Introduction to Collecting Data on Work-Based Learning

National Institute on Scaling Work-Based Learning

Tuesday April 9th
3:00 – 4:00 PM
Introduction to Collecting Data on Work-Based Learning

Moderator:
• Amanda Winters, Program Director, Economic Opportunity Division, NGA Center for Best Practices

Speakers:
• Natalie Clark, Education Program Consultant, Kansas State Department of Education
Data and Equity Goals

National Institute on Scaling Work-Based Learning

Tuesday April 9th, 2019
Point Clear, Alabama
3:00 – 4:00 PM
Speakers

Moderator:
- Dana Westgren, Policy Analyst, Economic Opportunity Division, NGA Center for Best Practices

Speakers:
- J. Oliver Schak, Senior Policy and Research Associate, The Education Trust
- Jenee Myers-Twitchell, Impact Director, Washington STEM
Overview

• Our Mission

• State Equity Report Card
  • Degree Attainment: Black and Latino Adults
  • Broken Mirrors: Black & Latino Representation at Public Colleges and Universities

• The Opportunity: Closing Degree Attainment Gaps
Our Mission

Through our research and advocacy, The Education Trust supports work that:

**Expands** excellence and equity in education, from preschool through college;

**Increases** college access and completion, particularly for historically underserved students; and

**Builds and engages** diverse communities that care about education equity, and increases political and public will to act on equity issues.
State Equity Report Card
Background

• The State Equity Report Card (SERC)
  • Grading/rating system that communicates states’ commitment to equitable college opportunity and success for people of color and individuals from low-income backgrounds

• The SERC project includes a data tool, several reports, and other collateral that focus on:
  • Degree Attainment (2018)
  • Undergraduate Enrollment Representation (Spring 2019)
  • Undergraduate Degree Earner Representation (Spring 2019)
  • College Affordability (2019)

  “Broken Mirrors” (Black students) & “Broken Mirrors II” (Latino students)
Degree Attainment
What is Degree Attainment?

The share of adults, ages 25 to 64, that have some sort of college degree

Degree attainment is not a college graduation rate

Degree attainment looks at education level at a singular point in time
Why Focus on Attainment and Racial Equity?

Over 40 states with degree attainment goals

Achieving these goals will be unlikely without closing gaps in degree attainment

From 2000 to 2016

- Number of Latino adults grew 72%
- Number of Black adults grew 25%
- Number of White adults remained flat

47% of jobs will require a postsecondary degree (77 million jobs)

A college degree provides both individual and social benefits
31% of Black Adults and 47% of White Adults Have a College Degree or Higher

**FIGURE 1**

**DEGREE ATTAINMENT FOR BLACK AND WHITE ADULTS, 2016**

Source: Ed Trust analysis of the United States Census Bureau’s 2016 American Community Survey.
Gains in Degree Attainment for Black Adults Have Not Closed Gaps

Source: Ed Trust analysis of the United States Census Bureau’s 2016 American Community Survey and the 2000 Decennial Census.
23% of Latino Adults and 47% of White Adults Have a College Degree or Higher

Source: Ed Trust analysis of the United States Census Bureau’s 2016 American Community Survey.
Gains in Degree Attainment for Latino Adults Have Not Been Enough to Close Persistent Gaps
Immigration Influences Latino Degree Attainment

**Figure 9** Degree Attainment for Latino Adults by Birthplace, 2016

- **Native-Born**
  - Less than High School: 14.6%
  - High School Grad / Equiv: 29.8%
  - Associate: 25.9%
  - Bachelor’s: 6.3%
  - Some College, No Degree: 9.1%
  - Graduate: 4.0%

- **Non-Native-Born**
  - Less than High School: 42.7%
  - High School Grad / Equiv: 27.4%
  - Associate: 12.7%
  - Bachelor’s: 4.0%
  - Some College, No Degree: 9.5%
  - Graduate: 4.7%

29.8% (CA: 28.2%) vs. 17.2% (CA: 16.2%)

*Source: Ed Trust analysis of the United States Census Bureau’s 2016 American Community Survey. Source for CA: 2017 ACS*
Latino Degree Attainment Varies by Ethnic Group

Source: Ed Trust analysis of the United States Census Bureau’s 2016 American Community Survey.

Source for CA: 2017 ACS
Broken Mirrors: Black & Latino Representation at Public Colleges and Universities
The students and graduates of public colleges and universities should mirror the demography of the state...
What did we do?

We asked 6 questions of public higher education in each state

• 3 questions focused on enrollment representation
• 3 questions focused on degree earner representation

Developed a metric to measure performance on each question
BLACK REPRESENTATION AT PUBLIC COLLEGES AND UNIVERSITIES
High-level Findings on Black Enrollment

Q1: In roughly half of the 41 states, Black enrollment at community and technical colleges fails to reflect the state’s racial composition of Black residents.

Q2: Black students are underrepresented at public four-year institutions in roughly 37 of the 41 states we examined.

Q3: Roughly three-quarters of states have considerable gaps in the enrollment of Black and White students at selective public four-year institutions.
High-level Findings on Black Degree Earners

Q4: Black graduates were underrepresented among associate degree earners in 33 of the 41 states we examined.

Q5: In 38 of 41 states the share of Black bachelor's degree earners was underrepresented compared to the state’s demographics.

Q6: Roughly half of 41 states have double-digit gaps between the shares of Black and White graduates who are awarded a bachelor’s degree.
LATINO REPRESENTATION AT PUBLIC COLLEGES AND UNIVERSITIES
High-level Findings on Latino Enrollment

Q1: Latino students are underrepresented at community and technical colleges in roughly 40 of the 44 states we examined.

Q2: Latino students are underrepresented at public four-year institutions in 33 out of 44 states in our analysis.

Q3: Over half of the states have gaps in the enrollment of Latino and White students at selective public four-year institutions.
High-level Findings on Latino Degree Earners

Q4: Latino residents are underrepresented among associate degree earners in all 44 states.

Q5: Latino residents are underrepresented among bachelor’s degree earners in all 44 states.

Q6: Latino graduates are less likely to receive a bachelor’s degree than their White peers in the majority of states.
Two-thirds of Latinos with no college degree live in just five states: California, Texas, Florida, New York, and Illinois.

**Enrollment Representation**

How well does Latino enrollment reflect the racial/ethnic composition of the state?

**Example: Metric 2: Public Four-Year Undergraduate Enrollment Representation**

<table>
<thead>
<tr>
<th>State</th>
<th>% Latino undergrads</th>
<th>% Latino residents, ages 18-49, with HS diploma and no BA</th>
<th>Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>34.9%</td>
<td>45.7%</td>
<td>76</td>
<td>C</td>
</tr>
<tr>
<td>Texas</td>
<td>34.7%</td>
<td>41.4%</td>
<td>84</td>
<td>B</td>
</tr>
<tr>
<td>Florida</td>
<td>28.1%</td>
<td>28.4%</td>
<td>99</td>
<td>A+</td>
</tr>
<tr>
<td>New York</td>
<td>21.6%</td>
<td>22.6%</td>
<td>95</td>
<td>A</td>
</tr>
<tr>
<td>Illinois</td>
<td>14.3%</td>
<td>20.4%</td>
<td>70</td>
<td>C-</td>
</tr>
</tbody>
</table>
Five key states need to improve on mirroring the state population among degree earners

### Degree Earner Representation

How well does the race/ethnicity of undergraduate degree earners reflect the racial/ethnic composition of the state?

#### Example: Metric 5: Bachelor’s Degree Earner Representation

<table>
<thead>
<tr>
<th>State</th>
<th>% Latino BA degree earners</th>
<th>% Latino residents, ages 18-49, with HS diploma and no BA</th>
<th>Score</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>29.1%</td>
<td>45.7%</td>
<td>64</td>
<td>D</td>
</tr>
<tr>
<td>Texas</td>
<td>29.9%</td>
<td>41.4%</td>
<td>72</td>
<td>C-</td>
</tr>
<tr>
<td>Florida</td>
<td>24.9%</td>
<td>28.4%</td>
<td>88</td>
<td>B+</td>
</tr>
<tr>
<td>New York</td>
<td>16.2%</td>
<td>22.6%</td>
<td>72</td>
<td>C-</td>
</tr>
<tr>
<td>Illinois</td>
<td>10.7%</td>
<td>20.4%</td>
<td>53</td>
<td>F</td>
</tr>
</tbody>
</table>
Data and grades available at stateequity.org
The Opportunity: Closing Degree Attainment Gaps
State Attainment Goals – Best Practices

- Set specific, separate attainment goals for racial subgroups
- Use current attainment levels of the relevant subgroups as a baseline
- Aim to increase the rates of attainment among underrepresented groups more rapidly than the overall population.
- Establish interim benchmarks for subgroups, track progress over time, and hold institutions, educators, and policymakers accountable
- Identify and pursue strategies aimed specifically at closing racial attainment gaps
## Target Students and Faculty of Color

- **KY:** Academic Leadership Development Institute for early career faculty of color
- **MN:** Equity in Education and Job Connection Grants
- **MO:** efforts to recruit and retain diverse faculty
- **OK:** outreach to immigrant students, connection to ESL services
- **TX:** supporting grants for Minority Male Initiatives

## Prioritize Equity in Planning and Policy Development

- **KY:** statewide diversity policy, campus diversity plans w/ targets on select goals and annual progress tracking
- **MN:** OHE Equity Institute
- **NV:** Diversity Summits; Chancellor’s Diversity Roundtable; Equity, Diversity, and Inclusion Council
- **OR:** Equity Lens

## Target Institutions Serving Students of Color

- **MD:** Support HBCUs, Foster Collaboration Between HBCUs and PWIs
- **NV:** HSI Task Force

### Numerous States Identify Race-Conscious Strategies for Closing Gaps

- MD: Support HBCUs, Foster Collaboration Between HBCUs and PWIs
- NV: HSI Task Force
Minnesota Sets Specific Racial Equity Goals

Increase Needed of Minnesotans Age 25-44 with Postsecondary Certificates or Degrees to Attain 70% Goal by 2025, Basic Race/Ethnicity Groups, 2011-2015

Source: IPUMS microdata version of U.S. Census Bureau 2011-2015 American Community Survey, with tabulations and additional analysis by the Minnesota Demographic Center.
Texas Sets Interim Benchmarks for Racial Equity Goals

<table>
<thead>
<tr>
<th>Goal and Interim Benchmarks</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the number of students completing a certificate, associate, bachelor’s, or master’s</td>
<td>376,000</td>
<td>455,000</td>
<td>550,000</td>
</tr>
<tr>
<td>from an institution of higher education in Texas to at least…</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The first four targets are directly related to the completion goal. To reach this goal, Texas will need to maintain the strong degree production increases that it has experienced in recent years. (298,989 as of 2014)

<table>
<thead>
<tr>
<th>Targets to Reach the Goal</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the number of Hispanic students completing a certificate or degree to at least…</td>
<td>138,000</td>
<td>198,000</td>
<td>285,000</td>
</tr>
<tr>
<td>This target and the next one will help increase parity across completers for groups that have traditionally been underrepresented. (Hispanics 89,355 as of 2014; African Americans 37,658 as of 2014)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase the number of African American students completing a certificate or degree to at least…</td>
<td>48,000</td>
<td>59,000</td>
<td>76,000</td>
</tr>
<tr>
<td>Increase the number of male students completing a certificate or degree to at least…</td>
<td>168,000</td>
<td>215,000</td>
<td>275,000</td>
</tr>
</tbody>
</table>

The percentage of women enrolled in and graduating from higher education institutions has grown and men are not keeping pace. This target provides a means to monitor progress toward gender parity. (122,744 as of 2014)
The How - Strategies for Embedding Equity in State Attainment Goals & Postsecondary Plans

From the USC Center for Urban Education

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know your state.</td>
<td>Conduct a rigorous analysis of economic and demographic contexts.</td>
</tr>
<tr>
<td>Create goals.</td>
<td>Create attainment goals that are clear, ambitious, and reflect equity priorities.</td>
</tr>
<tr>
<td>Build a careful process.</td>
<td>Start the equity conversation by establishing a deliberate, inclusive process of plan development.</td>
</tr>
<tr>
<td>Craft a strong message.</td>
<td>Develop a clear “story” about the equity imperative in your state.</td>
</tr>
<tr>
<td>Know what works.</td>
<td>Identify policy assets and levers that can reinforce equity-focused attainment goals.</td>
</tr>
<tr>
<td>Make the plan a living document.</td>
<td>Monitor and report publicly on progress and update goals regularly.</td>
</tr>
</tbody>
</table>
Thank You!

J. Oliver Schak
Senior Policy and Research Associate for Higher Education
OSchak@edtrust.org // @Schakj

Kayla C. Elliott
Senior Policy Analyst for Higher Education
KElliott@edtrust.org // @kaylaCelliott
By 2030, Washington students will be career- and future-ready.

70%

triple.
What gets measured, gets done

WA State Measurement Vision: **transparent**, **accessible**, and **relevant** communication of **disaggregated** student outcomes and progress toward **cross-sector** goals that aim to close equity gaps and to prepare all WA students for their futures

- Examples of cross-sector goals:
  - 70% credential attainment among adults (WSAC) or among K-12 originators by the HS Class of 2030 (WRT/P4L, WA STEM)
  - 60% “career launch” experience completion by HS Class of 2030 (Career Connect WA)
What We Need to Measure

• **Problem:** job openings, talent & credential shortages, equity imperative

• **Outputs:** Work-based programming (career connected learning; career awareness, career exploration, career launch)

• Student/adult **outcomes** from:
  • K-12 (including programs and experiences),
  • Into higher ed/credentials,
  • into the workforce (at least 5 years out),
  • along lines of equity
WA State Data Agency Partners

• Workforce Training & Education Coordinating Board
  • Career Bridge
• Washington Student Achievement Council
  • Adult Reengagement Portal
• Employment Security Department
  • High School and Beyond Planning (HSBP) Tool
• Education Research Data Center
  • P20 Database (P20 Identifier)
• Office of Superintendent of Public Instruction
  • HSBP + Career & Technical Education planning data
• State Board of Community & Technical Colleges
  • Career Launch Program Endorsement
Current Data Inputs (P-20 Identifier for All)

WSAC
Financial Aid, College Bound

OSPI
K-12 Students, Courses, Graduation, Teachers

DCYF
ECEAP, ESIT, Providers

NSC
Out of state & WA priv postsecondary

DOC
Inmate Education

L&I
Registered Apprenticeships

P-20W Information For Parents, Teachers, Administrators, Planners, Policy-Makers, Researchers
Routine Reports, Research Briefs, Ad Hoc Analyses, Research Datasets, Web Reports

DEL: Dept of Early Learning
DOC: Dept of Corrections
NSC: National Student Clearinghouse
WSAC – Washington Student Achievement Council
L&I: Labor and Industries
OSPI: Office of Superintendent of Public Instruction
PCHEES: Public Centralized Higher Education Enrollment System
SBCTC: State Board for Community and Technical Colleges
WTECB: Workforce Training and Education Coordinating Board

PCHEES
Students, Courses, Degrees, Majors

SBCTC
Students, Courses, Completions, Majors

Employment Security
Workforce-Industry, Hours, Earnings

WTECB
Lic Private Career Schools

DCYF
ECEAP, ESIT, Providers

DOC
Inmate Education

L&I
Registered Apprenticeships

WSAC
Financial Aid, College Bound

OSPI
K-12 Students, Courses, Graduation, Teachers

DCYF
ECEAP, ESIT, Providers

NSC
Out of state & WA priv postsecondary

DOC
Inmate Education

L&I
Registered Apprenticeships
Big goal (70%) that is necessary to for our economy, necessary to close equity gaps, and necessary allow all students to have individual choice and opportunity.

This goal is daunting, so we are doing four major things to support measurement of career connected learning/work-based learning outputs and outcomes:
WA STEM’S ROLE IN SUPPORTING PARTNERS

1. Getting & advocating for better data that tells us about outcomes across transitions

2. Breaking it down (focusing on the students historically furthest from opportunity) by region & demographic

3. “Backwards mathing and mapping” by region and by demographic to make highly-localized analyses

4. Supporting our partners in using this data to set goals, make plans, start new pathways, and chip away at the opportunity gaps in their own backyard
### PROJECTED CRED. ATTAINMENT V. WA STEM GOAL

**Baseline (Class of 2015):**
- Washington State Credentials Attained with Intervention: 30,425 (40%)  
- Washington State Credentials Attained without Intervention: 30,425 (40%)

**Class of 2018:**
- Washington State Credentials Attained with Intervention: 37,352 (44%)  
- Washington State Credentials Attained without Intervention: 34,543 (43%)

**Class of 2021:**
- Washington State Credentials Attained with Intervention: 44,587 (50%)  
- Washington State Credentials Attained without Intervention: 37,970 (46%)

**Class of 2025:**
- Washington State Credentials Attained with Intervention: 54,234 (58%)  
- Washington State Credentials Attained without Intervention: 44,872 (50%)

**Class of 2030:**
- Washington State Credentials Attained with Intervention: 66,293 (70%)  
- Washington State Credentials Attained without Intervention: 52,249 (55%)

**Sources:**
- WA State ERDC 2015, Credential by Age 26
- ERDC High School Feedback Report
- WA State OSPI High School Graduation for Adjusted 5-year Cohort
LOW INCOME

Baseline Class of 2015

Class of 2018 Class of 2021 Class of 2025 Class of 2030

80%

Washington State Credentials Attained with Intervention

Washington State Credentials Attained without Intervention

Low Income Credentials Attained with Intervention

Low Income Credentials Attained without Intervention

Sources: WA State ERDC 2015, Credential by Age 26; ERDC High School Feedback Report; WA State OSPI High School Graduation for Adjusted 5-year Cohort
LATINX CREDENTIAL ATTAINMENT

Baseline Class of 2015 Class of 2018 Class of 2021 Class of 2025 Class of 2030
Washington State Latinx Credentials Attained with Intervention
Washington State Credentials Attained with Intervention
Washington State Credentials Attained without Intervention

<table>
<thead>
<tr>
<th>Year</th>
<th>Without Intervention</th>
<th>With Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of 2015</td>
<td>28% (3,825)</td>
<td>31% (4,327)</td>
</tr>
<tr>
<td>Class of 2018</td>
<td>40% (30,425)</td>
<td>44% (37,352)</td>
</tr>
<tr>
<td>Class of 2021</td>
<td>25% (4,240)</td>
<td>31% (4,244)</td>
</tr>
<tr>
<td>Class of 2025</td>
<td>35% (4,793)</td>
<td>47% (6,466)</td>
</tr>
<tr>
<td>Class of 2030</td>
<td>40% (5,484)</td>
<td>58% (7,994)</td>
</tr>
</tbody>
</table>

Sources: WA State ERDC 2015, Credential by Age 26; ERDC High School Feedback Report; WA State OSPI High School Graduation for Adjusted 5-year Cohort
Job Projections - Groups

EASTERN REGION/SPOKANE

Average_annual_total_openings_2016-2021

- Construction Trades
- Sales / Retail / Wholesale
- Management (all fields)
- Business & Finance Jobs
- Healthcare
- Education
- Maint/Auto Trades
- Computer/Math
- Transportation
- Production Trades
- Office/Admin
- Social Services
- Engineering

- Doc/Prof. Degree
- Masters Degree
- Bachelors Degree
- Apprenticeship
- Associates Degree
- Cert./Voc Cred.
- HS Diploma
EASTERN REGION/SPOKANE

HEALTHCARE PROFESSIONAL
REGISTERED NURSE & MEDICAL ASSISTANT
Annual # of Openings: 1,347
Credential: Certificate → Bachelor’s
Average Regional Wage: $37,000 → $79,875

TRADES PROFESSIONAL
Annual # of Openings: 990
Credential: Apprenticeship
Average Regional Wage: $55,190

K-12 TEACHER
Annual # of Openings: 604
Credential: Bachelor’s
Average Regional Wage: $60,700

INFORMATION TECHNOLOGY
Annual # of Openings: 374
Credential: Bachelor’s
Average Regional Wage: $78,304

BUSINESS & FINANCE PROFESSIONAL
Annual # of Openings: 362
Credential: Bachelor’s
Average Regional Wage: $64,000 → $72,000

ENGINEERING
Annual # of Openings: 200
Credential: Bachelor's
Average Regional Wage: $80,000 - $106,000
# Eastern Region/Spokane

## Credential Enrollment/Attainment

54% of 6,357 of the originating ninth graders in the Eastern Region enroll in a postsecondary program and 36% of those originating ninth graders earn a credential by age 26.

<table>
<thead>
<tr>
<th>Group</th>
<th>Enrollment</th>
<th>Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington State</td>
<td>59%</td>
<td>40%</td>
</tr>
<tr>
<td>Eastern Region</td>
<td>54%</td>
<td>36%</td>
</tr>
<tr>
<td>Female</td>
<td>60%</td>
<td>42%</td>
</tr>
<tr>
<td>Male</td>
<td>54%</td>
<td>31%</td>
</tr>
<tr>
<td>Low-Income</td>
<td>48%</td>
<td>24%</td>
</tr>
<tr>
<td>American Indian / Alaskan Native</td>
<td>45%</td>
<td>21%</td>
</tr>
<tr>
<td>Asian</td>
<td>45%</td>
<td>39%</td>
</tr>
<tr>
<td>Black / African American</td>
<td>56%</td>
<td>38%</td>
</tr>
<tr>
<td>Latinx</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Native Hawaiian / Other Pacific Islander</td>
<td>53%</td>
<td>41%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>White</td>
<td>56%</td>
<td>41%</td>
</tr>
</tbody>
</table>
EASTERN REGION SUPPLY-DEMAND PROJECTIONS

- **No Formal Education**
  - Class of 2016 Currently Projected to Earn Credentials: 770
  - 2024 Annual Projected # of Job Openings Above a Family-Sustaining Wage: 221

- **High School Diploma or Equivalent**
  - Class of 2016 Currently Projected to Earn Credentials: 5,567
  - 2024 Annual Projected # of Job Openings Above a Family-Sustaining Wage: 2,067

- **2 Years or Less**
  - Class of 2016 Currently Projected to Earn Credentials: 800
  - 2024 Annual Projected # of Job Openings Above a Family-Sustaining Wage: 1,914

- **4 Years or More**
  - Class of 2016 Currently Projected to Earn Credentials: 1,466
  - 2024 Annual Projected # of Job Openings Above a Family-Sustaining Wage: 6,718

- Annual Job Openings - King County Surplus: 9,678

*Note: Surplus calculation includes both Class of 2016 projections and 2024 annual projected job openings.*
EASTERN REGION/SPOKANE

185 MORE CREDENTIALS PER YEAR = REGION ON TRACK

<table>
<thead>
<tr>
<th>Baseline Class of 2019</th>
<th>Class of 2018</th>
<th>Class of 2021</th>
<th>Class of 2025</th>
<th>Class of 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>36% 2,313</td>
<td>39% 2,675</td>
<td>42% 3,036</td>
<td>46% 3,518</td>
<td>51% 4,121</td>
</tr>
<tr>
<td>39% 2,867</td>
<td>41% 2,867</td>
<td>45% 3,421</td>
<td>50% 4,190</td>
<td>53% 5,083</td>
</tr>
<tr>
<td>43% 3,487</td>
<td>44% 3,769</td>
<td>46% 4,496</td>
<td>50% 5,464</td>
<td>55% 6,641</td>
</tr>
<tr>
<td>44% 39,319</td>
<td>46% 44,961</td>
<td>50% 52,641</td>
<td>58% 66,746</td>
<td></td>
</tr>
</tbody>
</table>

Washington State
- Credentials Attained with Intervention
- Credentials Attained without Intervention

Eastern Region
- Credentials Attained with Intervention
- Credentials Attained without Intervention

Measured six to eight years after high school graduation
## CREDENTIAL OPPORTUNITIES BY REGION & INDUSTRY

**MATRIX (CORI)**

### North Central

**Supply and Demand Estimates for Family Wage Occupations in Demand**

<table>
<thead>
<tr>
<th>Health Science Composite Sector in North Central Region</th>
<th>All Remaining Sectors in North Central Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC Code</td>
<td>Top Occupations</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------</td>
</tr>
<tr>
<td>43-6013</td>
<td>Medical Secretaries</td>
</tr>
<tr>
<td>33-9111</td>
<td>Medical and Health Services Managers</td>
</tr>
<tr>
<td>31-0921</td>
<td>Dental Assistants</td>
</tr>
<tr>
<td>29-2052</td>
<td>Pharmacy Technicians</td>
</tr>
<tr>
<td>29-1071</td>
<td>Physician Assistants</td>
</tr>
<tr>
<td>29-1123</td>
<td>Physical Therapists</td>
</tr>
<tr>
<td>29-1051</td>
<td>Pharmacists</td>
</tr>
<tr>
<td>29-2041</td>
<td>Emergency Medical Technicians and Paramedics</td>
</tr>
<tr>
<td>29-2023</td>
<td>Dental Hygienists</td>
</tr>
<tr>
<td>29-2039</td>
<td>Health Technologists and Technicians, All Other</td>
</tr>
<tr>
<td>29-1127</td>
<td>Speech-Language Pathologists</td>
</tr>
<tr>
<td>29-2081</td>
<td>Opticians, Dispensing</td>
</tr>
<tr>
<td>29-1021</td>
<td>Dentists, General</td>
</tr>
<tr>
<td>29-1141</td>
<td>Registered Nurses</td>
</tr>
<tr>
<td>31-0923</td>
<td>Medical Secretaries</td>
</tr>
</tbody>
</table>
LINKS FOR EACH TOOL:

1. Labor Market Dashboard: washingtonstem.org/STEMbytheNumbers
2. Credential Production Visual: https://education.uw.edu/faculty-and-research/washingtonpathways/state-credential-production
3. CORI Source Files: washingtonstem.box.com/s/66kehdh31t7hx5t7hti5s5lupwwmlhf0
4. CORI Tool: washingtonstem.box.com/s/5c7jigeaps1t96q0o511otgkzo9xgs12
FORTHCOMING WORK:

Landscape of opportunities/programming (systems support & equity of access use case) & pathway mapping tool (student/school use case)

- Regional job openings, salary, and credentials required ✓
- Location and capacity of credentialing programs ✓
- Middle school and high school pathway availability ✓
- Internships, career fairs, and other school/community-based exposure
FORTHCOMING WORK:

Tracking work-based learning/career connected learning program offerings & participation (along lines of equity)

• Apprenticeships & pre-apprenticeships ✔
• Higher education credentials with work-based learning ✔ ✔
• Career & Technical Education participation & concentration ✔ ✔
• Work-based learning courses ✔
• Internships
• Career fairs
• High school & beyond plans (✔️)
Questions?
Data as a Tool for Sustainability

National Institute on Scaling Work-Based Learning

Tuesday April 9th, 2019
Point Clear, Alabama
3:00 – 4:00 PM
Speakers

Moderator:
• Madelyn Rahn, Policy Analyst, Economic Opportunity Division, NGA Center for Best Practices

Speakers:
• Anna Mastri, Senior Researcher, Mathematica
• Zach Heit, Strategic Data Manager, Nevada Governor’s Office of Workforce Innovation
• Craig Brockett, Work-Based Learning Administrator, Clark County School District
A framework for using data to develop, implement, and sustain robust work-based learning programs

Presentation at NGA WBL Policy Academy

Annalisa Mastri, Mathematica
April 9-10, 2019
Why use data?

• Systematic: Using a defined, replicable process can help us identify what job seekers and employers need and how to meet those needs

• Credible: It can help turn our gut instincts on what works into evidence for funders and policy makers

• Repeatable: Once we set up a data collection and analysis, it is straightforward to repeat, allowing us to track over time

• Efficient: In many cases, we have to collect it for outside stakeholders, so we might as well use it to benefit ourselves too!
But...

• Data are not a magic bullet

• We have to know what we are looking for
  – What question are we trying to answer?
  – What problem are we trying to solve?

• We have to know where to look
  – Data useful for evaluating effectiveness are not necessarily useful for addressing implementation challenges

• Some data we think are going to be helpful are not!
  – Example of integrating TANF-WIOA-Adult Education in one large county
Data use trajectory of a new program

- Scale (within an organization)
- Time

- Road test
- Rapid cycle evaluation(s)
- Possible participation in an impact evaluation
A framework: Learn, Innovate, Improve

LEARN
Understand the motivation for change and assess the environment

LEARN
Testing leads to continuous learning and further innovation

IMPROVE
Test and refine until goals are met

INNOVATE
Design research-informed solutions
Learn: What is the purpose of the data collection?

• To develop a program that meets local labor market needs?
• To monitor implementation of the program and determine what is working well and what isn’t?
• To determine client and employer satisfaction with the program?
• To demonstrate impact or effectiveness?
• To inform continuous quality improvement once you have a program in place?
Innovate: Design data collection approaches to meet objectives from Learn phase

• Original data collection to get attitudes, behaviors, satisfaction
  – Surveys, observations, interviews

• Administrative data for service receipt and outcomes

• Combinations of both for continuous quality improvement

• These need not be expensive or cumbersome
  – Google forms or SurveyMonkey for surveys
  – Administrative data may be existing and have what you need
Improve: Test out our data collection strategy, on a small scale if possible

• Road tests: take it for a test drive
  – Is it really answering our questions of interest? Why not?
  – Refine the approach until we are satisfied that it is working as intended
  – Then scale it up

• Can do this repeatedly, as a continuous quality improvement process
Data use trajectory of a new program

- Scale (within an organization)
- Time

- Road test
- Rapid cycle evaluation(s)
- Possible participation in an impact evaluation
Examples

• Our research has found that organizations training participants for middle and high-skilled jobs highlight employer engagement as a major challenge
  – Program staff do not have experience “selling” to employers
  – Paperwork for taking on trainees is a burden

• Participant engagement can also be a problem
  – Participants can get higher wages in entry-level jobs outside of on-the-job training programs
  – Difficult to place participants who lack relevant work experience in high-growth industries

• How might our data needs vary depending on which challenge we are trying to address?
Data as a Tool for Sustainability: Nevada

Zachary Heit, Strategic Data Manager, Nevada Governor’s Office of Workforce Innovation
Craig Brockett, Work-Based Learning Administrator, Clark County School District
**Mission:** OWINN helps drive a skilled, diverse, and aligned workforce in the state of Nevada by promoting cooperation and collaboration among key public and private 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
1. Assess workforce policies at the state level and provide strategic support and direction for the implementation of the federal Workforce Innovation and Opportunity Act (WIOA)

2. Design career pathways

3. Scale registered apprenticeships and other forms of work-based learning

4. Leverage labor-market and workforce data

5. Validate industry-recognized credentials
OWINN’s Priorities 2018-2019

- Aligning workforce training with labor market data through policies & practices
- Scaling work-based learning and Apprenticeships
- Outreach and awareness – workforce opportunities & partnerships
Agenda

- The Nevada Process
- Define WBL
- Identify Baseline Info
- Create Measurement and Reports
- Progress & Future
- Connecting to Sustainability
The Nevada Process

• NGA Work-Based Learning Policy Academy
  • Identified Goal – Measure Scale, Quality, and Impact of WBL in Nevada
    • Identify Common Definitions and Terminology
    • Identify Baseline Information
    • Create Measurements and Reports

**Deliverables: Policy Academy States**

- **VISION: Elevate & Communicate**
  - Identify vision for WBL expansion in the state
  - Hold governor’s summit on WBL

- **MEASUREMENT: Scale, Quality & Impact**
  - Quantify current WBL programs & participants
  - Map federal & state resources that support WBL
  - Conduct regular scans of WBL programs and analyze progress toward outcomes

- **SUSTAINABILITY: Resources & Policy Change**
  - Identify & implement policy changes that support scaling WBL
Define WBL

• Identify Common Definitions and Terminology
  • If you don’t know what you’re looking for, how do you find it?
    • Career Exploration
    • Internship
    • Pre/Youth Apprenticeship
    • Registered Apprenticeship
Identify Baseline Information

• Bulk of the data work
  • Identify programs in Nevada
  • Determine if they even collect data
  • What’s missing? What’s challenging?
• NGA Baseline Data Reporting Template
  • Basis for survey sent to programs

• Registered Apprenticeships
  • RAPIDS

• Internships
  • Difficulties finding data at K-12, Post-Sec, Training Program Level

• Career Exploration
  • Difficulties finding data at K-12, Post-Sec, Training Program Level

• Pre/Youth Apprenticeships
  • Newer program and goal to expand program opportunities
Create Measurements and Reports

- Quantity of WBL Programs
  - Type of program
  - Employer clusters
  - Length of time
- Quality of WBL Programs
  - Credentials
  - Employer/student/teacher feedback
  - Program audits
- Impact of WBL Programs
  - Longitudinal
    - Post-Secondary Outcomes
    - Employment Outcomes
Progress Made and the Future

• Improvements in WBL data collection at the K-12 levels
  • State and districts can now develop tabs within Infinite Campus to manage and track WBL information

• Linking to the State Longitudinal Data System
  • K-12 data to Post-Secondary data
  • K-12 data to Workforce data
  • Develop WBL Reports/Apprenticeship Reports

• Still need to improve WBL data collection at Post-Secondary Levels, Training Providers
  • Inconsistency in reporting by programs, institutions
Sustainability

- Assess and Improve/Expand
  - Ensuring widespread use
    - Quantity of programs available
    - Where are programs available? Where do we need more?
  - Return on investment
    - Documenting and communicating the value of WBL programs
    - Benefits that can be quantified – K-12, post-sec, and employment outcomes
  - Stakeholder Support
    - Employer engagement and feedback
    - Student/family engagement and feedback
    - Educator engagement and feedback
  - Financial Support
    - Asset mapping
    - Resource needs
Questions? – Part 1
Questions?