Technical Assistance Goals

• Defining and implementing quality work-based learning (WBL)
  – What are options for a rigorous statewide definition of quality WBL that allows flexibility, reflects stakeholder input, and reflects competency-based criteria?
  – What are options for instituting a statewide WBL system that is not based on hiring local (district or economic regions) specialized staff?
  – How might regional WBL programs, such as Intern Omaha, inform statewide WBL implementation?

• Messaging on quality WBL
  – How could WBL rubrics be leveraged to implement and promote quality WBL?
  – How have states built (and reinforced) employer buy-in through WBL messaging?

• Collecting and using WBL data
  – How do states collect WBL data beyond participation (e.g., type, quality)?
  – How do states ensure that student-level WBL data reflect participation in experiences that align with the states’ definition of quality WBL?
  – What other state workforce and program data sources do states align with student WBL data?
  – How do states visualize and use data to explore WBL-related questions and make the data “actionable” for program improvement?
• **Scale quality WBL statewide using local models:** Intern Omaha’s approach to WBL has elements, such as use of regional coordinators and a one-stop application process, that could be used to expand WBL programming beyond the Omaha metro area.

• **Use workforce system expertise to implement WBL:** Regional workforce staff members have connections and knowledge of local businesses. The State Education Agency (SEA) could work with regional workforce staff to identify employer partners for WBL opportunities, gain employer buy-in, and increase the engagement of priority industries in WBL implementation.

• **Promote WBL quality through resources:** To promote implementation of quality WBL, SEA could leverage tools such as the WBL rubric and self-assessment by highlighting the indicators and elements most aligned with state priorities. SEA could also highlight exemplary WBL implementation and partnerships on the state website, social media, badges, or another system to show local education agencies (LEAs) what quality WBL looks like in practice.
Recommendations (Slide 2)

- **Consider the “big picture” when designing WBL data collection**: To expand the usefulness of WBL data, SEA may consider developing a WBL data collection process or system, following the example of Georgia and Massachusetts, that may be integrated with other student data systems and sources. These systems collect data on features and the quality of students’ WBL experiences, such as industry and field, duration, employer feedback, and training goals, that can inform program improvement. Trainings for staff responsible for data entry can support the submission of reliable, accurate data.

- **Create visuals to share WBL participation data by field**: States use dashboards to share a variety of WBL-related data points for program improvement and to increase awareness of WBL. A common data point is participation in WBL by location, career cluster, and industry because it can be aligned with labor market data to assess local demand and needs and can be used to identify service gaps and identify where LEAs may need support to launch WBL.
Methodology

Synthesized
- WBL definitions and data collection strategies from 44 *Perkins V* draft plans
- WBL documentation from select states (e.g., Delaware, Georgia, Louisiana, Massachusetts)

Reviewed
- WBL websites, publications of data visualizations, and dashboards (e.g., Colorado, Georgia, Iowa, Massachusetts, Ohio, Kentucky, Tennessee)
- Nebraska’s WBL rubric and self-assessment

Interviewed
- Intern Omaha staff members on their WBL model
- Massachusetts representatives on WBL quality and data collection
Perkins V statute definition of WBL:

“Sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction.”

Most states using WBL as a program quality indicator are using the above definition as is or with additional specifications. Our review found three states with definitions different from the above in their plans (Alabama, Colorado, North Dakota).*

* Based on a review of 44 draft Perkins V plans and state WBL documentation
### State Definitions of WBL: Perkins V Reporting (Slide 2)

<table>
<thead>
<tr>
<th>State</th>
<th>WBL definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alabama</strong></td>
<td>Work-based learning is a structured component of the Career and Technical Education (CTE) curriculum that integrates classroom instruction with productive, progressive, <strong>supervised, work-based experiences/apprenticeships (Paid) and internships (Unpaid)</strong>, related to students’ career objectives. Content is planned for students through a cooperative arrangement between the school and employer as a component of work-based learning.</td>
</tr>
<tr>
<td><strong>Colorado</strong></td>
<td>Work-based learning provides <strong>hands-on or realistic experiences</strong> for secondary learners that relate to the students’ CTE Program of Study. For Perkins V reporting, qualifying experiences will include: Apprenticeship, On-the-Job Training, Clinical Experience, Credit for Work Experience, Internship, Pre-Apprenticeship, Industry-Sponsored Project, School-Based Enterprise Managed by Students.</td>
</tr>
<tr>
<td><strong>North Dakota</strong></td>
<td>Definition provided in legislation, plus: Option 1: Sustained interactions (including cooperative experiences): <strong>supervised experiences of &gt;= 40 hours on the worksite</strong>; Option 2: Simulated environments in an educational setting (which means any CTE-funded course) should strive for a minimum of <strong>40 hours throughout a series of in-class projects/lab work</strong>, with each project/lab taking no less than 1 week or 5 successive hours of class time to complete.</td>
</tr>
</tbody>
</table>
The other states added to the *Perkins V* definition by doing the following:

- Specifying the types of activities that can be counted (16 states):
  - Examples: Internships, apprenticeships, cooperative education, and clinical experiences
  - Where applicable, participation in a WBL capstone course is also counted

- Specifying a minimum number of hours for a “sustained” interaction
  - Ohio: 250 hours of cumulative WBL experience throughout high school
  - New York: 54 hours of qualifying WBL experience
  - North Dakota: 40 hours of qualifying WBL experience

Most states allowed flexibility regarding the location of WBL (i.e., workplace versus school).

*Based on a review of 44 draft *Perkins V* plans and state WBL documentation*
• Create funding opportunities, in partnership with other state agencies, to build school-industry partnerships that may serve as models and resources for other schools and employers (Tennessee).

• Engage large employers at the state level through industry councils charged with increasing buy-in from regional employers (Delaware, Ohio).

• Develop “hype” videos for WBL to spotlight student and employer benefits and the variety of ways students may work with employers (Delaware).
  – Hype videos are traditionally used in sports to generate pre-game interest and excitement.
Nebraska has a WBL rubric and self-assessment tools that evaluate a variety of WBL-related quality measures.

To improve accessibility for districts and focus on state priorities around WBL quality, RTI International recommends the following:

1. Divide the document into two worksheets—a rubric and a self-assessment.
2. Choose indicators that align with current state WBL priorities: rigorous statewide definition, messaging to schools and industry, and data collection.
   - The next two slides outline the indicators that align best with these priorities and the indicators that do not align as well with these priorities.
3. Conduct focus groups with districts to identify the most relevant sub-indicators.
4. As implementation expands, add or remove indicators to fit evolving priorities.
| Developing an inclusive definition of quality WBL | **Indicator 1 (1a):** Local schools and districts align programming with the Nebraska Department of Education’s (NDE’s) career readiness initiatives and definitions (including WBL).  
**Indicator 4 (1d):** Local schools and districts support equitable opportunities in planning and implementation of the WBL program.  
**Indicator 5 (2a):** Student eligibility criteria and participation in WBL are designed according to established policies and procedures, and students have a comprehensive individual career plan and training agreement. A plan has been established to meet the needs of special populations who enter or want to enter the WBL program. |
|---|---|
| Collecting data on student participation and experiences | **Indicator 8 (2d):** Student WBL assignments are tracked and recorded. Pertinent program data, including student enrollment in approved courses and credits as well as assessments, are reviewed and maintained.  
**Indicator 11 (4b):** Students’ WBL experiences and skills are assessed. |
| Messaging WBL in a way that increases employer and community buy-in | **Indicator 2 (1b):** Needs assessment activities (surrounding community, employer, business, and other resources) conducted by NDE are leveraged by the school or district to create new student workplace experience opportunities.  
**Indicator 9 (3):** A WBL communication and public relations plan is implemented that results in information dissemination and positive community (including families and students), business, and industry relationships. |
<table>
<thead>
<tr>
<th>Indicator from the rubric and self-assessment that are relatively less aligned to state WBL priority goals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employer engagement</strong></td>
</tr>
<tr>
<td>Indicator 3 (1c): An advisory committee and stakeholders are actively engaged to assist with identifying opportunities and the development, administration, management, and evaluation of the WBL program.</td>
</tr>
<tr>
<td><strong>Indicator 12 (4c):</strong> Employer/job sites are visited, students are monitored at the work site, and employers are responsible for the evaluation of participating students.</td>
</tr>
<tr>
<td><strong>Use of a WBL coordinator</strong></td>
</tr>
<tr>
<td>Indicator 6 (2b): A WBL program with policies is developed, maintained, and implemented with high fidelity.</td>
</tr>
<tr>
<td><strong>Indicator 7 (2c):</strong> Relevant federal, state, and local laws are researched, are identified, and guide program policies and implementation.</td>
</tr>
<tr>
<td><strong>Program evaluation</strong></td>
</tr>
<tr>
<td>Indicator 10 (4a): An evaluation of the WBL program is conducted, and the results are used for continuous quality improvement.</td>
</tr>
</tbody>
</table>

*As WBL implementation expands and state priorities evolve, these indicators may be added back into the rubric and self-assessment.*
WBL Implementation Strategies

• Approach implementation regionally
  – Locally managed relationships led by an intermediary between education and business, such as a WBL coordinator to facilitate local employer partnerships
    – *Examples: Iowa Intermediary Network*

• Train or certify teachers to oversee WBL experiences
  – Teachers trained in the components for a quality WBL experience
  – Identification of point person for WBL at each LEA; may or may not be associated with a course
    – *Examples: Iowa, Tennessee*

• Integrate WBL with a capstone course
  – Opportunity to set guidelines and oversight for WBL opportunities
  – May also include preparation for WBL placements, such as employability skills training
    – *Examples: Delaware, South Dakota, Wisconsin*
• **Iowa Intermediary Network** uses regional coordinators, one in each community college district, to connect students with WBL opportunities.

• The network is funded with $1.4 million in state funds, $1.1 of which is spent on personnel. Each coordinator is responsible for connecting with local businesses, districts, and colleges, as well as reporting activities to the regional CTE planning partnership.

• Most activities are exploration and awareness in nature (e.g., career fairs, job shadows), rather than immersion (e.g., internships, co-ops).
• Statewide coordination of employer engagement
  – Established the Office of Work-Based Learning to act as a centralized clearinghouse for contacts with large employers
  – Coordinates industry councils and employer engagement events
  – Recruits new employers willing to sign letters of commitment to offer WBL opportunities
  – Hired regional specialists to broker school-employee relationships

• Implementation of a standardized WBL practicum and instructor resources
  – Curriculum covers WBL preparation, such as employability skills, using a competency-based approach
  – Training is provided to staff administering the curriculum
Regional workforce offices are partners in connecting students with WBL
- One-Stop Career Centers send job coaches to high schools to meet with students.
- Local workforce development boards partner with about half of high schools.
- SEA and districts use regional economic development plans to inform WBL development.

Pathways with a WBL component
- Innovation Pathways culminate with a 100-hour WBL internship or capstone experience.
- SEA is developing a curriculum districts may use for a work-readiness course in the pathway.
Background

- The Intern Omaha program offers WBL to secondary students in the Omaha, Nebraska, metro area.
- In 2020–21, four internship coordinators will manage 200 student internships with 64 employers.
- Students begin with a 45-hour, in-person professional skills course taught at Metropolitan Community College over the summer.
- Academic courses are aligned with the internships starting in the fall semester.

![Diagram showing the timeline of student enrollment and internships](image)
What parts of the Intern Omaha model could scale?

- **Use regional internship coordinators hired by Intern Omaha**
  - Acts as the liaison between school, student, and business partner
  - Manages internship logistics and any issues that arise

- **Establish one point of contact for each district**
  - Assigned by the superintendent; often a CTE administrator
  - Recruits students, coordinates schedules, and communicates with students and parents

- **Streamline the application process**
  - One application and one website for all internship postings
  - Employers provide a standard job description for each internship

- **Strategize around transportation barriers with students** (e.g., review map of bus system)
- **Connect with businesses that have remote placement options or satellite campuses**
- **Use grant funding to cover costs** (e.g., Google, Nebraska Department of Labor)
What parts of the Intern Omaha model might be difficult to scale?

- **One-size-fits-all model for supporting WBL in districts:** As Intern Omaha expanded, staff encountered districts with employer partnerships and less need or interest in support. As a result, the organization focused its efforts on implementing the model in districts with strong buy-in and a need for support. NDE may need to offer different levels and types of WBL support to appeal to all districts statewide.

- **Long-standing (10+ years) employer relationships and network:** Intern Omaha is part of a larger organization that has built strong business connections through non-WBL interactions. Intern Omaha capitalizes on these local networks, and scaling to a new region would require substantial groundwork for relationship building.

- **Hosting student experiences at the worksite:** Many businesses have large offices in Omaha that provide students in the region access to worksite-based WBL. Most of these business either have small or no offices in other regions of the state, limiting their capacity for onsite placements in other areas.
• WBL and Personal Learning Plans
  – In Ohio, the P3 pathway pilot tailors student academic training plans, coursework, and WBL experiences to meet student career aspirations.
  – Wisconsin recommends WBL as an exploration component of the academic career plans that are required for all students.

• Special education program partnerships to offer WBL to students with disabilities (SWD)
  – In partnership with the National Alliance for Partnerships in Equity (NAPE), Delaware’s PIPEline to Career Success project focuses on developing student learning plans for SWD that incorporate WBL experiences. In developing the pilot, the project leads conducted a root cause analysis to determine the specific needs of SWD and appropriately tailor WBL opportunities.
  – Minnesota documents WBL on individualized education programs for SWD, noting that the CTE teacher or WBL coordinator overseeing the experience must also have a special education credential.

• Other partnerships to serve as models for WBL partnerships serving SWD
  – The Workforce Innovation Technical Assistance Center lists exemplary programs offering WBL with vocational rehabilitation programs funded through the Workforce Innovation and Opportunity Act, which could serve as a model for implementation under Perkins V.
  – Using foundation funding, the National Center on Secondary Education and Transition reports that the “High School/High Tech” and “Bridges… From School to Work” programs offer SWD opportunities to complete WBL during high school.
Collecting Data on WBL Participation Among CTE Concentrators

• District-reported data
  – Participation is reported by LEAs using an online system or templates

• Course enrollment data
  – Participation is reported through student transcript data using course codes
  – Complexity of course code varies:
    ▪ Single general course code (West Virginia) or capstone course code (Delaware, South Dakota, Tennessee)
    ▪ Single code that can be attached to any course (Georgia)
    ▪ Multiple codes denoting types of WBL activities that can be attached to a course (New Jersey)
    ▪ Multiple career cluster–specific elective course codes (Florida)
• Wisconsin only uses School Courses for the Exchange of Data (SCED) codes to track students’ participation in the workplace experience portion of WBL that qualifies for Perkins V reporting.
  – The state handbook includes guidance on how to code experiences by level of rigor.
  – Guidance is also provided on what to exclude, such as school-based experiences. SCED codes are not used, for example, to track classroom-based WBL experiences such as employer presentations.

• Iowa’s guidance outlines a step-by-step process for documenting WBL experiences using SCED codes for Perkins V reporting.

• Georgia documents all WBL opportunities using SCED codes for Perkins and other reporting. SCED codes are combined with Classification of Instructional Programs (CIP) codes to document WBL by subject and allow staff to differentiate between WBL associated with CTE programs and other types.
  – Information beyond participation is collected by WBL coordinators (see slides 23 and 24).
<table>
<thead>
<tr>
<th>Data Collection Component</th>
<th>Georgia</th>
<th>Louisiana</th>
<th>Massachusetts</th>
</tr>
</thead>
<tbody>
<tr>
<td>How is WBL administered?</td>
<td>School-based WBL Coordinators coordinate all WBL opportunities related to CTE programs of study</td>
<td>WBL is led by CTE internship coordinators who are designated CTE teachers in each program of study</td>
<td>SEA funds regional workforce development boards to coordinate internships for all students</td>
</tr>
</tbody>
</table>
| What types of data are collected?         | • Job description, aligned with the Occupational Information Network (O*NET) job tasks and titles  
• Placement details (hours, industry, employer name)  
• Training plan that includes student goals  
• Other data points | • Job descriptions  
• Student work hours  
• Location of employment  
• Location of student  
• Student reflections and progress | • Job descriptions  
• Placement details (total hours, industry, employer name)  
• Training plan that includes student goals and an employability skill assessment |
| What systems or software are used to collect data? | Georgia Career, Technical, and Agricultural Education Resource Network C-NET | ImBlaze, an internship management platform                                 | Massachusetts Career Ready Database                                                                     |
| Are WBL data linked to other student data? | Directly linked to student record data                                   | Directly linked to student record data                                      | The database does not include student identification numbers but can be matched to student records using name and school |
Outside of *Perkins V* accountability data, Georgia’s WBL coordinators submit reports to the state on the scale of their WBL activities:

- Number of high schools served by each WBL coordinator
- Number of CTE students who participated in different types of WBL
- Number of students participating in a school-based enterprise
- Number of paid students employed by the school-based enterprise
- Number of students who are career and technical student organization members
- Employer engagement data points, such as the following:
  - Number of prospective employers visited by a WBL coordinator who are not yet working with students
  - Number of community meetings attended
  - Number of businesses considered to be partners of the program
Collecting WBL Data: Quality Assurance Strategies

• Offer teaching endorsements
  – Iowa, Georgia, and Tennessee offer teaching endorsements and certifications in WBL covering the development and management of WBL programs and preparing and supervising WBL students. Iowa maintains a web-based network for WBL educators and holds an annual WBL conference.

• Collect WBL training plans and related documents
  – The Massachusetts Career Ready Database collects data on participation, skills expected, and goal setting.
  – Ohio is piloting CTE Manager, a proprietary system that students, employers, and teachers can use to document participation and skill development and upload student materials, assessments, and evaluations.
WBL Data Use

• Currently, visualizations of WBL data are uncommon due to lack of statewide data, which will likely change as Perkins V implementation continues.

• More often, states present data on other CTE questions and topics, such as the following:
  - Providing completer status by cluster/pathway
  - Matching talent pipeline needs of business and industry
  - Identifying gaps in program delivery and access
  - Monitoring how special populations are served
  - Calculating return on investment

• See Appendix for examples of how states visualize WBL data and other CTE data sources.
### Program improvement need

#### Identify gaps and barriers in program delivery across schools and regions
- Secondary and postsecondary WBL and CTE data by school and program of study
- Transportation data from state transportation department (public transit routes, transit corridors)

#### Track students' skill gains
- Skill assessments before and after WBL experiences analyzed by school, industry, and experience type (to identify gaps)
- WBL placement data (wages, industry, activities)

#### Monitor participation rates and access by special populations
- Secondary and postsecondary WBL and CTE data by school and program of study
- Census/American Community Survey data (race/ethnicity, income and wages, workforce participation)

#### Match talent pipeline needs of business and industry
- Business data from state labor agency (North American Industry Classification System [NAICS] code, location, size)
- Economic development data from state labor or economic development agency (regional industry needs)
- WBL placement data (wages, industry, activities)

#### Inform the content of professional development
- Secondary and postsecondary WBL and CTE data by school and program of study
- Skill assessments before and after WBL experiences by school, industry, and experience type
- WBL placement data (wages, industry, activities)

#### Calculate return on investment
- WBL placement data (wages, industry, activities)
### WBL Data Use: Using Multiple Data Sources to Explore and Meet WBL Needs (Slide 2)

<table>
<thead>
<tr>
<th>Program improvement need</th>
<th>Data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide completer status by cluster/pathway or region</td>
<td>• Secondary and postsecondary WBL and CTE data by school and program of study</td>
</tr>
<tr>
<td>Comply with local, state, and federal policies and laws</td>
<td>• Secondary and postsecondary WBL and CTE data by school and program of study</td>
</tr>
<tr>
<td></td>
<td>• WBL placement data (wages, industry, activities)</td>
</tr>
<tr>
<td>Monitor student safety</td>
<td>• Logs from phone applications (e.g., ImBlaze, When I Work) on hours and location</td>
</tr>
<tr>
<td>Other explorations of local needs and contexts</td>
<td>• Centers for Disease Control and Prevention Social Vulnerability Index</td>
</tr>
<tr>
<td></td>
<td>• U.S. Department of Housing and Urban Development Access to Opportunity Index or Jobs Proximity Index</td>
</tr>
<tr>
<td></td>
<td>• Economic Innovation Group’s Distressed Communities Index</td>
</tr>
</tbody>
</table>
WBL Data Use: State Examples

- **Massachusetts**
  - Compare WBL availability by program and increase employer recruitment to address gaps
  - Provide data on students’ employability skills to schools to encourage tailored career readiness programming
  - Monitor student safety based on hours worked
  - Evaluate equity based on the demographics of student participants
  - Calculate return on investment based on student wages
  - Comply with state accountability reporting policies for WBL funding

- **Louisiana**
  - Revise WBL course and professional development trainings based on patterns in use of WBL resources and student participation in WBL offerings

- **Delaware**
  - Redirect resources such as funding to building partnerships in industries with higher student interest or industry need
Georgia shares WBL statistics on student participation, student outcomes, and employer outcomes on a webpage focused on employer recruitment.
Within a WBL program, Georgia compares participation across types of WBL experiences.
Massachusetts Connecting Activities Annual Report shares a network map of partner and member schools to understand the spread of WBL partnerships across the state.
Colorado’s CareerWise program reports annually on WBL completions and partnerships between education and industry to highlight successes and share data with funders.
Colorado’s Department of Labor and Employment creates annual reports on a statewide internship program for youth and adults in innovative industries. Because the program is oversubscribed, the state tracks the number of businesses denied along with completion metrics to track supply and demand. In addition to student completion, due to its measured success, this program will be replicated in new industries.

<table>
<thead>
<tr>
<th></th>
<th>FY 16-17</th>
<th>FY 17-18</th>
<th>FY 18-19</th>
<th>FY 19-20 (in progress)</th>
</tr>
</thead>
<tbody>
<tr>
<td># of internships spots approved</td>
<td>208¹</td>
<td>130²</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td># of businesses denied</td>
<td>25</td>
<td>53</td>
<td>38</td>
<td>51</td>
</tr>
<tr>
<td># of interns approved</td>
<td>231³</td>
<td>110</td>
<td>86</td>
<td>87 (to date)</td>
</tr>
<tr>
<td># of Veterans completed</td>
<td>14</td>
<td>4</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>completed internships</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed internships</td>
<td>181</td>
<td>110</td>
<td>83</td>
<td>N/A</td>
</tr>
<tr>
<td>Businesses under 100 employees</td>
<td>116</td>
<td>88</td>
<td>88</td>
<td>88</td>
</tr>
</tbody>
</table>
Iowa uses visuals to understand trends in the number of WBL courses offered over time and what percentage of those courses offer articulated college credit.
Iowa also annually reports on the number of students participating in WBL by demographic group to explore equity.
Kentucky releases annual High School Feedback Reports and CTE Feedback Reports, including data on student debt and employment status, and develops a Future Skills Report on industries of employment to show industry need and workforce pipelines.
At the postsecondary level, Kentucky Community & Technical College System developed an Occupational Wage and Demand Matrix to highlight talent pipeline gaps in program improvement planning. The equivalent at the secondary level might examine occupation alignment with programs of study.
The Tennessee Board of Regents publishes on regional job outlooks for graduates using mapping to highlight the (mis)match between programming and industry needs. At the secondary level, the higher education map might be replaced with a map of CTE programs of study or immersive WBL opportunities by industry.
Ohio shares interactive graphs that overlap occupations, labor force regions, and graduate counts in related fields of study to learn where additional training is needed.
Ohio used Geographic Information System (GIS) to identify equity gaps in access to CTE programs of study. This could be applied to WBL by examining gaps in access to WBL opportunities.
Similarly, Ohio used GIS to identify mismatches between CTE program of study offerings and industry needs. This approach could identify how WBL opportunities align with industry needs and CTE programs by region.
Florida calculates earnings data by education level and compares it with wage thresholds to show return on investment. In a WBL context, wages of graduates who participated in WBL could be compared with average wages by industry or education level.