Policy Academy on Scaling Work-Based Learning

*Fall Cross-State Meeting*

Wednesday October 3rd – Friday October 5th, 2018
Raleigh, North Carolina
Welcome

Fall Cross-State Meeting

Wednesday October 3rd
Overview

Fall Cross-State Meeting

Wednesday October 3rd
Deputy Secretary Napoleon Wallace

Deputy Secretary of Rural Economic Development and Workforce
North Carolina Department of Commerce

Wednesday October 3rd
Introductions

*Fall Cross-State Meeting*

Wednesday, October 3rd
Work-Based Learning in the U.S.: A National Overview

Fall Cross-State Meeting

Wednesday October 3rd
Work-Based Learning in the U.S.: A National Overview

- **Crystal Bridgeman**, Senior Director, Workforce Development Programs, Siemens Foundation
- **Tony Marshall**, President, Innovative Systems Group
- **Morgan Wilson**, Senior Legislative Associate, National Governors Association Office of Government Relations
- **Brent Parton**, Deputy Director, Center on Education and Skills, New America
Work-Based Learning in the U.S.: A National Overview

Questions?

Crystal Bridgeman, Siemens Foundation
Tony Marshall, Innovative Systems Group
Morgan Wilson, National Governors Association
Brent Parton, New America
State Team Time

*Fall Cross-State Meeting*

Wednesday October 3rd
State Team Time

- Alabama: Lincoln
- Idaho: Roosevelt
- Illinois: Jefferson & Washington
- Indiana: Jefferson & Washington
- Montana: Lincoln
- North Carolina: Jefferson & Washington
- New Hampshire: Caucus Room 1
- Nevada: Roosevelt
- Rhode Island: Caucus Room 1
- Utah: Jefferson & Washington
- American Samoa: Caucus Room 2
- Colorado: Caucus Room 2
- Kansas: Caucus Room 3
- Kentucky: Caucus Room 2
- Minnesota: Caucus Room 2
- Mississippi: Caucus Room 3
- South Dakota: Caucus Room 3
Day Two Overview

Fall Cross-State Meeting

Thursday October 4th
Defining and Serving Rural Communities

*Fall Cross-State Meeting*

Thursday October 4th
Defining and Serving Rural Communities

• Mark Haggarty, Economist, Headwaters Economics
• Baker Allen, Economic Policy Advisor, Office of Alabama Governor Kay Ivey
Defining and Serving Rural Communities

Photo: nicholas_t/flickr
Road Map

Defining Rural

Rural Performance

Rural Opportunity
Defining Rural

OMB Statistical Areas Designation by Population Size

Definition based on what Rural *lacks*: population, limited institutional capacity, geographic isolation, limited access to services (e.g. health care, education).
Defining Rural

USDA Economic Research Service County Typologies (Shared Characteristics)

Definition based on what Rural is:

county typologies focused on agriculture, energy, recreation, demographics that define shared characteristics of rural places.
Defining Rural

“Three Wests” Classification Based on Economic Opportunity

**METRO**
- Higher wages
- Less volatility
- More high-wage services
- Fastest-growing
- Younger, More educated

**CONNECTED** (via airports)
- Over time, perform like METRO

**RURAL & ISOLATED (3% Pop, 50% Area)**
- Lowest wages
- Most volatility
- Few high-wage services
- Slowest-growing
- Older & aging
- Less well-educated

https://headwaterseconomics.org
Rural Performance

U.S. Economy is Growing

Source: Bureau of Labor Statistics

https://headwaterseconomics.org
Growth is Uneven and Unequal

20 cities are responsible for 50% of all new business formations since the Great Recession

Economic Innovation Group Distressed Communities Index Series, May 2018

https://headwaterseconomics.org
Rural Performance

Changing Economic Geography

Since 2000

75% of new jobs created in 5 Montana counties
## Rural Performance

95% of New Jobs in U.S. in **SERVICES**

<table>
<thead>
<tr>
<th>Industry</th>
<th>New Jobs 2000-2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health care &amp; social assistance</td>
<td></td>
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<tr>
<td>Accommodation &amp; food services</td>
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<tr>
<td>Real estate &amp; rental &amp; leasing</td>
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<td>Professional &amp; technical services</td>
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<tr>
<td>Administrative &amp; waste service:</td>
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<tr>
<td>Other services, except public admin.</td>
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<td>Finance &amp; insurance</td>
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<tr>
<td>Educational services</td>
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<td>Transportation &amp; warehousing</td>
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<tr>
<td>Arts, entertainment, &amp; recreation</td>
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<td>Government &amp; government enterprises</td>
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<td>Retail Trade</td>
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<td>Mining</td>
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<td>Management of companies &amp; enterprises</td>
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<td>Wholesale trade</td>
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<td>Forestry, fishing, &amp; related activities</td>
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<tr>
<td>Construction</td>
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<td>Utilities</td>
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<td>Farm employment</td>
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<td>Information</td>
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<tr>
<td>Manufacturing</td>
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<th>Services</th>
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</table>
“In the twentieth century, competition was about accumulating physical capital. Today it is about attracting the best human capital.”
Most Important New Jobs Are In “Innovation”
Productivity Gains Shed Jobs in Traditional Sectors

Low-value manufacturing (textiles, autos) sent offshore. High-value manufacturing remained in U.S. and automated.
Beginning around 1970, productivity gains no longer translate to higher wages & income.
## Rural Performance

**Resource Dependence ≠ Future Performance**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Performance</th>
<th>Good Performance</th>
<th>Poor Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop. Change per 1,000</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Average Wages</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Household Income</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>College Degrees</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Families in Poverty</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

- **County performance on various measures of growth and prosperity predicted by trajectory in 1990**
  - Proximity to Metro / Industry Diversity
  - Amenities / Quality of Life
  - Education
  - Community Vision / Adaptability

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https://headwaterseconomics.org
Rural Opportunity

Theory of Rural Development

Agriculture, resource extraction & tourism

Transportation, infrastructure, community capacity

Diverse economy:
Agriculture, resource industries, tourism, plus …
high-wage services, investment income, retirement, construction, health care, retail, etc.
Rural Opportunity

Improve in Access to Markets

Cedar City/Iron County Economic Development

Where...
I-15
Rail
Southern Utah University
Work force
Technology
Ideas

....Connect

CedarCity.org • 435-586-2770 • CEDAR@CEDARITY.ORG

https://headwaterseconomics.org
Rural Opportunity

Leverage recreational and natural amenities

https://headwaterseconomics.org
Rural Opportunity

Use resource endowments to reinvest in workforce and institutions

Rural Opportunity

Senators eye funding fix for Secure Rural Schools

Kellie Lunney, E&E News reporter
Published: Friday, September 7, 2018
RANCH OWNERSHIP & COMMUNITY IN PETROLEUM COUNTY, MONTANA

578,479 private acres
105 ranch properties

1.4

On average, each ranch property supports 1.4 families

87 are “Winnett”-based

22 ABSENTEE OWNERS

18% of the county’s private ranch land is owned by individuals whom locals could not recognize in the grocery store

33% unclear

Will the property be in agricultural use in 15 years?
Only a crisis - actual or perceived - produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes the politically inevitable.
Thank You or Questions?

HEADWATERS ECONOMICS

https://headwaterseconomics.org
RURAL ALABAMA AND
WORKFORCE
DEVELOPMENT

Baker Allen
Economic Policy Advisor
State of Alabama Office of Governor Kay Ivey
Rural Alabama
38 counties
24% of the population
Workforce and Education Attainment Goal

Development Goal:

500,000 additional Alabamians will earn postsecondary degrees, certificates, and credentials by 2025.
How do we get there?
I. Develop skills necessary for a student to pursue a career.

II. Connect those student to career opportunities in growing in-demand industries.
Statewide Obstacles

- Teacher shortage especially in STEM fields
- Misalignment between career and technical education programs and regional industry demand
- Lack of employability skills and job experience among youths and young adults
Rural Obstacles

- All the same statewide obstacles
- Transportation
- Less work-based learning opportunities
- Higher unemployment rates
- Lack of access to broadband internet speeds
Rural Workforce Development

- Career and technical education center in every county
- Professional development for educators.
- Broadband Deployment
- Career exploration for 5th-7th grade students
- Target regionally in-demand careers through LMI data and feedback from the Alabama Workforce Council
Career and Technical Education Centers

• In 2015, the Alabama State Department of Education set out to build a CTE center in every county.
• Each of center contains a simulated workplace.
• Provides students with a place to develop employability skills.
Teacher Professional Development

- Develop pathways for existing teachers to earn certificates for computer science
- Combine computer science professional development funding streams and focus on training, not equipment
- Fully funding our CTE directors
Career Exploration

• Use Perkins funds for 5th-7th grade for career exploration.
• Allocate WIOA title I funds for career development
• Adopt technology to allow students to explore different career paths
Defining and Serving Rural Communities

Questions?

Mark Haggarty, Headwaters Economics
Baker Allen, Office of Alabama Governor Kay Ivey
Understanding Outcomes & Using Evidence to Make Decisions (Concurrent Sessions)

Fall Cross-State Meeting

Thursday October 4th
Concurrent Sessions

Defining High-Quality Work-Based Learning (Roosevelt)
- Lauren Eyster, Senior Fellow, The Urban Institute
- Dwayne Hobbs, Work-Based Learning Specialist, Georgia Department of Education

Strategies for Linking K-12 and Workforce Data Systems (Jefferson & Washington)
- Elizabeth Dabney, Director, Research and Policy Analysis, Data Quality Campaign
- Jenna Leventoff, Senior Policy Analyst, Workforce Data Quality Campaign
- Ross Goldstein, Executive Director, Maryland Longitudinal Data System Center
- David Seith, Researcher, Workforce Data Quality Initiative, Rutgers John J. Heldrich Center for Workforce Development

Using Data to Influence Policy Change (Lincoln)
- Manny Lamarre, Executive Director, Nevada Governor’s Office of Workforce Innovation (OWINN)
- Shaun Engstrom, Apprenticeship Program Liaison, Oregon Employment Department
Defining High-Quality Work-Based Learning

Fall Cross-State Meeting

Thursday October 4th
Defining High-Quality Work-Based Learning

• Lauren Eyster, Senior Fellow, The Urban Institute
• Dwayne Hobbs, Work-Based Learning Specialist, Georgia Department of Education
Defining and Measuring High-Quality Work-Based Learning

Lauren Eyster
October 4, 2018
Goals for the Session

• Introduce a systems change framework for defining and measuring high-quality work-based learning
• Better understand how one state – Georgia – built a system that supports high-quality work-based learning
• Consider your state’s next steps for defining high-quality work-based learning and measuring progress in changing your system
Systems Change Framework for High-Quality Work-Based Learning
Principles of Systems Change

1. Systems change focuses on changing policy, practice, perceptions, funding, and institutions.

2. Collaboration and relationships are central components to systems change.

3. Systems change initiatives are complex and multilevel.

4. The desired effects are sustained and institutionalized.
# Systems Change Logic Model

## SYSTEM COMPONENTS

<table>
<thead>
<tr>
<th>EMPLOYERS, INDUSTRY, AND THE WORKFORCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business and trade associations, industry organizations, employers, labor unions, and staffing agencies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EDUCATION AND TRAINING PROVIDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-year colleges, four-year colleges and universities, K-12 public school districts, nondegree education and training providers, and adult education providers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GOVERNMENT AND THE PUBLIC SECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Job Centers, workforce development boards, public libraries, public social service agencies, economic development agencies, elected officials, and local, state, and federal governments.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NONPROFIT AND COLLABORATIVE ENTITIES AND FUNDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community- and faith-based organizations, foundations and philanthropic organizations, workforce service providers, and workforce intermediaries.</td>
</tr>
</tbody>
</table>

## ACTIVITIES

<table>
<thead>
<tr>
<th>IDENTIFY SYSTEM NEEDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify and highlight challenges and opportunities in a workforce system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DEVELOP A SYSTEMS CHANGE PLAN</th>
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<tbody>
<tr>
<td>With input from appropriate stakeholders, determine strategies to improve a workforce system.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COORDINATE OR IMPROVE SYSTEM COMPONENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen the capacity of system components, change practices, or build connections.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRACK SYSTEMS CHANGE PROGRESS AND MAKE CONTINUOUS IMPROVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regularly collect and assess data to measure progress towards goals and make adjustments.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCALE OR REPLICATE STRATEGIES OR SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand and sustain effective programs, policies, or approaches, or replicate strategies in new contexts.</td>
</tr>
</tbody>
</table>

## GOALS

### SYSTEM-LEVEL GOALS

<table>
<thead>
<tr>
<th>COLLABORATION</th>
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</thead>
<tbody>
<tr>
<td>Actors have a shared vision or coordinated approach to serving workers and employers and effectively work together to solve problems and share best practices.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QUALITY AND ACCESSIBILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services are visible and accessible to and meet the needs of those who need them, especially people with disadvantages or barriers to employment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDUSTRY ENGAGEMENT</th>
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<tbody>
<tr>
<td>The system is informed by business needs, and employers are invested partners in workforce efforts.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DATA-DRIVEN DECISIONMAKING</th>
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<tbody>
<tr>
<td>Actors collect and use quality data to design and continuously improve programs and services.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>SCALE AND SUSTAINABILITY</th>
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<tbody>
<tr>
<td>The system has adequate programs, funding, and policies to reliably meet the needs of individuals and employers over time.</td>
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</table>

### WORKER- AND EMPLOYER-LEVEL GOALS

| Employers can hire and retain workers with needed skills. Workers have good jobs and opportunities for advancement. |

## MEASUREMENT OF OUTPUTS AND OUTCOMES

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**URBAN INSTITUTE**
How do we use the systems change framework to define and measure high-quality work-based learning?
Let’s review NGA’s framework for high-quality work-based learning

Source: National Governors Association Center for Best Practices
Defining Partnership Agreements

“The program includes a clearly articulated agreement among the employer, participant and education institution or intermediary organization that identifies expectations for each partner and the general structure of the experience”

Sample questions:

- What is the goal of the agreement?
- Who is responsible for developing, coordinating, and execute the partnership agreements?
- What does the agreement contain? How are the expectations (roles/responsibilities) for each party set?
Partnering Agreement Goal – Sample Measures

<table>
<thead>
<tr>
<th>Measure 1</th>
<th>Measure 2</th>
<th>Measure 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative</td>
<td>Cross-sector group convened to develop WBL agreement template</td>
<td>Partnering agreement template developed</td>
</tr>
<tr>
<td></td>
<td>Technical assistance provided to WBL programs on partnering agreement</td>
<td></td>
</tr>
<tr>
<td>Quantitative</td>
<td>No. of partnership agreements initiated</td>
<td>No. of partnership agreements signed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No. of participants who signed an agreement who completed the WBL program</td>
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</tbody>
</table>
Defining Authentic Work Experience

“The participant engages in an authentic work experience that is supervised and mentored by an industry professional.’

Sample questions:

• What are the components of an “authentic” work experience in your state?
• How does an authentic work experience contribute to the success for workers and employers in your state?
• What is the role of an industry professional in work-based learning that meets your state’s definition of authentic work experience?
• How will you determine whether a program meets your definition of authentic work experience?
## Authentic Work Experience Goal – Sample Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Qualitative</th>
<th>Measure 2</th>
<th>Measure 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Definition or standards developed for authentic work experience</td>
<td>Technical assistance provided to WBL programs on authentic work experiences</td>
<td>Deployment of training for industry representatives on work experience</td>
</tr>
<tr>
<td></td>
<td>X number of WBL programs implement the components of an authentic work experience</td>
<td>X number of employers providing authentic work experience</td>
<td>X% of WBL participants who receive authentic work experience find jobs in occupation of training</td>
</tr>
</tbody>
</table>
Structured Learning

“Closely connected to the authentic work experience, the structured learning component is designed to connect theory with practice and workplace skills.”

Sample questions:
• How does your state define structured learning?
• What are the key components of structured learning?
• How does structured learning contribute to success for employers and workers in your state?
• How will you determine whether their WBL programs meet the definition of structured learning?
### Structured Learning Goal – Sample Measures

<table>
<thead>
<tr>
<th>Measure 1</th>
<th>Measure 2</th>
<th>Measure 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Qualitative</strong></td>
<td>Definition of structured learning and its components developed</td>
<td>Alignment of WBL curriculum with structure learning components</td>
</tr>
<tr>
<td><strong>Quantitative</strong></td>
<td>% WBL programs that include some structured learning components</td>
<td>% WBL programs that include all structured learning components</td>
</tr>
</tbody>
</table>
Assessment and Recognition of Skills

“The program culminates in an assessment and recognition of skills by a third party to ensure that recognition is aligned with the attainment of a credential or progress along a career pathway.”

Sample questions:

• How is assessment and recognition of skills defined in your state?
• What are the standards your state uses for assessment and credentialing for WBL by third parties? Which third parties can provide assessment and credentials for WBL in your state?
• How will assessment and credentials show progress along a career pathway?
## Assessment and Recognition of Skills Goal – Sample Measures

<table>
<thead>
<tr>
<th>Measure 1</th>
<th>Measure 2</th>
<th>Measure 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative</td>
<td>Development of standards for assessment and recognition of skills (e.g., credential earned)</td>
<td>Alignment of WBL curricula with standards for assessment and recognition of skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deployment of standards for assessment and recognition of skills to WBL programs</td>
</tr>
<tr>
<td>Quantitative</td>
<td>X% of WBL programs meet standards for assessment and recognition of skills</td>
<td>X% of WBL participants are in programs that meet standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X number of employers hiring completers from WBL programs that meet standards</td>
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</tbody>
</table>
Link to System Change Framework for Workforce Development:

https://www.urban.org/research/publication/changing-workforce-systems
Questions?
Georgia Work-Based Learning

Dwayne Hobbs, WBL Specialist
dhobbs@doe.k12.ga.us
404 606 2348
History of WBL in Georgia

- Pre 1970 - Specific on the job opportunities built into some vocational and training courses.
- 70's and 80's - Development of Trade and industrial Education and many other vocational areas focused on occupational training. Coop or internship was added to many curriculums. Diversified Cooperative Training (DCT) was created and funded by the state.
- 1994 Youth Apprenticeship Law was passed and pilot sites were conducted in 1995. State funded grants are used to support existence of Youth Apprenticeship coordinators in the schools.
- 2004 Youth Apprenticeship grant was expanded to allow all local systems to apply for funding.
- 2006 WBL Re-Engineering consolidated all fragmented programs into one school wide WBL coordinator model to serve students from all CTAE areas.
- 2007-2016 - large increase in the number of WBL coordinators and enrollment.
- 2007 - Creation of the 12 for Life program in Carrolton with Southwire.
- 2015 - First MOU between GaDOE and Great Promise Partnership.
- 2016 - Creation of the German Apprenticeship model within the WBL program at CEC and Swiss model at Whitfield Career Academy.
- 2017 - Cooperative effort of with GaDOE and Career Academies to submit a WECEP application to the federal government to allow 15 year olds to participate on the worksites of the German Apprenticeship model.
CTAE Resource Network

How It Works:

• The CTAE resource network is a unique non-profit consortium that provides professional learning, instructional resources, and data/communication support for Georgia’s Career, Technical, and Agricultural Education programs.
• 100% of Georgia school systems participate through membership
• Professional Learning Grant - Percentage of local system’s Perkins funds
• Funding through the Georgia Department of Education
• Governed by a Board of Administrators from local school systems
• Staff includes: Executive Director, Accounting Firm for Business Services, Support Specialist (phone and email hotline)
WBL Professional Development

• Region Meetings – 3 or 4 per year
  • Most important professional learning event for WBL.
  • Even though this is a challenge with part time coordinators find a way to enable them to attend.

• GACTE – Technical updates on affiliate day

• WBL/YAP Conference

• Basic Training Part A (June) and Part B (January or February) – Geographically located, North, Central, South

• WBL Update/Refresher Training – Always in June

• Top Gun – Best of the Best by invitation only
Georgia WBL Delivery Model

Examples of Pathways Available in the School

- Construction
- Engineering/Technology
- Business Management
- Marketing
- Culinary
- Health Care
- Public Safety

School-Wide Work-Based Learning Coordinator

WBL Placement Opportunities:
- YAP
- Internship
- Coop
- ESD

Employers/Placement Sites
Career Related Education Model

Career Awareness
- Guest Speakers
- Career Fairs
- Field Trips

Career Exploration
- Mock Interviews
- Job Shadowing
- Student Portfolios

Connecting Activities
- Advisory Committees
- Post-Secondary Connections
- Articulation

Instructional Related Activities
- Technical Skill Attainment
- School Based Enterprises
- Employability Skills

Work-Based Learning
- Youth Apprenticeship
- Internship
- Cooperative Education
- Employability Skill Development
WBL Criteria

The Three Interlocking Components of Work-Based Learning

- Student’s Career Goal
- Related Coursework
- Structured Work Experience
WBL Classifications

Students in Work-Based Learning are classified in one of four ways according to the alignment of their career-tech coursework with job placement and future postsecondary/career plans:

• Youth Apprenticeship (YAP) Including the German Apprenticeship Models
• Internship
• Cooperative Education (Co-op)
• Employability Skills Development (ESD)
• Great Promise Partnership (GPP)
Student Enrollment in CTAE Classes FY17
(Students enrolled in one or more CTAE courses)
60% of all Students in Grades 9-12 Statewide (344,971 students)
94.9% Graduation Rate for CTAE Concentrators

Percentage of WBL Students at risk, disadvantaged or Special Ed. Equals 16% (3 year average)
WBL Student Enrollment Credit Earned in Full Time Equivalent (FTE) Segments

FY 2006: 21034
FY 2007: 18387
FY 2008: 23141
FY 2009: 23026
FY 2010: 21878
FY 2011: 20928
FY 2012: 19130
FY 2013: 22143
FY 2014: 22786
FY 2015: 23868
FY 2016: 24627
FY 2017: 33444
Authority for Data Collection

YAP Grant Annual Assessment

• Each grant recipient must submit an Annual YAP Assessment to continue receiving funding.
• YAP Assessment is completed and submitted on CTAERN.
  • Requires approved by the CTAE Director
• Due date mid/late April
Authority for Data Collection

- Student Longitudinal Data System (SLDS)
- State Board of Education Rules:
  - **160-4-3-.14 WORK-BASED LEARNING PROGRAMS:**
    (e) Each Work-Based Learning Coordinator shall submit the annual Work-Based Learning Data Report according to the process established by the Division of Career, Technical and Agricultural Education.
    (f) Each Work-Based Learning Coordinator shall maintain an accurate, up-to-date database of student records as specified by the Division of Career, Technical and Agricultural Education.
    (g) Career Related Education activities including Work-Based Learning placement opportunities shall be conducted in accordance with the guidelines in the *Georgia Work-Based Learning Manual*, available from the division of Career, Technical and Agricultural Education.
- Career, Technical and Agricultural Education Resource Network (CTAERN)
## Georgia C-NET Employers

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Location</th>
<th>Students Currently Employed</th>
<th>Current Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DQ Grill &amp; Chill Restaurant</td>
<td>312 S. 1st St., Jesup, GA</td>
<td>Jesup, GA</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>007 Eyes</td>
<td>420 W. Cherry St., Jesup,</td>
<td>Jesup, GA</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4-H Extension Office</td>
<td>Sunset Blvd., Jesup, GA</td>
<td>Jesup, GA</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>A Child’s World</td>
<td>1422 City Circle Road,</td>
<td>Bailey, GA</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>ACS Timber, LLC</td>
<td>2544 Nine Run Road,</td>
<td>Screven, GA</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Adcore Staffing</td>
<td>Aiken, SC</td>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Advance Health Care Center</td>
<td>301 S. 1st St., Jesup, GA 31545</td>
<td>GA</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Allstate</td>
<td>856 S. 1st Street, Jesup, GA 31545</td>
<td>GA</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Altamaha Federal Credit Union</td>
<td>467 S. 1st Street, Jesup, GA 31545</td>
<td>GA</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Americana Grill</td>
<td>Jesup, GA</td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Ankle &amp; Foot Associates</td>
<td>331 Peachtree St., Jesup, GA 31545</td>
<td>GA</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Arthur Williams Middle School</td>
<td>555 Sunset Blvd., Jesup, GA</td>
<td>Jesup, GA</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
Georgia C-NET Students

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Grad Year</th>
<th>Student Type</th>
<th>Jobs</th>
<th>YTD Visits</th>
<th>YTD Assessments</th>
<th>YTD Hours</th>
<th>YTD Pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elum, Trey</td>
<td>2018</td>
<td>COOP</td>
<td>Farming Assistant</td>
<td>2</td>
<td>1</td>
<td>935</td>
<td>$11,220.00</td>
</tr>
<tr>
<td>Grantham, Clayton</td>
<td>2019</td>
<td>COOP</td>
<td>Stock Clerk</td>
<td>2</td>
<td>1</td>
<td>253</td>
<td>$2,281.50</td>
</tr>
<tr>
<td>Hardenbrook, Clay</td>
<td>2018</td>
<td>COOP</td>
<td>Computer Technician Assistant</td>
<td>2</td>
<td>1</td>
<td>350</td>
<td>$2,541.13</td>
</tr>
<tr>
<td>Hopkins, Taniyah</td>
<td>2018</td>
<td>COOP</td>
<td>Cashier</td>
<td>2</td>
<td>1</td>
<td>456</td>
<td>$3,501.00</td>
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<tr>
<td>Lyric, Zachary</td>
<td>2019</td>
<td>COOP</td>
<td>Stock Clerk/Laborer</td>
<td>2</td>
<td>1</td>
<td>562</td>
<td>$4,500.00</td>
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<tr>
<td>Mendez, Samantha</td>
<td>2018</td>
<td>COOP</td>
<td>Office Assistant</td>
<td>2</td>
<td>1</td>
<td>333</td>
<td>$2,803.00</td>
</tr>
</tbody>
</table>
WBL/YAP Data Reports

### Annual Data Reports

<table>
<thead>
<tr>
<th>WBL Annual Reports</th>
<th>YAP Annual Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submitted to State</td>
<td>Submitted to State</td>
</tr>
<tr>
<td><a href="#">Generate PDF</a></td>
<td><a href="#">Generate PDF</a></td>
</tr>
</tbody>
</table>
State Board Rules require Work-Based Learning Coordinators to “implement the program according to the Georgia Work-Based Learning Manual – Including Standards and Guidelines for Work-Based Learning.” All Work-Based Learning Coordinators should complete this report as it relates to their specific program.

### Standard 1: A wide array of Career Related Education (CRE) activities are integrated into all CTAE classes to support work-based learning placements and help students become college and career ready.

<table>
<thead>
<tr>
<th>School</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1-A Total number of high schools served by you as the WBL Coordinator</td>
<td>1</td>
</tr>
<tr>
<td>S1-B Total school(s) population</td>
<td>1470</td>
</tr>
<tr>
<td>S1-C Total number of CTAE teachers in the school(s)</td>
<td>14</td>
</tr>
<tr>
<td>S1-D Estimated number of students enrolled in at least one CTAE class</td>
<td>1350</td>
</tr>
</tbody>
</table>

### Standard 2: Age appropriate Career Awareness activities in the Career Technical and Agricultural Education class are designed to make students aware of career choices and promote college and career readiness.

Estimate the total number of students at your school(s) who participated in the following Career Awareness activities which you arranged or helped coordinate:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>S2-A Guest Speakers for CTAE classes</td>
<td>900</td>
</tr>
<tr>
<td>S2-B Field trips</td>
<td>217</td>
</tr>
<tr>
<td>S2-C Industry tours</td>
<td>72</td>
</tr>
<tr>
<td>S2-D Career Day/Career Fair</td>
<td>263</td>
</tr>
</tbody>
</table>

### Standard 3: Age appropriate Career Exploration Activities in the Career Technical and Agricultural Education classes are conducted with individuals or small groups of students to explore career options.

Estimate the number of your WBL students, who at any time during high school, have participated in the following Career Exploration Activities conducted or organized by you:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>S3-A Individual Advisement/Guidance Sessions/Planning the Individual Career Plan</td>
<td>85</td>
</tr>
<tr>
<td>S3-B Mock Interviews</td>
<td>14</td>
</tr>
<tr>
<td>S3-C Job Shadowing</td>
<td>28</td>
</tr>
<tr>
<td>S3-D Student Portfolios/Journals</td>
<td>85</td>
</tr>
<tr>
<td>S3-E Conferences/seminars (includes CTSO participation)</td>
<td>26</td>
</tr>
<tr>
<td>S3-F Estimate the number of students participating in Job Shadowing in your school that are not WBL students</td>
<td>864</td>
</tr>
</tbody>
</table>
Standard 6.A: Work-based learning placements are appropriate and accurately identified as Employability Skill Development (ESD), Cooperative Education (Co-op), Internship, or Youth Apprenticeship (YAP).

Enter the number of students served by you in your WBL program this school year. This count is actual students regardless of the number of periods or blocks they are entitled for in WBL or the number of credits being received. This count is the total number of different persons served all year (semester one and two). If a student is in your program both semesters only count them once. If a student is no longer in your program but was enrolled for at least one grading period include them in this count. Do not include any students enrolled in YAP.

<table>
<thead>
<tr>
<th>Cluster Description</th>
<th>ESD</th>
<th>Coop</th>
<th>Internship</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>0A1 - Agriculture, Food and Natural Resources Career Cluster (01, 02, 03)</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>0A2 - Architecture and Construction Career Cluster (40, 47)</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>0A3 - Arts, AV/Technology and Communications Career Cluster (10, 48)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>0A4 - Business, Management and Administration Career Cluster (06, 07)</td>
<td>0</td>
<td>1</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>0A5 - Education and Training Career Cluster (13)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A6 - Energy Career Cluster (21)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A7 - Finance Career Cluster (07)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A8 - Government and Public Administration Career Cluster (JROTC 28, 43)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A9 - Health Science Career Cluster (25)</td>
<td>10</td>
<td>3</td>
<td>7</td>
<td>20</td>
</tr>
<tr>
<td>0A10 - Hospitality and Tourism Career Cluster (20, 08)</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>0A11 - Human Services Career Cluster (12, 20)</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>0A12 - Information Technology Career Cluster (11)</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>0A13 - Law, Public Safety, Corrections and Security Career Cluster (43)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A14 - Manufacturing Career Cluster (49)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A15 - Marketing Career Cluster (08)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A16 - Science, Technology, Engineering, &amp; Math Career Cluster (21, 40)</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>0A17 - Transportation, Distribution and Logistics Career Cluster (47)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>0A18 - Advanced Academic Pathway (23, 28, 27, 45)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>0A19 - Fine Arts Pathway (50, 51, 52, 55)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A20 - Foreign Languages (60, 61, 62, 63)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0A21 - Great Promise Partnership (35)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>25</td>
<td>9</td>
<td>51</td>
<td>86</td>
</tr>
</tbody>
</table>
Supports for WBL/YAP programs in Georgia

- WBL Manual and Website
- Professional Learning Opportunities
- Data Collection on Program implementation
- Weighted Funding and Competitive Grants
- 24 Standards for WBL Programs
- College and Career Readiness Performance Indicator
- GACTE Affiliate State Executive Board Region meetings
Challenges for WBL

- Reluctance of employers to hire students under 18
- Lack of understanding of the Fair Labor Standards Act
- Part time WBL coordinators. Low number of full time WBL coordinators
- Diversity of placements from all CTAE pathways in the school
- 72% of WBL Students get their own job. 29% for YAP
- Level of Employability Skills that WBL possess.
Host State Highlight: North Carolina

Questions?

Lauren Eyster, Senior Fellow, The Urban Institute
Dwayne Hobbs, Work-Based Learning Specialist, Georgia Department of Education
Strategies for Linking K-12 and Workforce Data Systems

*Fall Cross-State Meeting*

Thursday October 4th
Strategies for Linking K-12 and Workforce Data Systems

• Elizabeth Dabney, Director, Research and Policy Analysis, Data Quality Campaign
• Jenna Leventoff, Senior Policy Analyst, Workforce Data Quality Campaign
• Ross Goldstein, Executive Director, Maryland Longitudinal Data System Center
• David Seith, Researcher, Workforce Data Quality Initiative, Rutgers John J. Heldrich Center for Workforce Development
Building Capacity for your State Longitudinal Data System

Elizabeth Dabney, Data Quality Campaign
Jenna Leventoff, Workforce Data Quality Campaign
Ross Goldstein, MLDS Center
David Seith, Heldrich Center at Rutgers University
Why This Matters

Securely linking data between K–12 and workforce data systems can help both agencies:

- Answer critical policy and practice questions
- Analyze workforce needs
- Understand the quality and benefits of work-based learning opportunities and job placements
- Calculate the return on investment for programs (e.g., CTE, career academy programs, apprenticeships)
Roadmap for K–12 and Workforce Data Linkages

Key Focus Areas to Ensure Quality Implementation

Where are we going?

Alignment between K–12 education and the workforce is critical because jobs are changing. Students must be prepared not only for the jobs of today but also for the jobs of the future. The American public wants schools to prepare students for work as well as higher education, and many states are working toward this goal. With access to current, accurate, and robust data, state education and workforce agencies can work together to support students to successfully transition out of high school, no matter what path they choose. Securely linking data between K–12 and workforce data systems can create a bridge between these agencies as they develop shared career readiness goals for students and the state. Data can help the K–12 agency understand what training and skills students require to meet employers’ needs and help the workforce agency make the best use of students’ educations.

Having high-quality data linkages between K–12 and workforce data systems allows states to answer questions such as the following:

- How do we prepare students for the jobs of today and the jobs of the future? What jobs are in demand now, and what jobs will be in demand? What skills, credentials, and degrees are required for these jobs?
- What are the workforce outcomes (e.g., employment rates) of career and technical education (CTE) participants? Which CTE programs are tied to high-paying and high-demand jobs?
- How do workforce outcomes differ among students from different groups (e.g., rural/urban, race/ethnicity)?
- Are students obtaining certification or employment near where they attended high school?
- What are the employment patterns and workforce outcomes of recent high school graduates during the years after graduation?
- In what industries do graduates work after high school? Are students successfully prepared to work in those industries? Is the teaching workforce prepared for workforce-related instruction?
- Are work-based learning opportunities (e.g., apprenticeships, internships) for high school students aligned with industry needs? Are industry needs listed, and if so are they easily accessible?
- How do workforce outcomes vary for high school students who participated in different work-based learning opportunities?
- What are the workforce outcomes of high school noncompleters or adult learners?
- What supports are needed for successful transitions from K–12 to the workforce?

Sharing aggregate data among workforce and state and local education agencies can improve the work of these agencies in the following ways:

- Providing policymakers with evidence to demonstrate the value of work-based opportunities for students
- Helping state and local policymakers identify how to use linked data for policymaking
- Helping stakeholders such as educators, families, and employers advocate for better laws, better policies, or increased funding
- Increasing accountability among state and local agencies
- Supporting policymakers in evidence-based decisionmaking and resource allocation
- Acting as a catalyst to encourage other kinds of data sharing (in compliance with privacy laws), including student-specific sharing and real-time data exchanges to better monitor and support improved outcomes for students

While data linkages can be used in many ways to inform the design of programs at the K–12 level, the value of linkages goes beyond improving program outcomes. Linkages should be leveraged to ensure that students are being best served and that schools and districts are continuously improving.

---

1. Most K-12 students require some form of postsecondary education or training, and high schools should prepare students for these postsecondary paths. Many high-priority industries in states require two-year degrees, so students will need to know how many students enroll in these career pathways and programs of study through postsecondary. The ideal program of study is one that spans secondary and postsecondary. However, it is possible for students to prepare for meaningful work immediately after high school through career and technical education or work-based learning. The focus of this roadmap is on very linkage data between K–12 and workforce agencies to better understand and support students’ paths from high school directly into the workforce. For additional information, see Roadmaps for K–12 and Postsecondary Data Linkages.
Six Key Areas to Focus On

1. Shared Vision
2. Cross-Agency Data Governance
3. Data Matching and Sharing
4. Data Analysis and Use
5. Capacity Building
6. Privacy and Security
Shared Vision

Establish up front a shared vision between the education and workforce agencies to ensure that the agencies enter the data sharing agreement with an understanding of the unique role and perspective each has in providing information to better support students.
Cross-Agency Data Governance

Develop a structure in which to define the roles and responsibilities of each agency needed to ensure clear processes and a reasonable timeline for collecting and reporting data and to ensure accountability for data quality and security.
Data Matching and Sharing

Develop a deliberate process for securely sharing data between K–12 and workforce data systems to ensure a sustainable linkage. These linkages should include a high-quality matching process that allows data about individual students to be accurately and securely shared between data systems and only with authorized users.
Data Analysis and Use

Determine which entities have **access** to the linked data (including **differentiating access** to individual student-level data and aggregate data).

Determine how the linked data will be **analyzed, reported** (in a readily accessible format), **and used** to answer critical policy questions and support student success.
Capacity Building

Ensure that all agencies involved have the structure and staffing in place to effectively manage, analyze, and share linked data to take action to support all students.
Privacy and Security

Develop **strong, multifaceted, and transparent** processes to ensure that shared data is **safeguarded** consistent with federal and state information sharing laws.
Apprenticeship Data
Measuring Non-Degree Credential Attainment: 50-State Scan

• 50 States and the District of Columbia

• Questions Asked:
  • Collect individual-level data on attainment of each type of non-degree credential?
  • Include that data in their State Longitudinal Data System?
  • Include demographic information on individuals?
  • Identify credentials of value?
In any state agency:

- 27 states most/all registered apprenticeship certificates
- 2 states most/all non-registered apprenticeship certificates

In SLDS:

- 9 states most/all apprenticeship certificates
- 1 state most/all non-registered apprenticeship certificates
WDQC’s Technical Assistance Work

WDQC is providing 4 states with TA to:

• Gather administrative data about non-degree credentials
• Incorporate data into SLDS
• Identify Credentials of Value
How States Can Get Apprenticeship Data
• Have your state’s workforce development agency request data from your state’s regional Employment and Training Administration representative

• Sign a memorandum of understanding with the Department of Labor, and agree to keep the data safe
State Apprenticeship Agency State

Interagency data sharing agreement with SAA
Agenda

- Overview of MLDS Center
- Workforce Data Considerations
  - Limitations
  - What’s missing
  - Linking workforce data
- MLDS Center – Workforce Outcomes Reporting
  - Research Branch Report
  - Dashboard
  - Pathway Analysis
WHAT does the MLDS Center do?

- Develop and maintain a data system that contains student and workforce data from all levels of education and the State’s workforce.

- Use the system to generate timely and accurate information about student performance that can be used to improve the State’s education system and guide decision makers at all levels.

http://mldscenter.maryland.gov
**WHAT data are collected?**

- Local Student Information System (SIS)
- State Collections
  - Attendance
  - Completion
  - Assessments
- Early Childhood Education
- Local Education Agencies

- MAC 2 Collections
  - Enrollment Information
  - Degree Information
  - Course Information
  - Student Registration
  - End of Term
  - Financial Aid Information

Data Sets Provided by Maryland Agencies and Other Institutions

- National Student Clearinghouse
- College Board/AP
- CENSUS
- Motor Vehicle Association

- Labor and UI Wage
- GED and National External Diploma Program (NEDP)
- Adult and Corrections Education

MLDS Center
Maryland Longitudinal Data System
**HOW does the MLDS Center Engage Stakeholders?**

- **MLDS Governing Board**
  - Established in state law for creating and managing the MLDS
  - 12 Member Board of education and workforce leaders

- **MLDS Center Executive Director**

- **Research & Policy Advisory Board**
  - Participation and input from stakeholders on the Research Agenda
  - Facilitate consultation between stakeholders and the Center staff on operational matters
  - Assists Governing Board with oversight

- **Data Governance Advisory Board**
  - Sets direction for data collections
  - Monitors data quality
  - Guides Center on quality focused initiatives
  - Ensures protection of sensitive data

- **MHEC Liaison**
  - Monthly public meetings

- **MSDE Liaison**
  - Bi-monthly public meetings
Workforce Data Considerations

- Limitations
  - Unemployment Insurance
    - No independent contractors
    - No military or federal employees
    - No employees of certain non-profit and religious organizations
    - No out-of-state workforce data
  - Other limitations
    - No hours worked
    - No employee occupation (SOC), only industry code (NAIC)
  - Gaps
    - No apprenticeship data
    - No data on professional certifications and licenses (yet)
Workforce Data Considerations (cont.)

- Linking Issue

<table>
<thead>
<tr>
<th>K-12</th>
<th>Higher Ed</th>
<th>Workforce UI</th>
</tr>
</thead>
<tbody>
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<td>FN = Mary</td>
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<tr>
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<td>SSN = 999-123-1234</td>
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<tr>
<td>SASID = 123456</td>
<td>SASID = 123456</td>
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</tr>
</tbody>
</table>

- Resolution
  - Obtain Driver’s License Data
  - Verified SSN
  - Improved matching ability
## Workforce Outcomes Reporting

<table>
<thead>
<tr>
<th>Figure 1. Methods for Calculating Wages for the Year</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Actual Wages$^a$</td>
</tr>
<tr>
<td>Annualized Wages$^b$</td>
</tr>
<tr>
<td>Four-Quarter Wages$^c$</td>
</tr>
</tbody>
</table>

$^a$ The sum of wages earned during the year ($5,000 \times 4$ quarters = $20,000$).
$^b$ The average per quarter wages (actual wages earned divided by the number of quarters worked, $12,000/3$ quarters = $4,000$) multiplied by four quarters ($4,000 \times 4$ = $16,000$).
$^c$ The actual wages for the subset of people who had 4 quarters of wage information for the year.
Report Findings

- 12th Grade Students & GED Earners 2009-2010

<table>
<thead>
<tr>
<th>Achievement Type</th>
<th>Actual Wages</th>
<th>Annualized Wages</th>
<th>Four-Quarter Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$12,199</td>
<td>$14,234</td>
<td>$19,400</td>
</tr>
<tr>
<td>Diploma</td>
<td>$13,849</td>
<td>$15,484</td>
<td>$20,041</td>
</tr>
<tr>
<td>GED</td>
<td>$9,928</td>
<td>$13,571</td>
<td>$20,970</td>
</tr>
<tr>
<td>Certificate of Completion</td>
<td>$5,965</td>
<td>$7,707</td>
<td>$12,748</td>
</tr>
<tr>
<td>Non-Completers</td>
<td>$7,271</td>
<td>$10,079</td>
<td>$15,538</td>
</tr>
</tbody>
</table>

- Workforce Outcomes in Maryland for Students Who Do not Attend College: Patterns Among Students who Earn a H.S. Diploma, Certificate of Completion, Diploma via GED, and High School Non-Completers
Dashboard: H.S. Transitions to Workforce

- Workforce Participation
Dashboard: H.S. Transitions to Workforce

Median Wages
Report

- **More Jobs for Marylanders Act – 2017**
  - Required an annual income earnings goal for H.S. grads who have **not** earned at least an AA degree by age 25.
  - Years 2008, 2009, and 2010

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Record Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate Graduates</td>
<td>1,167</td>
<td>1%</td>
</tr>
<tr>
<td>Some College</td>
<td>47,084</td>
<td>45%</td>
</tr>
<tr>
<td>High School Graduates</td>
<td>57,079</td>
<td>54%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>105,330</strong></td>
<td><strong>61%</strong></td>
</tr>
</tbody>
</table>
Report

- Wage Visibility

![Pie chart showing wage visibility categories: No Visibility (37%), Irregular Visibility (<2 Years of Data) (16%), Intermittent Visibility (3 to 3.5 Years of Data) (15%), Frequent Visibility (3.5 to 5 Years of Data) (15%), Continuous Visibility (5 to 7 Years of Data) (17%).]
Report

- Median Quarterly Wage Trajectory – Continuous Wages
Report

- Quarterly Wage at 25 Compared to Wage Indicators
Report

- Career Preparation Expansion Act (2018)
  - 5 years after high school
  - Wages Earned
  - Industry in which the individuals are employed
- Changes from MJFM
  - Still in school
  - Stable wage methodology
Other Reporting: Pilot Example: Employment – Associate Degree Graduates

\[
\begin{align*}
\{350,000+\} & \quad \text{Enrolled in an Associate’s Degree between 2011 and 2017} \\
\{18,490\} & \quad \text{Enrolled in Engineering Associate’s, 2011 to 2017} \\
\{2,281\} & \quad \text{Associate’s Degree Graduate, 2011-2017} \\
\{10,925\} & \quad \text{No Longer Enrolled in Community College} \\
\{5,284\} & \quad \text{Currently Enrolled in Associate’s Degree} \\
\{1,803\} & \quad \text{Total Engineering Associate’s Graduates, 2011-2017} \\
\{532\} & \quad \text{Wages in NAICS 23 or 54} \\
\{1,508\} & \quad \text{Wage Records in MD}
\end{align*}
\]
Thank you

Ross Goldstein
Executive Director, MLDS Center
ross.goldstein@maryland.gov
410.706.2085
Staffing up Programs that Work: Strengthening Career & Technical Education (CTE) in New Jersey

David Seith
Researcher
John J. Heldrich Center for Workforce Development
Rutgers University
University- State Tri-Agency Partnership
Committed to Continuous Evaluation

- Our story is about a long-term, university-state tri-agency partnership to continuously improve education and training programs in New Jersey.
  - New Jersey Education to Earnings Data System (NJEEDS) empowers policymakers to understand the impacts of policies on students’ postsecondary college & career outcomes.
  - Supporting the success of NJEEDS is the long-term partnership among the Heldrich Center (HC) and each of the three state agencies:
    - The New Jersey Department of Education (DOE)
    - The Office for the Secretary of Higher Education (OSHE)
    - The Department of Labor & Workforce Development (LWD)

- Using NJEEDS, the partnership can chart a consistent course toward long-term, continuous improvement, making the most of the “ebb and flow” of grants and special initiatives.

- Using NJEEDS, this partnership allowed NJ DOE to study and improve CTE programs in the state.
Leveraging WDQI & SLDS Grants to Build NJEEDS, Securing a State Appropriation to Sustain It

**Building the P20W:** In the 2012-2016 period, the Heldrich Center partnered with the three state agencies to build a comprehensive, individual, longitudinal administrative records dataset including:

- High School student academic performance and completion records
- College enrollment, academic performance, and completion records
- Unemployment Insurance Wage records of all-covered employment and earnings

**Leveraging Two Federal Grants:** This work was supported by two extraordinarily complementary federal grants:

- DOE SLDS 2012
- DOL WDQI 2012 & 2014

**Record Linkage:** In the Spring of 2016, Heldrich Center researchers produced a paper describing how they were able to match 82 percent of individual NJ high school records to college and career outcomes, even without a common identifier, by using the NJ Motor Vehicle Commission database.

**Sustaining the NJEEDS with an Annual State Appropriation:** In the Summer of 2017, Rutgers University and each of the three state agencies signed a five-year data sharing agreement, which was supported by an initial State annual appropriation of $500,000.
1. Career & Technical Education (CTE) in NJ: An Early Win for the NJEEDS

- Service-rich environment
  - 3 delivery systems, 130 schools, & nearly 200,000 students*:
    - 21 County vocational schools, serving 31,091 students.*
    - 90 Comprehensive high schools, serving 45,673 students.*
    - 19 County colleges, serving 118,225 students.*

- Comprehensive program re-approval process
  - Established in 2005 in response to Perkins IV
  - NJ Office of Career Readiness (OCR) already thinking hard about which programs to trim and which programs to grow.
    - Over 500 programs eliminated in the 2012-2015 period.

* In the 2014-2015 school year.
OCR and the Heldrich Center produce a comprehensive implementation plan, addressing 6 questions:

- **Target Programs**
  - Identified 68 target programs leading to high-paying jobs in demand industries

- **Access**

- **Participation and Completion**

- **Staffing**
  - Many current CTE teachers will be retiring in the next 5-10 years.
  - Acute shortage of teachers in STEM.

- **Student Trajectories**

- **Stakeholder Experience**
3. Assessing the Teacher Shortage

- Listening: OCR conducted focus groups with CTE administrators to validate and better understand the CTE teacher shortage problem.
  - Strong consensus about the problem—teacher shortages in target programs.
  - Costs (time, commute) of alternative certification is often prohibitively expensive.
  - Recommendation to allow professionals to teach CTE part-time.
4. Responding to the Teacher Shortage

- Resources: OCR wins $800K Teacher Pathway Initiative grant to recruit professionals in demand industries as CTE teachers.

  - The data from the Heldrich Center analysis proved critically important. Knowing the median age of CTE teachers by key industry career clusters helped us to pinpoint recruitment efforts and make the case to win resources for the TPI initiative. —Marie Barry, Former Director Office of Career Readiness
5. Implementing the Teacher Pathway Initiative (TPI)

- Early Implementation: 3 Components:
  - CTE Teacher Bridge: equips general ed. teachers to become CTE teachers by:
    - Obtaining an industry-valued credential
    - Participating in a paid summer industry externship
    - Working with a CTE teacher mentor
  - Industry Fellows Program: equips industry experts to become CTE teachers by:
    - Reimbursing participants’ licensing and certification costs
    - Allowing participants to satisfy 100-hour classroom requirement part-time, while keeping their full-time jobs
    - Working with a CTE teacher mentor
  - Marketing Campaign: solicits interest from districts and prospective teachers
6. Second-stage decision-relevant research questions

• Implementation Questions:
  – How effectively do the newly recruited CTE teachers fill the need?
    • What combinations of teacher, district, and subject characteristics are associated with sustainable and effective service?
  – Can we use administrative records to identify promising matches of prospective teachers and districts?

• “Need Assessment” Questions:
  – Which types of CTE programs work best for whom in terms of college and career outcomes?
Lessons of the OCR CTE effort…

CTE is a natural audience for P20W systems: P20W systems like NJEEDS are especially valuable to CTE programs, responsible to bridge the gap between K-12 and career.

Seasoned administrators reforming service-rich systems are best prepared for early wins: CTE administrators in service rich environments and already on the path to reform are well prepared to learn from P20W systems, in part because they know what they need to know.

Collaborative, persistent epistemic communities achieve change: Strong university-state partnerships committed to continuous data-driven decision-making can chart a consistent course, tacking across the shifting winds of initiatives and grant opportunities.

Building evidence and building consensus go hand-in-hand: Building policy evidence entails a lifecycle of grounded research – starting with questions of relevance from administrators, conducting rigorous quantitative analysis, validating and clarifying in dialogue with field-level program administrators, and implementing responsive, feasible adjustments.
Sustaining the NJEEDS across administrations…

- **Christie Administration (2010-2018):**
  - Tri-agency partnership formed to leverage DOE SLDS (2012) and DOL WDQI (2012 & 2014) grants.
  - Process for linking records across systems established and validated.
  - Five-year, tri-agency data sharing agreement signed.
  - Initial state appropriation of $500,000 to support the initiative.

- **Murphy Administration (2018-):**
  - Transition team reports call for data-driven decision-making informed by NJEEDS.
  - Second, annual state appropriation of $500,000 along with contributions from partner agencies.
  - Senior Commissioner-level data governance committee established.
Questions?
Strategies for Linking K-12 and Workforce Data Systems

Questions?

Elizabeth Dabney, Data Quality Campaign
Jenna Leventoff, Workforce Data Quality Campaign
Ross Goldstein, Maryland Longitudinal Data System Center
David Seith, Rutgers John J. Heldrich Center for Workforce Development
Using Data to Influence Policy Change

*Fall Cross-State Meeting*

Thursday October 4th
Using Data to Influence Policy Change

• **Manny Lamarre**, Executive Director, Nevada Governor’s Office of Workforce Innovation (OWINN)

• **Shaun Engstrom**, Apprenticeship Program Liaison, Oregon Employment Department
Using Data to Influence Policy Change

-Manny Lamarre, Executive Director
Governor’s Office of Workforce Innovation (OWINN)
How do you feel about data?
“In God [I] trust, all others must bring data.”

-unknown
OWINN helps drive a skilled, diverse, and aligned workforce in the state of Nevada by promoting cooperation and collaboration among key entities focused on workforce development.

OUTCOMES:
1. Prepare all K-12 Students for College & Career Success
2. Increase Nevadans with postsecondary degrees & credentials
3. Increase Employment Outcomes in Training and Credentialing programs
OWINN’s Priorities 2018-2019

- Aligning workforce training with labor market data through policies & practices
- Scaling work-based learning and Registered Apprenticeships
- Outreach and awareness – workforce opportunities & partnerships
Once Upon A Time......
But then he hit rock bottom......
Nevada’s record high unemployment rate......
But after finding a special person that helped him focus on his priorities.........
Jobs Growth & Diversification Efforts

- 313,300 new jobs
- 321,000 replacements
- Total employment: 321,000

Job Distribution in Nevada
- Logistics: 5.7%
- Health & Medical: 8.2%
- Manufacturing: 37.3%
- Tourism: 31.5%
- Information Technology: 29.9%
- Other: 43.3%

Assisted Jobs Since 2012
Typical Entry Level Education for Top 100 In-Demand Jobs

- Master's Degree and Higher: 8%
- Bachelor's Degree: 32%
- High School Diploma and Less than a Bachelor's: 46%
- No Formal Educational Credentials: 14%

Typical On-The-Job Training for In-Demand, Middle Skill Jobs

- Work Based Learning: 75%
- None: 25%
Even in a royal marriage, things are not perfect (In-laws)

Similar problems are Lurking in Nevada’s Workforce Ecosystem
A gap of roughly 28,000 workers exist in middle skills jobs in the state.
State of Nevada Labor Force Participation Rate by Age (Annual Average)

- Age 16-24
- Age 55-64
Non-institution Population

State of Nevada civilian non-institutional population 16+ (annual average)
Gaps in College & Career Readiness

% that completes the pipeline

33.67%

~6,974 not enrolled in post-secondary

~10,260 not classified as high school graduates

Students Start High School

Students Reach Graduation

Enroll in College

Do

Do Not

2014
Going to the source...listening to student perspectives
### Response Distribution & Age of Respondents

<table>
<thead>
<tr>
<th>County</th>
<th>Responses</th>
<th>Distribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carson City</td>
<td>63</td>
<td>8.1%</td>
</tr>
<tr>
<td>Churchill</td>
<td>18</td>
<td>2.3%</td>
</tr>
<tr>
<td>Clark</td>
<td>411</td>
<td>52.6%</td>
</tr>
<tr>
<td>Douglas</td>
<td>24</td>
<td>3.1%</td>
</tr>
<tr>
<td>Elko</td>
<td>91</td>
<td>11.6%</td>
</tr>
<tr>
<td>Esmeralda</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Eureka</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>Humboldt</td>
<td>10</td>
<td>1.3%</td>
</tr>
<tr>
<td>Lander</td>
<td>6</td>
<td>0.8%</td>
</tr>
<tr>
<td>Lincoln</td>
<td>3</td>
<td>0.4%</td>
</tr>
<tr>
<td>Lyon</td>
<td>33</td>
<td>4.2%</td>
</tr>
<tr>
<td>Mineral</td>
<td>2</td>
<td>0.3%</td>
</tr>
<tr>
<td>Nye</td>
<td>26</td>
<td>3.3%</td>
</tr>
<tr>
<td>Pershing</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>Storey</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Washoe</td>
<td>88</td>
<td>11.3%</td>
</tr>
<tr>
<td>White Pine</td>
<td>5</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

782 state wide

Seven participants did not correctly provide their zip code.
Perception About Employment Barriers

What do you believe is keeping you from gaining meaningful employment?

- ACCESS TO JOB INFORMATION: 9.1%
- EDUCATION: 28.3%
- I'M MEANINFULLY EMPLOYED: 7.9%
- I'M NOT SURE: 10.2%
- JOB FUNCTION SKILLS: 9.7%
- SOFT SKILLS: 8.6%
- SOMETHING ELSE: 5.9%
- TRANSPORTATION: 12.6%
- OTHER: 7.5%
Perspectives of Young Adults

- Regardless of age, young adults believed that education (four-year college degree) is their greatest barrier to employment.

- Young adults were divided amongst transportation, soft skills, job functioning skills, and not being sure about the additional barriers they faced to employment (depending on the age group).

- Young adults expressed concerns that the lack of job function skills was strongly attributed to their inability to access training or gain relevant work experience.

- Young adults perceptions of industries were limited to occupations of parents or close adults or industries with strong regional presence.

- Young adults believe that schools (K-12 and postsecondary) are the place to support them in removing barriers to employment by equipping them with career skills.
“HOW CAN WE GET EXPERIENCE IF EVERY JOB WE APPLY TO REQUIRES EXPERIENCE?”

– Nevada Student
We are using these data points to influence policy and craft solutions
Work-Based Learning Helps Students Overcome Obstacles

VS.
Defining Work-Based Learning

On-the-job experience + Education = Work-Based Learning

Work-based learning provides students with authentic work experiences where they apply and develop employability and technical skills that support success in careers and post-secondary education.” –National Governor’s Association

High-quality work-based learning incorporate: Academic alignment, employer engagement, pursuit of industry-recognized credentials, & connection to employment
Initial successes & outcomes Nevada can cheer for...
Strategic Changes to Expand Apprenticeships & Work-Based Learning

State Policy Changes

- SB 516 – statewide coordination between agencies, aligning with economic development, changes to Registered Apprenticeships
- SB66 – K-12 WBL bill
- SB19 – Dual enrollment
- AB7 – college & career readiness diplomas

DOL, NGA & NSFY

- Expansion & Accelerator Grants
- NGA Work-Based Learning Policy Academy
- New Skills For Youth

GWDB Industry Sector Councils

- LEAP
- GWDB Industry Sector Councils, GOED, DETR, State Board, & OWINN
  - State & regional in-demand occupations for the
  - Skills and education requirements

Registered Apprenticeships & Work-Based Learning
NGA Work-Based Learning Policy Academy
Governor Brian Sandoval

“This initiative will allow Nevada to further integrate work-based learning in education and workforce development. As my tenure as Governor, I worked to bring together stakeholders from across the state to work collaboratively to strengthen work-based learning opportunities for young adults. Nevada is committed to scaling work-based learning to help answer the call of opportunities to foster stronger connections between education, the workforce, and economic development.”

- Don Soderberg, Director, DETR
- Steve Canavero, Superintendent of Public Instruction, NDE
- Frank Woodbeck, Vice Chancellor of Workforce Development
- Cory Hunt, Deputy Director, GOED
- Brian Mitchell, Director, OSIT
Lessons in Using Data to Influence Policy Change

1. Don’t **assume people know** the data or **how to read** it
   - (data visualization matters: charts & graphs for non-nerds)

2. Use **stories** for people with big **hearts**

3. Use **numbers** for people with big **brains**
   - What are the questions you are trying to answer? (not data for data sake)

4. Create a sense of **urgency** – articulate the **loss and gains**

5. Have a **specific Ask** or Call to Action & **repeat** the same data over and over
THE END....

How do you feel about data?
MISSION: TO MAKE REGISTERED APPRENTICESHIP OREGON’S PREFERRED WORKFORCE TRAINING MODEL.
STRENGTHENING OREGON'S REGISTERED APPRENTICESHIP INFRASTRUCTURE

• Make registered apprenticeship more user friendly
• Improve registered apprenticeships public interface
• Collaborate with the Workforce System
• Improve date collection

Demonstrate the value of Registered Apprenticeship
RETURN ON INVESTMENT (ROI) CALCULATOR

http://oregonapprenticeship.org/roi-calculator/
DEVELOPMENT PROCESS

Funded through Federal Apprenticeship State Expansion Grant

Contracted with Community Attributes, Inc.

Vendor had three deliverables

• Return on Investment Literature Review
• Return on Investment Tool
  • Interview Businesses & Apprenticeship Programs
• Return on Investment Report
**DEVELOPMENT PROCESS**

**Purpose:** To create an Online Return on Investment Tool that any business can use to determine if creating a registered apprenticeship program could help their bottom line

**User Requirements:**
- Easy for anyone to use
- Customizable or “cafeteria style”
- Variables could auto-populate based on findings of the study
- Clean look and feel for ease of marketing
Sample Interview Questions:

1. What are your minimum qualifications for an applicant to your apprenticeship program? What education and/or qualifications do successful applicants have?

2. How much does it cost your organization on average to recruit an off-the-street hire?

3. What is the value added or mark-up for an apprentice per hour?

4. How does the productivity of apprentices compare to the productivity of an off-the-street hire during the apprenticeship program?

5. What does your company typically do to train employees? Do you rely on any one person or group of persons to train new employees? Please describe their role.
## Costs

### Select Your Industry
- Construction
- Healthcare
- IT
- Manufacturing
- Other

### Select # Years Apprenticeship
- 1 Years
- 0 Years

### Without Apprenticeship

<table>
<thead>
<tr>
<th>Wages (Year One)</th>
<th>VALUE</th>
<th>ASSUMPTION</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>$40,100</td>
<td>100%</td>
<td>$40,100</td>
<td></td>
</tr>
</tbody>
</table>

### Apprenticeship Program

<table>
<thead>
<tr>
<th>Wages (Year One)</th>
<th>VALUE</th>
<th>ASSUMPTION</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>$40,100</td>
<td>84%</td>
<td>$33,684</td>
<td></td>
</tr>
</tbody>
</table>

### Select Cost Variables
- Annual Required Continuing Education
- Background & Screening Tests
- Curriculum Development
- Onboarding
- Program Overhead
- Supplies
- Training Fund Contribution

---

*Assumptions and values calculated based on Oregon Apprenticeship program data.*
## BENEFITS

### Recruitment Costs

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Without Apprenticeship</th>
<th>Apprenticeship Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
<td><strong>Assumption</strong></td>
<td><strong>Total</strong></td>
</tr>
<tr>
<td>$51,700</td>
<td>180%</td>
<td>$93,060</td>
</tr>
</tbody>
</table>

**Recruitment Costs**

- $4,000
<table>
<thead>
<tr>
<th>ROI</th>
<th>WITHOUT APPRENTICESHIP</th>
<th>APPRENTICESHIP PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Benefits</td>
<td>$93,060</td>
<td>$93,780</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$55,729</td>
<td>$48,202</td>
</tr>
<tr>
<td>Net Cost-Benefit</td>
<td>$37,331</td>
<td>$45,578</td>
</tr>
<tr>
<td>Return on Investment</td>
<td>+67%</td>
<td>+95%</td>
</tr>
</tbody>
</table>

Describe your ROI scenario here

Download Custom Report

Share These Values
On this page you can search the glossary for terms used within the calculator, explore common wages and wage progression for common apprentice occupations, and you can download reference materials related to registered apprenticeships and their related costs.

**Download Reference Materials:**
- Download Sample Scenario
- Download ROI Study
- Download Tool Methodology

**Glossary**

Please explore the data and terms below to clarify your understanding of the calculator tool. The Glossary below provides definitions and explanations for common cost and benefit variables, and general information about how these common cost and benefit variables can be used to quantify the value of specific benefits associated with participating in an apprenticeship.

**Common Wages & Wage Progression**

This table provides the median hourly journey-level wage for common apprentice occupations, as well as the average percentage of journey-level wage that apprentices receive per year. Each apprenticeship program has their own standards that specify the journey-level wage and wage progression per period. These numbers have been averaged across each common occupation by year based on a 2,000-hour year.
LESSONS LEARNED & NEXT STEPS

• Add in a questionnaire feature
• Train staff
• Update the values as we get more information
• Publicize!
USE OF THE CALCULATOR

• Business recruitment and engagement
• Analysis tool for apprenticeship programs
• A guide for grants and investments
• Business case for Registered Apprenticeship
CONTACT

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Apprenticeship Program Liaison
Oregon Employment Department
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503-931-5379
Using Data to Influence Policy Change

Questions?

Manny Lamarre, Nevada Governor’s Office of Workforce Innovation (OWINN)

Shaun Engstrom, Oregon Employment Department
State Team Time

*Fall Cross-State Meeting*

Thursday October 4th
State Team Time

- **Alabama**: Lincoln
- **Idaho**: Roosevelt
- **Illinois**: Jefferson & Washington
- **Indiana**: Jefferson & Washington
- **Montana**: Lincoln
- **North Carolina**: Jefferson & Washington
- **New Hampshire**: Caucus Room 1
- **Nevada**: Roosevelt
- **Rhode Island**: Caucus Room 1
- **Utah**: Jefferson & Washington
- **American Samoa**: Caucus Room 2
- **Colorado**: Caucus Room 2
- **Kansas**: Caucus Room 3
- **Kentucky**: Caucus Room 2
- **Minnesota**: Caucus Room 2
- **Mississippi**: Caucus Room 3
- **South Dakota**: Caucus Room 3
Host State Highlight: North Carolina

*Fall Cross-State Meeting*

Thursday October 4th
Host State Highlight: North Carolina

- Geoff Coltrane, Senior Education Advisor, Office of North Carolina Governor Roy Cooper
- Caroline Sullivan, Executive Director, North Carolina Business Committee for Education
- Ashlie Bucy, Deputy Director, North Carolina Business Committee for Education
- Jackie Keener, Assistant Secretary for Policy, Research & Strategy, North Carolina Department of Commerce
- Kimberly Williamson, Assistant Dean, Counseling and Student Services, Pitt Community College
- Crystal Folger-Hawks, Career Coach, Surry County Schools/Surry Community College
*Business led
*Braided services
*Coordinated supports
Ultimately these programs have to make sense for the company’s **bottom line**. The pilot programs have been producing good results in terms of finding new talent and productivity gains. “**Ultimately, it's not a charity thing because it’s providing far more benefit than it's costing. Every company I know that’s gone into this in a serious way has gone into it with the idea that this is going to be net benefit positive.**”

*Rob Austin, Ivey Business School, the University of Western Ontario*

Part of the allure of such programs, is the way they tap into a business solution.

*Jenny Che HuffPost*
LINC∞IT
Linking Inclusion to Information Technology

"A change in perspective is worth 80 IQ points" - Alan Kay

14% Employment Gap
Only 14 percent of individuals with Autism Spectrum Disorder are employed. LINC∞IT is the first state initiative to develop the pipeline for a neurodiverse workforce.

Assets to Employers
- Increased Productivity
- Loyalty to Employer
- Highly Intelligent workers with a unique perspective
- Something can be here

Benifits of Neurodiversity
- Access to New Markets
- Increased Talent Pipeline
- Creates a positive impact on morale and retention
- Fosters Creativity and Project Innovation

For More Information
Contact Caroline Sullivan at 919-814-2023 or at caroline.sullivan@nc.gov for more information.

WAKE TECH
TEACCH Autism Program
CAPITAL AREA
Alliance

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
NCCDD
NC BCE
Experience More; Real-World Learning for Real-Life Success

The Navigator
States Support Work-Based Learning to Expand Employment Opportunities

October 20, 2017

WASHINGTON—The National Governors Association Center for Best Practices (NGA Center) announced that six states—Alabama, Idaho, Illinois, Nevada, North Carolina and Rhode Island—have been selected to participate in a policy academy focused on scaling high-quality work-based learning. Work-based learning blends work experience and applied learning to develop youth and young adults’ foundational and technical skills to expand their education, career and employment opportunities.

Funded by the Siemens Foundation, the policy academy will help states create and expand work-based learning opportunities that will connect youth and young adults ages 16 to 29 with career opportunities in STEM-intensive industries (those in the science, technology, engineering and math areas) such as advanced manufacturing, health care, information technology and energy. Through the policy academy, states will share best practices, develop plans to identify and scale high-quality programs and develop policies to support and sustain work-based learning initiatives.

This work represents the second phase of a policy academy that took place from January 2016 to June 2017; meeting materials are available online from policy academy meetings in March 2016 and October 2016. Five states from the first phase (Indiana, Montana, New Hampshire, Utah and Washington) are continuing their engagement with the policy academy as “leader states” that will serve as mentors to the new cohort.

To learn more about the NGA Center Economic Opportunity Division, click here.

To learn more about the Siemens Foundation work in this area, click here.

###
Work based learning strengthens the state’s talent pipeline by providing North Carolinians with career awareness, career exploration, and real-world career experience to build employability and technical skills.
NC Job Ready is built on three core principles:

- **Skills and Education Attainment** - Education is the foundation for a strong workforce. As the skill requirements of jobs are increasing and rapidly changing, businesses need to find people with the right skills for the jobs they create and North Carolinians need access to training so they can be ready for those jobs. To close the skills gap, Governor Cooper proposed a forward-thinking plan to provide free job training for high-demand career fields.

- **Employer Leadership** - Employer-led job training programs have the best career outcomes. Employers know best what skills their workers need. Businesses that invest in developing North Carolina’s workforce will benefit from well-trained employees and more innovative workplaces that better reflect their communities. Governor Cooper proposed an Employer Training Fund to support work-based learning opportunities like internships and apprenticeships.

- **Local Innovation** - Communities across North Carolina are developing great local models of workforce development. North Carolina should build on those successes and replicate them in more places to continue building and expanding innovative solutions.
Governor Cooper Challenges Workforce Leaders to Increase Work-Based Learning Opportunities

New Data Tools and Greater Focus on Employer Engagement Highlighted at NCWorks Commission Meeting

N.C. governor touts importance of workforce education

North Carolina joins work-based learning effort

Gov. Cooper Promotes Work-Based Learning at Annual Gathering of Business and Education Leaders

Supporting NC Job Ready

Governor Cooper is the Workforce Governor and the Navigator is a tool in his workforce development war chest.
Super Admin – Visibility across the entire system including all companies and resources posted.

Admin – Employer level administrator who creates a presence on the site, invites employees to engage, and determines the manner in which those employees can engage.

Employee – The creators of inventory, the people who post work-based learning activities that Navigators will leverage.

Navigator – Educators and workforce development personnel who “shop” for resources on the site and deliver those to students and job seekers.
Employer engagement happens two ways:

- Work-based learning employer survey
- Invitation from NCBCE, Workforce Board, Chamber of Commerce
Hello Leslie Walden (not Leslie Walden? Log out)

From your account dashboard you can view your recent orders, manage your shipping and billing addresses and edit your password and account details.

To add or edit products, view sales and orders for your vendor account, or to configure your store, visit your Vendor Dashboard.
Create Invitation

Email Address:

Ashlie.bucy@nc.gov

Submit  Cancel
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Reports

Filters

- Snapshot
- Range

09/13/2018 - 09/15/2018

Advanced Filters

RESOURCE TYPES
- Guest Speakers
- Internships
- Additional Option 1
- Additional Option 2
- Additional Option 3
- Additional Option 4

TARGET AUDIENCE
- Elementary School
- Middle School
- High School

STATUS
- Active
- Inactive

CAREER CLUSTERS
- Business Management & Administration
- Finance
- Human Services
- Information Technology
- Marketing, Sales & Service
- Science, Technology, Engineering & Mathematics

COUNTRIES
Choose Counties

COMPANIES
Choose Companies
Report for 09/13/2018

Resources Overview

14 TOTAL RESOURCES
10 ACTIVE RESOURCES
12 CHECKED OUT RESOURCES
4 INACTIVE RESOURCES
25 COMPLETED RESOURCES

Resources by County

[Map showing resource distribution by county]
Hello Kristen Thompson (not Kristen Thompson? Log out)

From your account dashboard you can view your recent orders, manage your shipping and billing addresses and edit your password and account details.
Overview
The Financial Engineering team provides quantitative expertise to the design of next-generation institutional-grade trading algorithms and products in equity and fixed-income market. We are a member of Fidelity Centralized Electronic Trading within Fidelity Capital Markets. We work with clients to improve their trading strategy, educate them about market structure and trading tools, and provide consultation to help them solve their unique problems.

The Skills This Person Brings
- You understand electronic trading market and algorithms that achieve superior performance
- You use KDB4, Python or R to see and understand large amount of data
- You use in-depth data science and analytical knowledge to tell data tell stories
- You build mathematical and machine learning models for prediction and optimize performance
- You are eager to learn new things, share ideas freely and create positive work environment
- You have excellent presentation skill to influence product directions and work with clients

The Value This Person Delivers
- Creating predictive volume, liquidity, price, interest rate and volatility models to improve trading performance.
- Building tools, prototypes and simulation engines to streamline processes and test new ideas.
- Dissecting and comparing trading performance of algorithms, venues and traders.
- Promoting culture of innovation and thought leadership.
- Influencing product directions for the benefit of our clients.

PRODUCT
Fidelity Financial Engineer
Provided By: Fidelity Investments
This is the first tool North Carolina has ever had that both promotes and measures work-based learning activity across the state.

This is the first piece of a larger effort to develop a school to career exploration platform (nccareers.org). All built open source.

The Navigator makes work-based learning more accessible and equitable – important in a state like North Carolina with large number of rural counties.

This platform has been developed with a lot of our time, pro-bono development time from Fidelity Investments, and less than $350.

We are leveraging some funding from the Department of Commerce Office of Workforce Solutions to get it ready for showtime. The Governor will unveil it at the Experience More Summit for Work-Based Learning & NCBCE Annual Meeting December 7th.
The home page will contain:
- a brief about, linking to About page
- For Business Pitch, invitation to contact
- For Educators Pitch, invitation to contact
- Resources State Map, invitation to explore resources
- Most recent news?

The site frame (i.e. header and footer on all pages) will include:
- quick contact info
- copyright information
- links to social media?
- Partner Logos/Mentions?

**Main Navigation Items**

**Resources** are the core feature of the site. The lower elements aren’t pages, they’re means to filter the resources as they’re displayed so users can find the right resource for their needs.

**News categories** help users find the news they’re looking for quickly. They also allow us to push news to different locations based on these categories. Ideally each post would be in just one category.

**Contact** is one, constant, location for reaching the WBL Navigator team.

**Dashboard** is where users can review their resources, user invitations, etc. As well as access the reporting features.
Navigator’s Connection to Measuring WBL

The Navigator
Outputs are the direct products of program activities.

• Outputs become your quantitative measurements to monitor and report as part of an evaluation. Outputs are evidence that the grant-funded program’s activities were performed as planned.
• Require an aggregated report

Outcomes are benefits for participants - during and after program activities.

• Outcomes are a qualitative measurements to monitor and report as part of evaluation.
• Outcome measurement will help evaluate the quality of services provided. Carefully defined outcome measures can help determine which activities to continue and build upon and which you may need to change in order to improve the effectiveness.
• Requires information at the individual level
Why are Outcomes Important

• Measure the effectiveness of an intervention

• Identify effective practices

• Identify practices that need improvement

• Provide clarity and consensus around the purpose of programs

• Types Questions to Address?
  • What has changed in the lives of individuals?
  • Has this program made a difference?
  • How are the lives of program participants better as a result of the program?
NC has a long history of providing program outcomes – ex. NC Tower.
Median Wages for Health Sciences at Wake Technical Community College

Median Annual Wages, with 25th to 75th Percentile Range (2007-2008 Graduates)

Median wage: $50,037
Interquartile range: $35,417 - $60,195
The WBL Continuum

Measuring WBL on the NC Continuum

Outputs Across the Continuum Reported in Aggregate

Career Awareness
- Career Fairs
- Guest Speakers
- Field Trips
- Job Shadowing
- Worksite Tours

Learning about work

Career Exploration
- Career Competitions
- Mentoring
- Mock Interviews
- Science Fairs
- Service Learning
- Teacher Externships

Learning through work

Career Experience
- Apprenticeships
- Co-ops
- Fellowships
- Internships
- OTJ Training
- Practicums
- Pre-apprenticeships

Learning for work

Outcomes Across the Continuum Reported Require Information at the Individual Level

WBL with current compacity to measure are all in Career Experience
Outcomes along the WBL Continuum?

Linkages of Systems
• Navigator
• Homebase
• NC Tower
• NCCareers.org

Leverage States Longitudinal Data Resources
• NC Government Data Analytics Center (GDAC)
• Common Follow-Up System
• NC School Works

Leverage Partner Expertise to define qualitative measures along the Continuum of WBL (i.e. what metric can be computed to monitor the effectiveness of Guest Speakers in Middle School Classrooms?)
The Experience More Summit on Work-Based Learning & NCBCE Annual Meeting DECEMBER 7

A new model of engagement between educators, workforce systems, and employers to drive real-world learning for real life success.

Fidelity
An initiative of NCBCE
Learn more at www.experiencemorenc.com

The Summit
Questions?
NC Works Career Coaches

Supporting Our Communities through Enhancing Student Success

Student Success Pathway

Roadmap to completion that includes connected courses, programs, and support services.
Host State Highlight: North Carolina

Questions?

Geoff Coltrane, Office of North Carolina Governor Roy Cooper

Caroline Sullivan, North Carolina Business Committee for Education

Ashlie Bucy, North Carolina Business Committee for Education

Jackie Keener, North Carolina Department of Commerce

Kimberly Williamson, Pitt Community College

Crystal Folger-Hawks, Surry County Schools/ Surry Community College
Communicating and Marketing Your Vision

*Fall Cross-State Meeting*

Thursday October 4th
Communicating and Marketing Your Vision

• Kimberlee Carlile, Director of Industry and Talent Initiatives, Utah Governor’s Office of Economic Development
FILLING INDUSTRY DEMAND THROUGH WORKFORCE ALIGNMENT

KIMBERLEE CARLILE, DIRECTOR OF TALENT INITIATIVES
GOVERNOR’S OFFICE OF ECONOMIC DEVELOPMENT
Key Messaging

Internal document for organizations involved.

Refer to that document for all messaging, press releases, websites, etc.

Different audiences and levels of messaging outline.
A resource connecting industry and education in Utah
Program Messaging
Program Messaging

ABOUT THIS PROJECT

THIS IS YOUR SHOT – IGNITE THE CAREER OF A LIFETIME!

Building the most advanced airplanes in the world requires all kinds of people: composite technicians, assemblers, machinists, inspectors and more. Gain experience in a growing field that has high-quality working conditions, allows you to continue your education while earning a living and provides the opportunity for you to grow your salary – the potential is yours to build.

Students will need to complete 60 hours of first semester study, 48 second semester hours of study in aerospace composites and metals at the ATC and 48 hours of student externships with one of the sponsoring employers. Click here for a printable externship planner.

Aerospace manufacturing certificate-holding students will have demonstrated knowledge and proficiency in basic manufacturing and will have completed classroom study such as:

TALK TO YOUR CAREER COUNSELOR TODAY!

Be sure to ask your career counselor about the requirements and benefits to getting your Aerospace Manufacturing Certificate.

EXTERNSHIP CHECKLIST

Be sure to click here to get the checklist for your externship.

CATEGORY

Students

Share
THANK YOU
talentreadyutah.com
Communicating and Marketing Your Vision

Questions?

Kimberlee Carlile, Utah Governor’s Office of Economic Development
Communicating and Marketing Your Vision

What is your message to the group you are looking to reach?

Breakout conversations: 6 tables (2 per target population, worksheets provided at each table)

- Students and parents
- Industry partners
- Community partners
State Team Time

Fall Cross-State Meeting

Thursday October 4th
State Team Time

- **Alabama**: Lincoln
- **Idaho**: Roosevelt
- **Illinois**: Jefferson & Washington
- **Indiana**: Jefferson & Washington
- **Montana**: Lincoln
- **North Carolina**: Jefferson & Washington
- **New Hampshire**: Caucus Room 1
- **Nevada**: Roosevelt
- **Rhode Island**: Caucus Room 1
- **Utah**: Jefferson & Washington
- **American Samoa**: Caucus Room 2
- **Colorado**: Caucus Room 2
- **Kansas**: Caucus Room 3
- **Kentucky**: Caucus Room 2
- **Minnesota**: Caucus Room 2
- **Mississippi**: Caucus Room 3
- **South Dakota**: Caucus Room 3
Day Three Overview

*Fall Cross-State Meeting*

Friday October 5th
Policy Change and Sustaining the Work Through Transitions

Fall Cross-State Meeting

Friday October 5th
Policy Change and Sustaining the Work Through Transitions

- **Catherine Moga Bryant**, Executive Director, NCWorks Commission
- **Siri Smillie**, Education and Public Safety Policy Advisor, Montana Governor Steve Bullock
- **Caroline Sullivan**, Executive Director, North Carolina Business Committee for Education
Policy Change and Sustaining the Work Through Transitions

• What current efforts/ initiatives are you maintaining that have already survived leadership transitions? What made these efforts sustainable?
• What partners or new voices have you brought into your initiative to increase impact and create shared goals?
• What role will outcomes data and/or evaluations play in the sustainability of your work? How will you be able to tell success stories at key transition points in your states’ governance, and who will need to hear those stories?
• What are some structural or partnership efforts in your state that you think will contribute to sustainability of your efforts?
• What do you think is missing from your team/structure that could increase initiative impact and sustain them through any transition periods?
State Team Time

Fall Cross-State Meeting

Friday October 5th
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<td>South Dakota</td>
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Closing Reflections and State Report-Outs

Fall Cross-State Meeting

Friday October 5th
Closing Reflections

One person from each state team will share one major goal your team plans to accomplish in the next 6 months.
Policy Academy on Scaling Work-Based Learning

Fall Cross-State Meeting

Wednesday October 3rd – Friday October 5th, 2018
Raleigh, North Carolina