Career Readiness Data Quality and Use

Policy Benchmark Tool

Data is a powerful tool that state leaders can use to improve the quality of career readiness opportunities for youth and adult learners, demystifying a complex education and workforce system and equipping learners to make informed decisions about their education and career goals.

Armed with accurate, timely and disaggregated data, state leaders can also investigate barriers to access and take action to ensure equity, access and success for historically marginalized learners. Yet many states lack the robust, inter-connected data infrastructure to make these actions possible. And even states with strong data systems have issues with making the data accessible to those who need it and building capacity to use data effectively at the state and local levels.

This tool is designed to assist state leaders in strengthening the quality and use of their career readiness data and provide a roadmap for state leaders to identify strengths and challenges so they can build a plan of action. It takes a comprehensive approach to improving career readiness data quality, one that considers the full **career readiness data ecosystem** – the broad universe of policies, technology, people and processes that facilitate the collection, analysis, reporting and use of data to support learners along their career pathways.

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Key Terms

Career Readiness Data Ecosystem: The broad universe of policies, technology, people and processes that facilitate the collection, analysis, reporting and use of data to support learners along their career pathways.

Career Pathway: A progressive sequence of educational experiences that is aligned to a high-skill, high-wage, in-demand occupation; reinforces academic learning with related work-based learning experiences; and culminates in a recognized postsecondary credential of value.

ADVANCE CTE ESG Education Strategy Group

While it is inclusive of Career Technical Education (CTE) data collection and reporting through the Strengthening Career and Technical Education for the 21st Century Act (Perkins V), the tool is broad in scope and brings together the universe of career readiness data across education levels.

The two axes of success that serve as the vision for this tool are quality and equity. A high-quality career readiness data ecosystem enables learners to access high-quality career pathways that allow for successful and equitable transition into high-skill, high-wage and in-demand careers. This idea is illustrated by the theory of action outlined on the following page.

USING THIS TOOL

This policy benchmark tool is meant to serve as a comprehensive resource to help state leaders at the secondary and postsecondary levels assess current policy and practice and build a strategy for improving the quality and effective use of their career readiness data. As such, it is geared toward a range of users at various stages of expertise and implementation. This tool will allow users to:

- Understand and document the state of their career readiness data ecosystem;
- Leverage a framework for improving the state career readiness data ecosystem;
- Articulate a clear vision for the effective collection and use of career readiness data;
- Identify strengths and areas for improvement within their state career readiness data ecosystem; and
- Create a plan of action to improve the quality and effective use of career readiness data in their states.

Some users may find skipping to sections – such as the needs assessment in Section 2 – to find the information that is most relevant for their work. Others may want to start at the beginning and work their way through section by section. The sections of the tool are organized as follows:

Section 1: Core Elements of a High-Quality Career Readiness Data Ecosystem

Section 2: State- or System-Level Needs Assessment

Section 3: Levers of Systems Change

Section 4: Career Readiness Data Action Plan

OUR THANKS

This tool is the result of nearly a year of thought partnership and collaboration from a Shared Solutions Workgroup of national and state data experts. It was developed with support from JPMorgan Chase & Co., through the *New Skills ready network*, and from ECMC Foundation, through the Advancing Postsecondary CTE Data Quality Initiative.

Go Online!

Fill out your forms online and get an autopopulated, color-coded heatmap and access a resource repository. Use the microsite to also leverage best practices across states. We recommend that you create an online account, which will allow you to return to and edit your forms if you wish to complete them in more than one sitting. (You may use the site without an account, but will not have access to all of the site's capabilities.)

dataquality.careertech.org

Theory of Action

IF state leaders strengthen policy, technology, people and processes such that:

1. Data is collected consistently and accurately
2. Processes and protocols are in place to ensure effective data governance
3. Data systems, policies and practices are fully aligned across agencies and learner levels
4. Information is relevant, timely and disaggregated
5. Practitioners and the public are equipped to understand and leverage data
6. Information is used effectively to promote quality and equity in career pathways

THEN

Learners and families • will be equipped to make informed decisions to achieve their academic and career goals • will have access to more coordinated programs and support services • will understand the value and impact of career pathways	**RESULTING IN:** • Increased and equitable participation in high-skill, high-wage and in-demand career pathways • Clearer transitions from K-12 to postsecondary education and the workforce • More support for investing in career pathways
Employers • will be able to more effectively understand the talent pipeline in their given industry and community • will be able to connect and partner with schools and institutions to offer programs leading to employment in their industry	**RESULTING IN:** • A stronger and more diverse talent pool across all priority industries • A higher workforce participation rate and reduced skills gap
Local leaders and practitioners • will be able to identify and prioritize opportunity gaps • will be equipped to enact targeted interventions to support each learner	**RESULTING IN:** • Increased and equitable enrollment and persistence in and completion of high-quality, industry-aligned career pathways • Increased and equitable attainment of credentials of value and completion of high-quality work-based learning experiences
Policymakers and state leaders • will be able to enact and implement data-informed policies • will be able to confidently make high-stakes decisions related to program approval, funding and accountability	**RESULTING IN:** • More impactful policymaking and improved quality of service for constituents • Increased return on investment for taxpayers
Researchers • will be able to access accurate, learner-level data that is comparable across education levels and conduct meaningful evaluations	**RESULTING IN:** • A richer body of research from which to inform policy and practice

Core Elements

of a High-Quality Career Readiness Data Ecosystem

Section 1

This section identifies and describes six core elements of a high-quality career readiness data ecosystem, highlighting recommended actions state leaders can take to improve the quality and effective use of career readiness data across education levels. The core elements include sub-elements, which further describe the dimensions of effective policy and practice within each element. Each core element and sub-element is informed by research and input from an expert workgroup.

Key Terms

Core Elements: Describe at a high level the policies and practices that enable a high-quality career readiness data ecosystem.

Sub-Elements: Detail the components of effective policy and practice within each core element.

1. Data is collected consistently and accurately

A. Data is reliable and collected consistently around the state, across different career pathway programs and across institutions.

B. Processes and protocols are in place to validate career readiness data.

C. Stakeholders are aware of what the data represents, how it will be used and its limitations.

2. Processes and protocols are in place to ensure effective data governance

A. Roles and responsibilities for collecting, validating and reporting data are clearly laid out in statute and/or policy.

B. Decisions related to the collection and use of career readiness data are coordinated across agencies and responsive to stakeholder needs.

C. State agencies are sufficiently staffed and funded, and structures are in place to withstand personnel and political transitions.

D. Measures are in place to protect the privacy of learner records.

3. Data systems, policies and practices are fully aligned across agencies and learner levels

A. Learner-level records are reliably linked across agencies and among states, as appropriate.

B. The collection and reporting of career readiness data are coordinated and, to the extent possible, aligned across programs, agencies and learner levels.

C. State agencies use common indicators and business rules for measuring career readiness and align their goals and performance targets.

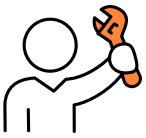
4. Information is relevant, timely and disaggregated

A. All information is contextualized to provide a clear understanding of the career readiness system.

B. Reports and dashboards are differentiated by user depending on their need and understanding of the data.

C. Information is made available in a timely manner.

D. Data is disaggregated by population, institution and career pathway and available to relevant users.



5. Practitioners and the public are equipped to understand and leverage data

A. Public reports are accessible and easy to understand.

B. Professional development and technical assistance are provided to practitioners to build data literacy and help them leverage the data.

C. A statewide career readiness communications strategy is in place that leverages career readiness indicators to tell a story of impact.

6. Information is used effectively to promote quality and equity in career pathways

A. Career pathway approval and renewal processes are data driven.

B. State- and local-level decisionmakers regularly reflect and act upon data to inform policy and improve equity, access and quality.

C. State and local leaders regularly identify and respond to opportunity gaps by race/ethnicity, gender and special population status to ensure equitable access to and success in career pathways.

D. Local practitioners have access to real-time data that they use to target interventions.

Each of the core elements work in concert to facilitate a cohesive career readiness data ecosystem. These elements foster a data-driven culture by equipping the relevant people with actionable information that allows them to make data-informed decisions. The table on page 3 illustrates a theory of change for these policies and practices.

State- or System-Level

Needs Assessment

Section 2

This needs assessment can be used to evaluate policy and practice at the state or system level. It breaks down the core elements of a high-quality career readiness data ecosystem into multiple sections and illustrates what both undefined and established practice look like.

To complete the needs assessment:

• Read through the criteria for each sub-element. Note that criteria are provided only for the low end (1 – Undefined) and high end (4 – Established) of the rubric, though it is expected that states may fall somewhere in between.

• Choose a rating from 1 to 4 that best describes where the state falls on the criteria for that sub-element. For example, if the state scores a 4 on most of the criteria and 1 on some of the criteria, then it might make sense to choose a 3 for the overall score for that sub-element.

• Add any additional evidence to describe why you selected this score.

• At the end of each section, pick a summative score for the core element (this could be based on your overall assessment of the core element or an average of the scores for each sub-element).

RATINGS DEFINITIONS

1 **Undefined:** This component is not yet defined or is just beginning to emerge; current state policy meets most of the criteria listed under 1.

2 **Building:** This component has some bright spots, but there are still many improvements to be made; it meets some of the criteria under 1, but key considerations allow for more optimism.

3 **Promising:** This component is fairly well developed, though there are still some improvements to be made; it meets some but not most of the criteria under 4 and is considered to be more developed than a 2.

4 **Established:** This component is extremely well developed and effective, even if there are still minor adjustments to be made; it meets most or all of the criteria listed under 4.

Also note that, while the needs assessment sets a benchmark for a high-quality career readiness data ecosystem, states can take different approaches to reach the outcomes described in the theory of action. The needs assessment is not meant to be prescriptive but rather to provide a benchmark, based on consensus from experts, you can use to assess your state's progress and identify opportunities for further action. The tool can be applied to the career readiness data ecosystem as a whole – spanning K-12, postsecondary and workforce data – or with a particular focus on one education sector.

1. Data is collected consistently and accurately

For data to be trusted, policies and protocols must be in place to ensure the consistent collection of reliable, valid and complete career readiness data. If the data is accurate and complete and if stakeholders understand what the data represents and how it will be used, public trust in the data will grow.

1A Data is reliable and collected consistently around the state, across different career pathway programs and across institutions.

Criteria for Rating 1 (Undefined)

- There are limited to no uniform definitions or business rules for collecting career readiness data.
- Career pathway participants and concentrators are identified manually at the local level and reported up to the state.
- There is limited to no statewide guidance for collecting, validating and submitting data.
- There are limited to no trainings provided to local data administrators on collecting and validating data.
- Spreadsheets are used to collect and report data to the state.

Criteria for Rating 4 (Established)

- Statewide definitions and business rules are in place to describe all data elements. Business rules are changed only to improve them or align them to new legislation or policy, and data is collected consistently and in the same format across the state.
- Designations such as career pathway "participants," "concentrators" and "completers" are made using automated data processes.
- Statewide guidelines clearly and effectively describe processes for collecting, validating and submitting data elements.
- Local data administrators have regular, sufficient and timely training (at least once a year) to ensure a full understanding of data rules, policies and technology.
- Local data administrators submit data directly to the state data system using a secure, web-based portal.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

1B Processes and protocols are in place to validate career readiness data.

Criteria for Rating 1 (Undefined)

• There are limited to no processes in place to validate data at the state level.

• Once local practitioners and data administrators submit their data to the state, they do not see the data again until it is reported.

• State-led audits of career readiness data are limited in scope and reach.

Criteria for Rating 4 (Established)

• Automated data validation protocols are in place to flag inconsistencies and/or errors in the data at the point of submission.

• State data staff validate submissions using previous years' data in addition to administrative records from partner agencies and/or vendor files.

• Local practitioners and data administrators are given the opportunity to review and validate data by program and by institution before it is reported publicly.

• State data staff conduct annual audits to review and validate locally submitted data. Audits are based on an initial risk assessment and cover between 5 percent and 25 percent of local institutions, depending on the size of the state.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

1C Stakeholders are aware of what the data represents, how it will be used and its limitations.

Criteria for Rating 1 (Undefined)

- Information on business rules, definitions and protocols for collecting data is difficult to find or not publicly available.
- Limited to no explanation is provided when data is incomplete.
- Data collection is just "something we have to do to be compliant," and stakeholders do not understand how data will be used.
- There is limited to no transparency about the process for changing data elements or collection processes, leading to confusion and multiple demands from different stakeholders.

Criteria for Rating 4 (Established)

- Business rules and definitions for career readiness data elements, along with processes and protocols for collecting and validating data, are available to the public, including online.
- The state describes when data is incomplete.
- Stakeholders understand how the data will be used, the limitations of the data, and why data is important and relevant to them.
- State leaders, state staff and policymakers understand processes for making changes to data collections and publicly share clear and transparent expectations for what it takes to make said changes.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

YOUR OVERALL RATING FOR CORE ELEMENT 1 1 2 3 4

2. Processes and protocols are in place to ensure effective data governance

An effective career readiness data ecosystem has a clear governance structure in place that designates roles and responsibilities for collecting, validating and reporting career readiness data as well as for setting a strategic vision for the publication and use of data. Capacity is deployed to ensure that data is high quality and that learner records are protected, and measures are taken to prevent disruption in the inevitable event of personnel or political transition.

2A Roles and responsibilities for collecting, validating and reporting data are clearly laid out in statute and/or policy.

Criteria for Rating 1 (Undefined)

- Responsibilities for collecting, validating and reporting career readiness data at the state level are not designated in state policy.
- There is a lack of clarity about who is accountable for different data collection, analysis and reporting responsibilities, leading to duplication of effort and bureaucratic inefficiency.
- Inter-agency data sharing agreements are ad hoc, time limited and narrow in scope.
- Data is understood only within the narrow context of the agency that collects it.

Criteria for Rating 4 (Established)

- Responsibilities for collecting, validating and reporting career readiness data at the state level are designated in state policy.
- Inter-agency memoranda of understanding outline roles, processes and timelines across agencies for sharing and linking data, issuing reports, identifying research questions and more.
- Data sharing agreements do not have a sunset date and are revisited for quality, efficiency and effectiveness every three years or when leadership changes.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

2B Decisions related to the collection and use of career readiness data are coordinated across agencies and responsive to stakeholder needs.

Criteria for Rating 1 (Undefined)

• CTE is not involved in decisionmaking related to statewide education and workforce data.

• There are limited to no feedback loops in place for stakeholders to inform processes, uses of data and the state's research agenda.

Criteria for Rating 4 (Established)

• Representatives from the secondary and postsecondary state CTE offices have a formal advisory role in decisions related to statewide education and workforce data (e.g., about the statewide longitudinal data system).

• Feedback loops are in place for stakeholders – such as practitioners and employers – to inform processes, uses of data and the state's research agenda.

• Researchers are regularly engaged to inform a comprehensive policy and research agenda.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

2C State agencies are sufficiently staffed and funded, and structures are in place to withstand personnel and political transitions.

Criteria for Rating 1 (Undefined)

- Funding for state data capacity is limited and/or fluctuates from year to year.
- The state is insufficiently staffed and/or staff are insufficiently trained to support the collection, analysis and reporting of career readiness data.
- There is a high level of turnover among state data staff, and there are limited to no processes in place to provide for knowledge management and sustainability.

Criteria for Rating 4 (Established)

- There is a consistent state funding stream to support and sustain data systems and personnel.
- The state is adequately staffed with a breadth of expertise related to career readiness data, including information technology staff, data analysts, research staff and program support staff.
- Processes, protocols and decisions are well documented to preserve knowledge through periods of turnover and transition.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

2D Measures are in place to protect the privacy of learner records.

Criteria for Rating 1 (Undefined)

• State data staff receive limited to no training on data privacy and security protocols.

• There is limited to no clarity on how permissions should be structured, allowing some users to access unmasked learner-level data they do not have authority to see.

• Permissions are rarely updated, allowing state staff and local practitioners to continue to access learner-level data once they have left their positions.

• Limited to no training is provided on handling small cell size data.

Criteria for Rating 4 (Established)

• State data staff are trained upon hire and then annually thereafter on data privacy, including legal requirements and protocols for protecting learner records.

• Clear standards and procedures are in place to ensure data security and learner privacy, including guidance for differentiating permission levels by user type.

• Permissions are automatically updated to reflect personnel changes at the state and local levels and are audited annually to ensure that only current staff and relevant stakeholders can access learner records.

• State and local staff are provided training on how to work with small cell size data, and measures are taken (e.g., averaging data over multiple years) to allow users to access disaggregated data.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

YOUR OVERALL RATING FOR CORE ELEMENT 2 1 2 3 4

3. Data systems, policies and practices are fully aligned across agencies and learner levels.

Silos between and within state-level agencies are broken down, resulting in career readiness indicators and definitions that are aligned and uniform across the state. Additionally, processes and protocols are streamlined to ensure that learner-level records are fully interoperable across data systems and that data collection and reporting cycles are, to the extent possible, synchronized.

3A Learner-level records are reliably linked across agencies and across states, as appropriate.

Criteria for Rating 1 (Undefined)

- The state is unable to link learner-level records across education levels, relying on self-reported student surveys for accountability purposes.
- The state is unable to link learner-level records across other federal or state social service programs.
- The state is unable to link learner-level records with administrative labor and employment data, relying on self-reported student surveys for accountability purposes.
- K-12, postsecondary and/or workforce/labor data systems use different unique identifiers.
- Each state agency operates its own data system, and these systems are not interoperable.
- The state cannot track learners if they cross state lines to work or attend a postsecondary institution.
- Researchers have limited to no access to career readiness data.

Criteria for Rating 4 (Established)

- Learner-level records are linked across all education levels, including early childhood education, K-12 education, two-year postsecondary institutions, four-year postsecondary institutions, adult education, non-credit workforce training programs, and state systems such as corrections and foster care.
- Learner-level records are linked across all federal and state social service programs, including TANF, SNAP and Medicaid.
- Learner-level records are linked with administrative labor and employment data, including unemployment insurance, military participation databases, national community service databases, and national industry certification and licensure databases.
- The state uses a common unique identifier across the P20W system.
- Matching protocols are in place to accurately link learner-level records, resulting in at least a 90 percent match rate.
- Data systems are fully interoperable such that learner records are automatically updated across state-level data systems.
- Inter-state data sharing agreements (e.g., SWIS) are in place that allow the state to monitor career pathway participation and outcomes within the regional economic or commuting area.
- Researchers have access to validated, appropriately labeled and matched datasets.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

3B The collection and reporting of career readiness data are coordinated and, to the extent possible, aligned across programs, agencies and learner levels.

Criteria for Rating 1 (Undefined)

- K-12, postsecondary, workforce and labor agencies operate in silos with limited to no coordination for data collection or reporting.
- Career readiness indicators are not included in relevant reports across programs, agencies and learner levels.

Criteria for Rating 4 (Established)

- Data collection and reporting cycles are aligned across the K-12, postsecondary, workforce and labor systems.
- Data collection protocols are regularly examined and updated to minimize duplication of effort.
- Career readiness indicators are included in relevant reports across programs, agencies and education levels (e.g., in school report cards or college score cards).

YOUR EVIDENCE

YOUR RATING 1 2 3 4

3C State agencies use common indicators and business rules for measuring career readiness and align their goals and performance targets.

Criteria for Rating 1 (Undefined)

• Definitions, business rules and indicators of career readiness vary across agencies and education levels.

• There is limited to no alignment of career readiness performance targets between ESSA and Perkins at the secondary level or among WIOA, Perkins and other attainment goals at the postsecondary level.

• Stakeholders, agencies and sectors do not have an aligned vision for career readiness. If there is a statewide career readiness goal, it is disconnected from the visions or goals set by individual agencies.

Criteria for Rating 4 (Established)

• Common definitions, business rules and indicators of career readiness are used across agencies and education levels.

• Career readiness performance targets are coordinated across ESSA and Perkins at the secondary level and WIOA and Perkins at the postsecondary level. Performance targets are also aligned with and support any statewide postsecondary attainment goals.

• State agencies have a common statewide vision for career readiness and learner success across education levels that is anchored by a shared statewide career readiness goal.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

YOUR OVERALL RATING FOR CORE ELEMENT 3 1 2 3 4

4. Information is relevant, timely and disaggregated.

Data collection and reporting processes address the needs of practitioners, policymakers, researchers and the public, ensuring that stakeholders have access to the information they need when they need it. All data is contextualized and differentiated by audience, allowing for a nuanced understanding of the career readiness system.

4A All information is contextualized to provide a clear understanding of the career readiness system.

Criteria for Rating 1 (Undefined)

- Historical data is not made available in public reporting or practitioner dashboards.
- The state reports enrollment and outcomes only for Perkins-funded – not other state-funded – career pathways.
- The data that is collected and reported statewide is driven only by federal accountability requirements.
- Placement data for program completers is aggregated, making differentiating outcomes for various groups of completers impossible.
- Practitioners have limited to no information about enrollment and outcomes for learners outside of their education sector.
- Limited to no information is made available to the public regarding the educational and industry credentials available to learners in the state and the competencies, costs, career pathways and outcomes associated with those credentials.

Criteria for Rating 4 (Established)

- Reports and data systems provide at least five years' worth of data to provide historical context, as appropriate. Any changes to data elements as a result of changes to policy, assessments or accountability systems are clearly documented.
- Data collection includes the entire career readiness system, not only Perkins-funded programs.
- State performance indicators are aligned to the state's vision for career readiness and not driven only by federal accountability.
- Publicly reported placement data for program completers is disaggregated by outcome (e.g., two- or four-year postsecondary enrollment, the workforce, the military).
- Practitioners can access insights from across the career pathway continuum (e.g., K-12, postsecondary, workforce) to both understand the outcomes of former learners and anticipate the needs of future learners.
- All educational and industry credentials and their associated competencies, costs, career pathways and employment outcomes are made available to the public.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

4B Reports and dashboards are differentiated by user depending on their need and understanding of the data.

Criteria for Rating 1 (Undefined)

• Reports and dashboards provided by the state do not address the questions or needs of local stakeholders and practitioners.

• Data that is shared with practitioners is masked, only allowing them to see aggregated data.

• Dashboards and reports are not interactive.

Criteria for Rating 4 (Established)

• The state has stakeholder engagement routines in place to understand the questions of different user groups and develop reports that respond to their needs.

• Practitioners are able to access unmasked enrollment and performance data, as appropriate.

• Feedback reports are shared with practitioners at least once a year to provide information on learner outcomes one year, three years, five years and 10 years after completion.

• Dashboards allow for customization based on users' needs/ sophistication.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

4C Information is made available in a timely manner.

Criteria for Rating 1 (Undefined)

- Practitioners cannot access data or can access data only after it is too late to make instructional or programmatic interventions.
- Data collection cycles often lead to lags in data reporting.
- Reports and dashboards are not updated regularly or consistently.
- The process for collecting and reporting new data elements is inefficient and slow.

Criteria for Rating 4 (Established)

- Practitioners have access to real-time course enrollment, course completion, assessment, work-based learning and credential attainment data to enact just-in-time interventions to support learner success.
- Data collection cycles allow for timely reporting for federally or state-mandated reports as well as practitioner dashboards and public reports.
- Reports and dashboards are updated at least once a year and in a consistent fashion.
- New data elements can be added to existing data collection and reporting, with reasonable delays, to address evolving data needs.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

4D Data is disaggregated by population, institution and career pathway and available to relevant users.

Criteria for Rating 1 (Undefined)

- Data cannot be disaggregated by major racial/ethnic groups, gender and special population status.
- Data cannot be disaggregated by school, district, college, technical center, etc.
- Data cannot be disaggregated at the Career Cluster® and career pathway levels.

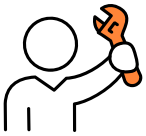
Criteria for Rating 4 (Established)

- Data is disaggregated by major racial/ethnic groups, gender and special population status. When possible, data can be disaggregated by multiple identities (e.g., gender and race/ethnicity) to identify intersectional outcomes.
- Data is disaggregated by school, district, college, technical center, etc.
- Data is disaggregated at the Career Cluster and career pathway levels.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

YOUR OVERALL RATING FOR CORE ELEMENT 4 1 2 3 4



5. Practitioners and the public are equipped to understand and leverage data.

In a high-quality career readiness data ecosystem, data is not reported for data's sake but rather to foster understanding and value and to spur users to action. Meeting these goals requires a thoughtful approach to designing and presenting career readiness data and a robust system of professional development, technical assistance and supports to ensure that practitioners understand how to use the data. Additionally, data elements are integrated into the state's communications strategy to tell a career readiness story.

5A Public reports are accessible and easy to understand.

Criteria for Rating 1 (Undefined)

- Reports and dashboards are complex and use jargon.
- Reports and dashboards rely on number-heavy tables instead of charts and visualizations to communicate data.
- Reports and dashboards are available only in English.
- It is difficult for users to find information on the methodology, business rules and explanation of data elements provided on public reports.
- Reports and dashboards are not 508 compliant.
- There are limited to no internal processes to ensure that reports and data publications are developed consistently over time and across schools, districts, colleges, technical centers, etc.

Criteria for Rating 4 (Established)

- Reports and dashboards are written at no higher than an eighth-grade reading level and avoid jargon, to the extent practicable. Reports use clear and concise descriptions to help people understand the data.
- Reports and dashboards leverage data visualization best practices to help users understand the data.
- Reports and dashboards are available in multiple languages and formats, as appropriate within the context of the community served.
- Links to the methodology, business rules and explanations of data elements are provided on public reports.
- Reports are 508 compliant.
- Internal processes are in place to guide reports and data publications to ensure consistency.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

5B Professional development and technical assistance are provided to practitioners to build data literacy and help them leverage the data.

Criteria for Rating 1 (Undefined)

- The state does not have a professional development strategy to help practitioners understand and use career readiness data.
- There is no targeted engagement or support for local data administrators at the district, school and institution levels.
- The state has limited to no onboarding protocols in place for local data administrators.

Criteria for Rating 4 (Established)

- The state has a comprehensive professional development strategy in place to bolster data literacy among local practitioners (including CTE educators, advisers, faculty and administrators). The strategy includes a focus on understanding and leveraging career readiness data for continuous improvement and equity.
- The state has identified and regularly engages local data administrators at the district, school and institution levels, including through regular trainings and supports.
- The state has an onboarding protocol in place for local data administrators.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

5C A statewide career readiness communications strategy is in place that leverages career readiness indicators to tell a story of impact.

Criteria for Rating 1 (Undefined)

- The state provides limited to no training, tools, templates or guides to assist local practitioners in communicating their data to stakeholders.
- State staff do not regularly engage with stakeholders to help them understand the data and what it means.
- Career readiness data is not used to support the state's communications plan, if such a plan exists.
- The state does not regularly identify and leverage career readiness champions.
- The state does not identify or target communications to different audiences.

Criteria for Rating 4 (Established)

- The state provides trainings, tools, templates and guides to help local practitioners translate their data for stakeholders in their communities.
- State staff are deployed in the field to help stakeholders understand the data and what it means.
- Career readiness indicators are integrated into the state's communications plan and regularly shared across multiple platforms and media.
- Career readiness champions are equipped with relevant data to tell a nuanced story.
- The state differentiates assets and communication of data by target audience based on need and relevance.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

YOUR OVERALL RATING FOR CORE ELEMENT 5 1 2 3 4

6. Information is used effectively to promote quality and equity in career pathways.

Career readiness data is integrated into policymaking and decisionmaking processes to further a statewide career preparation system that is high quality and equitable.

6A Career pathway approval and renewal processes are data driven.

Criteria for Rating 1 (Undefined)

- There is no consistent process for reviewing and approving career pathways, or if such a process exists, it is not sufficiently data driven.
- No data-informed processes are in place to retool or phase out career pathways that are outdated, low quality or not serving learners equitably.
- There is no statewide, cross-sector process to identify credentials of value using labor market information.
- There are limited to no consistent statewide processes for mapping career pathways with priority industry sectors to evaluate labor market alignment.
- There are limited to no processes – or processes are underutilized – at the local level to examine labor market information and make decisions about developing, expanding, scaling or phasing out career pathways.

Criteria for Rating 4 (Established)

- The state has a clear process for reviewing and approving career pathways that draws on labor market information, learner enrollment data and outcomes data to determine whether career pathways meet quality thresholds.
- Processes are in place to retool or phase out, in a timely manner, career pathways that are outdated, low quality or not serving learners equitably.
- Robust processes exist to identify credentials of value, and these processes draw on labor market information to identify credentials tied to in-demand opportunities that offer high wages or the ability to stack to higher paying credentials. Processes are reviewed regularly, and approved credential lists are made available publicly.
- Program quality and labor market alignment are well defined and measurable. Appropriate crosswalks (e.g., CIP, SOC, SCED, O*NET) are developed to assist in determining whether programs are aligned to labor market needs.
- Processes are in place at the local level for leaders in the education, workforce and business communities to review data and make informed decisions about developing, expanding, scaling and phasing out career pathways (e.g., the Perkins V CLNA, WIOA sector partnerships).

YOUR EVIDENCE

YOUR RATING 1 2 3 4

6B State- and local-level decisionmakers regularly reflect and act upon data to inform policy and improve equity, access and quality.

Criteria for Rating 1 (Undefined)

• There are limited to no state processes for inter- and intra-agency teams to review and respond to patterns and insights in their career readiness data.

• Policymakers are not provided with or encouraged to use career readiness data to enact data-informed policy.

• State leaders do not use data to identify and address state policies that disproportionately affect access and success for learners based on race/ethnicity, gender and special population status.

Criteria for Rating 4 (Established)

• Inter- and intra-agency teams come together at least once a quarter at the state and local levels and review data to make or inform policy decisions.

• Policymakers are equipped with and regularly leverage career readiness data to enact data-informed policy. Data is made available to key policymakers at least once a year through formal reports.

• State and local leaders leverage data to identify and address policies that disproportionately affect access and success for learners based on race/ethnicity, gender and special population status.

• State and local leaders leverage data to enact policies to improve the quality of career pathways.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

6C State and local leaders regularly identify and respond to opportunity gaps by race/ethnicity, gender and special population status to ensure equitable access to and success in career pathways.

Criteria for Rating 1 (Undefined)

- Limited to no information is available to identify disparities by race/ethnicity, gender and special population status in the enrollment, success, completion and outcomes of learners in career pathways.
- Local practitioners rarely review opportunity gaps by race/ethnicity, gender and special population status to address disparities in access to and success in career pathways.
- No workshops or trainings are provided to help local practitioners identify opportunity gaps in their data and examine root causes.
- The state provides limited to no information about evidence-based practices for closing opportunity gaps for learners in career pathways.
- Accountability is leveraged only to comply with federal law, and the state does not intentionally or proactively target resources and supports to institutions with significant and persistent opportunity gaps.

Criteria for Rating 4 (Established)

- Automated feedback reports are available at the college, district, school and program levels to illustrate disparities by race/ethnicity, gender and special population status in the enrollment, success, completion and outcomes of learners in career pathways.
- Processes are in place at the local level to review equity and opportunity gaps by race/ethnicity, gender and special population status at least once a year and address disparities in access to and success in career pathways.
- Workshops and trainings are provided at least once a year to help local practitioners identify opportunity gaps in their data and examine root causes.
- The state identifies, evaluates and disseminates evidence-based practices to close opportunity gaps for learners in career pathways.
- Data is used to hold schools and institutions accountable for learner success; resources and supports are targeted to institutions with significant and persistent opportunity gaps.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

6D Local practitioners have access to real-time data that they use to target interventions.

Criteria for Rating 1 (Undefined)

• No early warning systems are in place at the school, college, district and technical center levels to identify learners who need additional support or intervention to be successful in their career pathway.

• Local practitioners do not regularly leverage their data to target integrated student supports to learners who are most in need.

• Limited to no training is provided to local leaders on how they can examine their data to identify early warning indicators.

Criteria for Rating 4 (Established)

• Early warning systems are used at the school, college, district and technical center levels to identify and support learners who need additional support or intervention to be successful in their career pathway.

• Integrated student supports are deployed in response to early warning indicators.

• Local leaders are trained on how to monitor early warning indicators that are predictive of future career pathways milestones such as credential attainment, work-based learning completion, and successful transition into high-wage employment.

YOUR EVIDENCE

YOUR RATING 1 2 3 4

YOUR OVERALL RATING FOR CORE ELEMENT 6 1 2 3 4

Levers of Systems Change

Section 3

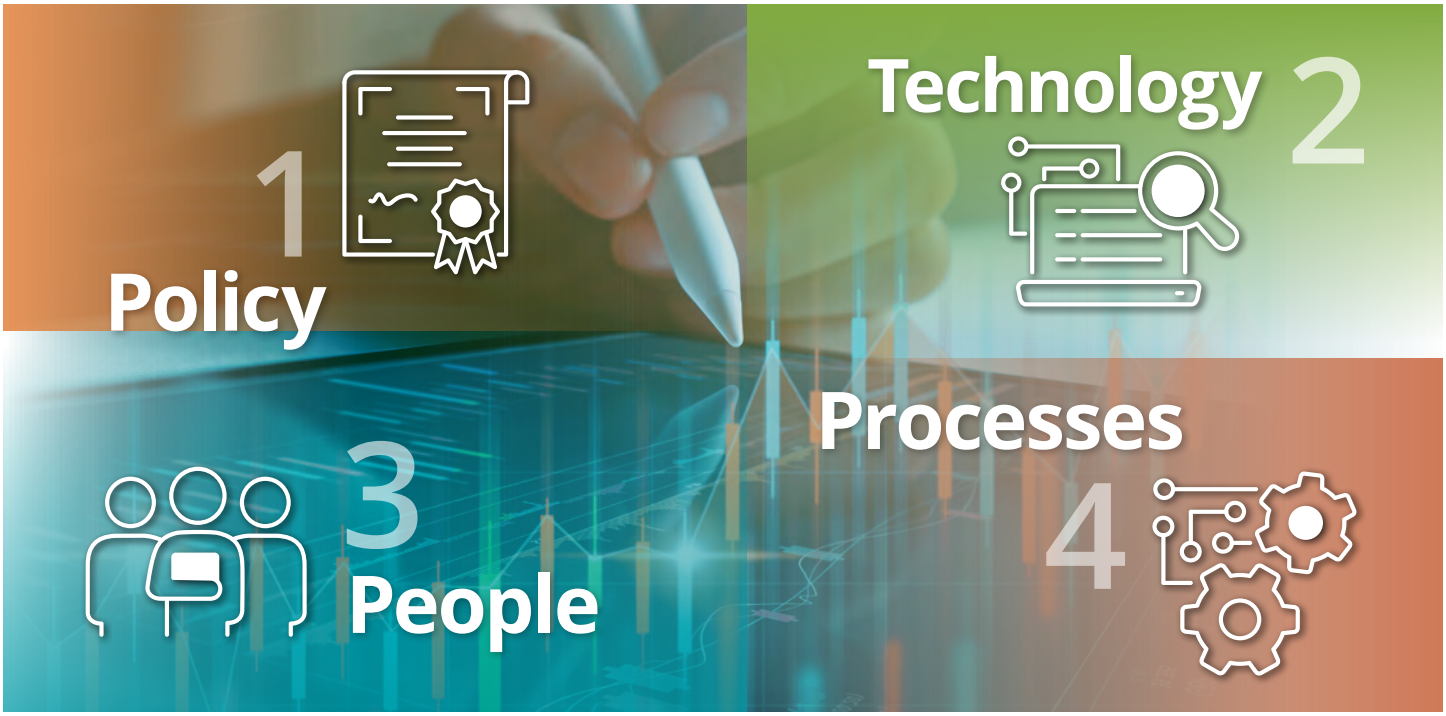
State leaders potentially have a number of tools in their toolbox to improve the quality and effective use of data. They can enact meaningful policy that addresses limitations in current statute or regulation. They can target funding and resources to build capacity through professional development or targeted investments in technology and infrastructure. And importantly, they can encourage a culture of data-driven decisionmaking among state and local partners.

While some of these options may be out of the control of state leaders, everyone can play a part in advancing data quality and effectiveness, and states can take a number of different approaches to proactively manage political, capacity or other limitations to achieve success.

This section describes the four key levers of systems change within the career readiness data ecosystem:

Policy • Technology • People • Processes

By focusing on these four levers, state leaders can begin to improve the quality of the career readiness data ecosystems in their states.



LEVER 1: POLICY

Policy is a foundational component of the ecosystem. It noy only creates the enabling environment for success, but it also sets the parameters within which the ecosystem must operate. State and federal policymakers establish the rules of engagement by making decisions about who can access and use data; who is accountable for collecting, analyzing and reporting data; and how that data must be used. Having a loose policy environment can create confusion and diffuse responsibility. Having a restrictive policy environment can tie the hands of practitioners and make using data effectively challenging for them. It is important for state policymakers to strike the right balance through legislation, executive actions and regulations to clarify roles and responsibilities, provide funding and resources to build capacity at the state level, and make certain that standard operating procedures are in place to ensure privacy and data security.

Examples of enabling policies in a high-quality career readiness data ecosystem include:

- State statute authorizing the development and governance of a statewide longitudinal data system for education and/or workforce data (data systems can be either centralized – meaning the data is connected and warehoused in a single agency or data system – or federated – meaning the data is stored in separate data systems but connected temporarily or on an ad-hoc basis);
- Budget line items that fully fund state data systems and personnel;
- Guidance for understanding and adhering to federal or state policy such as FERPA;
- Inter-agency data sharing agreements for the exchange of learner-level education, workforce and/or social services data;
- Inter-state data sharing agreements for the exchange of learner-level education, workforce and/or social services data;
- Data dictionaries and business rules;
- Policies and guidance requiring the use of common course and career pathway codes (e.g., SCED, CIP); and
- Policies and guidance requiring the use of unique learner identifiers.

LEVER 2: TECHNOLOGY

Technology is the other foundational piece of a high-quality career readiness ecosystem. To collect, access and use data effectively, states must have the right infrastructure in place. While all 50 states, the District of Columbia and Puerto Rico have the ability to connect data across sectors, only 16 states and the District of Columbia have a full P20W data system that can connect early learning, K-12, postsecondary and workforce data, effectively allowing states to track learners as they progress across their entire career pathway.[1]

Getting these pieces right is easier said than done. States have built up siloed data systems over decades to support sector-level activities and state or federal reporting requirements, and many are now working to retool these systems to meet cross-sector reporting and evaluation demands. Not to mention, myriad local student information systems may be in use at the district or college level, complicating data exchange between the local and state levels. These systems must be structured in such a way that they can be interoperable and can align data seamlessly to the state level.

Examples of enabling technology in a high-quality career readiness data ecosystem include:

- Centralized or federated statewide longitudinal or P20W data systems;
- Student information systems that are interoperable across local jurisdictions and between the local and state levels;
- Interactive public data dashboards;
- Early warning systems (systems that draw on available data to identify learners who are at risk of dropping out);
- Cloud-based data storage and security systems; and
- Automated data management protocols for auditing inconsistencies.

LEVER 3: PEOPLE

At every stage of the data process, from the initial data collection and submission to understanding and leveraging data in service of learner success, people make everything work (or not). State leaders must consider all of the individuals who support and/or are consumers of career readiness data and ensure that they are equipped to play their role effectively. Those who support data collection, processing and reporting at the local and state levels must have the proper training, time and resources to do their jobs accurately, reliably, and without risk to data security or learner privacy. These individuals include:

State data analysts or research staff: These individuals provide technical assistance and support, data analytics, professional development, public communications and more.

State information technology staff: State career readiness data offices can range in size from a few people to an entire team. These individuals have a wide range of responsibilities including database administration, technical assistance and support, professional development and more.

Practitioners: This group includes teachers, faculty, administrators, counselors, career advisers, and other local-level staff who affect or influence learners' experiences in their career pathways.

Local data administrators: These institution-based individuals are responsible for the administration of local data. In smaller and more remote districts and institutions, they may have other responsibilities aside from data collection and use.

Additionally, states must consider the end users of the data and target information, tools and training to help diverse audiences understand and make the most of the data. Each consumer has different expertise and needs. For example, researchers might be expected to have a high level of skill in interpreting and analyzing data, whereas learners and families might need the data to be simplified and contextualized in a way that is relevant and actionable to them. The best approach state leaders can take to supporting their data consumers is to identify their priority audiences and then build targeted communication, reporting and, if appropriate, training for each based on their needs.

Broadly, career readiness data consumers include:

Learners/families: Learners and families often use data to navigate college and career plans and to understand which career pathways are available and whether they lead to high-wage, in-demand occupations. Learners should also be able to access their own data.

Practitioners: This category includes teachers, faculty, administrators, counselors, career advisers, and other local-level staff who support career pathways. Depending on their role, these individuals can use data to improve instructional practice, align local programs with labor market needs, recruit learners into high-quality programs, or improve equitable access and success.

Employers: Career readiness data can help employers understand which career pathways are available in their community, how many learners are in the talent pipeline in their given industry, and what return on investment career pathways programs can provide.

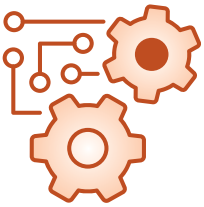
Policymakers: Policymakers at the state and local levels must be able to access reliable, timely data to make data-informed decisions.

The media/general public: Using data to tell a story of impact can help build awareness of and support for career pathways among the general public. This increased awareness and support among the general public can in turn result in greater support among state policymakers and bolster recruitment efforts across the state. This category of data consumers also includes advocates for special populations, including learners with disabilities, learners from economically disadvantaged families, under-represented learner groups, learners experiencing homelessness, English learners, etc.

Researchers: Through formal partnerships with state or local education agencies and institutions, researchers analyze the data to identify patterns and understand the impact of different career readiness programs and interventions.

States can influence and engage the individuals in the career readiness data ecosystem by providing robust, high-quality professional development and by coordinating stakeholder engagement activities. Professional development ensures that the individuals involved in collecting, validating, analyzing and reporting data understand best practices and are fully informed about statewide policies and expectations. A comprehensive professional development and training program can also help state and local institutions withstand staffing changes. Additionally, the best way that state leaders can ensure that their data systems are meeting the needs of consumers is through ongoing stakeholder engagement. Getting input early and often from key constituents ensures that decisions are thoughtful, responsive and actionable.

LEVER 4: PROCESSES



The last piece of the career readiness data ecosystem is the processes that ensure the integrity of the data and support its effective use. Effective data management means having clear standards and procedures for everything from the collection and processing of career readiness data to reporting and access. These processes should build upon the available technology and draw in relevant people at critical junctures to ensure that the career readiness data ecosystem is meeting the needs of its consumers.

Examples of high-quality processes in a career readiness data ecosystem include:

- Data collection cycles;
- Data audits and validation checks;
- Matching processes;
- The development and publication of reports (including report cards, dashboards, feedback reports and other tools);
- Equity analysis;
- Labor market crosswalks;
- The Perkins V CLNA; and
- Program review and approval.

Policy, technology, people and processes create the enabling conditions for a high-quality career readiness data ecosystem. These factors will vary from state to state, but it is important for state leaders to identify these different components and how they work together. Defining the specific conditions can help state leaders identify dysfunctions in the ecosystem and make adjustments.

Career Readiness Data

Action Plan

Section

4

STEP 1

This section outlines steps to create a data improvement strategy that draws on the needs identified in Section 2. To create lasting state- or systems-level change, it is important to have buy-in and commitment from all education levels and partner agencies. Make sure you have the right partners at the table before you complete the plan of action. Building a cross-functional career readiness data team at the planning stage can help secure support and ensure consensus before beginning the work.

Step 1: Clarify Your Vision

The first step in developing your data improvement strategy is to define your destination. What is your vision for career readiness in your state? How can data be used to achieve that vision? This step is a good opportunity to reach consensus with inter-agency partners and consider aspirations across education levels.

What is your state's vision for career readiness? What do you want to accomplish long term (over the next 10-20 years) for learners in your state?

How will a high-quality career readiness data ecosystem help you achieve this vision?

Step 2: Identify and Prioritize Challenges

Go through the needs assessment in Section 2 and review the scores you selected for each core element and sub-element. Use the table below to list the scores, illustrating the strengths and areas for improvement across your state's data ecosystem. This step can help you identify and prioritize focus areas for your action plan.

	OVERALL	A	B	C	D
1. Data are collected consistently and accurately					
2. Processes and protocols are in place to ensure effective data governance					
3. Data systems, policies and practices are fully aligned across agencies and learner levels					
4. Information is relevant, timely and disaggregated					
5. Practitioners and the public are equipped to understand and leverage data					
6. Information is used effectively to promote quality and equity in career pathways					

Do you notice any patterns? Are the higher or lower scores clustered in the same core elements, or are they distributed across all six? Could success in one category have a downstream impact on others? Perhaps the biggest data quality challenges for your state system could be resolved through a single, focused policy action such as clarifying governance and responsibility for data collection, analysis and reporting at the state level. In other cases, your state may need a more comprehensive strategy to improve data quality and use.

Looking across all of your needs assessment scores, and considering the full career readiness data ecosystem in your state, what do you see as your state's biggest strengths and challenges? List them in the table below. Keep in mind that some challenges may be cross-cutting and influence multiple core elements.

Your State's Top Strengths	Your State's Top Challenges

Step 3: Set Your Goals

Your action plan should be focused on addressing these barriers and shifting policy and practice in your state toward a 4 on the assessment rubric to achieve the vision you described. In the table below, identify specific goals for improving each sub-element. Consider the SMART framework for goal setting. Goals should be **S**pecific, **M**easurable, **A**ttainable, **R**elevant and **T**ime Bound.[2]

Specific: In as much detail as possible, describe the challenge and what you hope to accomplish. Identify those responsible and accountable for meeting the goal.

Measurable: Identify measures of success and how you plan to track progress.

Attainable: Make sure the goal is realistic. Do you have the skill, will and resources to achieve this goal? If not, what is a more realistic goal? A good SMART goal is both ambitious and attainable.

Relevant: Make sure the goal is related to your career readiness vision. How will it help you actualize this vision?

Time Bound: Set a specific date when the goal will be achieved.

EXAMPLE OF A SMART GOAL

Currently, our state does not collect learner-level outcomes for postsecondary program completers. Outcomes are reported to the state in aggregate. To ensure that the state can access reliable data that can be disaggregated and analyzed in more detail, we will update our data collection process and set new expectations for postsecondary institutions to share learner-level data. The policy will be updated by the fall 2021 semester, and this process will be led by Wanda Perkins. Our goal is that data administrators at all 15 public two-year institutions will be trained on this new process by October 2021.

Describe the problem.

Describe the solution.

Identify an owner for the work.

Set a specific date when the goal will be achieved.

Identify measures of success.

SMART GOALS

LIST 3 TO 5 SMART GOALS FOR ACHIEVING YOUR CAREER READINESS DATA VISION

Step 4: Identify Resources

Determine what resources are available to help you achieve these goals. What public, private or in-kind support is available? Do you already have the staffing capacity and technology needed?

Resource Category	Resources Available in Your State
Funding *What funds are available to achieve these goals? Consider public dollars (Perkins V, state funding), philanthropic dollars and other sources of revenue.*	
Staffing *What is your staffing capacity to support this work? How many state-level personnel are available to support implementation?*	
Partnerships *Are there any existing partnerships with employers, state networks, associations, etc. that can support this work through in-kind support or other resources?*	
Technology *What infrastructure is readily available and can be leveraged?*	
Other *Are there any other resources that can be leveraged to support implementation of this action plan?*	

Step 5: Map the Work

Now that you have established SMART goals and identified the resources available to help achieve them, you are ready to map out your full action plan and identify the specific steps you will take to realize your vision for career readiness data quality. In the table below, list the specific activities needed to achieve each of your SMART goals. For each activity, identify a primary owner, a completion date and a measure of success. Refer back to Section 3 to identify the state levers for achieving this goal. Do you plan to enact new policy, invest in technology, leverage people or establish new processes?

SMART GOAL 1

Activity	Primary Owner	Completion Date	Success Metrics	Levers of Change
Example: *Conduct a stakeholder engagement survey to understand what different users want in a new dashboard.*	*Hoke Smith*	*December 15, 2020*	*We will receive at least 200 responses, including responses from at least 20 faculty, 20 parents and 20 employers.*	☐ Policy ☐ Technology ☑ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes

SMART GOAL 2

Activity	Primary Owner	Completion Date	Success Metrics	Levers of Change
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
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				☐ Policy ☐ Technology ☐ People ☐ Processes

SMART GOAL 3

Activity	Primary Owner	Completion Date	Success Metrics	Levers of Change
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
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SMART GOAL 4

Activity	Primary Owner	Completion Date	Success Metrics	Levers of Change
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
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SMART GOAL 5

Activity	Primary Owner	Completion Date	Success Metrics	Levers of Change
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes
				☐ Policy ☐ Technology ☐ People ☐ Processes

Business Rules: Common standards that ensure quality, consistency and comparability in the collection of specific data elements.

Career Pathway: A progressive sequence of educational experiences that is aligned to a high-skill, high-wage, in-demand occupation; reinforces academic learning with related work-based learning experiences; and culminates in a recognized postsecondary credential of value.

Career Readiness Data Ecosystem: The broad universe of policies, technology, people and processes that facilitate the collection, analysis, reporting and use of data to support learners along their career pathways.

Career Technical Education (CTE): An educational option that provides learners with the knowledge, experiences and skills they need to be prepared for college and careers. CTE gives purpose to learning by emphasizing real-world skills and practical knowledge within a selected career focus. Students in CTE programs and programs of study take specialized sequences of courses that provide rigorous academic and technical knowledge and skills at the secondary and postsecondary/adult levels and align with high-skill, high-wage and in-demand career opportunities.

CIP (Classification of Instructional Programs): A taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completion activity. CIP was originally developed by the U.S. Department of Education's National Center for Education Statistics.[3]

CLNA (Comprehensive Local Needs Assessment): A major component of the local application process used by eligible local recipients to apply for Perkins V funding. The CLNA must address the following: review of learner performance data; how CTE programs offered by the eligible local recipient are of sufficient size, scope and quality and are aligned to labor market needs; progress toward implementing programs of study; the recruitment, retention and training of CTE professionals; and how the local eligible recipient will make progress toward ensuring equal access to CTE for all learners. The assessment needs to be completed for initial eligibility for Perkins V funding and then must be updated once every two years thereafter.

CTE Concentrator: As defined in Perkins V, a postsecondary/adult student who earns 12 credits in a single CTE program or program of study or completes a CTE program if that CTE program encompasses fewer than 12 credits or a secondary student who completes at least two courses in a single CTE program or program of study.

CTE Participant: As defined in Perkins V, an individual at either the secondary or postsecondary level who completes at least one CTE course in a CTE program or program of study.

Data Sharing Agreement: A formal document that establishes the processes, expectations, security measures and timeline for the exchange of data between two or more entities.

Early Warning System: A tool that leverages research-based indicators to identify students at risk of failing to meet key education milestones such as reading at grade level, on-time graduation and college readiness/persistence.[4]

Equity: Fairness in outcomes; creating just outcomes; giving everyone what they need to be successful; acknowledging everyone's unique situation and addressing historic and current-day systemic barriers. (Contrast with equality, where each individual is treated the same.)[5]

ESSA (Every Student Succeeds Act): A federal law that funds K-12 education throughout the nation and emphasizes equitable access to education, high standards and accountability. ESSA both encouraged and allowed states to incorporate CTE into their plans through an emphasis on a "well-rounded education," which includes CTE programs and activities, and through the opportunity to embed CTE and career readiness measures within state accountability systems.

FERPA (Family Educational Rights and Privacy Act): A federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.[6]

Institution: In the context of this tool, refers to all CTE delivery systems at the secondary and postsecondary levels, including schools, school districts, colleges and technical centers.

Medicaid: A joint federal and state program that, together with the Children's Health Insurance Program, provides health coverage to more than 72.5 million Americans, including children, pregnant women, parents, seniors and individuals with disabilities.[7]

O*NET (Occupational Information Network): A database of hundreds of standardized and occupation-specific descriptors for almost 1,000 occupations covering the entire U.S. economy. It is supported by the U.S. Department of Labor Employment and Training Administration.

Opportunity Gap: An observable disparity in access and/or outcomes for a specific subgroup or special population. These gaps are due to systemic inequities, implicit biases, stereotypes and outright discrimination based on group identities.

P20W Data System: A statewide longitudinal data system that connects learner-level data across early learning, K-12 education, postsecondary education and the workforce.

SCED (School Courses for the Exchange of Data): A voluntary, common classification system for prior-to-secondary and secondary school courses maintained by a working group of federal, state and local education agency representatives. SCED is based on a five-digit course code that provides a basic structure for classifying course content.[8]

Section 508 Compliant: Refers to Section 508 of the Rehabilitation Act, which requires access to electronic and information technology provided by the federal government. Federal agencies must ensure that this technology is accessible to employees and members of the public with disabilities to the extent it does not pose an "undue burden." Section 508 speaks to various means for disseminating information, including computers, software and electronic office equipment.[9]

SOC (Standard Occupational Classification): A federal statistical standard used by federal agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data.[10]

Statewide Longitudinal Data System: A statewide data system that warehouses longitudinal data for students across two or more of the following learner levels: early learning, K-12, postsecondary and workforce. State data systems that collect, retain and maintain data from multiple agencies in a centralized warehouse are known as centralized systems, and state data systems in which data from participating agencies is linked either temporarily or on an as-needed basis are federated systems.[11]

Strengthening Career and Technical Education for the 21st Century Act (Perkins V): Signed into law in July 2018, reauthorizes the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins). It is the primary federal investment to states and discretionary grantees for the improvement of secondary and postsecondary CTE programs and programs of study across the nation. The purpose of Perkins V is to develop more fully the academic knowledge and technical and employability skills of secondary education students and postsecondary education students who elect to enroll in CTE programs and programs of study.

SNAP (Supplemental Nutrition Assistance Program): A federal program that provides nutrition benefits to supplement the food budget of needy families so they can purchase healthy food and move toward self-sufficiency.[12]

SWIS (State Wage Interchange System): A data sharing tool jointly managed by the Department of Education and the Department of Labor that allows states to exchange anonymized employment and earnings data – wage data, for short – with other states.[13]

TANF (Temporary Assistance for Needy Families): A federal program designed to help needy families achieve self-sufficiency. States receive block grants to design and operate programs that accomplish one of the purposes of the TANF program.14

WIOA (Workforce Innovation and Opportunity Act): A federal law that supports workforce development activities and funds job training programs for displaced adult and youth workers. WIOA emphasizes greater coordination between workforce development and CTE through aligned definitions, the requirement that postsecondary CTE be a local infrastructure partner, and the option to do a combined state plan that meets the planning requirements for WIOA's core programs and at least one other federal program, among other provisions.

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Endnotes

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