

# A Typology of State-Supported Work-Connected Learning Programs

A Framework for Mapping,  
Comparing, and Assessing State-  
Funded Work-Connected  
Learning Investments Across the  
Talent Pipeline

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## Introduction

States invest in work-connected learning<sup>1</sup> through dozens of distinct funding streams, grant programs, and agency initiatives, often developed independently over time by different administrations and agencies pursuing different goals. The result is a landscape that can be hard to see holistically. Consequently, policymakers struggle to identify gaps, researchers struggle to assess program impact and compare programs across states, and funders struggle to determine where new investments would add the most value.

The typology we present here organizes that landscape into eight bands of program types. Each band is defined by the population it intends to serve, the approach the state uses to intervene, and the role it plays in helping people move between training and employment. The typology is intended for two audiences: policy and program leaders who need a clear map of the work-connected learning landscape in their own states, and researchers and evaluators who need a consistent vocabulary for comparing or evaluating program design and data availability across states.

We developed and tested the framework for these bands and program types through an in-depth mapping of one state's work-connected learning investments, but it is built to be applied to other states, regardless of the scope or nature of their work-connected learning investments or funding streams.

## How This Framework Works

The eight bands below are not meant to represent a linear pathway of individuals or programs. Rather, they are functional categories that describe different roles within the broader work-connected learning ecosystem. These categories reflect the fact that work-connected learning programs often serve different populations, are administered by different agencies, and pursue different goals.

Across the bands, core questions help make comparisons possible. Who is this program designed to reach? What approach is the state using, whether through a direct subsidy, financial aid, rules and incentives, or capacity building? And what strategic function does it serve in advancing the state's broader workforce goals?

Within each band, the program types are meant to be flexible categories that can apply across states. A state using this framework would map its own specific programs, grants, and funding streams to the categories that best describe their purpose. In some cases, one

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<sup>1</sup> For the purposes of this framework, we use a broad definition of work-connected learning to include all the ways that people gain skills in the context of employment and connected to workforce outcomes, including improved preparation for and effectiveness in work roles. These programs necessarily include career awareness and training, along with connection to employment.

funding stream may fit into more than one category because it supports multiple activities or populations simultaneously.

This typology focuses specifically on state-level investments in work-connected learning. It intentionally excludes some activities and investments, which we name here so readers understand the boundaries of the framework:

- Programs run entirely by employers with no state funding or policy role, even when they are substantial.
- Federally run programs without a distinct state administrative role, even though federally funded, state-administered programs *are* included in the framework.
- Activities that take place entirely at the local or institutional level.
- Philanthropically funded efforts, even if they support program types that appear in the framework.

## The Eight Program Bands

| Band                                  | Function                                                                                | Primary population            | Example                                                          |
|---------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------|
| Early Exposure & Pathway Building     | Build awareness and initial career interest before structured learning activities begin | Students, families, educators | Career Navigator Portal; Career Exploration Tools                |
| Youth Earn-and-Learn                  | Academic credit combined with structured work experience                                | High school students          | CTE Programs; Youth Apprenticeships                              |
| Postsecondary Work-Connected Learning | Wage support and financial aid paired with career experience                            | Enrolled college students     | Internship Incentive Programs; Co-op Programs                    |
| Workforce Entry Earn-and-Learn        | On-the-job training and registered apprenticeship for entry into the workforce          | Adults & early-career workers | Registered Apprenticeship; Training Grants                       |
| Employed Worker Upskilling            | Credentialing and advancement for workers already in the labor force                    | Incumbent workers             | Workforce Training Grants; Employer Incentive Programs           |
| Investments in Pipelines              | Financial aid and service commitments tied to shortage fields or geographies            | Students & credential-seekers | Targeted Scholarship Programs; Support for Clinical Requirements |

| Band               | Function                                                                                                | Primary population                                     | Example                                             |
|--------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------|
| Equity & Re-entry  | Barrier-reduction training paired with supportive services                                              | People with disabilities, justice-involved individuals | Higher Education in Prison; Rehabilitation Services |
| Ecosystem Enablers | Intermediary and system-building investment that sustains the broader work-connected learning ecosystem | Employers, providers, intermediaries                   | Coordinating Activities; Technical Assistance       |

## 1. Early Exposure and Pathway Building

Programs in this band orient students, educators, and families to career contexts before structured work-connected learning begins. Their strategic function is to influence decisions and behaviors by increasing information, access, and aspiration. They do not include compensated work experiences or credit-bearing activities. Common programs include:

### Career exposure/awareness

State-funded programs or platforms that provide short-term, low-intensity activities to introduce students or the general public to career contexts, occupations, and labor market opportunities. These programs are designed to build pipeline interest rather than develop specific skills.

### CTE pathway development

State capacity-building grants that coordinate employers, educational institutions, and intermediaries in developing structured career pathway experiences aligned with in-demand occupations. These fund the infrastructure of pathway creation rather than direct student participation.

## 2. Youth Earn-and-Learn

Programs in this band combine high school coursework with structured work experiences, allowing students to earn academic credit and, in some cases, college credit or industry credentials. Programs include:

### Dual enrollment/dual credit with work-connected learning

State programs that support high school students in earning college credit while simultaneously participating in structured work-connected learning outside of a registered apprenticeship model.

**Pre-apprenticeship (youth-targeted)**

Programs that prepare individuals for entry into registered apprenticeship programs by developing foundational skills and work readiness rather than constituting a full earn-and-learn program.

**Youth apprenticeship**

Paid work experiences for high school students with structured skill development that allows for simultaneous pursuit of a diploma, college credit, and/or industry credentials.

**Career and technical education (CTE)**

State formula or grant funding for blended academic and technical training in high schools when those investments explicitly incorporate work-connected learning or structured employer partnerships.

**3. Postsecondary Work-Connected Learning**

Programs in this band provide work-connected learning for college students, combining wage support and/or financial aid with structured career experiences relevant to their fields of study.

**State work-study for off-campus work-connected learning**

State-funded wage subsidies or matching funds for college students participating in internships or other off-campus, employer-based experiences, reducing the cost of hiring student workers for employers.

**Cooperative education (co-op)**

Longer-duration, structured learning agreements that enable students to alternate between or integrate work and academic enrollment, earning credit toward graduation for their work-connected experience.

**Externships**

Brief, project-based or observational experiences that place students or educators in industry settings for a short, defined period, intended to contextualize classroom learning.

**4. Workforce Entry Earn-and-Learn**

Programs in this band support adults and early-career workers entering or re-entering the workforce through structured on-the-job training (OJT) and registered apprenticeship. These programs serve a similar function for adults that youth earn-and-learn models serve for high school students.

**OJT wage reimbursement**

State programs that reimburse employers for a portion of wages paid to newly hired workers during a defined training period, typically 50 % to 75% of wages over weeks to several months.

**Registered apprenticeship support**

State programs that offset the cost of starting, expanding, or participating in registered apprenticeship programs, including sponsor administration, related technical instruction, and recruitment.

**5. Employed Worker Upskilling**

Programs in this band help incumbent workers gain new credentials, advance within a career pathway, or transition to higher-demand occupations. Unlike workforce entry programs, the target population is already employed. The state's role is to help cover training costs that workers or employers may not fully pay on their own.

**Incumbent worker training reimbursement/grants**

Competitive or formula grants that reimburse employers for the cost of training current workers, typically allowing employers to identify training needs and select providers.

**Job training tax credits**

State tax credits or offsets tied to eligible job training expenditures, which reduce employers' tax liability rather than require a competitive grant application.

**6. Investments in Pipelines**

Programs in this band draw individuals into high-need fields or shortage geographic areas with workforce shortages through financial aid, scholarships, and service commitments. The primary mechanism is financial access and incentives rather than structured work experience.

**Paid practicum/residency**

State funding for wages or stipends for students in training programs with mandatory supervised clinical or practicum components, lowering the opportunity cost of entering fields like teaching or nursing.

**Service commitment scholarships**

Scholarships, tuition offsets, or loan forgiveness that require recipients to work in a designated shortage role, geographic area, or field for a defined period after graduation.

### **Targeted financial aid/scholarships**

State-funded aid for students in programs aligned to high-demand occupations, without a formal service commitment, tied to program of study rather than post-graduation employment.

## **7. Equity and Re-entry**

Programs in this band support learners and workers who face structural barriers to labor market participation, including individuals with disabilities, justice involvement, or other complex needs. Their strategy is to pair educational or occupational training with supportive services so participants can access, enter, and/or retain employment.

### **Vocational rehabilitation/supported employment**

State vocational rehabilitation programs that help individuals with disabilities prepare for, obtain, and maintain employment, including assessment, job coaching, and employer engagement.

### **Training and re-entry support for justice-involved individuals**

State support for education and occupational training delivered in correctional facilities or during re-entry, often paired with transition services that help individuals move into employment after release.

## **8. Ecosystem Enablers**

Programs in this band are intermediary and system-building investments that sustain the broader work-connected learning ecosystem. Rather than serving individual participants directly, they build the connections between employers, education providers, and workers.

### **Intermediary and system building**

State funding for organizations that recruit employers, manage placements, and ensure quality and alignment across sectors, reducing transaction costs so programs can operate at scale.

### **Public procurement/contract requirements**

State policies that embed apprenticeship utilization or training requirements into public contracts, using the state's purchasing power to create demand for training without direct subsidy.

## Exploring Strategic Levers

The bands above describe what state investments are trying to accomplish, who they serve, what problem they address, and what role they play in the broader talent pipeline. The strategic levers describe a different question: how the state intervenes. In many cases, the same workforce gap can be addressed through multiple mechanisms, and the choice among them depends on state policy design, administrative capacity, and political priorities.

For example, a state trying to build a pipeline into a shortage occupation could pursue that goal in several ways: by using financial aid to reduce the cost of training, employer subsidies to reduce the cost of hiring and training, or capacity-building funds to support an intermediary that recruits, prepares, and places candidates. These are three different levers aimed at the same underlying goal. Recognizing the lever as a distinct policy choice, rather than treating it as inherent to a given band, makes this framework more useful for planning because it allows states to ask not only “What do we have?” but “What else could we do, and how?”

Across the programs cataloged in this typology, state intervention generally operates through five primary levers:

### Information and Access

The state expands what people know or the opportunities they can reach, without directly subsidizing a participant’s or an employer’s costs. This lever works by shaping awareness, aspiration, and decision-making rather than paying directly for training or employment. It is often a lighter-touch approach, and it is well suited for broad-reach, lower-intensity efforts. Career exploration platforms and awareness campaigns are the clearest examples.

### Rules and Requirements

The state shapes behavior by setting requirements, eligibility standards, or preferences, changing the rules that govern existing activity. Graduation pathway requirements that shape youth earn-and-learn programs and public procurement policies that incorporate apprenticeship goals into state contracts are both examples. In this lever, the state uses its regulatory or purchasing power to create demand or shape program design.

### Direct Subsidy

The state pays an employer, or in some cases, a training provider, to offset the cost of employing, training, or hosting a participant. Examples include on-the-job training wage reimbursement, registered apprenticeship support, incumbent worker training grants, job

training tax credits, and wage subsidies for off-campus work-connected learning. In this lever, funding goes to the entity providing the work or training experience.

## Financial Aid and Service Commitments

The state pays an individual (a student, a worker, or a trainee, often remitting payment to an institution on the student's behalf) to offset the cost of their own education or training, sometimes in exchange for a commitment to work in a designated role, field, or place afterward. Paid practicum and residency stipends, service commitment scholarships, and targeted financial aid are examples. In this lever, funding directly supports the person completing the training.

## Capacity Building

The state funds the infrastructure and institutions needed to deliver programs. This builds up the delivery system's ability to operate at scale, with quality, and in line with state priorities. Examples include CTE pathway development grants, intermediary and system-building investments, and the specialized service systems that support vocational rehabilitation and re-entry programs. The effect is often indirect. It expands or improves what the rest of the system can do, even though it doesn't directly connect individuals with specific opportunities.

Bands often draw on more than one lever, and some programs intentionally combine multiple levers. Pre-apprenticeship programs, for example, may pair capacity building to prepare providers to deliver structured pre-apprenticeship curricula, with direct support for participants. When a program type uses more than one lever, the combination reflects a policy design choice rather than a fixed feature of the band.

## How We Built This Typology

We developed this framework as part of a broader effort to understand state-supported work-connected learning programs and the outcomes they may produce. To do so, we first needed a way to organize a complex landscape of programs, grants, and investments operating within a single state.

We began by reviewing state investments and activities that support blended and work-connected learning. We then grouped them by their primary functions, target populations, and delivery approaches, which led to the eight bands described above. Applying the framework within one state also helped us identify areas where the state had fewer or no investments, making the typology useful not only for classification but also for gap analysis.

As we assigned state programs to categories within the typology, we used a few general principles to guide our decisions, especially where a program didn't fit neatly into one category:

- Programs that serve more than one function are recognized in every band that applies. A funding stream isn't forced into a single band just for simplicity; recognizing it in more than one place reflects how it was actually used.
- Assignment follows the program's main intent. Where a program has one clear, dominant purpose, it is classified there, even if it has secondary effects that could plausibly place it elsewhere. For example, a scholarship with a service commitment was classified based on how it was funded, not on its eventual effect on the workforce.
- When a program can plausibly fit into more than one band based on the activity alone, the target population helped determine placement. Pre-apprenticeship programs, for example, are grouped according to whether they are designed primarily for youth, adults entering the workforce, or another population.

## Applying This Framework

This typology is intended to be a flexible starting point that states, researchers, and funders can adapt, rather than a fixed taxonomy. It can be useful in several ways:

- Landscape mapping: assigning a state's own programs, grants, and funding streams to each band can surface both duplication (multiple programs serving the same function) and gaps (areas with little to no active state investment).
- Cross-state comparison: because the bands and program types are defined independently of any one state's specific programs, they provide a common vocabulary for comparing investment patterns across states.
- Learning and evidence planning: pairing the typology with an honest look at what each program tracks can help states identify where they are positioned to learn more about program reach and outcomes, and where stronger data infrastructure may be needed first.

For example, a state focused on reducing the number of disconnected young adults, ages 16 to 24, could use this framework to examine whether existing investments actually reach that population. It may find strong coverage in Band 1, through career exposure programs delivered in schools, or Band 2, through youth earn-and-learn models tied to high school completion. But both types of programs often assume that the young person is still enrolled in school.

The framework can make visible who is left out. A 19-year-old who has already left school and is not working may not fit clearly into existing programs unless they are also served through disability, justice-involved, or other targeted supports. Band 7 might cover that population if the disconnection is tied to disability or justice involvement, but a young adult who has fallen out of the system without either of those circumstances may not fit clearly into any band.

That gap points to a concrete next step. A state could, for example, fund community-based re-engagement models, paired with financial aid to cover a GED or high school equivalency credential, addressing the population gap with tools the state already knows how to run in other bands.

The same mapping exercise that reveals gaps can also reveal the opposite problem: several programs serving similar populations, sectors, or employers. A state may find multiple youth earn-and-learn programs run by different agencies, all targeting similar students or employer partners in fields such as manufacturing and health care. Each program may have its own eligibility rules, application process, and reporting requirements, creating confusion for employers, schools, and students.

This kind of saturation often builds up gradually and frequently occurs across changes in administration. Each program made sense on its own when it was created, usually in response to a specific grant opportunity or an administrative or legislative priority, but no one may have been looking at each program side by side. The framework makes that visible in a way that reviewing programs one at a time doesn't.

Once a state sees this kind of overlap, it has several options. It could consolidate the programs under a single administrative structure while keeping the underlying funding streams intact, making the experience simpler for employers and participants. It could differentiate programs more deliberately by industry, sector, or region. Or it could redirect funding toward bands where investment is limited, such as workforce entry or equity and re-entry.

Overlap is not automatically a problem. Some redundancy across agencies may help states reach different regions, populations, or employer networks. But states can only make that judgment once they see the overlap clearly, which is exactly what mapping investments onto this framework makes possible.

## About This Work

UpSkill America at the Aspen Institute and Craft Education, a WGU company, developed this typology through applied work supporting state workforce and education agencies, with support from the Indiana Department of Education. We're grateful to Arnold Ventures for their support of this work.

We built this framework as a foundation for future learning and evidence building about state-supported work-connected learning efforts. To understand the array of programs Indiana was supporting and to create clear distinctions among them, we need a method to see and organize the full landscape. We are sharing the framework developed through this project because other states, researchers, and funders are likely to face the same challenge.

We are glad to talk through how this framework has been applied in practice. If you're interested in applying this to your own state's landscape, or think a piece of it should work differently, we'd like to hear from you via this survey:

<https://www.research.net/r/WorkConnected>.

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## About

### About the Authors

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### About Craft Education

Craft Education is a nonprofit operating division of Western Governors University. Craft builds the data infrastructure that lets apprenticeship and other work-based learning run at scale, so that hours worked count toward a credential and learners can reach a family-sustaining wage without taking on debt. Craft works with employers, education providers, workforce boards, intermediaries, and state agencies. Learn more at [crafteducation.com](https://crafteducation.com).



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UpSkill America, an initiative of the Aspen Institute Economic Opportunities Program, supports employers and workforce organizations to expand and improve high-quality educational and career advancement opportunities for America's frontline workers. We seek to create a movement of employers, civic organizations, workforce intermediaries, higher education institutions, and policymakers working collaboratively to implement education, training, and development strategies that result in better jobs and opportunities for frontline workers, more competitive businesses, and stronger communities. Follow us on [LinkedIn](https://www.linkedin.com/company/upskillamerica) and learn more at [upskillamerica.org](https://upskillamerica.org).





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