Key Topics and Questions

- **Defining high-quality credentials**
  - What criteria do states use to assess the value of credentials at the secondary and postsecondary levels?
  - How do states use employer input and local voices to vet credentials and identify credentials valued by employers, especially at the secondary education level?
  - What are the advantages of national credential search engines, such as the Credential Engine?
  - Do any states assign relative values to different types of credentials, including technical skills assessments?
  - How do states deal with programs of study or career clusters without meaningful industry certifications?

- **Approving and promoting third-party credentials**
  - How do states develop and maintain statewide lists of approved industry-recognition credentials?
  - What legislative and/or policy approaches do states use to approve and promote credentials?
  - What are examples of state models that connect credential earning by students to education funding?

- **Data collection for third-party credentials**
  - What processes do states use to collect credential data, especially from vendors?
  - What methods do states use to track credential completions beyond graduation?
  - What are major challenges that states face when collecting credential data?
**Recommendations**

- **Set and share a definition of high-quality credentials:** Establish specific minimum criteria such as industry endorsements and alignment to entry-level job requirements and/or postsecondary articulation. California may develop guidance documents outlining the criteria to share with local education agencies and regional workforce associations to aid in identifying relevant, high-quality credentials.

- **Approve and manage lists of valued credentials:** Many states have a cross-agency approval process to identify credentials of value. California may consider establishing state-level processes to approve regional lists and/or a state list of industry-valued credentials.

- **Promote credentials through information sharing:** Develop communication and marketing materials for local education agencies (LEAs) to showcase the benefits of credentials and highlight the differences between credentials and Technical Skills Assessments (TSAs).

- **Collect baseline credential data from the Career and Technical Education Outcomes Survey (CTEOS):** This postsecondary survey provides data on credential completions for a subset of CTE concentrators and may be a useful starting point for tracking postsecondary credential completions.

- **Support data collection at the regional level:** Historically, California has run into barriers negotiating state-level contracts with certification vendors. California may consider coordinating or supporting regional contracts with vendors most relevant to credentials and industries in those geographic regions.
• Defining quality
• Identifying and approving credentials
• Other considerations with credential definitions (e.g., relative valuation, TSAs)
• Promoting credentials
• Collecting credential data
• Appendix
  – Technical assistance approach
  – Additional information: State spotlights
Defining High-Quality Credentials: Common Quality Criteria

• Industry recognized and valued
  – Consultations with industry (Kentucky, Nevada, Ohio, South Dakota, Tennessee)
  – Industry endorsed (New Jersey)
  – Review of labor market information (Florida, Kansas, Kentucky, Massachusetts, Missouri, Ohio)

• Transference to high-quality employment
  – Occupation that yields a livable wage (Kansas, Kentucky)
  – High-demand occupation (Kansas, Louisiana, Ohio)
  – Above entry-level job (South Dakota, Tennessee)

• Postsecondary articulation (secondary specific)
  – Earn credits or hours toward a technical degree or non-degree program (New Jersey, South Dakota, Tennessee)

• Accessible to secondary students (secondary specific)
  – Attainable by minors with limited work experience (Florida, Kansas)
<table>
<thead>
<tr>
<th>Consideration</th>
<th>Secondary</th>
<th>Postsecondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of third-party credentials approved</td>
<td>Certifications only (Florida, New Jersey, Tennessee); Certifications plus licenses (Kentucky, Ohio, Pennsylvania, Virginia)</td>
<td>Certifications and licenses</td>
</tr>
<tr>
<td>How pathways lacking third-party credentials valued by industry are handled</td>
<td>Replaced with assessments developed by the state (Arizona) or by NOCTI assessments, career readiness assessment, or student capstones or portfolios</td>
<td>Developed a postsecondary-issued certification with regional labor market value (Louisiana, West Virginia)</td>
</tr>
<tr>
<td>Relevance of credentials earned</td>
<td>Many credentials prepare secondary students for entry-level jobs and beyond; Some basic credentials are less valued by employers (e.g., Microsoft Office, Occupational Safety and Health Administration 10, CPR)</td>
<td>Many colleges communicate with local employers about the relevance of postsecondary credentials; Some with local relevance may not be relevant at the state or national level</td>
</tr>
</tbody>
</table>
## Defining High-Quality Credentials: National Resources to Identify and Validate

<table>
<thead>
<tr>
<th>Components</th>
<th>CareerOneStop</th>
<th>Credential Finder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider</td>
<td>U.S. Department of Labor</td>
<td>Credential Engine</td>
</tr>
<tr>
<td>Content</td>
<td>Certification descriptions</td>
<td>Credential descriptions, quality assurances, jurisdiction, and related training programs</td>
</tr>
<tr>
<td>Advantages</td>
<td>• Spans industries and occupations</td>
<td>• Spans industries and occupations</td>
</tr>
<tr>
<td></td>
<td>• User friendly search options</td>
<td>• Input by practitioners, vouching for their alignment with instructional programs</td>
</tr>
<tr>
<td></td>
<td>• Coverage of many credentials offered nationwide</td>
<td>• Many details on each credential</td>
</tr>
<tr>
<td></td>
<td>• States, such as New Jersey, use this search engine to validate accreditation of</td>
<td>• Includes a variety of credential types offered nationwide and regionally</td>
</tr>
<tr>
<td></td>
<td>suggested credentials</td>
<td></td>
</tr>
<tr>
<td>Limitations</td>
<td>• Quality and labor market value of the credentials is not verified</td>
<td>• Quality and labor market value of the credentials is not verified</td>
</tr>
<tr>
<td></td>
<td>• Does not include detailed descriptions</td>
<td>• Limited coverage of credentials across states due to lack of state participation</td>
</tr>
<tr>
<td></td>
<td>• Focus on third-party certifications</td>
<td>• List may be biased toward large vendors able to upload their credentials</td>
</tr>
<tr>
<td></td>
<td>• Unclear which credentials are used by or aligned with instructional programs</td>
<td></td>
</tr>
<tr>
<td>Link</td>
<td><a href="#">Website</a></td>
<td><a href="#">Website</a></td>
</tr>
</tbody>
</table>
Defining High-Quality Credentials: Why Focus on Accredited Credentials?

- Accredited credentials typically go through a stringent validation process to determine standards, skills gained, and industry relevance.
- For example, the American National Standards Institute (ANSI) National Accreditation Board Management Systems (ANAB MS) has a multi-step accreditation process for IT credentials offered by credentialing bodies (CB).
• Develop both regional and statewide lists to recognize local needs (Louisiana)

• Require employer endorsements when credentials are submitted for approval (Louisiana, Nevada)

• Conduct a review by state industry or workforce investment council members (Louisiana, Ohio, South Dakota, Tennessee)

• Collect employer survey data on the value of credentials (Kentucky, Massachusetts)

• Publicize industry association endorsements for each credential (New Jersey)

Example of an employer survey
Kentucky’s regional workforce investment boards and chambers of commerce deliver an annual survey to employers and industry groups to collect input, asking about the following:

• Number of employees
• Location
• Industry
• Credentials weighed favorably in the hiring process
• Required credentials for employment
• Willingness to hire high school students
• Work-based learning participation
• Contact information for follow-up

(See spotlight for details on Kentucky)
• The Credential Currency report authored by Advance CTE and others suggests using a variety of data sources to capture evidence of credentials’ value to employers:
  – Credentials listed in online job postings and advertisements
  – Hiring and promotion criteria used by employers
  – Information on credential portability across employers in the same industry

Example of integrating input from multiple sources
Before being reviewed by industry council members, credential applications in Ohio must provide information showing current value to the employer, such as occupations in which the credential is recommended and letters of support from employers that specify how the credential is used in their hiring process. Applications can be submitted by community stakeholders, including businesses and schools. More information is available on the Ohio Department of Education website.
Approving Credentials: Common Steps

Some state processes for approving credentials are legislated (Florida: Secondary, Louisiana, Ohio, Texas). State approval processes for credentials typically include the following:

• Applications submitted by LEAs or businesses
  – Applications may require industry support or endorsements
• Quarterly or annual review of applications by one or more state agencies
  – The review may also include industry and education stakeholders
  – Some states look at alignment between credentials and state-determined priority industries or occupations (Florida: Postsecondary, Kansas)
• Scheduled reviews and updates of the credential list to maintain labor market relevance
• A focus on credentials awarded at the secondary level
### Examples of Credential Approval Processes (Slide 1)

<table>
<thead>
<tr>
<th>Component</th>
<th>Nevada</th>
<th>Louisiana (secondary)</th>
<th>Louisiana (postsecondary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership</td>
<td>The Governor’s Office of Workforce Innovation (OWINN) created a list that includes certifications and licenses offered by industry/third-party organizations, NOCTI, and state postsecondary institutions.</td>
<td>The Louisiana Workforce Investment Council (LWIC) industry-based credentials council oversees maintenance of the credential list.</td>
<td>A workforce advisory group facilitated by the community and technical college system creates and maintains a statewide list. Sometimes secondary-level credentials will be added to align with dual enrollment coursework.</td>
</tr>
<tr>
<td>Process</td>
<td>Applications to add credentials are reviewed by OWINN and industry working groups. The application requires at least five employers that endorse the credential for hiring as well as information on quality assurance and test administration.</td>
<td>The council reviews applications and supporting materials. If a credential is deemed worthy of inclusion, it is brought before the LWIC for final approval. The council consults secondary, postsecondary, and industry representatives as needed. The application requires letters of support from at least three employers.</td>
<td>The advisory group reviews applications on a monthly basis. LWIC periodically approves credentials important at the state level that are not yet on the list. When company-specific credentials are proposed, the advisory group will bring multiple representatives from industry to discuss the transferability of the credential and associated competencies.</td>
</tr>
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</table>
### Examples of Credential Approval Processes (Slide 2)

<table>
<thead>
<tr>
<th>Component</th>
<th>Nevada</th>
<th>Louisiana (secondary)</th>
<th>Louisiana (postsecondary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td>Must be 1) standardized and graded by a third party; 2) knowledge or skill based; 3) aligned to a CTE program of study; and 4) nationally recognized, defined as being administered outside of Nevada or in another state’s accountability system. Additional quality criteria are required if the credential is not endorsed by the minimum number of employers.</td>
<td>Must be 1) issued by an industry or industry group; 2) be non-vendor specific; 3) provide opportunities for entry into state-determined high-demand occupations at the entry level; 4) have state or national recognition; and 5) have the support of at least three Louisiana employers.</td>
<td>Must be 1) aligned with substantial job opportunities as defined by a star rating of thee stars or above; 2) evident of competencies that may be documented with validated assessments; and 3) aligned with high employment outcomes, as evidenced by employer endorsements, and/or training outcomes or stackable credentials.</td>
</tr>
<tr>
<td>Regional components</td>
<td>None</td>
<td>Regions have their own credential lists that recognize credentials valued in the local labor market that do not appear on the state list.</td>
<td>Regions may petition to have locally valued credentials added to the statewide list.</td>
</tr>
</tbody>
</table>
In some states, credentials are assigned different levels of meaning:

- **Ohio** high school students must earn 12 credential points within a single career field to graduate using the credential option.
  - Points vary by the importance of the credential for occupation entry.
- **Kansas** offers financial incentives to districts and postsecondary institutions for students earning credentials aligned with high-priority industries and on a state-approved list.
  - While this list associated with incentives contains fewer than 100 credentials, the list of all credentials that may be reported for *Perkins V* includes several hundred credentials.
- **New Jersey**'s credential list indicates credential types and alignment
  - All credentials are labeled by type (e.g., specialty skill, advanced skill, product/equipment operator).
  - The list notes whether credentials are aligned with education programs (e.g., CTE programs of study), industries or occupations (industry associations, military occupation specialties), and accreditation (e.g., ANSI, National Commission for Certifying Agencies).

**Example point allocations in Ohio**

- CPR First Aid: 1 point
- Forklift Operation: 1 point
- National Center for Construction Education and Research (NCCER) Core: 6 points
- Air Conditioning Contractors of America HVAC Universal: 12 points
Rather than seeing TSAs and industry credentials as mutually exclusive, some states are retaining and valuing both:

• **Virginia** plans to report on both credentials and TSAs for Perkins.
  – Approved credentials are industry specific and include workplace readiness assessments.
  – Pathways without aligned credentials include competency-based instruction to teach technical skills.

• In **Nevada**, credentials are not considered an integral part of CTE programs.
  – CTE programs use TSAs as end-of-program assessments.
  – Credentials may count toward requirements for a career diploma endorsement, providing recognition for students who receive them.
Promoting Industry Credentials (Slide 1)

States promote credentials using a range of strategies:

• Incorporating third-party certifications into the states’ accountability system
  – Alabama, Arkansas, Arizona, Delaware, Georgia, Idaho, Illinois, Kentucky, Mississippi, Missouri, North Dakota, New York, Oklahoma, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Virginia, Vermont, Wisconsin, Wyoming

• Building credentials into the CTE program or graduation requirements
  – Career pathway or course requirements (Florida, Massachusetts, Montana)
  – Option for a graduation pathway (Louisiana, Ohio, South Dakota, Virginia)

• Marketing to LEAs, students, and families
  – Pennsylvania, Texas, Virginia

Feedback from California Stakeholders
Local buy-in is key to promotion. Communicate with LEAs on the benefits of certifications.
Connecting credential completion to funding

• Secondary approaches
  – Payments to LEAs per certification, allowing multiple payments per student if more than one certification is earned (Mississippi, Ohio)
  – Payments to LEAs per student with a certification (Florida, Kansas)

• Postsecondary approaches
  – Payments to institutions per certification (Florida, Kansas, Mississippi, Ohio, Virginia)
  – Tuition reimbursements for students and institutions (Virginia)
  – State funding formula component, providing additional funding to institutions with higher certification completion counts (Louisiana)

Feedback from California Stakeholders

Fund certification-focused professional development for teachers (e.g., curriculum, training, certifications).
Credential Data Collection Strategies: Surveys

- Most states use district-reported data collected from students.
  - Some districts collect completion data directly from students via alumni surveys.
  - Others collect data reported by teachers, with copies of certifications maintained as records.
- For baseline reporting, California could leverage CTEOS.
  - CTEOS includes data on community college CTE completers in degree and non-degree programs, 1.5–2 years after program exit.
  - Relevant data points
    - Completion of a certification after program exit
    - Certification name
    - Completion of an apprenticeship after program exit
    - Journeyman’s certificate name
  - Survey limitations
    - Only postsecondary students
    - Low response rate (29–38 percent)
    - Time frame may not align with Perkins V reporting needs
    - Student understanding of what counts as a certification
Many states establish agreements with vendors to access data on certification completions at the state level.

- Currently, 22 states have statewide Certiport contracts (e.g., Iowa, Florida, North Carolina, South Carolina).
  - The average cost of statewide vendor agreements varies by state.
  - Certiport completion data can be linked to LinkedIn data to acquire post-graduation outcome data.
- Tennessee has one of the most extensive set of statewide vendor agreements across states.
  - The state receives individual-level data from vendors.
  - Vendors must provide data to be on the state credential list.

Some LEAs establish their own agreements with individual vendors to host tests and receive completion data.

- Completion data is submitted to the state during annual CTE data collection or throughout the year (e.g., Oregon).

California Stakeholders recommend using regional certification agreements and vendor relationships to negotiate data exchanges.
## Credential Data Collection Strategies: Challenges with Vendor Data

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Identifying valued credentials and vendors to prioritize</td>
<td>Develop a process for regularly updating the credential list and associated vendors</td>
</tr>
<tr>
<td>Managing vendor agreements with limited staff time</td>
<td>Prioritize vendors based on local need, presence across the state, or other factors</td>
</tr>
<tr>
<td>Lack of student identifiers in vendor data for matching to state education data</td>
<td>Work with vendors to collect additional identifying information</td>
</tr>
<tr>
<td>Completion data cannot be matched to all students, even with identifiers</td>
<td>Ask LEAs to review data and supply proof of additional completions</td>
</tr>
</tbody>
</table>
Technical Assistance Approach

- Review of national initiatives and state practices
  - Interviews with Louisiana, Oregon, and Nevada state staff
- Interviews with California stakeholders

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amil Gehrke</td>
<td>Director of CTEOS</td>
</tr>
<tr>
<td>Sean Glumace, Angela Allison</td>
<td>Founders of 2CPR Group</td>
</tr>
<tr>
<td>Steve Linthicum</td>
<td>Orange County Regional Director (Information and Communication Technologies/Digital Media) of Employer Engagement</td>
</tr>
<tr>
<td>Renah Wolzinger</td>
<td>Faculty at Golden West College; CEO of Renzone Data</td>
</tr>
<tr>
<td>Kelly Cooper</td>
<td>Vice Chancellor of Education and Technology at West Hills Community College</td>
</tr>
</tbody>
</table>
## Additional information: State Spotlights

<table>
<thead>
<tr>
<th>Florida</th>
<th>Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kentucky</td>
<td>Tennessee</td>
</tr>
<tr>
<td>Nevada</td>
<td>Virginia</td>
</tr>
</tbody>
</table>
Spotlight: Florida

• **Identifying credentials**
  - The *Career and Professional Education Act* created a statewide planning partnership between CareerSource Florida, the statewide workforce policy and investment board, and the state’s education agencies.
  - CareerSource Florida annually produces a list of recommended certifications based on national standards and industry needs. They must be endorsed by the local workforce development board, a state, regional, or local economic development organization, and a state-based business or regional trade organization.
  - Florida Department of Education then creates a subset of certifications that 1) are achievable by secondary students and 2) require a minimum of 150 hours of instruction.

• **Collecting credential data**
  - The state receives some data through a contract with Certiport.
  - For credentials for most vendors, districts collect copies of student certification results and report data to the state.

• **Incentivizing credentials**
  - Districts receive up to $1,000 for each student who earns certifications through career-themed courses.
  - Credentials are required for completion of some CTE programs.
  - Districts with credential passing rates of 50% or less must establish three-year improvement plans for increasing passing rates.
• **Identifying industry-recognized credentials**
  - Employer input through a survey is coupled with labor market information to determine which credentials are valued by industry.
  - To be included on the state credential list, credentials must align with one of the five sectors with the most openings for jobs paying $35,000 or more.
  - The state list includes licenses, certifications, and other credentials associated with in-demand jobs.

• **Collecting credential data**
  - Districts submit data through a report card reporting system.

• **Incentivizing credentials**
  - Credentials are reported as a career readiness measure on district report cards.
Spotlight: Nevada

- **Identifying credentials**
  - OWINN created and maintains a state list of all approved credentials and the vendors for the assessments applicable at the secondary and postsecondary levels.
  - The list includes certifications and licenses offered by industry/third-party organizations, NOCTI, and state postsecondary institutions.
  - Application to add credentials to the state list requires employer endorsements.
    - Other application elements include geographic scope, industry and credential alignment, and teaching aids.
  - All credentials must be 1) standardized and graded by a third party; 2) knowledge or skill based; and 3) nationally recognized, defined as being administered outside of Nevada or in another state’s accountability system.
    - Additional quality criteria are required if the credential is not recognized by employers or industry.

- **Collecting credential data**
  - No credential data is collected by the state education agency.

- **Incentivizing credentials**
  - The approved credential list is not connected to CTE programming or Perkins reporting.
  - Secondary students may receive a career-ready endorsement on their diploma for passing a certification or licensure exam on the approved list.
Spotlight: Oregon

• **Identifying credentials**
  – For consideration for the state’s list of approved credentials, individuals and organizations propose credentials through an [online form](#).
  – The state education agency uses input from workforce partners to decide whether it may appear on the state-approved list.
  – For inclusion on the list, credentials must be tied to a high-wage and high-demand occupation as identified by the Oregon Employment Department, align to at least entry-level requirements, and be attainable by secondary students across the state.

• **Collecting credential data**
  – Districts report each student who received a credential as part of annual CTE data collection using a state-supplied template.

• **Incentivizing credentials**
  – Under *Perkins V*, credentials are tied to CTE programs of study.
**Spotlight: Tennessee**

- **Identifying credentials**
  - For inclusion on the state list, credentials must 1) be approved by a career cluster advisory council, 2) align with a program of study, and 3) have transference to either postsecondary credits or high-quality employment.
  - High-quality employment is defined as above entry-level employment.

- **Collecting credential data**
  - Vendors must establish data-sharing agreements with the state agency for their certification(s) to appear on the state-approved list.
  - Districts review the list of credentials earned by their students and can provide proof if any are missing.

- **Incentivizing credentials**
  - Certifications are reported as part of the state’s Ready Graduate indicator for the *Every Student Succeeds Act*. 
• **Identifying credentials**
  – Secondary: The State Board of Education created and maintains a list of all approved credentials and the issuing organizations for the assessments.
    - The credential list includes assessments from third-party organizations, SkillsUSA, and NOCTI.
    - All credentials must be 1) standardized and graded by a third party; 2) knowledge or skill based; and 3) nationally recognized, defined as being administered outside of Virginia or in another state’s accountability system.
    - The state provides one-page descriptions of all approved credentials on the [Virginia CTE Resource Center](#).
  – Postsecondary: The Virginia Board for Workforce Development created and maintains a list of current high-demand fields and associated credentials.
    - The community college system adopted this list, with additions such as industries for which there is evidence of growing demand (e.g., drones).
• **Collecting credential data**
  – Secondary: LEAs submit credential data to the state annually using a template.
  – Postsecondary: Community colleges submit data monthly through an online submission process used for data on all non-credit programs in community colleges.
    ▪ Institutions must submit student data to receive incentive funding through the [Fast Forward program](#).

• **Incentivizing credentials**
  – Secondary: Students may receive a credit toward graduation for passing a certification or licensure exam on the approved list. Additionally, the state is reporting on credentials for the Perkins program quality measure and for school report cards.
    ▪ NOTE: TSA completion will still be reported for Perkins as the “Other” option on the program quality measure.
  – Postsecondary: Through the Fast Forward program, students may receive tuition reimbursements and institutions may receive program funding.