not solely in entry-level jobs, and can be used to advance along career pathways in that industry.
- Programs vary depending on where they are on the WBL continuum; career exploration programs may focus on broad occupational clusters or industries and on building employability skills, while career training programs focus on specific occupations and related technical skills.
- For WBL participants who are enrolled in secondary or postsecondary education, WBL opportunities align with the industry focus of each student’s chosen program of study.
- Employers receive assistance addressing any legal and liability concerns.

**Examples along the Continuum**

<table>
<thead>
<tr>
<th><strong>Learning About Work</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Career Exploration</strong></td>
</tr>
<tr>
<td>In an informational interview, an employer explains their own career path to help the learner understand what a career pathway in the industry might look like; the employer also shares their knowledge of in-demand skills in the industry.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Learning Through Work</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Career Preparation</strong></td>
</tr>
<tr>
<td>An IT internship program for high school students is designed with input from employers on the district’s CTE Advisory Committee, is integrated into the high school’s web development CTE program of study, and supports students in gaining the knowledge and skills required to earn an industry-based certification.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Learning At Work</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Career Training</strong></td>
</tr>
<tr>
<td>In response to employer feedback about a lack of CNC operators, an upskilling program in the manufacturing industry provides entry-level production workers with on-the-job training that enables them to gain the skills needed for CNC operator roles and earn relevant certifications.</td>
</tr>
</tbody>
</table>
**Principle 2: Incorporate Meaningful Job Tasks**

*Participants in work-based learning must have opportunities to engage in appropriately complex and industry-relevant tasks that build career skills and knowledge.*

**Quality Indicators**

- Tasks are representative of work in a particular industry, not general support roles.
- Work environments support learning through appropriate mentoring and supervision.
- Specific activities and job tasks are well-defined and clearly linked to the skills they are intended to build.
- Job descriptions for each work-based learning opportunity clearly outline tasks that provide opportunities to build knowledge, employability skills, and technical competencies.
- Job tasks involve greater levels of complexity as work-based learning participants develop proficiency over time.
- Employers prepare and engage mentors and supervisors, so they are equipped to effectively support continued growth in participants’ skills and knowledge.
- Education and training providers ensure that work-based learning participants have sufficient preparation to take on complex tasks.

**Examples along the Continuum**

<table>
<thead>
<tr>
<th>Learning About Work</th>
<th>Career Exploration</th>
</tr>
</thead>
<tbody>
<tr>
<td>A worksite tour provides opportunities to see workers at multiple levels in a company engage in a range of meaningful job tasks, allowing participants to build their knowledge of the industry while strengthening their employability skills through their interactions with professionals.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning Through Work</th>
<th>Career Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>An internship program for postsecondary students is designed to run for a full semester in order to ensure it is of sufficient length to provide adequate opportunities for participants to practice meaningful job tasks and represent a value-add for employers.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Learning At Work</th>
<th>Career Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>An apprenticeship program is structured so that job tasks become progressively more complex and challenging as an apprentice progresses through the program.</td>
<td></td>
</tr>
</tbody>
</table>
Principle 3: Identify and Validate Skills to Be Gained

WBL programs are more valuable to both participants and employers when everyone has a clear understanding of the skills that participants are expected to attain and when there are clear guidelines for verifying that participants have mastered those skills. WBL supports the development of both industry-specific technical skills and employability skills such as communication, teamwork, and problem-solving.

Quality Indicators

• Employers define their skill needs and communicate them to education and training providers.
• Work-based learning programs have clear learning goals and approaches to validation of skills.
• Work-based learning programs include formal assessments that allow learners to demonstrate competencies, and employers are responsible for validating skills learned.
• Work-based learning programs engage participants in reflective practices that lead to continuous learning and ensure integration with larger learning goals.
• Participants and their supervisors co-create individual learning plans that provide an opportunity to articulate the skills to be attained and to reflect on progress.

Principle 4: Reward Skill Gains and Offer Compensation

Skill development is recognized and rewarded through mechanisms such as opportunities to take on greater responsibility, high school or postsecondary credit, opportunities to transition to permanent employment, and promotions for incumbent workers. Participants earn compensation as appropriate for the work they complete.

Quality Indicators

• Employers work with education and training providers to create a framework for rewarding skills development that includes specific metrics or benchmarks by which skills development will be measured.
• The mechanisms for rewarding skills development—and how they are linked to career entry and advancement—are clear to both employers and participants.
• Work-based learning participants who perform work like that done by paid employees earn compensation.
• Offering compensation is recognized as a way of making these career-advancing opportunities more accessible to a wider group of participants.
Principle 5: Support Academic Progress and Achievement

By demonstrating the real-world value of classroom learning and providing students with opportunities to apply and contextualize their knowledge and skills, WBL supports and accelerates academic progress and achievement at the secondary and postsecondary levels.

Quality Indicators

- To create a coherent learning experience, WBL is embedded in or clearly linked to programs of study and pathways at the secondary and postsecondary levels.
- WBL aligns with and reinforces what is learned in the classroom; education and training providers work together with employers to build curricula.
- WBL aligns with course requirements and learning objectives, so it counts toward high school and/or postsecondary credit.
- For participants not enrolled in educational institutions, WBL offers college credit through articulation agreements or credit for prior learning, allowing participants to continue a pathway to a college credential if they choose to do so.
- Postsecondary credit earned through WBL is transferable to other institutions and leads to credentials of value.

Principle 6: Integrate Opportunities to Develop Professional Networks

Intentionally embed opportunities to build professional networks within WBL experiences and ensure that participants are educated about the value of professional networks to their future careers.

Quality Indicators

- WBL programs include formal and informal mentoring to support participants in building relationships with professionals in the field, making career decisions, understanding workplace culture and norms, and transitioning to employment.
- WBL connects participants to employees at multiple levels and in multiple roles in an organization.
- WBL programs incorporate career navigation structures, including advising or coaching.
- Educators and training providers provide WBL participants with information about the value of professional networks and support participants in mapping and maintaining connections developed through WBL.
- WBL programs connect participants to multiple employers and leverage industry-wide standards.
Principle 7: Measure Shared Progress

Employer, participant, and program outcomes are measured and monitored using metrics that are transparent and hold all partners accountable for success.

Quality Indicators

- WBL programs collect, monitor, and disaggregate data to evaluate program performance and drive continuous improvement.
- Outcome data is reported publicly to track success for both participants and employers.
- Metrics for the program include metrics related to the expected contributions of all WBL program partners, including, as relevant, education and training providers, employers, and regional conveners.
- A formal partnership structure exists to both support program implementation and monitor progress.

Methods of Identifying Student and Adult Learner Skills and Competencies

Public Primary and Secondary Schools

Education Outreach Specialists from TWC and the Boards work in partnership with school districts across the state to provide career exploration, readiness, and development resources and services. The primary goal of these teams—comprised of Education Outreach Specialists, Board representatives, and district representatives—is to help students make better-informed decisions about what they choose to do beyond a high school diploma. Because students have many options to choose from, these teams help students understand the scope of all postsecondary pathways as well as explore all of the industries and occupations in the world of work. Finally, these teams help students, families, teachers, and counselors understand how labor market data, occupation options, and different postsecondary pathways might align with each student’s interests, competencies, knowledge, and skills.

Institutions of Higher Education

Texas IHEs in collaboration with Texas employers can select targeted workforce competencies and associated skills or behaviors that are of value from their perspective and aligned with industry needs at the start of each WBL experience. The outcome of identifying competencies and associated skills and the transition of this knowledge to students is that the students are able to understand what they will learn, assess their own learning, and articulate what they have learned once they progress from the WBL experience. An example of competencies and behaviors is the National Association of Colleges, and Employers (NACE) defined competencies and associated behaviors. NACE defines value competencies as critical thinking/problem solving, oral/written communication, teamwork/collaboration, digital technology, leadership, professionalism/work ethic, career management/self-development, and Global/Intercultural Fluency (equity and inclusion).

In addition to the competencies and associated skills, IHEs or employers can support a dialogue between students and the employers as they participate in WBL. THECB has developed a written exercise that can help facilitate and document a dialogue between the employer and the student to capture the WBL experience and expectation of both the student and employer. By capturing the experience, students will conclude the WBL experience with a takeaway document used for the student’s benefit.

3 https://www.nacweb.org/career-readiness/competencies/career-readiness-defined/
TWC Programs

To meet the unique needs of customers served through TWC, methods for assessing skills, competencies, and interests vary slightly across programs but remain focused on identifying what works best for each customer and providing services that enable each customer to achieve employment and, if needed, to continue along a career pathway. Examples of how assessments are used across various TWC programs follow.

Local Workforce Development Boards

Boards assist eligible individuals in identifying the best career paths, fund training if applicable, and connect the individual with employment. Boards also aid employers who are seeking skilled workers by subsidizing employment and OJT while working with the employer to upskill existing workers and increase retention.

Career assessments are one method of identifying the skills and competencies of adult learners being served by a Board. Individuals are matched to careers based on skills and interests. The point of entry into a training program can be determined by the individual’s competency levels.

Adult Education and Literacy Providers

Adults who qualify for Adult Education and Literacy (AEL) services offered through TWC’s AEL providers undergo assessment upon entry into an AEL program. The assessment phase—referred to as comprehensive assessment—consists of more than the required eligibility testing. Comprehensive assessment not only determines the eligibility of the learner but also identifies goals, educational and employment background, and potential barriers with which they may need support to ensure retention and completion. A comprehensive assessment also evaluates the need for disability accommodation, if applicable.

The information gathered through the comprehensive assessment phase not only ensures that the adult learner receives the appropriate level of academic instruction but that they are also placed within a workforce training program aligned with their interests and career goals. The workforce training program could very likely provide WBL opportunities.

Vocational Rehabilitation Services

When an individual applies and is determined eligible for Vocational Rehabilitation (VR) services, the Vocational Rehabilitation Counselor (VRC) begins the comprehensive assessment process. The purpose of the comprehensive assessment is to determine the employment outcome and the nature and scope of VR services to be included in the individualized plan for employment (IPE). A comprehensive assessment of the rehabilitation needs of each eligible individual includes an evaluation of the individual’s unique strengths, resources, priorities, concerns, abilities, capabilities, interests, and informed choice—including the need for supported employment. The VRC uses existing information and records to complete the comprehensive assessment, whenever possible. Following the comprehensive assessment, the VRC and customer develop the IPE, which becomes the roadmap for the services the customer will receive to help them achieve their employment goal.

Optimal Training Models

Innovations in WBL have focused on unifying historically siloed work and learning programs through what has been termed the “earn-and-learn” model. A 2020 report from Brookings found that combining work and learning has the potential to address and

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4 AEL customers who concurrently receive both education and workforce training services are often enrolled in Integrated Education and Training (IET) programs.
remove the limitations of traditional “one-and-done” programs. With respect to outcomes, earn-and-learn models produce individuals who outperform participants in occupational skills training programs that do not include work components when transitioning to higher-paying jobs. Participants in registered apprenticeship programs and incumbent worker training programs, for example, have received nearly double the annualized median earnings of those in programs with no work component.5

One promising strategy to identify and implement industry-led, high-quality WBL training models that (1) promote and replicate in-demand jobs, (2) are scalable across industries and regions, and (3) lead to equitable outcomes is to build an infrastructure that promotes cross-sector partnerships so employers can share their talent needs more efficiently with educators and workforce agencies. These partnerships may require employers to submit surveys and/or take an active role in the development of curricula for school based WBL programs. Regional conveners should be prepared to manage these partnerships by responding to employers’ input in order to maintain the supply of talent in crucial occupation pipelines.

Optimal training models—apprenticeships, internships, OJT, co-operative education, externships, and transitional jobs—are presented and described below. When viewing the populations served for each model, think of the individuals listed as examples and as prompts for identifying who can benefit from each model.

<table>
<thead>
<tr>
<th>WBL Opportunity</th>
<th>Description</th>
<th>Populations Served</th>
<th>Rationale</th>
</tr>
</thead>
</table>
| Apprenticeships | A workforce training model that combines paid on-the-job learning and formal classroom or online instruction to help a worker master the knowledge, skills, and competencies needed for career success | Post-secondary and high-school students  
Youth who are disconnected from, or marginally connected to, work or school  
Incumbent workers | Training with mentors and/or credentialed practitioners increases employability as participants complete their academic programs. |
| Internships     | A form of experiential learning, often tied to a secondary or postsecondary program of study, in which participants work for an employer under the guidance of a supervisor for a limited period of time. | Post-secondary and high school students | Immersion in a professional setting provides participants with specific career knowledge and skills. |
| Co-operative Education | Academic programs linked with structured work experiences through which participants acquire professional and technical skills. | Post-secondary or high school students who are enrolled in co-operative learning programs | Focused, longer-term work experience with one company while participants complete their education enables skills attainment and employability after graduation. |
| On-The-Job Training | OJT programs are often used as an entry point into a particular industry or to advance along a career track in an individual’s current workplace. OJT can be a means of training new employees, retraining or upskilling incumbent workers, or helping individuals who have lost their jobs in layoffs learn new skills that will help them find new jobs. | Employees who are new to the workforce or are part of a dislocated-worker program  
Adults participating in AEL programs  
Incumbent workers | Targeted training for new employees increases job performance and career durability. |
| Externships     | Brief observational learning experiences in which participants network, interview, shadow, or otherwise engage with industry professionals | Job seekers or individuals interested in reskilling or upskilling to acquire new, in-demand competencies | Continuous learning opportunities for employees ensure enhanced job performance and mobility into higher-paying positions. |
| Transitional Jobs | Paid, possibly subsidized, temporary job placements that offer employee-support programs where needed | Job seekers with barriers to employment and/or inconsistent work histories | Providing employees with support while they adapt to work environments and related job responsibilities leads to adaptability and future career mobility. |
Mapping Skills and Credentials

Whether at an individual, local, or statewide level, an essential component in the adoption of WBL training models is identifying a method or methods for mapping skills acquired, skills needed, and credentials earned. Examples of methods follow.

Digital Applications

One method for mapping skills and credentials is the use of online and mobile applications in which skills are taught and/or documented, the learner receives a credential, and a visualization or list is generated of what has been accomplished thus far and what can be pursued next. Entities that offer these services operate both inside and outside of traditional degree or training programs and award credentials such as certifications, certificates, micro-credentials, or digital badges. Examples of this method include:

- online training courses,
- credential wallets⁶, and
- career pathway apps⁷.

Texas Regional Pathways Network

Mapping skills and credentials is an essential element of designing education and career pathways in the Texas Regional Pathways Network (TRPN). The TRPN, which was launched in 2019 to support the Tri-Agency Workforce Initiative, operates in multiple regions across the state and brings together cross-sector partnerships of regional leaders, including employers, K-12 and postsecondary educators, Boards, and regional conveners. These partnerships collaborate on the design and implementation of pathways with the following seven key components:

- Alignment with labor-market demand
- Links between secondary and postsecondary education with multiple entry and exit points
- Credentials and degrees with value in the labor market
- Integration of rigorous academics and career-focused learning
- Effective advising
- Continuum of WBL experiences
- Cross-sector partnerships

TRPN partnerships reverse map skills, credentials, and competencies from high-wage, in-demand industries and occupations in regional labor markets to credentials of value and postsecondary and secondary programs of study. This process begins with an analysis of labor market information in order to identify in-demand skills and credentials. Regional conveners, working with education and training providers, then engage employers in validating the needed credentials identified though the initial labor-market analysis. Education and training providers use this information to design education and career pathways that are responsive to identified employer needs and incorporate WBL opportunities to earn credentials of value.

Credential Library

Given the numerous avenues an individual can take to acquire skills and earn credentials, TEA, THECB, and TWC have undertaken the work of bringing uniformity and transparency to the credentials being awarded across the state. This new work is important to all stakeholders because quality assurances and verification of acquired skills are often unclear or unavailable. This lack of clarity, at times, leads to uncertainty about where, why, and how to acquire new

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⁶ Credential (or digital) wallets allow an individual to store, manage, and provide proof of credentials earned such as degrees, licenses, and certifications.

⁷ A career pathway app allows an individual to visualize the steps along a career pathway. The app typically lists skills acquired by the individual and then makes recommendations for new skills based on career goals. These apps may also make recommendations for how skills can transfer from one occupation to another.
skills and what credentials are valued by an employer. For employers, the lack of clarity makes it difficult to assess and compare credentials and qualifications across job candidates.

Optimal training models must offer and lead to recognized, verifiable credentials and provide the means for participants to find and compare education and training programs, seek out stackable credentials, and demonstrate specific skills and competencies. This need is being addressed by the ongoing development of a web-based, interoperable Credential Library for Texas that makes use of Credential Transparency Description Language (CTDL). CTDL provides a common architecture for defining, comparing, and evaluating the full range of “products” in the credentialing marketplace. The library will be publicly available to all stakeholders, including students, parents, job seekers, employers, and credentialing entities.

**Award of Credit for Previous Learning and Experience**

Making credential data readily accessible to the general public and to employers in Texas through the Credential Library is one example of a forward-looking, Tri-Agency initiative designed to successfully leverage information about programs and high-value credentials. Working in tandem with the Credential Library initiative are efforts to streamline completion of credentialing programs using experience, education, and training as a basis for awarding credit in postsecondary courses and training programs. As other organizations consider strategies for the award of credit for previous learning and experience, current work such as the College Credit for Heroes program and the articulation of a RAP credential(s) into college credit serve as examples of what is possible.

The award of credit for previous learning and experience is rooted in the idea that many individuals enter a course or training program with existing knowledge and skills and that these individuals should be able to progress at a faster or more flexible pace. Examples of how to achieve greater flexibility in the pacing and completion of WBL opportunities follow.

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8 College Credit for Heroes promotes the award of credit for military experience, education, and training. The program is a collaborative effort among TWC, THECB, and Texas public IHEs. HB 33 (87R) extends the concept of award of credit for military experience, education, and training to proprietary career schools and colleges.

9 Articulation of a RAP credential into college credit is a strategy implemented through multiple RAPs supported by TWC, including Child Care RAPs.
Competency-Based Learning

Competency-based learning focuses on the learner’s demonstration of identified learning outcomes and allows a learner to progress through curriculum and/or a program at their own pace. The learner advances as they prove competency through various methods of evaluation such as assessment or demonstration of observable skills. Competency-based learning is often thought of in terms of skills and vocation, but it can also be thought of in terms of academics.

This acknowledgement that a learner can advance within a program through successful demonstration of both skills and knowledge is evident in RAPs and the competency-based approach adopted by DOL. When outlining requirements for RAPs, DOL identifies three approaches a program may take: time-based, competency-based, or a hybrid of the two. The competency-based approach is described as:

“Measures skill acquisition through the individual apprentice’s successful demonstration of acquired skills and knowledge, as verified by the program sponsor. Programs utilizing this approach must still require apprentices to complete an on-the-job learning component of Registered Apprenticeship. The program standards must address how on-the-job learning will be integrated into the program, describe competencies, and identify an appropriate means of testing and evaluation for such competencies.”

This competency-based approach can serve as a springboard for thinking about how other programs—not just RAPs—can adopt a similar model in which previous learning and experience are considered in the award of credit and, thus, an individual feels the satisfaction of moving closer to a career goal.

Prior Learning Assessment

A second option is to take the idea of a competency-based approach, consider the many experiences an individual brings to a classroom or a training program, and widen the scope of what is measured and how. This second option—Prior Learning Assessment—is used more often with adult learners and depends largely on an individual’s lifetime experiences and what insight they bring to a classroom or program as a result of those experiences. PLA is often used by colleges to ease the transition of an older student back into the college setting and to accelerate the completion of certificate or degree program. PLA is also used for veterans and transitioning service members in recognition of the experience, education, and training gained through military service.

At their core, PLAs first recognize what an adult has learned and accomplished throughout personal, academic, and work experiences. Think knowledge and skills gained through self-study, courses completed in previous years, and skills learned in previous jobs. PLAs also recognize that there are multiple ways to assess what has been previously learned. Examples of assessment methods include portfolios, challenge exams created by the college, evaluations of apprenticeship programs, and acceptance of credit recommendations produced by the American Council on Education, or ACE.


11 The process of teaching oneself
12 IHEs in Texas are able to use the ACE Guide in the evaluation of military experience, education, and training.
Streamlined Data Collection for Accountability and Equity

When developing goals and strategies for the Tri-Agency Initiative, the three agencies identified data as a key element in the work ahead.

Priority 3: Infrastructure

Create a robust infrastructure for interagency collaboration around common goals, data, and processes to ensure improved student outcomes and meet employers’ needs.

Strategy 3.2

Make educational and workforce data accessible and useful to the public, stakeholders, and decision-makers by:
• developing a modern data infrastructure; and
• integrating data systems and research and development efforts.

By working together to make data more accessible and useful, public and private entities that make WBL opportunities available will have the means to measure and evaluate the impact and reach of programs on learners across the K-12, postsecondary, and workforce continuum. The Texas Credential Library referenced earlier in this framework will also enable greater access to and use of data by cataloging credentials available and bringing uniformity and transparency to the credentials being awarded across the state.

Strategic Data Plan

THECB, in response to HB 3767, is currently developing a strategic data plan in which TEA, THECB, and TWC will identify, analyze, and resolve data needs necessary for Tri-Agency work. In addition, the three agencies will work towards robust data sharing among the three agencies, including the creation of data products that provide insights into the success of initiatives such as those grounded in WBL opportunities.

Labor Market Information

To ensure that WBL opportunities are meeting the workforce needs of the state, it is essential that all stakeholders ground their work in data regarding current and future labor market needs. The TWC Labor Market Information department (LMI) provides economic data about in-demand occupations and industries, wages, labor market trends, and economic conditions. LMI also creates products to support Texans as they explore and make decisions regarding their career and education decisions. These products include:
• occupational employment and wage statistics,
• 10-year employment projections by occupation and industry for the state of Texas and the 28 local workforce development areas (workforce area), and Texas, and
• the Texas Gap Analysis tool.

The Texas Gap Analysis tool uses various resources to produce labor supply and demand reports by workforce area. Occupations may be analyzed for labor surplus or shortages using data from the Conference Board’s Help Wanted Online (HWOL), TWC’s WorkInTexas.com, THECB, and LMI long-term projections data. This analysis allows users to examine current labor market demand and supply by region or occupation to aid in career path planning and workforce development decisions.
Past, Present, Future: Tri-Agency Support of WBL Opportunities

As noted at the beginning of this framework, the Tri-Agency Goals and Strategies contain an explicit reference to WBL:

**Priority 1: Pathways**

Support efficient and flexible pathways to earning certificates, degrees, and other credentials linked to high-value, in-demand jobs.

**Strategy 1:3**

Expand opportunities for work-based learning experiences by:
- Accelerating the development of high-quality work-based learning experiences that provide participants with meaningful opportunities; and
- Supporting engagement by industry partners.

When looking back at previous Tri-Agency work, there is a rich history of working together in support of WBL opportunities—a history in which the three agencies have encouraged and supported the convening of education and workforce stakeholders and the development of WBL opportunities for employers and for learners of all ages. By identifying WBL as a key element in future Tri-Agency work, the three agencies are further committed to working together in the development and support of WBL opportunities. Examples of present and future coordination and support follow.

**Coordinated Funding Efforts**

The Jobs and Education for Texans (JET) grant program is a noteworthy example of coordinated funding efforts that reaches across all three agencies and benefits both education and workforce stakeholders. The JET grant program provides grants to eligible entities so that they may purchase and install equipment necessary for the development of career and technical education (CTE) courses or programs that lead to a license, certificate, or post-secondary degree in a high-demand occupation. Eligible grantees include public junior, state, or technical colleges; Texas independent school districts (ISDs) and open-enrollment charter schools in partnership with a public junior, state, or technical college; and Windham School District.

For the Fiscal Year 2022-2023 biennium, the JET grant program was allocated:
- $15 million to provide grants to public junior, technical, and state colleges; and
- approximately $50 million to provide grants to:
  - Texas ISDs and open-enrollment charter schools that have entered into a partnership with a public junior, technical, or state college; and
  - the Windham School District.

The grants, which are awarded through a competitive request for applications (RFA) process, provide potential economic returns by:
- supporting new, emerging industries or high-demand occupations and
- offering new or expanded career and technical education opportunities in public high schools.

In context of the WBL Framework, JET grants can serve as a foundation for WBL opportunities.

**Coordinated Support**

The Tri-Agency Initiative supports WBL programs at the regional level by identifying, funding, and designating a Tri-Agency regional convener in each of Texas’ 28 workforce areas. Tri-Agency regional conveners are responsible for working with employers and education and training providers to support career and education pathways and expand WBL opportunities in their region. The role of a
designated Tri-Agency regional convener is to oversee the development, implementation, and monitoring of the regional strategy for high-quality career and education pathways into targeted industries across an entire workforce area. The responsibilities of a regional convener can be grouped into the following categories:

- Regional Alignment
- Regional WBL
- Regional Data and Communications

In November 2022, TEA published an RFA, which was developed collaboratively with THECB and TWC, for a Tri-Agency Grant to Regional Conveners. This grant program, which leverages funding appropriated to support the TRPN by the 87th Texas Legislature, is intended to identify, invest in, and designate a regional convener in each workforce area in the state. Selected regional conveners will convene a regional pathways leadership team, including representatives from business and industry, K-12 and postsecondary education, and workforce development, to support pathways and WBL in their region. Regional conveners will lead strategic planning and complete grant activities that demonstrate their proficiency in the roles and responsibilities of a regional convener. After successful completion of all training and grant requirements, the regional convener will become eligible to achieve a Tri-Agency Regional Convener designation, signaling their expertise and capacity to provide ongoing leadership and coordination to advance Tri-Agency priorities across their workforce area, and will become a member of the TRPN.

The Tri-Agency Grant to Regional Conveners provides funding to support the expansion of regional WBL programming. The activities required for the grant include planning for and implementing WBL programming aligned to the “Learning through Work” and/or “Learning at Work” categories in the Tri-Agency WBL continuum and with Tri-Agency Initiative quality standards for WBL.

### Recommendations for Applying Federal Funds and Incentives

Federal funds are available for WBL strategies and may include the following:

- The **Strengthening Career and Technical Education for the 21st Century Act**, also known as Perkins V funding, supports all facets of post-secondary and secondary career and technical education (CTE) programs of study and career pathways programs, including costs associated with WBL.
- The **Workforce Innovation and Opportunity Act** (WIOA) Title I establishes multiple workforce programs, including employment and training services for eligible adults, dislocated workers, and youth, including individuals with disabilities.
- **Registered Apprenticeship Expansion Grants** are awarded by DOL to promote the creation and expansion of registered apprenticeship programs. The most recent grant, Apprenticeship Building America13, awarded approximately $113 million to eligible applicants to strengthen, modernize, expand, and diversify the RAP system.
- The **Every Student Succeeds Act** (ESSA) provides funding to assist with professional development for teachers and administrators on WBL instruction.
- The **Adult Education and Family Literacy Act** funds TWC’s AEL providers across Texas so that they may offer integrated education and training (IET) programs in which participants complete workforce preparation activities, civics education, and workforce training for a specific occupation or occupational cluster for the purpose of education and career advancement.

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APPENDIX A: WORK-BASED LEARNING TERMS AND DEFINITIONS

Apprenticeship Training Programs (see also Registered Apprenticeship)
Apprenticeship training is a workforce training model that combines paid on-the-job learning and formal classroom or online instruction to help a worker master the knowledge, skills, and competencies needed for career success.

These programs may vary in duration, quality, and program requirements, but in a standard apprenticeship, apprentices are paid employees who receive mentoring and attain industry-recognized credentials upon completion of the program.

Career Curriculum, employer designed
Employer-designed career curriculum consists of course(s) designed in consultation with employers to guide students through key decision points in their academic, technical, and employability education and training for a specific career.

Customized Training
As defined by the Workforce Innovation and Opportunity Act (WIOA), customized training is designed to meet the specific requirements of an employer (including a group of employers) and is conducted with a commitment by the employer to employ an individual upon successful completion of the training and for which the employer pays a significant portion of the cost of training, as determined by the Local Workforce Development Board (Board).

The Board considers the size of the employer and other factors as the Board determines appropriate, which may include:
• the number of employees participating in training,
• wage and benefit levels of those employees (at present and anticipated upon completion of the training),
• relation of the training to the competitiveness of a participant, and
• other employer-provided training and advancement opportunities.

In the case of customized training involving an employer located in multiple local workforce development areas in the state, a significant portion of the cost of the training, as determined by TWC’s three-member Commission (Commission), considers the size of the employer and other factors that the Commission determines to be appropriate.

Cooperative Education
Cooperative Education refers to academic programs that area linked with structured work experiences through which participants acquire professional and technical skills.

Participants may earn academic credit or wages for work carried out over a limited period of time under the supervision of a professional mentor.

Employability Skills
Employability skills are general skills that are necessary for success in the labor market at all employment levels and in all sectors. These skills have a number of names—soft skills, workforce readiness skills, career readiness skills, professional skills, or personal and social skills. Examples of employability skills include communication, problem-solving, and leadership.
Exterionships
Exterionships are brief observational learning experiences in which participants network, interview, shadow, or otherwise engage with industry professionals.

High-demand Industries
High-demand industries are industries that:
• have a substantial current or potential impact (including through jobs that lead to economic self-sufficiency and opportunities for advancement) on the state, regional, or local economy and that contribute to the growth or stability of other supporting businesses or to the growth of other industry sectors; or
• currently have or are projected to have a number of open positions (including positions that lead to economic self-sufficiency and opportunities for advancement) great enough to have a significant impact on the state, regional, or local economy.

WIOA refers to these as In-demand Industries.

High-demand Occupations
High-demand occupations are occupations that currently have or are projected to have a number of open positions (including positions that lead to economic self-sufficiency and opportunities for advancement) great enough to have a significant impact on the state, regional, or local economy.

WIOA refers to these as In-demand Occupations.

Incumbent Worker Training (IWT)
Incumbent worker training (IWT) serves to increase the competitiveness of the employee or employer and is designed to meet the specific requirements of an employer or group of employers to retain a skilled workforce or avert the need to lay off employees by assisting the workers in obtaining the skills necessary to retain employment. The reskilling or upskilling of workers is an integral component of IWTs.

Industry Speakers
Industry speakers are professional guest speakers who are invited into an educational setting to support learning as a structured career awareness activity. Industry speakers are intended to engage students through presentations that provide an opportunity to learn about the speaker’s career, business or organization and industry, and ask questions to help students consider whether they might like to pursue a career in the industry.

Designed to meet specific learning outcomes, guest speaker presentations are tied to the curriculum and help students connect what they’re learning in school with the workplace. Presentations are usually conducted at the school, but in some cases guest speakers may visit a classroom via Skype, Zoom, WebEx, Microsoft Teams or some other technology; and the activity is conducted through the use of a remote classroom. There are also virtual simulations available where a recording of a live guest speaker activity may be viewed online and serve as a foundation for an activity and/or discussion in the remote classroom.

Industry-Based Skills Competitions
Industry-based skills competitions are competitive events for secondary and postsecondary students that are designed and scored by industry experts to assess an individual’s knowledge and mastery of specific occupational skills and employability attributes against specified criteria in a timed environment. Tasks are derived from real world scenarios to simulate the expectations of the workplace. The highest scoring participants advance to the next level of the competition.
Skills competitions offer participants opportunities to make connections with professionals in occupations that interest them; build employability, technical, and leadership skills; and compete at regional and state levels for the potential to advance and compete in national and international competitive events.

**Integrated Education and Training (IET)**

Integrated Education and Training (IET) refers to a service approach that provides Adult Education and Literacy (AEL) activities concurrently and contextually with workforce preparation activities, civics education, and workforce training for a specific occupation or occupational cluster for the purpose of education and career advancement.

**Internships**

Internships are a form of experiential learning often tied to secondary or postsecondary programs of study in which participants work for an employer under the guidance of a supervisor for a limited period of time.

Internships typically last three to six months and can be paid or unpaid. Participants have opportunities to learn about careers in specific industries, gain applied learning experience, build employability skills and technical skills, and make professional connections in fields that interest them before graduation.

**Job Shadowing**

Job shadowing is a short-term form of career exploration experience that provides one-on-one time with an employee—for only a few hours in some cases—and allows an interested student or prospective worker time to closely observe experienced professionals performing day-to-day tasks in industries or occupations that interest them.

By observing workers as they go about their day-to-day activities, job shadowing participants gain a firsthand understanding of the nature of certain occupations and find out what it’s like to work for specific employers or in particular industries.

**Mock Interviews with Employers**

A mock interview is a simulation of an actual job interview with an industry professional or career counselor that provides job seekers with an opportunity to practice for an actual interview and receive feedback from an employer to improve their interviewing skills.

**On-the-Job Training (OJT)**

On-the-job training (OJT) is a hands-on skills training model provided by the employer to prepare an individual for a specific job or occupation with that employer. The participant is hired and paid a reasonable wage in exchange for observing others, learning processes and procedures, and completing tasks under the supervision of a training manager, coworker, or outsourced professional trainer.

OJT programs are often used for a first job in a particular industry or to advance further along the career track in their current workplace. It can be a means of training new employees, retraining or upskilling employed workers earning wages that are not self-sufficient, or helping individuals who have lost their jobs in layoffs learn new skills that will help them find new jobs.

Under WIOA, OJT training is structured, subsidized, and supervised training. Boards develop contracts with employers to offer OJT programs that include partial federal subsidies for the wages paid to participating employees. OJT programs typically last less than six months and should result in a full-time job upon successful completion.
**Pre-Apprenticeships**

Pre-apprenticeships are programs designed to prepare individuals to enter and succeed in Registered Apprenticeship Programs and, ultimately, careers.

Quality pre-apprenticeship programs have curriculum approved by a RAP partner, hands-on training, agreements with RAP sponsors to enter directly into a RAP, recruitment and preparation of underrepresented populations, supportive services for participants, and sustainable, collaborative partnerships with employers.

**Project-Based Learning**

Project-based learning is a teaching method in which students gain knowledge and skills by investigating and working on solutions to a real-world question or problem for an extended period of time. Teachers incorporate grade-level instruction into the project design to ensure that students meet academic goals and standards. Students should also develop critical thinking skills and gain a deeper understanding of the content, the ability to transfer knowledge to new contexts, and the improved ability to collaborate with others.

**Registered Apprenticeship Programs**

Registered Apprenticeship Programs (RAPs) are approved and registered by either by the U.S. Department of Labor’s Office of Apprenticeship or by a State Apprenticeship Agency. RAPs last from one to six years and are sponsored by employers, labor management organizations, or other intermediary organizations.

Participants in RAPs receive on-the-job supervision and mentorship, are paid increasingly higher wages as they progress through the training, and earn industry-recognized credentials upon successful completion of the program.

**Reskilling**

Reskilling is the process of learning new skills so an individual or a group of individuals are able to do a different job. Reskilling may be a result of Incumbent Worker Training (IWT).

**Service Learning**

Service learning is an activity in which students or participants learn and develop through a method of instruction that extends into the community. Students or participants apply classroom learning, learn skills and civic responsibility, and actively participate in thoughtfully organized service that is conducted in and meets the needs of a community.

Service learning:
- is coordinated with an elementary school, secondary school, institution of higher education, or community service program;
- helps foster civic responsibility;
- is integrated into and enhances the academic curriculum of the students; and
- provides structured time for the students or participants to reflect on the service experience.

**Simulated Workplaces**

Simulated workplaces are environments created outside of the actual workplace that are designed by industry experts to closely reflect a workplace in its function, equipment, and mode of operation in order to provide students with opportunities to experience a variety of real-world work scenarios and inter-related activities that demonstrate and improve employability and technical skills for a specific occupation.

Simulated workplaces are useful because they can serve as either an intermediate step between classroom instruction and work-based learning or as a substitute for a job placement when workplace
opportunities are not available or when students are not ready for workplace activities, particularly when the occupation involves a high-risk activity or job site.

**Technical Skills**

Technical skills are skills that can be taught and are specific to an occupation or industry.

**Transferrable Skills**

Transferrable skills are skills used in one job or career that can be used in another without the need for additional training.

**Transitional Jobs**

Transitional jobs offer time-limited, paid employment through which participants gain employability skills, become familiar with the world of work, and begin to establish successful work histories.

Designed to address challenges faced by individuals who experience barriers to employment, transitional jobs combine work with a range of supportive services, including help finding a permanent job.

Boards may enroll eligible participants in transitional jobs through funding under WIOA Title I programs. The Temporary Assistance for Needy Families (TANF) Employment & Training program offers similar services for eligible participants through subsidized employment opportunities.

**Upskilling**

Upskilling is the improvement of current incumbent worker skills through training programs and development opportunities that facilitate continuous learning and expand the worker’s abilities and advancement opportunities, as well as minimize an employer’s workforce skill gaps.

**Virtual Workspaces**

Virtual workspaces offer activities in which students learn and demonstrate critical employability and technical skills as they use industry-specific tools, resources, and processes to complete tasks and solve authentic problems similar to, or representative of, those found in real-world workplace contexts.

The extended and immersive experiences support the development of students’ abilities to think and work like professionals in particular industries through exposure to the unique ways in which individuals who are employed in those industries organize knowledge, use tools, and make the most of resources.

**Workforce Preparation Activities**

Workforce preparation activities include activities, programs, or services designed to help an individual acquire a combination of basic academic skills, critical thinking skills, digital literacy skills, and self-management skills, including competencies in:

- using resources and information,
- working with others;
- understanding systems;
- successfully transitioning into and completion of postsecondary education or training, or employment; and
- attaining other employability skills that increase an individual’s preparation for the workforce.

**Worksite Tours**

A worksite tour is a highly structured career awareness activity in which students visit a workplace, learn about the business, meet employees, ask questions and observe work in progress.

More than a simple field trip or site visit, a worksite tour is designed and structured to meet specific learning outcomes, be educationally rich, and build
awareness of the business, its industry sector, its role in the economy, and the career options it provides.

A worksite tour involves preparation and follow-up in the classroom, including research and reflection by students. Tours generally last between an hour-and-a-half to two hours.

Sustaining and growing worksite tours and all other WBL activities depends on maintaining positive relationships with the participating employers. These employers should be treated as valued customers and partners with frequent check-ins to address participation needs as they arise.

**Youth Apprenticeships**

Youth apprenticeships are apprenticeships designed as a foundation to help high school students choose among multiple pathways after graduation, including enrollment in college or an apprenticeship program, employment, or a combination of these pathways. Youth apprenticeship programs incorporate the key elements of other apprenticeship models, including academic and technical classroom instruction with workplace experience.

Youth apprenticeships vary widely and may include elements of Registered Apprenticeships and pre-apprenticeship programs. Partners from a variety of sectors contribute to the design and implementation of youth apprenticeships. Organizations that may participate include employers, community-based organizations, high schools, and postsecondary institutions—which may offer dual-enrollment opportunities to participants. Youth apprenticeships may have to meet certain requirements to be recognized at the state level.
## APPENDIX B: INVENTORY OF WBL PROGRAMS

The following table provides a summary of past and current Texas WBL Programs with both temporary and ongoing funding.

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<th>Middle school and high school teachers</th>
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<td>TEA and University of Texas at Austin Center for STEM Education</td>
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<th>THECB</th>
<th>Postsecondary students</th>
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<td>Students with disabilities ages 14-22</td>
<td>Vocational Rehabilitation Services Manual C-400: Training Services</td>
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<td>Work Experience</td>
<td>TWC – Vocational Rehabilitation Division</td>
<td>Any VR customer</td>
<td>Vocational Rehabilitation Services Manual C-400: Training Services</td>
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<td>Paid Work Experience and Vocational Adjustment Training</td>
<td>TWC – Vocational Rehabilitation Division</td>
<td>VR customers of any age ready to be employed after training</td>
<td>Vocational Rehabilitation Services Manual C-400: Training Services</td>
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<td>Texas Interns ‘Unite!’</td>
<td>TWC in partnership with THECB</td>
<td>Eligible high school and postsecondary students • Employers</td>
<td>Press Release: “Texas Interns Unite!” to Build Internship Connections</td>
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<td>Texas Internship Challenge</td>
<td>TEA, THECB, and TWC</td>
<td>Eligible high school and postsecondary students • Employers</td>
<td>Texas Internship Challenge</td>
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### APPENDIX C: STANDARD TERMINOLOGY FOR CREDENTIALS

Note that “credential” is an all-encompassing, umbrella term used to describe any type of traditional and nontraditional award within the context of education, training, workforce, and employment development, including those listed below. Credentials are awarded by third-party entities that have relevant authority to issue such credentials, after individuals demonstrate proficiency or competency in a given occupation or field. Credential awards can be earned from a variety of sources, including, but not limited to, educational institutions, industry associations, or government agencies.

#### Certificate

A certificate is a credential recognizing the successful completion of a program of study, typically undertaken through an authorized academic or non-academic third-party entity such as a public or private two-year institution or an independent education and training provider. Four-year institutions also issue certificates as part of micro-credentialing and other programs. Certificates are not limited in duration by requirements for renewal. (See “Micro-credential” below.)

#### Certification

A certification is a credential that signals acquired competency in a specified skill set or knowledge base that can be demonstrably measured against accepted standards by way of examination or other assessment. Certifications are typically awarded by authorized, non-academic entities including businesses or industry groups. Certifications are typically limited in duration by renewal requirements through additional training.
and/or reassessment.

**Degree**

A degree is a credential granted by an authorized academic entity that signals the successful completion of a program of study. Degrees are considered durable and do not expire but may be revoked if obtained fraudulently or in extreme cases of academic misconduct by the holder.

**Digital Badge**

A digital badge is a credential that is created and used to signal the acquisition of detailed competencies that may represent a modular component of a degree or other traditional type of credential. Badges have a high level of flexibility with respect to award criteria, duration, and rules for revocation. Badges are awarded by a wide variety of organizations, groups, or institutions or may also be awarded by an individual. Digital badges are often linked to publicly viewable information about criteria, uses, and means for verification.

**Diploma**

A diploma is a tangible and/or visible document created and granted by authorized (academic) entities following the successful completion of a program of study.

**License**

A license is a credential awarded by an authorized governmental entity following the successful completion of a program of study and/or examination that entitles the holder to operate a business or exercise a particular profession within a specified jurisdiction. Licenses are subject to renewal requirements and may be revoked by the issuer.

**Micro-credential (also Micro-degree or Nano-credential)**

A micro-credential is a competency-based credential that is awarded on completion of a focused program or learning experience of short duration (for example, one term of study or academic semester). Micro-credentials attest to a learner’s acquisition of specific, in-demand skills or competencies within a given field and may be offered in a stackable sequence leading to a broader-based certificate or full degree.