

Career Readiness Metrics FRAMEWORK

A Continuum of Actionable Measures of Career Development and Readiness

Why the Metrics Framework?


With the recent reauthorization of the Strengthening Career and Technical Education for the 21st Century Act (Perkins V), unprecedented philanthropic investment in career pathways, and the urgent economic needs of the COVID-19 (coronavirus) pandemic, the career readiness field is at a critical moment in time. To meet this moment, states, districts, colleges and organizations should pause to reflect on the career readiness data they collect and ensure that the information is relevant and actionable.

This Career Readiness Metrics Framework presents a comprehensive list of metrics that span middle school through adulthood and provides a standard for practitioners, policymakers and researchers to evaluate whether learners are on track for and progressing through their career pathways. It should serve as a resource to help leaders at the state and local levels go beyond traditional accountability systems and select, refine and prioritize career readiness indicators from middle school through adulthood.

Organization of the Framework

The Career Readiness Metrics Framework classifies metrics into seven categories that evolve over the education continuum:


1. Access and equity	Degree to which career pathways programs are accessible and serve learners equitably.
2. Education accumulation	Course completion, learning and credit accumulation along the career pathway.
3. Skill development	Assessment of academic, technical and employability skills.
4. Work-based learning	Participation in and completion of activities that deepen classroom learning through the exploration of career fields and demonstration of skills in an authentic, real-world setting.
5. Transition readiness	Preparation for the next step along learners' career pathways.
6. Learner agency and belonging	Learner development of self-concept, including occupational identity, self-efficacy, and the perceived inclusivity of the learning environment.
7. Post-program outcomes	Immediate and long-term outcomes for learners who complete career development programs.





The framework includes measures across three phases of the education journey: middle school, high school and postsecondary education. Postsecondary education includes both credit-based degree programs, such as associate, baccalaureate and professional degrees, and non-credit training programs.

These phases are used to organize the metrics, but a learner's journey will rarely be linear. Learners often take a circuitous journey in and out of formal educational pathways throughout their careers as they stack experiences and earn credentials that will help them advance professionally. State and local leaders should keep in mind how the metrics will attend to each learner's unique experiences and engage in cross-level conversations to improve the coherence and seamlessness of data across the education continuum.

Many of the metrics are familiar but have been refined in service of an evolving understanding of how they can and should be operationalized in the field. Other metrics are new and serve to push thinking around what is possible in the spirit of continuous improvement. Each metric was validated based on three factors:

 **Alignment to federal accountability requirements:** These indicators are either loosely or directly aligned to federal accountability through Perkins V, the Every Student Succeeds Act (ESSA), or the Workforce Innovation and Opportunity Act (WIOA).

 **Supporting research evidence:** These indicators are backed by emerging and established research that supports the use of each indicator as a predictor or valuable mediator of learner outcomes.

 **Common usage in the field:** These indicators are in common use in the field and are widely understood as valuable measures of learner progress and success in career pathways.

A small number of indicators do not meet any of these criteria but were included because they are necessary to measure success along the continuum or because they merit additional research. In particular, the framework introduces a few outcomes and equity measures that are not validated but are relevant for state and local leaders to consider.

The framework focuses primarily on *learner-level indicators*. While these indicators can be aggregated to the program, building, region or state level to evaluate the effectiveness of career pathways, they are not exclusively measures of program quality. State and local leaders should consider additional measures — such as labor market alignment, teacher and faculty certification and employer engagement — to evaluate program quality. Advance CTE's [Policy Benchmark Tool: CTE Program of Study Approval](https://careertech.org/resource/program-approval-policy-benchmark-tool) is a helpful resource to assist state and local leaders in assessing the quality of their programs,¹ and many other resources, such as the Association for Career and Technical Education's [Quality CTE Program of Study Framework](https://www.acteonline.org/wp-content/uploads/2019/01/HighQualityCTEFramework2018.pdf),² are available from other organizations.

1 Advance CTE. (2017). *Policy benchmark tool: CTE program of study approval*. <https://careertech.org/resource/program-approval-policy-benchmark-tool>

2 Imperator, C., & Hyslop, A. (2018). *2018 ACTE quality CTE program of study framework*. Association for Career and Technical Education. <https://www.acteonline.org/wp-content/uploads/2019/01/HighQualityCTEFramework2018.pdf>



How Can the Framework Be Used?

Benchmarking Current Practice: State and local leaders can use this tool to benchmark current practice and consider whether the current set of indicators sufficiently measures progress toward and demonstration of career readiness. Key questions include:

- ▶ Do you have sufficient information on learners' career readiness in each of the categories in the middle grades, high school and postsecondary education? Where are the gaps?
- ▶ What are the key areas where there is inadequate information on whether learners are on track for and progressing in their career pathways?
- ▶ How can your existing indicators be strengthened?

Evaluating Your Theory of Change: Each of the metrics selected should be connected to your theory of change and what you have determined is relevant for career readiness. Key questions include:

- ▶ Do you have a theory of change for career readiness that illustrates how your inputs and outputs are connected to outcomes and impact?
- ▶ What metrics are you collecting to monitor the implementation and impact of your work? What metrics are missing?

Prioritizing Measures: It is neither the expectation nor the recommendation that state and local leaders adopt every metric in this framework; rather, they should determine which metrics are most critical to their stakeholders to prioritize what they collect and report. Key questions include:


- ▶ Which indicators are of most value to learners and families? To practitioners? To employers? To policymakers?
- ▶ Where are the biggest gaps between what stakeholders want to know and what is readily available?

How Can the Indicators Be Used?

State and local leaders face another series of choices around how the selected indicators will be used, from local program review to research to accountability. Not all indicators are appropriate for all uses. In the interest of coherence, alignment and efficacy, choices should be driven by overarching learner performance goals and outcomes and aligned in turn to economic and workforce needs, as well as state-specific policy contexts. States might consider the following possible use cases for their selected indicators and related data:

- ▶ Improving equity of access, participation and outcomes;
- ▶ Driving program change/programmatic improvement to support learner success;
- ▶ Informing employers about their talent pipelines;
- ▶ Directing learner supports and interventions; and
- ▶ Evaluating the impact of career pathways.

For each measure, state and local leaders should consider the trade-offs of using metrics as accountability measures, for internal purposes and/or for public reporting.



The metrics and corresponding data can be used to inform both micro-level and macro-level decisions. For example, work-based learning data looks very different at the classroom (micro) level compared with the state (macro) level:


- ▶ **Classroom level:** Professor Jimenez looks at his report of work-based learning placements and sees that Aleida has not been selected for an internship program. He sends an email to follow up with the employers she has applied to.
- ▶ **Building level:** Dean West looks at the quarterly work-based learning placement report and sees that while 50 percent of Health Science students have an internship placement, only 10 percent of Information Technology (IT) students do. She asks her assistant to pull together a list of the top IT employers in her town that she can reach out to.
- ▶ **Region level:** The Auburn County Workforce Board reviews the annual work-based learning report. Employers on the board are thrilled to see that 250 learners in the county completed a pre-apprenticeship program last year, more than double the number of students the year before. Their efforts to strengthen the workforce pipeline are paying off.
- ▶ **State level:** State Career Technical Education (CTE) Director Jones is participating in an annual equity analysis exercise. Data on work-based learning completion is presented, and Dr. Jones notices that while 50 percent of Native American learners in the state attend a high school where work-based learning opportunities are offered, only 10 percent participate in work-based learning, which is 10 percentage points lower than the average. She immediately begins a discussion to use Perkins V leadership funds to expand work-based learning opportunities for Native American students.

Constructing Indicators: To be meaningful, indicators must be valid, reliable, and comparable within and across states, something that has been a significant challenge in the past. Key points to consider:

- ▶ **Consider numerator and denominator decisions carefully.** These decisions are critical, as is being transparent about who is included in the numerator and the denominator. Denominators should include the total population, not just those considered CTE learners. This approach is a departure from current federal reporting requirements under Perkins V but underscores the importance of career preparation for all learners.
- ▶ **Distinguish between participation and success.** Participation measures are important but are best understood when presented alongside success rates. For example, instead of measuring only enrollment in early postsecondary credit courses, also measure the number and percentage of learners who successfully complete their courses and articulate credit toward a postsecondary degree.
- ▶ **Report numbers of learners along with percentages.** Conversations about learners and people feel more urgent and real when presented as numbers rather than simple percentages of learners.

Collecting and Reporting Data

Some of the indicators require data that will be readily available. Others — such as occupational identity and ongoing and aligned academic/career guidance — will be difficult to measure consistently across the state and will likely be reported by teachers or administrators. Data sources will be state dependent. State and local leaders should inventory and understand what information they already collect and then decide if they need to either expand existing data collection (particularly if they are looking at non-CTE learners) or establish new data collection routines. Wherever possible, states should rely on administrative data sources.



State and local leaders embarking on this process must consider who is responsible for collecting data and who the owners of the data are. If a state's measure involves a new data collection effort, establishing assumptions and operating principles and creating the processes and routines to yield reliable data will take time.

Data disaggregation is essential to drive access and equity. State and local leaders should collect learner-level demographic information and report disaggregated data to illustrate where additional resources and supports are needed to ensure equitable access and success. Examining measures by intersectional disaggregation (e.g., race AND gender) also provides a more nuanced look at outcomes data. At a minimum, state and local leaders should be able to disaggregate their data by:

- ▶ **Learner demographics:** Race/ethnicity, gender identity, Perkins V special population status, first generation, Pell eligible/receiving, and other learner groups of interest identified by stakeholders;
- ▶ **Locale:** Rural/urban/suburban communities;
- ▶ **Program:** CTE program area, Career Cluster®, and aligned industry and/or occupational area;
- ▶ **Provider and delivery system:** District, high school, middle school, technical center, college or university, WIOA-eligible training provider, employer-based training programs, corrections, etc.; and
- ▶ **CTE participation:** CTE participants, CTE concentrators, CTE program completers, non-CTE learners and all learners.

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Career Readiness Metrics FRAMEWORK

	MIDDLE SCHOOL	HIGH SCHOOL	POSTSECONDARY
Access & Equity	Access to high-quality career readiness coursework	Career pathway inclusivity	
		Equitable persistence in high-wage, high-skill, in-demand career pathways	
			Cumulative debt
Education Accumulation	Exposure to careers through CTE coursework	CTE program concentration	
		CTE program completion	
	High school credit attainment in middle school	Postsecondary credit attainment in high school	Transfer efficiency
			Credit for prior learning
Skill Development	Employability skill development		
	Academic proficiency		Gateway course completion
	Technical skill proficiency		
		Credential attainment	
			Measurable skill gain
			Adult basic skill attainment
Work-Based Learning	Exposure to careers through career awareness and exploration activities		
		Youth apprenticeship, internship, or other sustained work-based learning activity	
Transition Readiness	Transition to high school with an actionable plan for next steps	Freshmen on track to graduation	Ongoing and aligned academic and career guidance
		Graduation rate	Placement into a credit-bearing program of study
		FAFSA completion	Time to postsecondary degree or credential
	Ninth-grade readiness	Graduation with an actionable plan for next steps	Postsecondary degree attainment
			Postsecondary retention/persistence
Learner Agency & Belonging		Co-curricular organization participation	
	Learner self-efficacy		
	Learner belonging		
	Occupational identity		
Post-Program Outcomes	Enrollment in a high school CTE program of study Freshmen on track to graduation	Postsecondary enrollment without remediation	Placement into further education/ a for-credit program
		Placement into advanced training, military, national community service, good job	
		Post-program wages	
			Post-program wage premium
			Career advancement
			Continuing education
		Satisfaction with career	



MIDDLE SCHOOL

DELIVERY SYSTEM: Middle schools, junior/senior high schools

Access & Equity

Access to high-quality career readiness coursework

DEFINITION

Number/percentage of middle school learners who attend a school in which high-quality career readiness coursework is available

CONSIDERATIONS FOR STATE LEADERS

- » See [Broadening the Path: Design Principles for Middle Grades CTE](#) for guidance on evaluating CTE program quality at the middle school level.³

Education Accumulation

Exposure to careers through CTE coursework



DEFINITION

Number/percentage of middle school learners successfully participating in career development coursework including middle grades CTE or career exploration classes

CONSIDERATIONS FOR STATE LEADERS

- » This metric will depend on state and local context.
- » States and districts that do not have a dedicated career exploration course for middle school learners should use the "Exposure to careers through career awareness and exploration activities" metric.

High school credit attainment in middle school



DEFINITION

Number/percentage of middle school learners who complete high school credits in middle school

Skill Development

Employability skill development



DEFINITION

Number/percentage of middle school learners who demonstrate employability skill proficiency through skill assessments, portfolios or other measures

CONSIDERATIONS FOR STATE LEADERS

- » Employability skills such as communication, growth mindset, collaboration and self-regulation are difficult to measure consistently and will likely depend on local data collection.

Academic proficiency



DEFINITION

Number/percentage of middle school learners attaining proficiency on the state's middle school academic assessments in reading/language arts, mathematics, science and/or social studies

CONSIDERATIONS FOR STATE LEADERS

- » Proficiency may be reported for the year the assessment was administered or once the learner exits middle school.

³ Advance CTE & Association for Career and Technical Education. (2020). *Broadening the path: Design principles for middle grades CTE*. <https://careertech.org/resource/broadening-path-middle-grades>



MIDDLE SCHOOL

DELIVERY SYSTEM: Middle schools, junior/senior high schools

Skill Development

Technical skill proficiency

DEFINITION

Number/percentage of middle school learners meeting a state-determined measure of attainment of technical skills that is aligned to industry standards where available and appropriate

CONSIDERATIONS FOR STATE LEADERS

- » Report the participation and passing rates if possible.
- » This metric will depend on whether the state has developed a system for assessing technical skill proficiency.
- » Grade-appropriate industry credentials, micro-credentials and/or badges can be used to measure technical skill proficiency. Ensure that quality criteria are in use to identify credentials that have been validated by employers and are in demand.

Work-Based Learning

Exposure to careers through career awareness and exploration activities



DEFINITION

Number/percentage of learners exiting middle school having completed classroom-based or out-of-school career awareness and exploration activities such as interest inventories, job shadowing, career fairs, career field trips, career-focused afterschool programs, student advisement programs, etc.

CONSIDERATIONS FOR STATE LEADERS

- » States and districts that require career exploration activities in middle school should expand on the type of career exploration activities completed to make the metric more meaningful.
- » Consider disaggregating by classroom-based or out-of-school activities.

Transition Readiness

Transition to high school with an actionable plan for next steps



DEFINITION

Number/percentage of middle school learners who successfully complete an individual graduation plan or an individual career and academic plan

CONSIDERATIONS FOR STATE LEADERS

- » States/districts that require all learners to complete an individualized learning plan should modify this metric to evaluate the quality of implementation.
- » Ensure that measures are in place to monitor fidelity of implementation at the local level.

Ninth-grade readiness



DEFINITION

Number/percentage of eighth-grade learners earning passing grades in the core academic courses necessary for transition to ninth grade

CONSIDERATIONS FOR STATE LEADERS

- » Determine core courses or key gateway courses by ninth grade (e.g., Algebra I coursework is key for a cybersecurity program).



MIDDLE SCHOOL

DELIVERY SYSTEM: Middle schools, junior/senior high schools

Learner Agency & Belonging

Learner self-efficacy



DEFINITION

Number/percentage of middle school learners who believe they can master hard work and value what they are learning

CONSIDERATIONS FOR STATE LEADERS

- » This indicator can be drawn from a school climate survey if one is in use at the state, district or school level.
- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.

Learner belonging



DEFINITION

Number/percentage of middle school learners who say they feel welcome in their school and/or classroom

CONSIDERATIONS FOR STATE LEADERS

- » This indicator can be drawn from a school climate survey if one is in use at the state, district or high school level.
- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.

Occupational identity



DEFINITION

Number/percentage of middle school learners who understand their career options and know how to get there

CONSIDERATIONS FOR STATE LEADERS

- » This indicator can be drawn from a school climate survey if one is in use at the state, district or high school level.
- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.



MIDDLE SCHOOL

DELIVERY SYSTEM: Middle schools, junior/senior high schools

Post-Program Outcomes

Enrollment in a high school CTE program of study



DEFINITION

Number/percentage of middle school learners who go on to enroll in a high school CTE program of study after completing career awareness and exploration coursework and activities

CONSIDERATIONS FOR STATE LEADERS

- » The grade level at which enrollment is measured will vary, as the learner may not immediately enroll in a CTE program once they begin high school.

Freshmen on track to graduation



DEFINITION

Number/percentage of middle school graduates who go on to successfully complete a certain number of core credits in their first year of high school

CONSIDERATIONS FOR STATE LEADERS

- » This middle school post-program outcomes indicator is also a transition readiness indicator at the high school level.



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Access & Equity

Career pathway inclusivity



DEFINITION

Option A: Number/percentage of high school learners in a given subgroup who achieve concentrator status in a CTE program of study in which learners in their subgroup are under-represented in the school program

Option B: Number/percentage of high school learners in a given subgroup who achieve concentrator status in a CTE program of study in which workers in their subgroup experience high segregation in the aligned field or occupation

CONSIDERATIONS FOR STATE LEADERS

- » This metric is closely aligned with the Perkins V non-traditional program concentration performance indicator but is expanded to include other subgroups such as race/ethnicity and disability status in addition to gender.
- » Set a minimum threshold for determining whether an industry or occupation has high occupational segregation.
- » Consider monitoring persistence and completion in programs with high occupational segregation as well.

Equitable persistence in high-wage, high-skill, in-demand career pathways

DEFINITION

Number/percentage of high school learners who achieve CTE concentrator status in high-wage, high-skill, in-demand career pathways

CONSIDERATIONS FOR STATE LEADERS

- » This indicator should be disaggregated by all recommended subgroups.

Occupational Segregation: The distribution of workers across industries and occupations in such a way that populations of workers are under- or over-represented based on demographic characteristics.⁴

⁴ Washington Center for Equitable Growth. (2017). *Fact sheet: Occupational segregation in the United States*. <https://equitablegrowth.org/fact-sheet-occupational-segregation-in-the-united-states/>



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Education Accumulation

CTE program concentration



DEFINITION

Number/percentage of high school learners who concentrate in a CTE program or program of study by completing two or more courses in a sequence

CONSIDERATIONS FOR STATE LEADERS

- » Differentiate CTE concentrators in high-wage, high-skill or in-demand career pathways from those in unaligned career pathways.

CTE program completion



DEFINITION

Number/percentage of high school learners who complete a full sequence of courses in a state-approved CTE program of study or a culminating capstone experience if appropriate

CONSIDERATIONS FOR STATE LEADERS

- » Consider differentially weighting or reporting data on programs that are in high-skill, high-wage, in-demand occupational areas.

Postsecondary credit attainment in high school



DEFINITION

Number/percentage of learners graduating from high school having attained postsecondary credits through dual or concurrent enrollment, Advanced Placement/International Baccalaureate, early college high schools or another credit transfer agreement

CONSIDERATIONS FOR STATE LEADERS

- » Consider whether credits are aligned to the learner's program of study and whether course credits articulate as elective credits or count toward core academic requirements or major/program requirements.
- » Determine what constitutes "successful completion" (e.g., the grade that must be attained in the course).
- » Consider expanding this metric to count not only learners who earn postsecondary credit but also the average number of postsecondary credits earned upon graduation.
- » Be sure to clearly define and disaggregate by type of postsecondary credit.



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Skill Development

Employability skill development



DEFINITION

Number/percentage of high school learners who demonstrate employability skill proficiency through skill assessments, portfolios or other measures

CONSIDERATIONS FOR STATE LEADERS

- » Employability skills such as communication, growth mindset, collaboration and self-regulation are difficult to measure consistently and will likely depend on local data collection.

Academic proficiency



DEFINITION

Number/percentage of high school learners attaining proficiency on the state's high school academic assessments in reading/language arts, mathematics and/or science

CONSIDERATIONS FOR STATE LEADERS

- » Determine which assessments will be used (e.g., end-of-course exams, ESSA assessments).
- » Determine when proficiency is measured (e.g., the year the assessment is provided or upon graduation). Note that the grade level at which proficiency is measured will vary if the state administers end-of-course exams.

Technical skill proficiency



DEFINITION

Number/percentage of high school learners meeting a state-determined measure of attainment of technical skills that is aligned to industry standards where available and appropriate

CONSIDERATIONS FOR STATE LEADERS

- » Report the participation and passing rates if possible.
- » This metric will depend on whether the state has developed a system for assessing technical skill proficiency.
- » If third-party, employer-validated industry credentials are used to measure technical skill proficiency, use the "Credential attainment" metric.

Credential attainment



DEFINITION

Number/percentage of learners graduating from high school having attained a recognized postsecondary credential (i.e., industry-recognized certifications, educational certificates, licenses, educational degrees, registered apprenticeship)

CONSIDERATIONS FOR STATE LEADERS

- » If possible, validate credential attainment data using administrative data from credentialing bodies.
- » Ensure that quality criteria are in use to identify credentials that have been validated by employers and are in demand and ensure that the quality criteria are applied consistently across ESSA, Perkins V and WIOA.
- » If possible, determine whether credentials are aligned to the learner's program of study.
- » If possible, use differentiated weights for credentials based on rigor, associated training requirements, etc.



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Work-Based Learning

Exposure to careers through career awareness and exploration activities



DEFINITION

Number/percentage of learners graduating from high school having completed classroom-based or out-of-school career awareness and exploration activities such as interest inventories, job shadowing, career fairs, career field trips, career-focused afterschool programs, student advisement programs, etc.

CONSIDERATIONS FOR STATE LEADERS

- » If possible, report participation disaggregated by type of work-based learning experiences across the continuum.
- » Determine what constitutes “successful completion” and how to measure beyond participation (e.g., whether aligned to a program of study, number of years a learner participates).
- » Ensure that measures are in place to assess the quality of the experience and skills acquired by the learner.

Youth apprenticeship, internship, or other sustained work-based learning activity



DEFINITION

Number/percentage of learners graduating from high school having completed work-based learning experiences that are aligned to curriculum and instruction and that consist of sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, first-hand engagement with the tasks required in each career field

CONSIDERATIONS FOR STATE LEADERS

- » If possible, collect data on compensation and course credits earned.
- » Determine how to validate the data and whether the employer role in the validation is defined.
- » If possible, report participation disaggregated by type of work-based learning experiences across the continuum. Differentiate work-based learning experiences that are supervised by employers from those that are school based.
- » If possible, measure whether work-based learning experiences are related to the learner’s program of study.
- » Decide whether to differentially weight or report data on various types of experiences (e.g., a youth apprenticeship counts more than a mentorship).
- » Ensure that measures are in place to assess the quality of the experience and skills acquired by the learner.



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Transition Readiness

Freshmen on track to graduation



DEFINITION

Number/percentage of ninth graders who successfully complete a certain number of core credits

CONSIDERATIONS FOR STATE LEADERS

- » This high school transition readiness indicator is also a post-program outcomes indicator at the middle school level.

Graduation rate (four year/extended)



DEFINITION

Four-year adjusted cohort graduation rate and/or extended-year adjusted cohort graduation rate (i.e., five year, six year or seven year)

CONSIDERATIONS FOR STATE LEADERS

- » Determine whether to use the four-year and/or extended rate.

FAFSA completion



DEFINITION

Number/percentage of high school seniors who completed the Free Application for Federal Student Aid (FAFSA)

CONSIDERATIONS FOR STATE LEADERS

- » Some states require FAFSA as part of high school graduation requirements.

Graduation with an actionable plan for next steps



DEFINITION

Number/percentage of high school learners who graduate having successfully completed an individual graduation plan or an individual career and academic plan

CONSIDERATIONS FOR STATE LEADERS

- » Ensure that measures are in place to monitor fidelity of implementation at the local level.



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Learner Agency & Belonging

Co-curricular organization participation



DEFINITION

Number/percentage of high school learners who demonstrate leadership by participating in a co-curricular activity, such as a Career Technical Student Organization (CTSO), student government or a service-learning project

CONSIDERATIONS FOR STATE LEADERS

- » Decide whether/how to measure beyond participation, whether aligned to a program of study, and/or the number of years a learner participated.

Learner self-efficacy



DEFINITION

Number/percentage of high school learners who believe they can master hard work and value what they are learning

CONSIDERATIONS FOR STATE LEADERS

- » This indicator can be drawn from a school climate survey if one is in use at the state, district or high school level.
- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.

Learner belonging



DEFINITION

Number/percentage of high school learners who say they feel welcome in their school and/or classroom

CONSIDERATIONS FOR STATE LEADERS

- » This indicator can be drawn from a school climate survey if one is in use at the state, district or high school level.
- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.

Occupational identity



DEFINITION

Number/percentage of high school learners who understand their career options and know how to get there

CONSIDERATIONS FOR STATE LEADERS

- » This indicator can be drawn from a school climate survey if one is in use at the state, district or high school level.
- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Post-Program Outcomes

Postsecondary enrollment without remediation



DEFINITION

Number/percentage of learners who left secondary education and were placed into postsecondary education without remediation

CONSIDERATIONS FOR STATE LEADERS

- » Decide whether to include enrollment in out-of-state institutions, private colleges, two-year institutions, four-year institutions and/or certificate programs.
- » Consider whether to disaggregate by or differentiate weights for enrollment in the same program of study.
- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).
- » Disaggregate data by award level and institution, including certificate, associate degree or baccalaureate degree.

Placement into advanced training



DEFINITION

Number/percentage of learners who left secondary education and were placed in advanced training

CONSIDERATIONS FOR STATE LEADERS

- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).

Placement into the military



DEFINITION

Number/percentage of learners who left secondary education and entered the military

CONSIDERATIONS FOR STATE LEADERS

- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).

Placement into national community service



DEFINITION

Number/percentage of learners who left secondary education and entered a national community service program

CONSIDERATIONS FOR STATE LEADERS

- » Service programs can include those that receive assistance under Title I of the National and Community Service Act of 1990 and the Peace Corps.
- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).



HIGH SCHOOL

DELIVERY SYSTEM: High schools, area technical centers, early college high schools

Post-Program Outcomes

Placement into a good job



DEFINITION

Number/percentage of learners who left secondary education and entered employment in a job with a livable wage

CONSIDERATIONS FOR STATE LEADERS

- » Defining a “good job” should be contextualized with the state or region. Consider using the Massachusetts Institute of Technology (MIT) [living wage calculator](#)⁵ or Georgetown University’s “good job” threshold.⁶
- » Consider whether job placement is in the same field as the learner’s program of study.
- » Determine how to treat sectors/occupations outside of traditional sectors and lists (e.g., gig economy, agriculture, self-employment).
- » Determine whether to differentially weight/report employment data on high-skill, high-wage, or in-demand sectors or occupations.
- » Evaluate whether employment is sustained (e.g., whether the learner is still employed one year, three years, five years or 10 years after program completion).
- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).

Post-program wages



DEFINITION

Median earnings of participants who are in unsubsidized employment during the second quarter after exit from a secondary program

CONSIDERATIONS FOR STATE LEADERS

- » Disaggregate data by all program participants versus program completers.
- » Determine how often to report outcomes data (e.g., one-year, five-year, 10-year marks).
- » Use an Unemployment Insurance wage record match, federal or military employment records or supplemental wage information to calculate this metric.

Satisfaction with career



DEFINITION

Number/percentage of program completers who say they are satisfied with their career after completing their career pathway program

CONSIDERATIONS FOR STATE LEADERS

- » Consider surveying program completers multiple times after program completion (e.g., one year, three years, five years or 10 years after completion).

⁵ Massachusetts Institute of Technology. (n.d.). *Living wage calculator*. <https://livingwage.mit.edu/>

⁶ Georgetown University Center on Education and the Workforce. (n.d.). *Good jobs project*. <https://cew.georgetown.edu/good-jobs-project/>



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Access & Equity

Career pathway inclusivity



DEFINITION

Option A: Number/percentage of learners in a given subgroup who achieve concentrator status in a CTE program of study in which learners in their subgroup are under-represented in the school program

Option B: Number/percentage of learners in a given subgroup who achieve concentrator status in a CTE program of study in which workers in their subgroup experience high segregation in the aligned field or occupation

CONSIDERATIONS FOR STATE LEADERS

- » This metric is closely aligned with the Perkins V non-traditional program concentration performance indicator but is expanded to include other subgroups such as race/ethnicity and disability status in addition to gender.
- » Set a minimum threshold for determining whether an industry or occupation has high occupational segregation.
- » Consider monitoring persistence and completion in programs with high occupational segregation as well.

Equitable persistence in high-wage, high-skill, in-demand career pathways

DEFINITION

Number/percentage of postsecondary learners who achieve CTE concentrator status in high-wage, high-skill, in-demand career pathways

CONSIDERATIONS FOR STATE LEADERS

- » For non-CTE learners, this measure is based on declared major, program of study, or completion of core courses within a program area.
- » This indicator should be disaggregated by all recommended subgroups.

Cumulative debt

DEFINITION

Median amount of debt learners incur over the course of the program

Occupational Segregation: The distribution of workers across industries and occupations in such a way that populations of workers are under- or over-represented based on demographic characteristics.⁷

⁷ Washington Center for Equitable Growth. (2017). *Fact sheet: Occupational segregation in the United States*. <https://equitablegrowth.org/fact-sheet-occupational-segregation-in-the-united-states/>



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Education Accumulation

CTE program concentration



DEFINITION

Number/percentage of learners who concentrate in a CTE program or program of study by completing 12 credits in a sequence or completing a CTE program of study that is fewer than 12 credits

CONSIDERATIONS FOR STATE LEADERS

- » Differentiate CTE concentrators in high-wage, high-skill or in-demand career pathways from those in unaligned career pathways.

CTE program completion



DEFINITION

Number/percentage of learners who complete a full sequence of courses in a state-approved CTE program of study

CONSIDERATIONS FOR STATE LEADERS

- » Consider differentially weighting or reporting data on programs that are in high-skill, high-wage, in-demand occupational areas.

Transfer efficiency



DEFINITION

Average number/percentage of transcribed postsecondary credits per incoming learner that transfer to the learner's postsecondary institution (from high school to postsecondary or two-year to four-year system)

CONSIDERATIONS FOR STATE LEADERS

- » Determine the time window of high school graduates, the minimum number of postsecondary credits upon entry into postsecondary, and which postsecondary systems are included.
- » Consider differentiating credits that count toward the learner's major or program of study versus elective credits.
- » Establish efficiency thresholds (e.g., a percentage of credits or all credits).

Credit for prior learning



DEFINITION

Number/percentage of learners who enter a for-credit postsecondary program with credit for prior learning including military service, work-based learning, work experience, industry-recognized credentials, non-credit program completion, and other prior non-credit experiences

CONSIDERATIONS FOR STATE LEADERS

- » If possible, report the total and average number of credits awarded for prior learning experiences.
- » Consider linking the "Credit for prior learning" metric with the "Transfer efficiency" metric.



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Skill Development

Employability skill development



DEFINITION

Number/percentage of learners who demonstrate employability skill proficiency through skill assessments, portfolios or other measures

CONSIDERATIONS FOR STATE LEADERS

- » Employability skills such as communication, growth mindset, collaboration and self-regulation are difficult to measure consistently and will likely depend on local data collection.
- » Employability skill development should also measure the learner's cultural competency and readiness to work on diverse teams.

Gateway course completion



DEFINITION

Number/percentage of learners successfully completing credit-bearing coursework aligned to their program of study in their first year

CONSIDERATIONS FOR STATE LEADERS

- » Consider measuring both academic gateway courses (mathematics, English, etc.) and foundational courses in the learner's program of study.
- » Gateway course attainment should vary by learner depending on their declared major or program of study.

Technical skill proficiency



DEFINITION

Number/percentage of learners meeting a state-determined measure of attainment of technical skills that is aligned to industry standards where available and appropriate

CONSIDERATIONS FOR STATE LEADERS

- » Report the participation and passing rates if possible.
- » This metric will depend on whether the state has developed a system for assessing technical skill proficiency.
- » If third-party, employer-validated industry credentials are used to measure technical skill proficiency, use the "Credential attainment" metric instead.

Credential attainment



DEFINITION

Number/percentage of learners attaining a high-quality, industry-recognized postsecondary credential (i.e., industry-recognized certifications, educational certificates, licenses, registered apprenticeship), excluding postsecondary degrees

CONSIDERATIONS FOR STATE LEADERS

- » If possible, validate credential attainment data using administrative data from credentialing bodies.
- » Ensure that quality criteria are in use to identify credentials that have been validated by employers and are in demand and ensure that the quality criteria are applied consistently across ESSA, Perkins V and WIOA.
- » If possible, determine whether credentials are aligned to the learner's program of study.
- » If possible, use differentiated weights for credentials based on rigor, associated training requirements, etc.



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Skill Development

Measurable skill gain



DEFINITION

Number/percentage of learners who are achieving measurable skill gains, defined as documented academic, technical, occupational or other forms of progress, toward such a credential or employment

Adult basic skill attainment



DEFINITION

Number/percentage of learners who demonstrate basic skill attainment by earning a high school equivalency degree, completing an integrated education and training program or completing a similar program

Work-Based Learning

Youth apprenticeship, internship, or other sustained work-based learning activity



DEFINITION

Number/percentage of learners who complete work-based learning experiences that are tied to the learner's program/pathway and that consist of sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, first-hand engagement with the tasks required in a given career field, such as youth apprenticeship, apprenticeship, internship, co-op, work study, or other sustained work-based learning activities

CONSIDERATIONS FOR STATE LEADERS

- » If possible, collect data on compensation and course credits earned.
- » Determine how to validate the data and whether the employer role in the validation is defined.
- » If possible, report participation disaggregated by type of work-based learning experiences. Differentiate work-based learning experiences that are supervised by employers from those that are school based.
- » If possible, measure whether work-based learning experiences are related to the learner's program of study.
- » Decide whether to differentially weight or report data on various types of experiences (e.g., a youth apprenticeship counts more than a mentorship).
- » Ensure that measures are in place to assess the quality of the experience and skills acquired by the learner.



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Transition Readiness

Ongoing and aligned academic and career guidance



DEFINITION

Number/percentage of learners with regular, sustained advising with a counselor, mentor or adviser

CONSIDERATIONS FOR STATE LEADERS

- » Ensure that measures are in place to monitor fidelity of implementation at the local level.
- » Consider measuring the frequency of engagement, type of engagement, and use of tools (such as aptitude assessments) to support guidance efforts.

Placement into a credit-bearing program of study

DEFINITION

Number/percentage of learners in a for-credit postsecondary program who have identified a major or program within six months or one year of enrolling in the postsecondary institution

CONSIDERATIONS FOR STATE LEADERS

- » The program of study could be a CTE program, degree major or credential program aligned to a subject area or field of study.
- » The research is inconclusive for this metric, but learners should have time to explore potential careers. States and/or institutions may decide when a major/program should be declared.

Time to postsecondary degree or credential



DEFINITION

Number/percentage of learners who complete their program within 150 percent of the expected time for completion (e.g., within three years for learners seeking an associate degree or six years for learners seeking a baccalaureate degree) or who complete a non-degree credential within 150 percent of the expected time for completion (e.g., within 1.5 years for learners in a one-year certificate program)

CONSIDERATIONS FOR STATE LEADERS

- » Determine what constitutes “expected time” for different types of learners when setting thresholds (e.g., part-time learners).

Postsecondary degree attainment



DEFINITION

Number/percentage of learners leaving postsecondary education having attained an associate or baccalaureate degree

Postsecondary retention/persistence



DEFINITION

Number/percentage of learners who remain in postsecondary education

CONSIDERATIONS FOR STATE LEADERS

- » Decide whether to include enrollment in out-of-state institutions, private colleges, two-year institutions, four-year institutions and/or certificate programs.
- » Determine the time frame for reporting (e.g., retention one year out, two years out).
- » Decide whether to disaggregate by or differentiate weights for learners who continue in the same field as their program of study.



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Learner Agency & Belonging

Co-curricular organization participation



DEFINITION

Number/percentage of learners who demonstrate leadership by participating in a co-curricular activity, such as a CTSO, student government or a service-learning project

CONSIDERATIONS FOR STATE LEADERS

- » Decide whether/how to measure beyond participation, whether aligned to a program of study, and/or the number of years a learner participated.

Learner self-efficacy



DEFINITION

Number/percentage of learners who believe they can master hard work and value what they are learning

CONSIDERATIONS FOR STATE LEADERS

- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.

Learner belonging

DEFINITION

Number/percentage of learners who say they feel welcome in their institution and/or classroom

CONSIDERATIONS FOR STATE LEADERS

- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.

Occupational identity



DEFINITION

Number/percentage of learners who know what they want to do and how to get there

CONSIDERATIONS FOR STATE LEADERS

- » Determine the frequency of survey administration.
- » This metric should be measured locally using learner surveys but will be difficult to measure consistently statewide.



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Post-Program Outcomes

Placement into further education/a for-credit postsecondary program



DEFINITION

Number/percentage of program completers who enrolled in a credit-bearing postsecondary degree program

CONSIDERATIONS FOR STATE LEADERS

- » For completers of non-credit postsecondary programs, measure the number/percentage of learners who are placed into postsecondary for-credit programs with credit.
- » Decide whether to include enrollment in out-of-state institutions, private colleges, two-year institutions, four-year institutions and/or certificate programs.
- » Consider whether to disaggregate by or differentiate weights for enrollment in the same program of study.
- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).
- » Disaggregate data by award level and institution, including certificate, associate or baccalaureate degree.

Placement into advanced training



DEFINITION

Number/percentage of learners who left postsecondary education and were placed in advanced training

CONSIDERATIONS FOR STATE LEADERS

- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).

Placement into the military



DEFINITION

Number/percentage of learners who left postsecondary education and entered the military

CONSIDERATIONS FOR STATE LEADERS

- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).

Placement into national community service



DEFINITION

Number/percentage of learners who left postsecondary education and entered a national community service program

CONSIDERATIONS FOR STATE LEADERS

- » Service programs can include those that receive assistance under Title I of the National and Community Service Act of 1990 and the Peace Corps.
- » Determine the time frame for reporting (in Perkins V, the time frame is six months after program completion, but it might be relevant to count this at the six-month, one-year and two-year marks).

POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Post-Program Outcomes

Placement into a good job



DEFINITION

Number/percentage of learners who left postsecondary education and were employed in a job with a livable wage

CONSIDERATIONS FOR STATE LEADERS

- » Consider coupling the “Post-program wages” metric with the placement metric as a proxy for economic mobility.
- » Defining a “good job” should be contextualized with the state or region. Consider using the MIT living wage calculator⁸ or Georgetown’s “good job” threshold.⁹
- » Consider whether job placement is in the same field as the learner’s program of study.
- » Determine how to treat sectors/occupations outside of traditional sectors and lists (e.g., gig economy, agriculture, self-employment).
- » Determine whether to differentially weight/report employment data on high-skill, high-wage, or in-demand sectors or occupations.
- » Evaluate whether employment is sustained (e.g., whether the learner is still employed one year, three years, five years or 10 years after program completion).

Post-program wages



DEFINITION

Median earnings of participants who are in unsubsidized employment during the second quarter after exit from a postsecondary program

CONSIDERATIONS FOR STATE LEADERS

- » Disaggregate by all program participants versus program completers to assess the relationship between program completion and wages.
- » Decide how often to report outcomes data (e.g., one-year, five-year, 10-year marks).
- » Use an Unemployment Insurance wage record match, federal or military employment records or supplemental wage information to calculate this metric.

Post-program wage premium

DEFINITION

Average change in wages six months before program entry and six months after program exit

CONSIDERATIONS FOR STATE LEADERS

- » Decide how frequently to report outcomes data (e.g., one-year, five-year, 10-year marks).
- » Use an Unemployment Insurance wage record match, federal or military employment records or supplemental wage information to calculate this metric.

⁸ Massachusetts Institute of Technology. (n.d.). *Living wage calculator*. <https://livingwage.mit.edu/>

⁹ Georgetown University Center on Education and the Workforce. (n.d.). *Good jobs project*. <https://cew.georgetown.edu/good-jobs-project/>



POSTSECONDARY

DELIVERY SYSTEM: Two-year public/private colleges, four-year public/private colleges and universities, area technical centers, WIOA-eligible training providers, employer-based training programs, adult education service providers

Post-Program Outcomes

Career advancement



DEFINITION

Number/percentage of learners who within one year, three years, five years or 10 years after program completion attain higher-skilled and higher-wage employment compared to employment held immediately after program completion

CONSIDERATIONS FOR STATE LEADERS

- » Differentiate by program and credential type to illuminate outcomes for degree attainment compared to short-term programs.

Continuing education



DEFINITION

Number/percentage of program completers who go on to earn a credential one year, three years, five years or 10 years after program completion

CONSIDERATIONS FOR STATE LEADERS

- » Consider disaggregating by delivery system.

Satisfaction with career



DEFINITION

Number/percentage of program completers who say they are satisfied with their career after completing their career pathway program

CONSIDERATIONS FOR STATE LEADERS

- » Consider surveying program completers multiple times after program completion (e.g., one year, three years, five years or 10 years after completion).