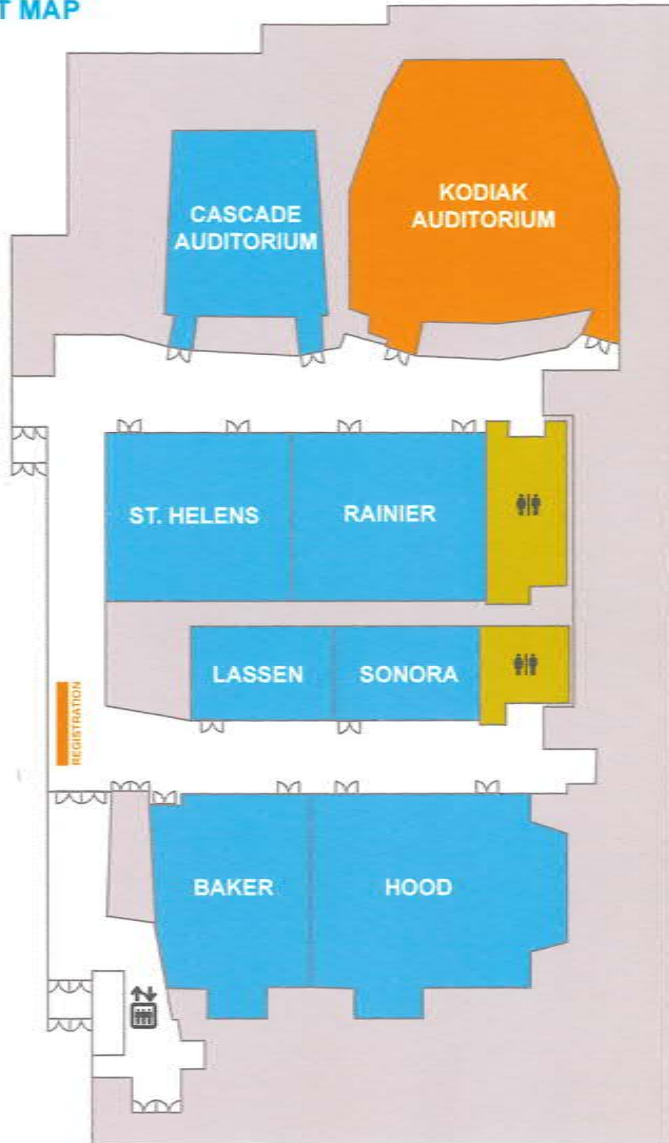


EVENT MAP



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**Event App:**  
<https://governorssummitoncareerconn2017.sched.com/>

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# GOVERNOR'S SUMMIT

ON CAREER CONNECTED LEARNING

# SUMMIT AGENDA

8:00 AM **Registration and Coffee**

8:30 AM **Welcome Session**

John Aultman, Office of the Governor  
 Eleni Papadakis, Workforce Board  
 Caroline King, Washington STEM  
 Jane Broom, Microsoft Philanthropies  
 Susan Mullaney, Kaiser Permanente

Kodiak Auditorium

**Keynote: Building Youth Social Capital**

Edward DeJesus, Youth Advocate Programs

9:30 AM **BREAK**

9:45 AM **Breakout Sessions**

• **IMMERSIVE INDUSTRY EXPERIENCE.**  
 Preparing participants for career pathways through sustained in-depth industry experiences.

- Wetlands Monitoring Internship
- AJAC
- ANEW

St. Helens

• **ONE-STOP SERVICE.**  
 Leveraging community partnerships to provide comprehensive services for Opportunity Youth.

- Youthworks: Pathways to Success
- Youthworks: South Central WA
- Next Generation Zone

Hood

• **ACCESS THROUGH TECHNOLOGY.**  
 Utilizing unique virtual components that expand access to internships or mentorships.

- Instructional Worksite Learning
- Educurious
- Skills that Shine

Baker

• **CAREER AWARENESS AND EXPLORATION.**  
 In- and out-of-school programs that foster career awareness and exploration.

- FieldSTEM
- STEM Like Me!
- Grays Harbor Youth Works

Rainier

10:45 AM **BREAK**

11:00 AM **General Session**

*This session will be broadcast to Regional Sites across the state.*

Superintendent Chris Reykdal, Office of Superintendent of Public Instruction  
 Martin Simon, National Governors Association  
 David D. Etzwiler, Siemens Foundation  
 Eleni Papadakis, Workforce Board  
 Chauncy Lennon, JPMorgan Chase  
 Maud Daudon, Seattle Metropolitan Chamber of Commerce  
 Governor Jay Inslee  
 Brad Smith, Microsoft  
 Perry England, Workforce Board

Kodiak Auditorium

11:00 AM **Youth Only Session**

*This session is for youth participants only.*

Sonora

11:50 AM **BREAK**

11:55 AM **Lunch Buffet**

Baker/Hood

12:55 PM **BREAK**

1:10 PM **Breakout Sessions**

• **WORK-READINESS INTERNSHIPS.**  
 Internships and work-skills training for youth, including Opportunity Youth.

- Summer Jobs 253
- Vocational Readiness
- Youth Green Corps

Hood

• **CHAMBER OR BUSINESS-GUIDED EXPERIENCES.**  
 Strong partnership with local Chambers of Commerce, businesses, or industries.

- Core Plus
- Wenatchee Learns
- Business After School

Rainier

• **SCHOOL-BASED CAREER OPPORTUNITIES.**  
 Integrating career experiences into middle or high school settings.

- Nespelem Middle School
- TAF Academy
- Tacoma Public Schools

Baker

• **Youth Apprenticeships: Making it Work in Washington**  
 Models and resources to enhance unique youth apprenticeships opportunities in Washington State, presented by Labor and Industries and AJAC.

Cascade Auditorium

2:10 PM **BREAK**

2:20 PM **Closing Session**

**Youth Panel**

Moderated by Doreen Cato

**Next Steps and Opportunities – Policy Academy**

John Aultman, Office of the Governor

**Keynote**

Suzi LeVine and Eric LeVine

Kodiak Auditorium

3:15 PM **Reception and Networking**

**Operating Budget Comparison for STEM Investments: 2017-19**

<b>STEM Alliance Agenda</b>	<b>Governor's Budget Proposal HB1067 1/9/17</b>	<b>Senate Proposal</b>	<b>House Proposal: Striking amd to ESSB 5048 3/31/17</b>
Inspire youth through <b>career connected</b> and real-world STEM learning opportunities	<b>\$6 M</b> for work-based learning and industry-approved apprenticeships to middle and high school students - integrating academic and occupational curricula and train teachers. Matched by private sector.	No additional funding provided.	<b>\$6 M</b> in new funding to offer career-connected learning experiences and apprenticeship training for secondary students.
Provide every K-12 student access to <b>computer science</b> education	<b>\$6 M</b> for <b>Computer Science and Education</b> grants for early learning and K-12 curriculum development, teacher training, technology purchases and digital access for historically underserved groups, including girls and students from low-income, rural and ethnic minority communities. Matched by the private sector.  <b>\$15 M</b> for STEM laboratories and classrooms in K-12. (Capital budget)	<b>\$2.922 M</b> for <b>Computer Science and Education</b> grants for early learning and K-12 curriculum development, teacher training, technology purchases and digital access for historically underserved groups, including girls and students from low-income, rural and ethnic minority communities. Matched by the private sector.	<b>\$4.29 M</b> for <b>Computer Science and Education</b> grants for early learning and K-12 curriculum development, teacher training, technology purchases and digital access for historically underserved groups, including girls and students from low-income, rural and ethnic minority communities. Matched by the private sector.  <b>\$15 M</b> for STEM laboratories and classrooms in K-12. (Capital budget)
Prepare WA's future workforce by increasing attainment of <b>technical credentials</b> , 2 and 4-year degrees and contributing to WA's 70% attainment goal	<b>\$15 M</b> to match private donations for <b>Opportunity Scholarship</b> .  <b>\$3 M</b> to expand <b>Opportunity Scholarship</b> eligibility to workforce training programs.  <b>\$4 M</b> to expand Tech Apprenticeship program (Apprenti).	<b>\$15 M</b> to match private donations for <b>Opportunity Scholarship</b> .   <b>\$4 M</b> to expand Tech Apprenticeship program (Apprenti).  <b>\$10.53 M</b> to UW for 750 additional enrollments in STEM.	<b>\$15 M</b> to match private donations for <b>Opportunity Scholarship</b> ; and <b>\$3 M</b> to expand <b>Opportunity Scholarship</b> eligibility to workforce training programs.  <b>\$4M</b> to expand Tech Apprenticeship program (Apprenti).  <b>\$6 M</b> to UW for the expansion of degrees in the Department of Computer Science and Engineering.

STEM Alliance Agenda	Governor's Budget Proposal HB1067 1/9/17	Senate Proposal	House Proposal: Striking amd to ESSB 5048 3/31/17
Prepare WA's future workforce by increasing attainment of <b>technical credentials</b> , 2 and 4-year degrees and contributing to WA's 70% attainment goal (continued...)		<p><b>\$7.23 M</b> to WSU for 750 additional enrollments in STEM.</p> <p><b>\$2.407 M</b> to EWU for 300 additional enrollments in STEM.</p> <p><b>\$2.26 M</b> to CWU for 300 additional enrollments in STEM.</p> <p><b>\$2.7 M</b> to TESC for 300 additional enrollments in STEM.</p> <p><b>\$3.62 M</b> to TESC for 300 additional enrollments in STEM.</p>	
Improve equity by implementing interventions to <b>close the educational opportunity gaps</b> , providing world-class preparation and support for STEM teachers and improving workforce diversity	<b>\$1.5 M</b> to SBCTC to expand (Math, Engineering, Science Achievement) MESA program by 750 slots at six new sites, supporting secondary students in math/science and engineering.		<b>\$1.5 M</b> to SBCTC to expand (Math, Engineering, Science Achievement) MESA program by 750 slots at six new sites, supporting secondary students in math/science and engineering.
<b>Other Postsecondary: Affordability and Student Success</b>	<b>\$45 M</b> for expected caseload in the College Bound Scholarship.	<b>\$45 M</b> for expected caseload in the College Bound Scholarship.	<b>\$45 M</b> for expected caseload in the College Bound Scholarship. Students with incomes from 65-70% MFI receive priority for State Need Grant.
	<p><b>\$30 M</b> to maintain 2015-17 <b>State Need Grant</b> service levels.</p> <p><b>\$116 M</b> to serve an additional 14,000 eligible students in each year of the 17-19 biennium in the <b>State Need Grant</b>.</p>	<p><b>\$38 M</b> to maintain 2015-17 <b>State Need Grant</b> service levels and increase grants to cover anticipated tuition increase.</p>	<p><b>\$23 M</b> to maintain 2015-17 <b>State Need Grant</b> service levels.</p> <p><b>\$49.2 M</b> to cover 6,000 currently unserved students in the <b>State Need Grant</b>.</p>

<b>STEM Alliance Agenda</b>	<b>Governor's Budget Proposal HB1067 1/9/17</b>	<b>Senate Proposal</b>	<b>House Proposal: Striking amd to ESSB 5048 3/31/17</b>
<b>Other Postsecondary: Affordability and Student Success (continued...)</b>	<b>Freezes tuition</b> at public institutions. <b>\$35.2 M</b> to fund backfill for the public baccalaureate institutions. <b>\$21 M</b> to fund backfill for SBCTC.	<b>Follows current tuition policy</b> , tuition increases of 2.2% and 2.0% for FY 18 and 19, respectively <b>\$8.4 M</b> to backfill institutions under CAP.	<b>Freezes tuition</b> at public institutions. <b>\$35.3 M</b> to fund backfill for the public baccalaureate institutions. <b>\$21 M</b> to fund backfill for SBCTC.
	<b>\$8.5 M</b> for Guided Pathways initiative.	No additional funding provided.	<b>\$8.5 M</b> for Guided Pathways initiative. <b>\$4.8 M</b> in student success funding for WWU, EWU, CWU and TESC



# STEM Education Innovation Alliance Meeting

## Small Group Discussion

May 31, 2017

Discussion Focus: Career Connected Learning – How can we support its expansion?

*Explore your commitment to mentoring, internships, and other forms of career-connected learning within your organization.*

Reviewing the policy recommendations released today, what specific steps can the STEM Alliance take to move forward on these recommendations?

- How can the STEM Alliance encourage industry/education partnerships?
- What can I and my organization personally and professionally do to support these recommendations?

NAME \_\_\_\_\_

**STEM EDUCATION INNOVATION ALLIANCE MEETING PARTICIPANTS - Governor's Summit on Career Connected Learning - May 31, 2017**

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## Career Connected Learning Technical Support

A series of technical support workshops and webinars will be offered in 2017-18 to assist with implementing successful Career Connected Learning. For updated information, additional opportunities, and to register for these workshops and webinars please visit: [www.washingtonstem.org/govsummit](http://www.washingtonstem.org/govsummit)

Workshop/Webinar	Date/Time/Location
<b>Workshop - Building Social Capital for Youth: The Spark for Career Success</b> <i>Presented by Washington STEM and featuring Edward De Jesus</i>	June 1 10:30 am – 2:30 pm Seattle Public Library
<b>Webinar - Career Connect Washington Guiding Principles</b> <i>Presented by Employment Security Department, Governor's Office, OSPI, Washington STEM, and Workforce Board</i>	June 12 1:00 pm – 2:30 pm
<b>Webinar - Registered Youth Apprenticeship: Common Understanding &amp; Technical Details</b> <i>Presented by Dept. of Labor and Industries and AJAC</i>	June 26 1:00 pm – 2:30 pm
<b>Workshop - Work Based Learning in CTE: Updates and Progress</b> <i>Presented by OSPI and Dept. of Labor and Industries</i>	August 6-8 WA-ACTE Conference Spokane
<b>Webinar - Career Connect Washington Update</b>	September 6 1:00 pm – 2:30 pm
<b>Workshop - Strategies for Implementing Effective Career Connected Learning Programs for In-School and Out-of-School Youth</b> <i>Presented by OSPI, Employment Security Department, Dept. of Labor and Industries, Washington STEM, and Workforce Board</i>	September 21 9:00 am – 3:00 pm Tri-Cities
	September 22 9:00 am – 3:00 pm Yakima
	September 28, 9:00 – 3:00 pm Skagit County
	October 5 9:00 am – 3:00 pm Vancouver
<b>Workshop - WSU Extension Pathways to Prosperity: Local Workforce Development Strategies</b> <i>Presented by WSU Extension</i>	October 12 Regional sites across the state
<b>Workshop - Labor Market Data for Educators Summit</b> <i>Presented by Washington STEM</i>	February 2018 Seattle

# Career Connect Washington

A Policy Framework for Expanding  
Career Connected Learning  
Opportunities to All Young People

May 31, 2017

This framework was developed by a team of stakeholders representing from schools, employers, and organizations across Washington as part of a 2016-17 Policy Academy on Work-Based Learning supported by grant funding from the Siemens Foundation and convened by the National Governors Association. The state team was co-led by the Workforce Board and the Office of the Governor, and included the Departments of Commerce, Social and Health Services, and Employment Security; Office of Superintendent of Public Instruction; State Board for Community and Technical Colleges; Association of Washington Business; Washington Building & Construction Trades Council; Washington STEM; Washington Student Achievement Council; and advisors from over 60 other organizations.





# WASHINGTON'S POLICY FRAMEWORK ON CAREER CONNECTED LEARNING

Young people benefit most from early and frequent participation in high-quality career connected learning (CCL) opportunities. Implementing the policies below will ensure that career connected learning is accessible to all Washington youth—from elementary school through middle, high school, and on to postsecondary education and careers—including out-of-school youth.

## DEVELOP A PUBLIC-PRIVATE PARTNERSHIP TO CREATE A LONG-TERM, HIGH-IMPACT CAREER-READY SYSTEM

Washington's young people require an education that prepares them to take part in our diverse economy. High-quality, systemic CCL is a key part of this preparation. CCL equips employers with an employee pipeline of reliable, skilled, and motivated workers ready for 21st century challenges and innovation. Best practices and high-quality criteria for CCL have been identified through a collaborative process as part of the National Governors Association Policy Academy on Work-Based Learning. *Our partners will support and promote CCL with guidance from a Governor-appointed task force of business, education, and community leaders with a vested interest in youth career pathways and workforce development.*

## INCREASE ACCESS TO TRAINING AND RESOURCES

Educators from all levels and subjects—including general education and Career and Technical Education (CTE) teachers and postsecondary instructors—should receive training and ongoing technical assistance to make CCL sustainable, easy to implement, and high-quality. The number of trained, school-level CCL coordinators should also be increased, including certified coordinators supported with training and supervision from district CTE Directors. A resource toolkit will help educators and schools integrate CCL into the classroom. *Our partners will help education providers receive needed technical assistance and training to create and expand CCL opportunities.*

## BUILD CONNECTIONS BETWEEN INDUSTRY AND EDUCATORS

Educators benefit from externships and other opportunities by spending time directly with employers. This experience builds a deeper understanding about careers, training needs, and emerging skillsets that can be brought back to the classroom. Employers benefit from educators connecting what they teach to emerging job skills and occupations. *Our partners will promote and support opportunities for educators to engage directly with industry, including teacher externship placements.*

## EXPAND AND SUPPORT CCL ACCESS IN RURAL AND UNDERSERVED COMMUNITIES

Young people across Washington all benefit from equal access to high-quality CCL opportunities. Rural and underserved communities may need additional support to provide these programs across a wide range of industries. Equitable access to funding, training, technology, and support resources across the state is critical to supporting underserved youth. *Our partners recognize rural and underserved communities may have different resource needs, and will be mindful of these differences when creating or expanding statewide CCL programs and policies.*

## BUILD STRONGER MENTORSHIP PROGRAMS

Young people with positive adult role models in their lives are better equipped to reach their education and career goals. However, recruiting, training, and retaining a wide range of mentors is always challenging. Schools, businesses, and community partners need resources to develop strong and lasting mentorship programs, including information on partnership building with community-based organizations, legal compliance issues, and answers to commonly asked questions. Schools would also benefit from additional support on screening and recruiting potential mentors from culturally and professionally diverse backgrounds. Mentorship programs, when possible, should be offered during the school day to ensure all students can access the program. *Our partners will develop a toolkit for building mentorship programs for businesses and schools, including specific guidance on coaching and support for mentors. Further, our partners will convene industry and education leaders to develop a campaign promoting the value of mentorship.*

## STRENGTHEN THE HIGH SCHOOL AND BEYOND PLAN

Washington students should begin planning for life after high school before they enter high school. This planning helps students thoughtfully chart their journey towards high school graduation, while aligning required and elective credits with career interests and life goals. Each student's High School and Beyond Plan should include career exploration as a core component, allowing students to try out a range of careers and skills and identify occupations of interest, while encouraging students to update their plans as their interests change. *Our partners will develop tools for schools to help students begin their Plan before high school and complete updates each year in a standard format, including online portfolio options and links to CCL resources.*

## EXPAND AWARENESS OF AND ACCESS TO REGISTERED YOUTH AND ADULT APPRENTICESHIPS

Apprenticeships are proven workforce winners. Participants are able to earn while they learn, bringing home paychecks and skills that translate to in-demand, high-wage careers in a variety of fields. Employers benefit from a tailored talent pipeline that ensures they have the skilled workers they need to remain competitive. State policymakers, collaborating across a diverse array of industry sectors and current programs, will expand access to apprenticeships, including youth apprenticeships and pre-apprenticeships. Awareness and recruitment efforts should focus on underrepresented young people, including women, veterans, and communities of color. *Our partners, in conjunction with the Washington State Apprenticeship and Training Council, will convene stakeholders to define standards and criteria for creating and expanding apprenticeship and pre-apprenticeship programs and propose a sustainable funding structure for those programs.*

*If you have questions on the policy framework, please contact us at [workforce@wtb.wa.gov](mailto:workforce@wtb.wa.gov).*



# LESSONS IN CAREER CONNECTED LEARNING FOR YOUTH AND YOUNG ADULTS

A PROJECT OF THE WASHINGTON STATE NATIONAL GOVERNOR'S  
ASSOCIATION POLICY ACADEMY ON WORK BASED LEARNING

Prepared by Verrenti Consulting for Washington STEM

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# EXECUTIVE SUMMARY

## POLICY ACADEMY FOR WORK BASED LEARNING

Washington was one of six states selected to participate in the Policy Academy for Work Based Learning (Policy Academy) through the National Governors Office in 2016. The Policy Academy is co-chaired by Governor Inslee and the Workforce Training and Education Coordinating Board, with leadership from a Core Team of agency and organization stakeholders. The goal of the Policy Academy is to create a policy framework to increase career connected learning for young people, with a focus on middle-skill, STEM jobs. Additional goals include supporting career connected learning by designing a fundable and sustainable infrastructure, creating a performance measurement system, and hosting a Governor’s Summit to accelerate and sustain the work statewide.

## LEARNING LAB PROJECT

To complement this work, Governor Inslee dedicated funding for the Learning Lab component of the Policy Academy. The Learning Lab component was designed to identify, assess and document promising practices from programs serving a broad cross section of subpopulations, including in-school and out-of-school youth (Opportunity Youth). Washington STEM led the Learning Lab portion of this work. The results of this statewide review of career connected learning programs are contained in this report.



*ANew - Trades Rotation Program*

## ORGANIZING PARADIGMS FOR CAREER CONNECTED LEARNING

Twenty-one career connected learning programs participated in the Learning Lab project. These programs are a cross section of program models, scales, and intensities. They are located in urban areas as well as remote rural areas across Washington. Some have been running for many years while others are just starting to pilot new ideas or strategies. Each participated in a research methodology that included a survey, phone interviews, document review, and site visits.

There are two organizational paradigms to this research and report. First, the Career Connected Learning Framework (Framework) organizes the approach to the programs. Programs fall into one or more of the Framework’s broad categories. These are: Career Awareness – program models like worksite tours that help youth learn about the variety of jobs available; Career Exploration – program models like job shadows that inform youth’s decisions about further career experiences and educational options; Career Preparation - program models such as internships that give youth opportunities for practical application of work skills; and Career Skills Training & Education – programs such as apprenticeships that prepare youth for specific occupations.

The second paradigm is the Criteria for High-Quality Career Connected Learning (Criteria). These nine criteria are designed to be used flexibly across the entire Framework for both individual programs as well as systems-level initiatives. These Criteria are based on national and state research and are field tested among emerging and existing programs in Washington. They can inform program design and provide a shared language for partners, stakeholders, and funders.

The Criteria are: Equity; Person Centered Approach; Structured Learning Component; Business/Industry & Community Based Connections; Partnership Agreement; Assessment of Effectiveness and Recognition of Skills; Part of a Continuum: Not a Stand-Alone Effort; Design Fidelity; and Sustainability & Implementation at Scale.

## FOCUS ON EQUITY

This report highlights one criteria in particular, equity, as a set of intentional strategies that impact all of the other criteria. An equity strategy, as experienced in the Learning Lab research, is a specific focus on identified populations, including communities of color, that have disproportionate outcomes in areas such as educational attainment or access to living wage jobs. These strategies address the effects of historic racism or bias.

The Career Connected Learning field does not have a shared definition or framework to approach equity. There are three main areas of work in the Learning Labs where this research highlighted emerging practices in equity. The Learning Lab programs focus on one or more of these areas: designing programs and evaluation to programmatically address issues such as barriers to access or cultural competency; developing organizational systems to strengthen the organization's response to equity, such as strong community connection or hiring practices; and using advocacy and systems-level responses to address large scale issues of inequity in the community at large.

## LESSONS LEARNED

This report summarizes themes and recommendations that highlight promising practices and point to potential solutions to shared problems. There are four overarching themes that are the foundation for the findings: leadership and sustained support that creates a culture where career connected learning is valued is essential for long term success; trusting personal relationships are needed to sustain institutional relationships and to effectively work with youth; programs need to reflect skills and experiences that are directly relevant to the world of work as well as to youth's experiences and goals; and integration and cross-sector collaboration, which require working across institutional boundaries or "siloes," is needed to create quality experiences for youth.

These themes highlight effective practices, different approaches, and systems support needed for success. Detailed ideas and strategies are found in the appendix. This report explores findings and recommendations in the following areas:

- Comprehensive strategies for career connected learning
- Genuine employer engagement
- Opportunities in the K-12 system
- Opportunities in the postsecondary system
- STEM-oriented career connected learning
- Intentionality of program design-emerging practices
- Measurement of success and quality
- Funding and sustainability
- Systems gaps
- Strategies for Opportunity Youth

Case studies of each of the twenty-one programs in the Learning Lab project provide overviews of different approaches as well as solutions to common challenges in the field. Each case study highlights that program's emerging practices in one or two of the Criteria for High Quality Career Connected Learning.

# BACKGROUND

Washington was one of six states (along with Indiana, Iowa, Montana, New Hampshire, and Utah) selected in 2016 by the National Governor’s Association (NGA) to participate in a Policy Academy on Work-Based Learning (Policy Academy). In acknowledgment of the broad range of career-related experiences for young people, Washington state has focused the Policy Academy work on Career Connected Learning, of which Work-Based Learning is an important component. The Policy Academy is co-chaired by Governor Inslee and the Workforce Training and Education Coordinating Board, with leadership from a Core Team of agency and organization stakeholders.

The overarching goal of the Policy Academy is to create a policy framework to increase career connected learning for young people, with a focus on middle- skill STEM jobs. In addition to the creation of a policy framework, additional goals of the Policy Academy are as follows:

- Design a fundable and sustainable infrastructure to expand career connected learning
- Create a plan for a performance measurement system for career connected learning
- Host a Governor’s Summit on career connected learning to accelerate and sustain the work statewide

To complement this work, the Core Team identified the need to learn from on-the-ground programs operating across the state, thus creating the “Learning Lab” component of the Policy Academy. Governor Inslee dedicated funding specifically for the Learning Lab component of the Policy Academy. The intent of the Learning Lab project is to identify, assess, and document promising practices from programs serving a broad cross-section of populations, including in- school and out-of-school youth.

The variation of program types in the Learning Lab project is quite wide. While programs do not necessarily represent a comprehensive overview of the state of the field at large, they provide a snapshot of a range of approaches, accomplishments, and challenges that organizations and agencies of all sizes experience when providing career connected learning opportunities for young people. Washington STEM was charged with leading the Learning Lab component of the Policy Academy and conducted surveys, site visits, and analysis of 21 different career-related programs across the state. This report documents the findings from the Learning Lab project.

## POLICY ACADEMY CORE TEAM AGENCIES AND ORGANIZATIONS

- Association of Washington Business
- Department of Commerce
- Department of Social and Health Services
- Employment Security Department
- Governor’s Office
- Office of Superintendent of Public Instruction
- State Board for Community and Technical Colleges
- Washington Building & Construction Trades Council
- Washington STEM
- Washington Student Achievement Council
- Workforce Training and Education Coordinating Board

# RESEARCH AND REPORT METHODOLOGY

One of the goals of this project was to form a learning community for practitioners and policy makers. In this spirit, we followed a consistent process for all twenty-one programs but allowed for a great deal of variation within each individual Learning Lab program to customize what elements to highlight. That focus, plus variation of schedules, availability of documents, and areas of interest, informed the direction of the inquiries.

There were six main steps to the research to identify promising career connected learning:

- Solicit programs to participate in the Learning Lab project
- Survey of perspectives, practices, and interests
- Initial phone calls/interviews
- Document review
- Site visits
- Follow up

## SOLICITATION

An open solicitation invited programs from across the state to participate in the Learning Lab project. Twenty-two programs were invited to join, with twenty-one programs (the Programs) completing the process. The intent of the experience was to identify promising practices and common challenges. The Programs also informed the evolution of the *Criteria of Effective Career Connected Learning*.

The Programs submitted a brief proposal prior to joining the Learning Lab project. These proposals provided short summaries of the program design and ranged from large scale, multi-partner initiatives with regional coverage to discrete components that are an element of a larger programmatic strategy. While most proposals described programs or projects that were currently underway, several others identified new ideas they were looking to pilot during the Learning Lab project period.

## SURVEY

An initial survey was distributed in September, 2016. This was accompanied by the first draft of the *Criteria for Effective Career Connected Learning* (the Criteria). While it was sent to the program leads identified in each proposal, they were encouraged to connect with their key stakeholders for a well-rounded perspective on the questions.

There were 23 questions in the survey, which were a mix of multiple choice and open-ended questions. Four questions asked for general input into the Criteria. We sought field expertise on whether these criteria were complete and how they could be improved.

The remaining questions were specific to each program. These questions were intended to identify promising practices, understand challenges, and inform the focus of subsequent site visits. Groups of question were designed to:

- Provide the Programs with opportunities to self-assess vis-a-vis the Criteria
- Document unique assets or approaches
- Identify challenges and lessons in the delivery of their program
- Identify perspectives on policy or systems-level challenges to their work
- Provide practical or logistical guidance on infrastructure required to successfully implement their model and what other programs would need to consider for replication
- Ask what the Programs wanted to learn as a result of participation in the Learning Lab project
- Information from the survey was used to guide the Learning Lab project process. Input into what the Programs collectively and individually wanted to learn from the process was incorporated into subsequent webinars, as well as the design of the Governor's Summit on Career Connected Learning in May 2017.



## INITIAL INTERVIEW

The Washington STEM evaluator interviewed the Program leads by phone prior to each site visit. The content of calls was informed by the survey and materials collected to date. The purpose was to clarify the specific focus of the Learning Lab visit, which was particularly useful with programs that have multiple components or were just starting out. The calls were also used to plan the agenda and agree to the core areas of learning for the visit.

## DOCUMENT REVIEW

Depending on the focus of the site visit and the availability of data, review of program documents was included as part of the analysis. This review was useful to deepen understanding along key areas of learning. The request varied per Program and may have included budget information, outcome or evaluation reports, curriculum, assessment tools, partnership agreements, or contracts. We also reviewed websites and program collateral as available.

### Site visits

A team from Washington STEM, and on occasion partners from the Workforce Training and Education Coordinating Board, visited 21 sites from October 2016 through March 2017. Visits ranged from a few hours to a full day, depending on scheduling, what was available, and the nature of the Program.

Each site visit included an interview with program leadership, and most included informal youth interviews. In many cases, we were able to observe the Programs in action in schools or at worksites. In a handful of visits we were able to interview employers, teachers, or partners. The intent of the visits was to better understand how the Program runs, including the elements that are exceptional or model practices. We also sought to understand where the Program was in its development, its challenges, and next steps.

## FOLLOW UP

The information acquired from these varied sources was organized into themes that are summarized in this report. It was also used to inform each case study. In some cases, we had additional questions or points of clarification and followed up with the program lead. Each program reviewed its case study for additional opportunities to provide clarity.

# ORGANIZING PARADIGMS FOR CAREER CONNECTED LEARNING

This report uses two frameworks to categories practices in career connected learning. These structures are helpful in understanding the intent and effective practices of different program models among the programs in the Learning Lab project. These two paradigms are the Career Connected Learning Framework and the *Criteria for High-Quality Career Connected Learning*.

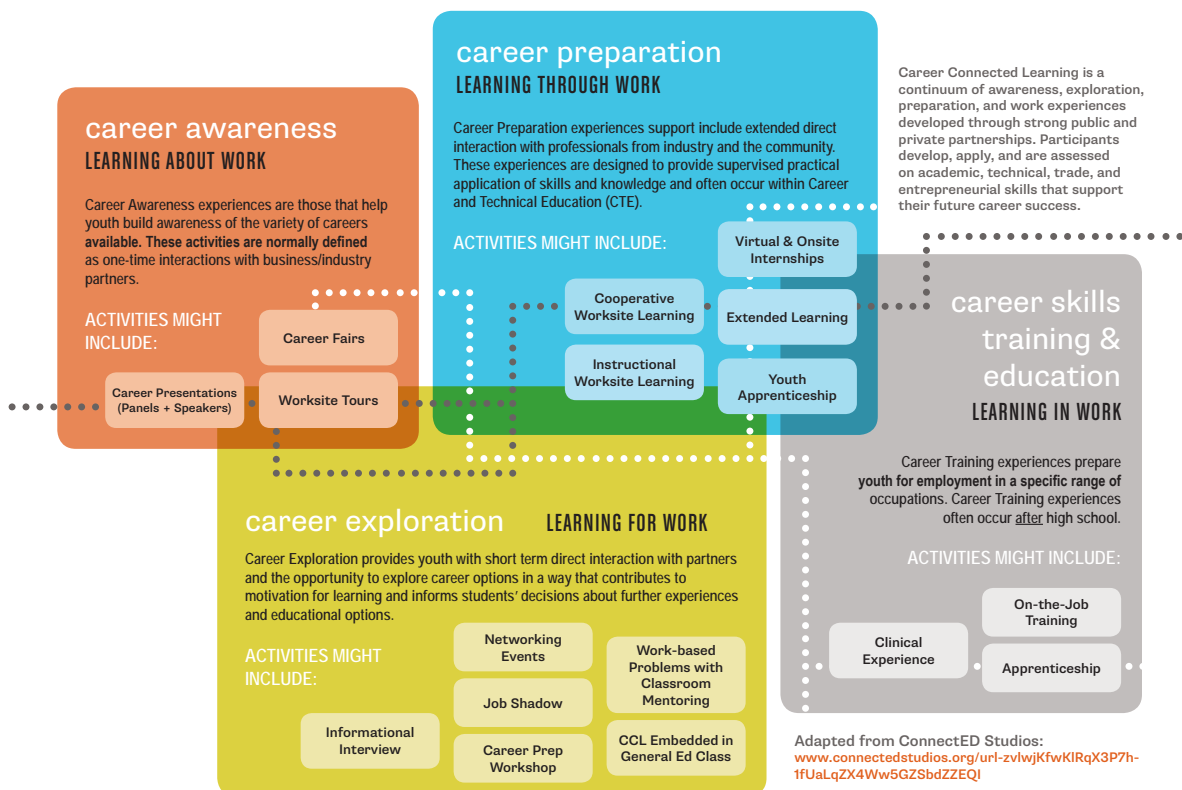
## CAREER CONNECTED LEARNING FRAMEWORK

The Career Connected Learning Framework (Framework) is a continuum of experiences for youth that progressively builds their career awareness and skills. Each experience along this continuum is an opportunity to develop soft skills as well as job skills. This Framework applies to programming for both in-school and out-of-school youth.

Experiences along the Framework typically increase in intensity as a youth progresses. At the earlier stages, these are often group experiences, while experiences further along are frequent individual experiences in identified career tracks. These stages are:

- **Career Awareness** – Opportunities for youth to learn about work by building awareness of a variety of careers.
- **Career Exploration** – Opportunities for youth to explore career options in ways that motivate them for learning and provide information on career and educational options.
- **Career Preparation** – Opportunities for youth to have experiences in the workplace or with professionals to learn work skills
- **Career Skills Training & Education** – Opportunities for youth to learn in work experiences in specific occupations.

## CAREER CONNECTED LEARNING FRAMEWORK



## CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING

The Criteria for High-Quality Career Connected Learning (Criteria) are designed to be used flexibly across the entire Career Connected Learning (CCL) Framework –These Criteria are based on research and field tested among emerging and existing programs in Washington during the Learning Lab. Input from Learning Lab programs as well as analysis of their practices informed the current Criteria.

The **Criteria** provide nine unique principles or standards for assessing quality that apply to most programs.

The **Indicators** are a menu that progresses through developmentally appropriate experiences to develop mastery over time.

The **Examples** of Participation and Quality Metrics provide guideposts or generate ideas on the kinds of measurement, relationships, structure, or design that indicate quality in a criterion. These examples are also useful as part of ongoing quality improvement processes.

Each of the case studies highlights one or two Criteria to demonstrate effect practices across a wide variety of program types. Many of the Indicators and Examples are specific practices or strategies that are used by Learning Lab programs.

While the Criteria are most easily applied by organizations providing direct services to youth, they are also relevant to other types of career connected learning programs. While not every criteria might be relevant, professional development providers can integrate these concepts into curriculum or teacher support, or instance. Employer-sponsored events can consider elements in the criteria as they design experiences for employees and participating youth.

### How the Criteria can be used:

- Intentional program design and ongoing quality improvement
- Shared language with partners, stakeholders, and funders
- Can be applied at both program- and systems-level initiatives
- Flexibility depending on where a program sits on the Framework

### The Criteria include the following elements:

- **Equity** addresses disproportionate impact or outcomes among identified groups (e.g., racial, ethnic, religious, gender, or sexual orientation) in a local community.
- **Person Centered Approach** (also commonly called youth-centered or client-centered approach) puts participant empowerment as an essential element of any successful program to engage them in activities and actions that are relevant to their goals, values, and situation.
- **Structured Learning Component** is an intentional and ongoing strategy to align and coordinate all elements of the experience to build and reinforce skills, knowledge, and abilities.
- **Business/Industry- and Community Based Connections** acknowledges the professional relationships that underpin a quality career connected learning experience.
- **Partnership Agreement** provides clarity and structure to the employer relationships in how to support safety and learning for participants in the context of their business and to clearly align the work experience with career pathways.
- **Assessment of Effectiveness and Recognition of Skill** provides structure for programs to track their success primarily through the lens of clear, measurable participant skill gains.
- **Part of Continuum: Not a Stand-Alone Effort** supports community wide partnership as well as participant support to ensure sequenced and progressive skill development along the CCL Framework.
- **Design Fidelity** allows for flexibility and innovation within unique contexts yet emphasizes clarity and precision in design principles to ensure intended outcomes and consistently high-quality programming.
- **Sustainability and Implementation at Scale** provides basic principles and strategies for sustaining, growing, or replicating programs over time.

# CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING

CRITERIA ELEMENTS	CRITERIA INDICATORS <sup>1</sup>	EXAMPLES OF PARTICIPATION AND QUALITY METRICS
<b>EQUITY</b>	<ul style="list-style-type: none"> <li>• Experience is equitable in that it serves high-need populations</li> <li>• Program design intentionally addresses barriers to access and participation and removes barriers (e.g., targeted recruitment, case management, wages if appropriate, support services, transportation, etc.)</li> <li>• Outcomes for youth of color or other target populations equals or exceeds outcomes for other populations.</li> <li>• Community collaborations support and enhance equity in service delivery</li> <li>• Quality improvement measures are in place to monitor and adjust programs with an equity lens</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• Use of data that can tie demographics with participation and outcomes</li> <li>• Workforce composition mirrors participant profile</li> <li>• Community partnerships are appropriate to the population served</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Program applies an equity lens to all elements in the criteria</li> <li>• Organization has a clear approach to equity that is part of its business plan and operations at all levels (e.g., governance, hiring and promotion, etc.)</li> <li>• Program design, staff models, and volunteer training intentionally include language competency, understanding of cultural values, experiences of discrimination, etc.</li> <li>• Participants, family and community partners are genuinely involved in program design and evaluation</li> <li>• Intentional effort is made to help participants “see themselves” in the experience.</li> </ul>
<b>PERSON CENTERED APPROACH</b>	<ul style="list-style-type: none"> <li>• Instructional and service delivery design applies best practices to target population</li> <li>• Program design and infrastructure intentionally create and maintain physically and emotionally safe environments</li> <li>• Participants are actively engaged in their learning and find the content relevant to their lives and interests</li> <li>• Participant goal setting and achievement is incorporated in the program design</li> <li>• Intentional program structure can identify when youth disengage and utilizes strategies to re-connect them to appropriate services.</li> <li>• Activities are developmentally appropriate to age and skill levels of participants</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• There is strong relationship-building between participant and program staff, including volunteers, instructors and employers</li> <li>• Program incorporates user voice and input into design and activities</li> <li>• There are mechanisms to measure progress toward participant-set goals.</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Program staff are trained in and skilled at applying appropriate methods to engage and support the population (e.g., trauma-informed care, positive youth development, restorative justice, project based learning, etc.)</li> <li>• Multiple service delivery methods are used to engage all participants and can flexibly respond to participant needs</li> </ul>
<b>STRUCTURED LEARNING COMPONENT</b>	<ul style="list-style-type: none"> <li>• Participant engages in structured learning activities intentionally designed to enhance knowledge, skills, and abilities</li> <li>• Soft skill development and social-emotional learning are developed through intentional programming and coaching</li> <li>• Learning activities align work experiences with classroom learning/curriculum</li> <li>• Learning competencies are clear and validated by industry</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• Structure (location, curriculum, methods of learning, delivery options, skills taught) of learning component is clearly outlined</li> <li>• # and types of outcomes (skills, credentials) attained</li> <li>• Shared planning time and tools for employers and instructors</li> </ul>

<sup>1</sup> The Indicators are intended to be used progressively. Youth and employer experiences will increase with intensity appropriate to the program’s location on the Career Connected Learning Continuum Framework: Career Awareness; Career Exploration; Career Preparation; Career Skills Training and Education. Activities should be developmentally appropriate.

CRITERIA ELEMENTS	CRITERIA INDICATORS	EXAMPLES OF PARTICIPATION AND QUALITY METRICS
	<ul style="list-style-type: none"> <li>• Learning component has clearly articulated outcomes (skills, credentials) associated with successful completion and access to employment opportunities</li> <li>• Learning experience is embedded or clearly linked to secondary or postsecondary programs of study</li> </ul>	<p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Learning experience is relevant to participant career interests and learning styles and appropriate to developmental stage</li> <li>• Participants can articulate relationship between the work experience/career interests and learning outcomes/ educational requirements</li> <li>• Career pathway map is developed outlining alignment of work experience skills, learning component credentials/ outcomes, and career pathway options</li> <li>• Instructors or mentors are trained in the curriculum and are skilled in teaching and coaching techniques appropriate to the population</li> </ul>
<p><b>BUSINESS/ INDUSTRY AND COMMUNITY BASED ORGANIZATION (CBO) CONNECTIONS</b></p>	<ul style="list-style-type: none"> <li>• Employers are involved in the program design</li> <li>• Participant interacts directly with sector-specific professionals</li> <li>• Employer provides engagement, support, and supervision of participants, including on-the-job mentoring and real-time feedback on performance</li> <li>• Participant performs job in actual worksite with relevant performance expectations based on employer’s workforce needs (if developmentally appropriate)</li> <li>• There are clear structures built into the program design for career navigation to learn about in-demand occupations, skills, credentials, and wages</li> <li>• Expertise and resources of CBO partners is used to engage participants and add to the participant’s success through access to resources, education and/or supports.</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• # professionals engaged and experiences offered</li> <li>• Clear structures for ongoing employer planning in program design or modification</li> <li>• # of participants in WBL experiences or jobs</li> <li>• Supervisor is identified and highly engaged with participant</li> <li>• # and types of community support services leveraged</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Nature of participant/employer interaction is appropriate for program purpose, participant learning needs, and developmental stage</li> <li>• There are systems in place to support employers, mentors or volunteers, including training, communication and recognition</li> <li>• Participant can identify one or more mentors within the workplace</li> <li>• Tools or support in place to support employers (e.g., working with youth, legal/liability guidelines)</li> <li>• Employer can clearly articulate how participant(s) is/are filling a workplace need</li> </ul>
<p><b>PARTNERSHIP AGREEMENT</b></p>	<ul style="list-style-type: none"> <li>• Detailed description of terms and expectations of work experience, including duration, compensation, safety requirements, and participant expectations</li> <li>• Detailed description of employer expectations and roles, including financial investments, supports provided, and staffing requirements</li> <li>• Employers receive orientation, training, and ongoing support appropriate to their role</li> <li>• Clear articulation of projected learning outcomes, including hard and soft skill attainment, and how/ where this learning will occur (e.g., at work site, in structured learning component, etc.)</li> <li>• Agreements for participants includes job descriptions and other expectations</li> <li>• Agreements for support network such as parents that articulate their roles in supporting the participant</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• Creation of an agreement that specifies: <ul style="list-style-type: none"> <li>• # of participants or sessions served (and expectations)</li> <li>• Dedicated staff at employer site/hours of commitment</li> <li>• Educational/intermediary/CBO orgs involved (and roles)</li> </ul> </li> <li>• Agreements include roles for parents/support network</li> <li>• There is are dedicated points of contact to streamline communication and problem-solving</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Agreement reflects expectations for and/or helps ensure: <ul style="list-style-type: none"> <li>• Shared commitment, vision, and accountability</li> <li>• Participant learning and joint planning time</li> <li>• Identification of career pathway aligned with work experience</li> </ul> </li> <li>• Participant can articulate their responsibilities and contributions within the workplace</li> <li>• Supervisor meets regularly with participant</li> <li>• Partner satisfaction with roles/contributions of all partnering organizations</li> </ul>

CRITERIA ELEMENTS	CRITERIA INDICATORS	EXAMPLES OF PARTICIPATION AND QUALITY METRICS
<p><b>ASSESSMENT OF EFFECTIVENESS AND RECOGNITION OF SKILLS</b></p>	<ul style="list-style-type: none"> <li>• Participants’ skills, learning outcomes, and subjective experiences in the WBL program are assessed as an integral part throughout the experience (not just at exit)</li> <li>• Participants’ success, as demonstrated through the assessments and any credential attainment, are officially recognized (academic or industry specific)</li> <li>• Processes for assessment and reflection lead to opportunities for improvement, continuous learning, and integration with larger learning goals, including career and training advancement</li> <li>• Program has regular, structured processes for program evaluation and quality improvement</li> <li>• Employers and participants complete assessment of their experience in the WBL program</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• Assessment process has collaborative roles for employer, instructor, and participant</li> <li>• Employer assessments: satisfaction with experience and with participant performance; \$ invested, staff time invested, workplace needs/skills gaps met, and unmet needs</li> <li>• Participant assessment: satisfaction; as appropriate, credentials, certifications, wage or responsibility increases based on demonstration of skill</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Program and quality improvement processes include qualitative measures such as quality instruction, youth voice, staff reflection and planning for improvement</li> <li>• Program measures success by participant outcomes as well as activities – learning achieved, hard and soft skills gained, time spent at worksite, time spent in learning activities, supervision received, wages earned, experience acquired, jobs in field of study, job or program retention, etc.</li> <li>• Outcomes are leveled and appropriate to developmental stage/age and needs</li> <li>• Participant reflections on assessment include: overall satisfaction with program, understanding of relevant career options, and reflections on work environment and supervision/mentoring</li> <li>• Employers participate in participant evaluation of learning</li> </ul>
<p><b>PART OF A CONTINUUM: NOT A STAND-ALONE EFFORT</b></p>	<ul style="list-style-type: none"> <li>• Part of a comprehensive continuum of experiences; experience can be tied to other efforts (e.g., as part of the school/community or along the continuum framework)</li> <li>• Adults working with youth (instructors, supervisors, case managers, mentors, etc.) are coordinated in their support and planning, and there is appropriate communication across parties</li> <li>• Participant activities support both college/advanced training and career readiness, not one or the other</li> <li>• There is specific support for transition points (e.g., middle school to high school CTE program, transition to advanced training, college navigation)</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• Participants and employers have opportunities for engagement with a variety of WBL experiences over a period of time to build progressive skills and interests</li> <li>• Systems or community level approaches include shared vision, strong administrative and coordination capacity and cross-sector collaboration</li> <li>• There are experiences available across the continuum to fully engage youth at all age groups in CCL experiences</li> <li>• Integration of CTE and general education to leverage expertise and resources for all students</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Program is embedded in sequenced and coordinated set of activities, not ad hoc</li> <li>• Program staff assist participants in understanding and accessing the next step in their career development</li> </ul>
<p><b>DESIGN FIDELITY</b></p>	<ul style="list-style-type: none"> <li>• Fundamental design principles and components are clear and constant, and can be provided within different contexts; adaptations align with principles</li> <li>• There is a shared framework that is clear on vision, approach and competencies that unifies all staff working on the project</li> <li>• There are processes and supporting tools for embedding WBL in project design and delivery</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• All partners are clear on intended purpose and outcomes of program design</li> <li>• All staff can articulate program framework or design principles and understand their roles in its success</li> <li>• There is clarity of resources needed to implement to the intended design (human, facilities, financial, etc.)</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Program planning includes clarity on how fidelity is</li> </ul>

CRITERIA ELEMENTS	CRITERIA INDICATORS	EXAMPLES OF PARTICIPATION AND QUALITY METRICS
		<p>achieved, e.g., through explicit sequence of steps or tools</p> <ul style="list-style-type: none"> <li>• Program documentation articulates design and clarity for implementation</li> <li>• There are regular forums for partners to engage in quality and fidelity planning, including reflection on current practice</li> <li>• Thought and planning is dedicated to complex implementation challenges (requiring behavior or culture change or will be implemented in a complex environment)</li> <li>• Decisions are made that explicitly reflect design principles or frameworks</li> </ul>
<p><b>SUSTAINABILITY AND IMPLEMENTATION AT SCALE</b></p>	<ul style="list-style-type: none"> <li>• Experience can be sustained over time after the initial investments are expended</li> <li>• True costs are identified and cost/benefit appropriate to program design and intent</li> <li>• There is clarity on the best method for scaling (replication, expansion, distribution, training others, etc.) and intended outcome of going to scale</li> <li>• There is an infrastructure in place to weather transitions, accommodate growth and maintain key processes</li> </ul>	<p><b>Participation</b></p> <ul style="list-style-type: none"> <li>• Leadership at high levels visibly supports sustainability.</li> <li>• Partnership demands are realistic and manageable and contribute to the sustainability of the program</li> <li>• There is a clear, realistic sustainability plan that includes clear roles and responsibilities and includes elements such as identifying resources, nurturing buy-in/ support with strategic partners, communication and organizational capacity</li> <li>• Key relationships are institutionalized/ not relying on personal relationships</li> </ul> <p><b>Quality</b></p> <ul style="list-style-type: none"> <li>• Core program purpose and what it seeks to accomplish is clear</li> <li>• There is an assessment of what works and why and clarity on what specific strategies should be sustained or scaled to meet the desired outcomes</li> <li>• Clear theory of change or logic model articulates inputs to outcomes and evaluation is clear on if and why the program is effective, as well as which elements of the program are effective</li> <li>• Program branding makes it identifiable and desirable to funders; funders can distinguish the added value of this program compared to others in the field</li> </ul>

# LESSONS LEARNED

The goal of the Learning Lab project was to identify effective and promising practices as well as shared challenges from across a variety of career connected learning approaches. This section looks at common themes experienced from a cross section of programs and highlights some of the different solutions to shared challenges.

*The Criteria for High Quality Career Connected Learning (Criteria)* and the *Career Connected Learning Framework (the Framework)* underpin this section. Programs have different structures, purposes, or challenges, depending on where they are situated in the Framework. The practices highlighted in this section are reflected in the Criteria, but the lens is slightly different. This section is organized into high-level cross-cutting themes, a vantage point that helps us to look at a different set of issues or strategies, and provide information that may be useful to both program staff and policy makers. More detail is found in the Appendix, including different approaches by the Learning Lab programs.

Cross-cutting themes discussed in this section:

1. Foundational pillars of success
2. Comprehensive strategies for career connected learning
3. Genuine employer engagement
4. Opportunities in the K-12 system
5. Opportunities in the postsecondary system
6. STEM-oriented career connected learning
7. Intentionality of program design-emerging practices
8. Measurement of success and quality
9. Funding and sustainability
10. Other systems gaps
11. Strategies for Opportunity Youth

## FOUNDATIONAL PILLARS OF SUCCESS

Four pillars of success emerged repeatedly through the Learning Lab project: leadership, relationships, relevance, and integration/cross sector collaboration. These driving themes show up throughout the practices articulated below as well as in the case studies. They implicitly underpin the Criteria of High Quality Career Connected Learning.

### Leadership

High-level leadership and sustained support sets the culture and tone for transformative career connected learning experiences for young people. Depending on the scale of the project, this leadership includes school district superintendents, building principals, elected officials, CEOs of a local business, or executive directors of community based organizations. Clear and public leadership makes career connected learning a priority for an organization or community and creates the expectation for staff to work across traditional boundaries to problem solve and increase opportunities for youth.

### Relationships

Overwhelming, the quality of personal relationships defined the impact of the experience for youth, providers, educators, and industry partners. Having the right person in the role proved time and again to be a key element of success. Genuine, trusting relationships develop when each party dedicates the time to understand perspectives and to jointly solve problems. While essential, reliance on relationships is also vulnerable to change. People leave, or programs scale beyond the capacity

**NOTE ON TERMINOLOGY:** There are a number of different entities operating career connected learning programs – schools, community based organizations, intermediaries, collaborations, and others. Rather than list them, the provider of services is referred to as “the provider,” unless the nature of the organization is germane to the finding. Also, programs have their own language on how they refer to young people engaged in career connected learning experiences – students, youth, young people, participants, and others. For the most part, the term “youth” is used in this section to cover the age gamut. We use the term Opportunity Youth throughout the report to refer to young adults ages 16-24 who are neither working nor engaged in school.



## HARD LESSONS IN SUSTAINABILITY

The Learning Lab experience demonstrates the risk of relying on leadership when it is limited to a few key people. Sustained leadership needs to be institutionalized; it cannot rely on the passions of a single individual.

Washington Technology Solutions (WaTech) started as a Learning Lab program in summer 2016, as an opportunity to share practices on the impact of government in using its scale to create STEM internships. The Washington State government consolidated its central IT functions in 2015, which created a springboard for a powerful career connected learning opportunity at scale. WaTech had relationships with many colleges, universities, and trade schools to recruit interns for hands-on learning opportunities in several state agencies. One hundred nineteen students had participated in internships across six government agencies. Forty-six percent of these students found employment in state government following their internship, and there was an increase among interns in viewing government as an employer of choice.

However, WaTech stopped operation by the end of 2016. There was a change of leadership in key departmental functions. This change also brought different interpretations of human resource rules. The project lacked the institutional support across multiple departments to weather change in personnel. While WaTech withdrew, its lessons are a noteworthy lesson in the relationship between leadership and institutionalizing change.

of individualized relationship management. The right balance of relationship management with systems development that can weather change is essential. This might include, for instance, knowledge management practices that document key processes, building templates so that each interaction is not reinventing the wheel, or forming relationships with multiple people in a given institution.

### Relevance

Effective programs are relevant in two essential ways. First, in any program model, youth learning should be tied to real-world business experiences. How youth experience career connected learning needs to be connected to real jobs, current industry skills, and professionals working in that field. Second, youth need to relate to the career connected experience. Programs and experiences need to be culturally relevant and tie to their personal and career goals.

### Integration or cross sector collaboration

The demands of quality career connected learning require working across sectors. Silos exist across and within systems, and high-quality programs have figured out ways to work across those boundaries. Workforce development, education, human services/nonprofit sector, and industry intersect to form a quality holistic experience. Departments in large institutions, including education, are stronger with interdepartmental collaboration. Each sector needs to understand and value the unique perspectives and resources that the others offer and develop cohesive strategies to leverage those assets.

## SUMMARY OF FINDINGS

- Sustained leadership is required to set the tone, garner resources, and break down boundaries that impede comprehensive approaches.
- Leadership can set an institutional vision to ensure lasting change. There are risks when the vision and passion for the work are held by few people and do not become ingrained in the day-to-day work of the organization.
- Three general approaches emerged to supporting youth as they progress along a continuum of career connected learning experiences: **linking** strategies, **scaffolding** experiences, and creating **scale** and **volume**
  - Sector- or industry-specific trainings are natural platforms for **linking** to the next stage in career pathways, including employment, training, or apprenticeship. There may be opportunities to advance this work by building career pathways at earlier ages, including more career awareness and exploration activities.
  - Most programs that individualize work experiences for youth work across multiple sectors or training institutions as they link to the youth's next step

on a career pathway. The individualization of this approach can make it challenging to develop up-to-date expertise across the breadth of the labor market. These programs can be supported if labor market information was easily accessible to all programs supporting youth.

- **Scaffolding** experiences across all elements of the continuum over an extended period of time is possible in settings like schools with a strong framework that includes skills and experiences and adequate resources.
- Community-wide strategies can effectively expand the **scale** and **volume** of opportunities available across the continuum for all youth in an area. As this can be a broad-brush approach, this strategy is powerful when combined with strategies that individually support youth along intentional career pathways over time.
- Youth and young adults benefit from improved coordination across multiple systems. This includes connecting the youth and adult serving systems as well as connecting unique systems within the youth serving sector. This coordination requires sustained effort.
- Dedicated resources for connecting roles to work across silos or coordinate services help with systems development.

## GENUINE EMPLOYER ENGAGEMENT

All of the Learning Lab programs have intentional strategies to engage industry. Industry partners can speak to the career options available to youth and are motivated by their need for a vibrant, well-trained workforce. Real-world work experiences add relevancy to education and provide genuine opportunities to learn the skills most valued in the labor market. Employers were actively involved in every element across the *Framework of Career Connected Learning*, including hosting worksite tours, running hands-on learning projects, developing curriculum, and hiring interns and workers.

Below are some of the effective techniques shared among programs that are exceling in business relationships.

### Summary of findings

- Programs need to devote staff resources to cultivating deep employer relationships that truly understand business needs for their future workforce.
- Developing relationships at both the CEO or leadership level and across multiple departments within companies can help weather staff transitions or changing priorities, as well as set a stage for scaling.
- Offering a menu of participation options is helpful to engaging businesses of all sizes, as well as a strategy for long-term progressive relationship management. This includes light touch, low commitment options to more intensive or long-term engagement.
- Many programs are shifting their approach with businesses to emphasis career pathways rather than “first jobs.” In some situations, this can require going deeper in a smaller number of business partners rather than creating wide but less intense relationship with more employers.
- The messaging for engaging businesses needs to resonate for the intended purpose of the program as well as the long-term motivations of industry. This may vary between industry’s community interest in supporting youth to its own need for a highly-skilled workforce.
- Participating businesses appreciate their return on investment. There may be use for system-level development of analyses and materials that local programs can use to help engage more businesses.
- Youth and employers benefit when there are clear and sustained mechanisms for supporting employers in working with youth. This ranges from legal and technical support to building skills in working effectively with young people.
- Industries that share foundational skill requirements for entry level workers are potential partners for collaborative strategies with many business partners or sectors. Collaborative efforts can create relevant curriculum or leverage industry strategies for a cohesive approach. Adapting these opportunities to youth at younger ages is a potential next step.

## OPPORTUNITIES IN THE K-12 SYSTEM

Twelve of the Learning Lab programs connect directly to middle or high schools. These are operated either directly by a school or district or through partnerships with outside entities (community based organizations or intermediaries).

These programs are intentionally designed to make academic learning relevant to students. They incorporate professional development, tie academic curriculum to real issues in business, or offer opportunities to expose youth to how academic skills apply to jobs in their communities.

Repeatedly, students interviewed during the Learning Lab visits responded very positively to these experiences. Relevancy is particularly useful for Opportunity Youth or students who do not see themselves on a traditional college track, as it can be the hook that re-engages them with learning.

In the context of school settings, experiences point to structures that can support or impede quality career connected learning.

### Summary of findings

- Teachers benefit from professional development opportunities and flexibility to develop curriculum that is relevant to real work industry questions or needs, including soft skills valued in the work world. This will require both commitment and resources to provide teachers with the expertise needed.
- Work experiences that are tied to industry practices can be credit-bearing when aligned to academic standards. Math, science, and English language arts are part of many quality career connected learning experiences.
- Schools are challenging to navigate, both within districts and for outside partners, and have structures that don't align to business availability. It is helpful to have points of contact and dedicated assistance to navigate challenges.
- Career and Technical Education departments are rich in assets that can be leveraged for holistic career connected learning experiences for all students.

## OPPORTUNITIES IN POSTSECONDARY EDUCATION

Postsecondary education, including community colleges, universities, and extensions, are natural partners in career connected learning for students and young adults across the age and skill continuum. Students take campus tours and enroll in training programs. Programs have partnered with postsecondary education for both high-school-aged youth as well as young adults to support career preparation and skills training.

### Summary of findings

- There is a mix of opportunities available in partnership with postsecondary education that can be developed with shared values and flexibility.
- In addition to connecting youth with postsecondary training available on campus, there are multiple avenues to leverage academic expertise for credit or specialized programming:
  - Providing instructional/content expertise in programming for STEM learning
  - Creating credit bearing basic skills/career readiness programming for high school students
  - Awarding credit for skills training provided in community based programming that is aligned to college standards
  - Creating undergraduate and graduate level academic classes that support the field-based learning of STEM interns
- Postsecondary students benefit from partnerships that can provide targeted student support, including transition assistance, access to internships or mentors, or instructional design to meet the specific needs of the student population.

## STEM-ORIENTED CAREER CONNECTED LEARNING

More than half of the Learning Lab programs have deliberate STEM strategies woven into their programming. Of those, about half are explicitly focused on STEM, as their primary purpose is to support youth in exploring STEM careers. The rest include STEM careers into their mix of program options. They weave STEM skill development and exposure to STEM careers as a component or unit, but it is not the exclusive focus of their efforts. STEM focused programs include middle and high skill career options that may or may not require a college degree.

STEM-related industries are willing partners in supporting career connect learning efforts. Part of this motivation is their need for a pipeline of workers in careers throughout industry that require a wide range of education.

### Summary of findings

- STEM career connected learning is relevant for all youth, from traditional college track students to Opportunity Youth, which opens doors to middle and high skill career options.
- STEM industries are highly engaged in several Learning Lab programs. Some areas have successfully leveraged intermediary organizations to access a range of STEM industry partners.
- STEM career connected learning is highly applicable to hands-on learning and can have a unique impact on younger age groups to engage students with their science studies.
- Industry partners can lead creative hands-on activities with youth with the right support. Integrating industry-informed STEM practice into instruction requires support for teachers, including professional development or linkages to industry partners.
- STEM mentorship is effective at helping youth see themselves in STEM careers. The nature of the mentoring relationship changes depending on the age of the youth. It is helpful when youth have mentors that relate to them, demographically or through their career interests. Finding this match, however, is challenging.
- There has been growth in advanced manufacturing and pre-apprenticeship/apprenticeship models that provide career pathways to high-demand STEM careers.

## OTHER EMERGING PRACTICES

Many effective practices and creative solutions are highlighted in this report through the case studies. This section pulls out a few practices of note that reflect intentionality of program decision to achieve impact and quality.

### Summary of findings

- High-quality programs build in strategies and structures to navigate a range of planned and unplanned **transition points**. This includes transition to postsecondary or immediately engaging youth who disengage from services.
- All programs encourage **soft skill development** (communication, team work, problem solving, etc.). Programs emphasize different soft skills, and many create their own tools. There may be benefit in having content or tools available across the system. High-quality programs share a rigorous approach to soft skill development.
- **Trauma-informed care** is emerging as an effective practice in some programs serving Opportunity Youth. There may be high value in expanding these concepts to other youth-serving institutions.
- **Adults** working with youth need support and ongoing professional development, including clear frameworks and standards for their roles.
- Intentional strategies to engage **families** can help them support their child's career development and reduce barriers to participation.

## MEASUREMENT OF SUCCESS AND QUALITY

Every program in the Learning Lab project is committed to understanding the impact of their strategies and ongoing quality improvement. Although there is wide variation, all programs collect data relevant to program intent. What they collect is largely determined by where their program sits on the Framework and funder requirements. There are varying levels of sophistication and infrastructure in place that are used to assess program impact and quality. Several themes exist across the field at large, although there is wide variation in how programs measure success.

### Summary of findings

- All programs collect data, although there is a wide range of what is collected. Some of this variation reflects where the program is situated on the Framework.
- Career awareness and exploration programs collect unidentified participation data while career preparation and career skills training and education programs collect identifiable data.

- Career awareness and exploration activities typically have data that is potentially duplicated. We can learn the number of total experiences and youth participation, but it is difficult to assess impact on any given youth over time. These programs frequently build in real time feedback loops for evaluation and program improvement to measure the quality of each experience.
- Career preparation, training, and education programs can measure impacts per individual, typically skills gained or employment. There are rigorous methods for assessing industry-validated skills in several sectors.
- There are different methods of measuring an individual youth's growth over time. These include benchmarking experiences along a set continuum and measuring progress towards youth-set goals. Both approaches have strengths and weaknesses, and some programs use a hybrid of the two approaches.
- There is a great deal of enthusiasm for better understanding the quality of the experiences for youth and employers. There is more work that can be done in measuring for quality. This would require capacity and appropriate measurement tools. The field could use resources and technical support in this area.
- Comprehensive use of data for genuine quality improvement is limited, often because funder-requirements for outcome measures aren't aligned with program quality. There is potential for shared learning and partnership between funders and providers.
- Data collection can be complex and requires infrastructure that large institutions or backbone organizations have the capacity to provide. This complexity, however, may be a deterrent to some community based organizations that are uniquely positioned to advance an equity agenda.
- Organizational culture plus resources are essential ingredients to ongoing quality improvement.

## FUNDING AND SUSTAINABILITY

Every program in the Learning Lab project has a unique funding strategy and set of challenges. There are a few overall observations on strategies employed in high-impact programs.

### Summary of findings

- Many areas utilize a mix of federal and state resources for core funding, including BFET (Basic Food Employment and Training), WIOA, CTE funding, and Open Doors as the foundation of service models. This is especially evident in programs serving Opportunity Youth. BFET and Open Doors can be leveraged further for additional career connected learning. Federal funding opportunities may become more limited for many of these programs, depending on priorities at the national level.
- Flexible funding, with fewer restrictions or complexity than federal funding, is needed for innovation, to fill important gaps, systems building, or quality improvement.
- Flexible or pilot funding is often short term in duration. Programs can institutionalize practice or dedicate infrastructure for resource development, although sustainability or scaling can be a challenge.
- Most programs are funded with multiple funding streams. Some use a seamless method of blending funding. The most complex methods require an infrastructure to manage administrative complexity so that the youth experience of the program is unified, seamless, and consistent.
- The public-private funding model is a viable practice when it ties to industry needs and long term return on investment.
- Viewing government as a business partner with resources and workforce needs may open funding for work experiences.
- Sustainability is a challenge for all programs, although some common strategies include clarifying the return on investment, dedicating a collaboration lead for fundraising with the capacity and reputation to access resources, and investing in one time activities that have a long lifespan.
- Rural areas have significant funding challenges.

## OTHER SYSTEMS GAPS

Two issues were raised repeatedly that reflect the larger landscape. Regional and state attention to these issues could

support local efforts.

### Summary of findings

- There is a notable rise in youth homelessness, substance abuse, and mental health issues that is challenging the capacity of many providers.
- There are community misperceptions, particularly of manufacturing careers, that discourage youth from pursuing those careers.

## STRATEGIES FOR OPPORTUNITY YOUTH

Effective strategies for Opportunity Youth are woven into many of the effective practices in this section, as well as the Equity section. In addition, programs looking to develop quality programming for Opportunity Youth would be well served to put heightened attention to three areas in the Criteria: Equity, Person-Centered Approach, and Part of a Continuum: Not a Stand-Alone Effort.

### Summary of findings

To recap and elaborate on some of the findings in this section that support effective programming for Opportunity Youth:

- Offering career connected learning opportunities to youth before they drop out may help keep them in school by making education relevant. It may require targeted, individualized efforts by school personnel or others to identify the students most in need and to take the extra steps to help these youth take advantage of the opportunities.
- Collaboration across youth serving systems as well as bridging the youth and adult systems helps to coordinate services for Opportunity Youth who may be involved in multiple, disconnected systems. This includes coordinated or integrated approaches with homeless providers or the juvenile justice system, for instance.
- Partnerships with postsecondary education can help support programming for Opportunity Youth. Community colleges have resources to help pay for tuition or may be excellent partners who can bring programming into the community. This partnership can result in credit bearing classes and can expose Opportunity Youth to college settings for the first time. These partnerships require extra consideration when customizing programming for Opportunity Youth who may not have had positive experiences in school settings.
- Programming for Opportunity Youth should pay close attention to transition points, including transitioning to postsecondary education. Programs should also have clear strategies to re-engage Opportunity Youth when they disengage from programming.
- Case management is a common strategy for programs that provide intensive services for Opportunity Youth. This is usually complemented by access to supportive services to meet basic needs like transportation, clothing, or housing. Trauma-informed care is emerging as an effective model for working with Opportunity Youth.
- Programming for Opportunity Youth demands high levels of flexibility. Opportunity Youth have complicated lives and perhaps scant modeling of success in traditional pathways. Youth may start and exit programs repeatedly before they are ready to succeed. Effective programs are structured to be welcoming to youth at all times.
- Flexibility can be complemented by high expectations and ambitions. Effective programs have a strong youth development perspective and focus on building assets rather than fixing deficits. These programs can support youth in accessing high wage career pathways.
- The increase in acuity of needs among Opportunity Youth, including homelessness, substance abuse, and mental health issues, is a significant challenge to creating a stable foundation on which youth can build their career skills. The Learning Lab programs consistently reported lack of adequate resources to address these needs directly or among their partners with expertise in these areas. A full response to creating career opportunities for Opportunity Youth will require a systemic solution to these issues.
- Measuring success is complicated for programs working with Opportunity Youth. For instance, while WIOA targets out-of-school youth, its outcome measures may not always match with strategies that effectively engage Opportunity Youth. This may be a deterrent to some providers from using WIOA funding for harder to serve Opportunity Youth – youth with more barriers or who need more basic support before they will be successful in training or employment. Some programs measure success for Opportunity Youth by measuring progress on goals, which aligns with a person-centered approach.

- Programming for Opportunity Youth requires adequate resources, which can be a challenge. For many programs, budget items typically include case management with low ratios of staff to youth, supportive services, and incentives/wages to help maintain participation. There are some emerging revenue streams that can help create a base of funding support, although they work best when blended with other funding. Potential funding options available statewide include WIOA, BFET and BFET RISE, Open Doors, and YouthWorks.
- Programs with strong positions on equity and intentional strategies to advance an equity agenda are in a position to increase outcomes for Opportunity Youth.

# EQUITY

Equity is one of the nine *Criteria for High Quality Career Connected Learning*. It is, however, different in nature and importance than the other eight elements. While it is listed as a separate criterion, in practice, each criterion is improved when an equity framework is applied. Intentionality is essential – to apply an equity lens is to identify disparities affecting specific populations and then implement deliberate strategies to result in equitable outcomes.

Addressing historic issues of inequity in education and access to living wage careers is critical to support a healthy community and vibrant economy. Equity strategies directly address the effects of institutional racism and bias and recognizes the implicit and explicit advantages that accompany privilege. Rather than highlight equity in a handful of case studies, this report recognizes its exceptional role by dedicating this section to equitable practices in the Learning Lab programs.

## LESSONS LEARNED

- There is no shared definition or framework approach to equity across the field at this time.
- The Learning Lab partners tended to focus in one or more of three general areas: program design and evaluation; organizational strategies; and systems/advocacy strategies.
- Most programs focus their equity strategies on direct services to youth in the area of **program design and evaluation**.
  - Most programs seek to address historic challenges of lack of access.
  - School-based or school-linked programs focus on high poverty schools, often with high percentages of students of color. This strategy is effective at reaching large numbers of students and is well-suited to career awareness and exploration activities. However, additional fine-tuning is required in order to reach the students most in need.
  - Programs designed to offer individualized programming, such as internships or training, benefit from having a network of champions in schools who can target outreach to the students who can benefit the most.
  - Programs that recruit from schools should pay particular attention to logistics for programming delivered off-site in order to reach students who stand to benefit the most.
  - Application processes can inadvertently create inequity and require thoughtful processes that genuinely level the playing field for youth who have had fewer advantages.
  - Technology is emerging as a strategy to address access barriers.
  - Programs should address financial disparities, from transportation barriers to supportive services.
  - Cultural competency needs to occur on multiple levels. It includes program design and instructional strategies, as well as ensuring that staff and volunteers are well equipped to connect with diverse populations of youth.
  - Data use is a powerful tool when analyzed with equitable outcomes in mind, both for program participation and outcome data. Extra consideration is required from funders in designing their data collection requirements as complexity may limit participation by organizations with the deepest relationships to historically underrepresented communities.
- Several programs have **organizational strategies**, perspectives, and processes that support the institution’s ability to deliver on their equity agenda.
  - A culture of self-reflection and a strong youth development approach support organization-wide approaches to equity.
  - Equity approaches frequently include strong community voice, including genuine relationships with families and youth and strong connections to community based programs.
  - There is a range of operational strategies to promote equity internally and externally that require intentionality. These include board composition, hiring practices, and volunteer recruitment strategies.
- **Advocacy- and systems-level reform** was not the emphasis of the Learning Lab project, but it is noteworthy that, given the populations served, the programs see firsthand the effects of disproportionality at a systems level. They



can use their expertise and influence to change practice and improve outcomes and are well positioned to inform policy makers.

- Programs also intersect with government initiatives that move toward equity, such as hiring priorities, as well as participation in collective impact initiatives that can influence systems change.

## LEARNING LAB APPROACHES

### Current status and different approaches

The education, workforce development, and human services fields in general are evolving in their approaches to equity. While there are a number of effective models available, there is no shared definition or language. There are many frameworks and tools used in the field that have different perspectives or approaches, such as cultural competency, racial equity, or social justice. Entities engage in this work from different perspectives.

The approaches by the Learning Lab programs reflect the field at large – varied with different objectives and starting points. Many programs have intentional elements in place that specifically put the lens on equity. With such a complex societal challenge, we did not find a comprehensive approach but instead saw elements of commitment and deep self-reflection across a number of core areas. The major levels of work fall into three general categories:

- Program Design and Evaluation – How work in programs is designed and implemented to redress disproportionality and how that work is measured to insure equitable outcomes. The youth or participant is the focus of this body of work.
- Organizational Leadership and Structure – How the entity as an *institution* functions to promote equity in its decision making across all levels. The organization is the focus of this body of work.
- Systems and Advocacy – How entities address larger systemic issues of inequity or historic and institutional racism. Larger systems, cultural biases, and communities are the focus of this approach to the work.

A comprehensive and sustained approach could work at all three levels equally and simultaneously. This requires significant resources, focus, a clear theory of action, and a great deal of patience and goodwill to work through the many road bumps along the way. In reality, programs and organizations are more likely to focus on a few areas at a time to make progress on their equity agenda.

### Programmatic Design and Evaluation

There are some common approaches to how program services are delivered and assessed to advance equity. Program design elements that can include specific strategies to address equity typically include looking at how youth engage with services, the mix of services provided, the methods for service delivery, and how the results were assessed for the impact desired. Below are some of the highlighted practices in these areas

#### Clarity of focus and purpose

Most of the focus on equity in the programs is on access to services. Many programs clearly articulate their role in closing opportunity gaps and put intentional efforts to reaching and engaging specific populations. These programs share a common equity perspective to recruiting youth. They understand that, lacking proactive steps, youth who come from more privileged backgrounds have inherent advantages in accessing career connected learning opportunities. These include families with the time and resources, formal and informal opportunities to learn hard and soft skills, access to traditional forms of social capital/networking, and support in navigating application processes.

A few programs were intentionally created to serve a specific population. In these cases, the programs are explicit on who they serve and the specific disproportionate outcomes for the group they are addressing (e.g., STEM equity and equity in college access; access to apprenticeship/careers in the trades).

More commonly, programs promoted equity through a broader net, with priorities to serve low income populations, students who are academically behind, or Opportunity Youth. The broader net approach engages youth of color or other populations whose opportunities have been limited by discrimination, but it is not the primary or stated focus of the program.

### **Engaging students through schools**

More than half of the Learning Lab programs engage students primarily through schools. These programs recruited or enrolled from the existing student body. There are a number of effective strategies to this approach, as well as a couple of caveats.

Program models that provide career experiences linked to the classroom are well-suited to this approach when the specific schools are chosen with an eye toward equity. Several programs intentionally target high-poverty schools with high percentages of students of color. Effective mechanisms include bringing career connected learning opportunities into the classroom (e.g., mentors, speakers, hands-on experiences) and supporting schools and teachers in integrating quality career connected learning experiences through curriculum, coaching, or professional development. This strategy is effective at reaching large groups of students.

Career opportunities that provide individualized experiences, such as internships or training, require more targeted outreach to advance an equity agenda. Advertising through general or blanket recruitment methods like blast emails or flyers are ineffective at reaching the students who can benefit from the services the most. There need to be champions (often teachers and counselors) in the school who understand the students, know about the opportunities available to them, and value career connected learning. It is most effective when these champions can help students see themselves as successful in the opportunity or internship and actively support them through the application process.

Regardless of the nature of the experience, extra consideration should be given when recruiting through schools when the experience occurs outside of the school day or offsite. Worksite tours and internships are critical experiences for youth who have lacked opportunities, but there may be a few more hurdles to consider if the intent is to engage students through schools. Youth with more privilege may be more likely to sign up for activities afterschool because they have more resources, be it reliable transportation or fewer after-school responsibilities. Some programs have noted that after school transportation is a barrier to participation.

### **Application processes**

Many programs, particularly internship and training programs, require applications that are appropriate to the intensity and requirements of the experience. Several programs have promising practices in the application processes specific to equitable access. Processes that use essays or interviews that emphasize motivation or interest are more equitable than experience, testing, or grades. Application processes can give weight to students of color, financial need, or those who are credit deficient. Applications should reduce the need for extraneous or hard-to-get documentation. Providing coaching and application assistance is important to supporting a youth through the process. Quality programs review their application process on a regular basis to assess if it is achieving its intended goal and make adjustments to the process as needed.

### **Technology as an equity strategy**

Several programs are looking to new solutions to solving challenges to equitable access. Youth living in poverty or in isolated communities may have limited exposure to professional role models. They may not have the resources to take unpaid internships when there are other financial pressures on them. Geographic isolation limits access to a range of career exposure opportunities, limiting a youth's vision of opportunity. In STEM careers, mentors frequently come from traditional educational backgrounds and don't reflect the racial and ethnic diversity of the students.

Technological options are being explored as an option to overcome these barriers. Virtual mentoring lets students connect with mentors from around the country and state. Virtual learning can integrate into school-based experiences and provide real world connection to workplace experiences. Several programs are exploring a range of technological options that open up new career opportunities for youth.

### **Address financial disparities**

An equitable approach addresses the financial disadvantages for some youth. This includes thinking through the location of services and potential transportation barriers. This might require bringing opportunities to the school or local community or arranging for transportation. For more intensive programs, this often includes meeting basic needs (clothing, food, housing), or leveling the playing field by providing laptops or tools. Offering paid work experiences is a common motivation strategy

and addresses unique financial disadvantages for low-income youth.

### **Culturally relevant programming**

Relevancy combined with targeted skill building were driving themes throughout the Learning Lab project. It is critical in an equitable approach. Strong programs intentionally design every element of the program to be culturally relevant and aware of bias. They pragmatically balance the need to teach participants how to navigate the unspoken expectations of the mainstream world of work through soft skills, but they also ensure the entire experience is culturally relevant. For instance, hands-on experiences and curriculum can be tied to the unique issues facing the target population or their community.

### **Preparing adults**

Youth usually experience the program through their relationships with adults, including staff, volunteers, mentors, and worksite supervisors. Support and training for these adults should include an equity lens. High-quality programs deliver repeated staff training in topics such as cultural competency or understanding bias, and support reflective practice. Programs also realize that mentors, supervisors, or volunteers come to the experience with their own expectations of youth or education that may not reflect reality. For instance, mentors may volunteer because they are excited to make a contribution and enjoy their field, but they may have come from a very traditional educational or career background. They are better equipped to connect with youth when they have an understanding of a youth's academic and cultural background and how these may present differently than their expectations.

### **Data and evaluation**

Data is an important tool to ensuring equitable access. Programs that review their data for racial equity have a tool for ongoing learning and program adjustment. High-quality programs have mechanisms in place to review the demographics of their participants against the demographics of the population at large. They also use data transparently as a discussion and problem-solving opportunity with other stakeholders, which further engages everyone in the solution. It is recommended that programs additionally disaggregate their data to review outcomes by demographics as well.

Extra consideration is needed when data collection requirements are viewed with an equity lens. A degree of infrastructure is necessary to manage complex or non-aligned data requirements, as well as managing a blended funding strategy. Large institutions (schools, city government, etc.) and larger community based organizations (CBOs) may have a deeper infrastructure for this complexity. However, this complexity may make it harder for smaller CBOs to compete or meet requirements if they are not provided with adequate resources to support that function. These CBOs have deep community ties and are positioned to provide culturally competent services to underserved populations. They are important part of an equitable solution.

## **Organizational Leadership and Culture**

### **The role of organizational culture**

The culture of the institution or organization matters in pursuit of an equity agenda. There were two striking observations during the Learning Lab project that reflect the impact of leadership on equity.

A culture of reflection, starting at the highest levels, needs to cut across all levels of the organization to have long-term effectiveness in its equity agenda. Equity begins with the willingness throughout the organization to question assumptions. This orientation demands a willingness to re-evaluate any program or process if it is not serving an equitable goal. A few programs in the Learning Lab project engaged in significant reflection and redesign processes specifically because they were not satisfied with the outcomes they witnessed for youth most in need.

Additionally, a strong youth development perspective complements a powerful equity orientation. The orientation to the work is to ensure that youth build assets, not fix deficits. Any skills or behavior gaps exhibited by the youth are the result of opportunity gaps. It is the organization's job to provide the opportunity to learn the skills in a relevant way. When presented with that opportunity, youth have the skills and motivation to flourish.

### **Genuine engagement with community, family, and community based partners**

Organizations with an equity culture place high value on community as part of the holistic strategy. They view families and

youth as equal partners in the work. Youth and families have an active voice in designing the program and experience. Community based organizations are engaged for their unique expertise, including deep community connections and cultural competencies. This is relevant both in designing programs and in leveraging additional services that culturally specific CBOs can offer.

### **Organizational processes**

A few programs include equity in their mission statement, which filters to all elements of their work. How organizations go about their work is an indicator of their strategies on equity. Board or advisory structures that reflect the community help inform relevant services and provide equal voice with community and institutional partners. Some organizations have internal equity teams who develop action plans to advance equity in their internal practices. Some programs place emphasis on their hiring practices to ensure that youth can have role models they can relate to, and they hire for diversity, cultural competency, or from their former participant pools. Several organizations that utilize a mentorship model develop intentional mentor recruitment plans for diversity. While this is demographically challenging in the STEM field, intentional strategies may include recruiting from minority professional associations.

## **Systems and Advocacy**

### **Perspectives and influence from the field**

The Learning Lab experience focused primarily at the program and organizational level, and there is more work to be done to develop an assessment of the systemic barriers and opportunities to career connected learning. This requires analysis and action on the effects of long term, systemic and institutional policies that have disproportionately impacted unique groups of young adults, particularly youth of color. The disproportionality seen in the juvenile justice system, with school discipline policies or in the foster care system, for instance, are experienced first-hand in Learning Lab programs that worked with Opportunity Youth. Broad brush limitations on hiring young adults with criminal records, which disproportionately impact youth of color, is also a notable barrier. Reform in these areas will have a profound effect on the ability of all young adults to choose their own career pathway.

Apprenticeship and pre-apprenticeship programs are in a unique place to inform change that can address some of the historic barriers in the trades to women and people of color. The time is ripe to create mechanisms for lasting change that increase access. There is heightened attention to diversity hiring in the trades right now and not enough workers in the union pipelines. Apprenticeship and pre-apprenticeship programs prepare women and people of color for these high-wage careers while also supporting long-term systems change. We noted educational and advocacy efforts to institutionalize sexual harassment training and policies, for instance.

Policy is influenced by data. Data on disproportionality is increasingly in the spotlight, although there is room for growth at the systems level. This includes assessing if the data sets available are complete and accurate, as well as using data to inform policy. Understanding, for instance, if apprentices of color or women are being called to job sites would be a helpful tool in improving access to the trades.

### **Community-wide systems change**

Government is in a unique role to create large scale opportunity for people of color and other groups with historic disadvantages to access and opportunity. It can set policy priorities for minority hiring, including in construction jobs, that can be leveraged by career connected learning programs. Four programs in the Learning Lab project partnered with government departments for internship opportunities. Government is a sizable employer in each region, and it may have a public position on racial and social justice. By combining these themes, programs leverage government policy and programming to expand opportunities with an equity intention.

A few programs took a collective impact approach to changing youth outcomes at scale. These initiatives required community level leadership – school superintendents and local elected officials in particular, as well as key business partners – who shared a vision for creating change through a community-wide, sustained effort. Whether directly focusing on youth of color or through driving towards wholesale systems change, the strategies were the same. This required ensuring the policies and procedures of major institutions did not create barriers to access for youth most in need, that a wide range of opportunities were available for youth, and there was high accountability at all levels for results.

## CASE STUDIES

The following twenty-one case studies provide more context and detail to the overarching themes discussed above. The case studies also discuss some of the challenges the programs faced and their approaches.

We hope that practitioners and policy makers can use this information to inform practice, spark new ideas, and create opportunities for new relationships.

There are many differences in the twenty-one programs that participated in the Learning Lab project. There are very few “apples to apples” comparisons. We use three consistent categories to provide further context as well as point to areas of similarity or differences. These are:

**Criteria for High-Quality Career Connected Learning.** Each case study highlights practices in the Criteria (except for Equity, which has a dedicated section above). While many programs demonstrate promising practices in multiple areas, each program highlights one or two Criteria.

**Career Connected Learning Framework.** The Framework is an organizing paradigm for this section. Programs are identified as to where they fit vis-à-vis Career Awareness, Career Exploration, Career Preparation, or Career Skills Training & Education. Some programs cross multiple service models. To a very large degree, where a program model is situated in the Framework influences program design.

**Stage.** In understanding the lessons and practices, it is helpful to know the program’s development stage. The case studies identify three stages of program development – Emerging (new or recently launched); Established (in operation for a period of time, with solid systems or partnerships in place); or Scaling (an established program on a growth trajectory). In a few rare cases, programs were in more than one developmental stage at the same time.

## HIGHLIGHTED CRITERIA IN LEARNING LAB CASE STUDIES\*

Lead Organization	Program	Person Centered Approach	Structured Learning Component	Business/ Industry and CBO Connections	Partnership Agreement	Assessment of Effectiveness and Recognition of Skills	Part of a Continuum: Not a Stand Alone Effort	Design Fidelity	Sustainability and Implementation at Scale
<b>Career Awareness</b>									
Greater Spokane Incorporated	Business AfterSchool			X					
Mid-Columbia STEM Network	STEM Like Me!							X	X
Nespelem School	Rural Community Connections			X			X		
<b>Career Preparation</b>									
City of Tacoma and Tacoma Public Schools	Tacoma Summer Jobs 253				X	X			X
Educurious	Virtual Mentoring							X	X
Seattle Goodwill	Youth Green Corps/Goodwill Youth Corps		X	X					
Grays Harbor Youth Works Inc	Youth Works				X	X			
Northwest Youth Services	We Grow	X							
Olympic Educational Service District 114	YouthWorks: Pathways to Success	X					X		
Pacific Education Institute	FieldSTEM Teacher Industry Site-Based Learning								X
Tacoma Public Schools	Work-Based Learning: Paid Internships & Worksite Learning			X					
Washington State Opportunity Scholarship	Skills That Shine Mentorship		X	X					
<b>Career Skills Training &amp; Education</b>									
AJAC	Youth Apprenticeship		X		X				
ANEW	Trades Rotation Program			X		X			
The Boeing Company	Core Plus		X						
Southwest Washington STEM Network	Instructional Worksite Learning Program for Advanced Manufacturing Careers			X					
Washington State Department of Transportation & The Evergreen State College	Wetland Monitoring Internship		X		X				
<b>Programs with multiple strategies in the Framework</b>									
South Central Workforce Development Council	YouthWorks			X					
Spokane Area Workforce Development Council	Next Generation Zone							X	X
TAF Academy	College and Career Readiness Program	X					X		
Wenatchee School District, SkillSource & Wenatchee Learns Connect	Wenatchee Learns			X					

\*Equity is not highlighted in any of the following case studies as the preceding section is dedicated to the promising practices in equity across all of the programs in the Learning Lab project.



## GREATER SPOKANE INCORPORATED (GSI) BUSINESS AFTERSCHOOL

### CRITERIA

Business/Industry and Community Based Organization (CBO) Connections

### FRAMEWORK

Career Awareness

### STAGE

Established

### QUICK FACTS

**Location:** Eastern Washington

**Target Population:** Middle and high school students

**Numbers Served per Year:** 20-25 per workshop; 400 per year

**Program Duration:** Students opt in to one or more worksite experiences of approximately two hours each

**Funding Model:** Greater Spokane Incorporated (GSI) funding/sponsorships/small grants

**Year Started:** 2013

**Website:** [www.greaterspokane.org](http://www.greaterspokane.org) and [www.businessafterschool.com](http://www.businessafterschool.com).

### PROGRAM SUMMARY

Greater Spokane Incorporated (GSI) is the region's business development organization (Spokane Chamber of Commerce). Its Business AfterSchool program is a unique business-led program that offers career connected learning opportunities for students to increase awareness of the region's high-demand industries.

Business AfterSchool offers at least fourteen worksite-based workshops every year in sectors such as engineering, computer science, advanced manufacturing, financial services, health care, and government. Students have opportunities to learn about the different kinds of jobs, salary ranges, educational pathways, and skill requirements to work in that field. On average, there are 20-30 students that attend each workshop. This smaller setting creates intimate experiences for students to make personal connections with professionals in the field. Hands-on learning activities give students a practical feel for careers in that industry through activities like a building design challenge during an engineering workshop or manipulating a surgical robot in a hospital operating room.

GSI plays a key role as connective tissue in the project. It dedicates staffing to cultivate relationships within schools to reach interested students. GSI recruits businesses to host workshops and then manages logistics such as advertising, scheduling, and coordination. Businesses commit to making facilities available, assigning a planning lead or team, and freeing staff time to engage youth during a worksite experience. Families or schools arrange for transportation to Business AfterSchool workshops, which typically occur in the early evening or during the school day for a couple of hours. The Business AfterSchool experience is open first come, first serve to students from the 59 school districts in the region. Parents and educators are welcome to join, which further builds students' informal support networks in career exploration.

### UNIQUE FEATURES

**Challenge:** *Offering satisfying opportunities where students and professionals can engage and connect*

**Business AfterSchool Strategy:** *Turn design over to businesses to craft a genuine experience in the context of their unique work environment*

For five years, before piloting Business AfterSchool, GSI coordinated career fairs that drew over 1,500 students from across the region. The career fair model addressed an important need at that time to streamline coordination between schools and the business community. In 2013, however, GSI reexamined the potential impact of these large-scale events. Business feedback indicated that only twenty youth connected with a business professional during the event. GSI also identified that the model of bringing businesses to students at scale didn't work well for businesses. Businesses sent

one or two junior employees to staff booths, and the return on investment wasn't significant.

Wanting a deeper engagement for both students and employers, GSI turned to its members to create a solution. GSI issued a Request for Participation (RFP) to employers, beginning with local engineering firms. The RFP asked companies what they could do that would provide a rich experience for both employees and students. GSI offered suggestions but left it up to the businesses to drive the experiences that would be about two hours in duration. Nine local engineering companies quickly responded to the opportunity.

The solution developed by business partners shifted the model from large scale, light touch experiences to a worksite-based experience that provides deeper perspectives on what careers really look like in each industry. Rather than bringing businesses to large groups of students, it flipped the model. The new model brings small groups of students to worksites where they can interact with five or more professionals in the natural context of their day-to-day worksite. Each year, there are 25 businesses involved with Business AfterSchool.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Business/Industry and Community Based Organization (CBO) Connections***

GSI has been ahead of a national trend among business development organizations in developing career connected learning opportunities for young people. Engaging the future workforce to meet the needs of its members is a priority for the organization. GSI began this work by building trust and relationship with education stakeholders around the shared goal of a thriving community. They established the Higher Education Leadership Group and the K-12 Roundtable to build shared understanding. With 1,200 members, GSI offers exceptional access to engage industry as a partner for career development for students.

GSI leverages its membership, trusting relationships, and infrastructure to recruit businesses to provide Business AfterSchool workshops to students. Businesses are recruited through GSI committees, its website, and word of mouth in the business community. As a mid-sized metropolitan area, Spokane is the ideal size to leverage community relationships, goodwill, and healthy competition among businesses who vie to create innovative experiences for students.

The business-led model is both flexible in how it's implemented and easy to replicate with fidelity. The only requirement is that the event includes a hands-on experience. Companies assign a lead or team to design the detailed agenda and schedule around the days and times that work best for them.

A host business typically begins planning two months in advance to arrange logistics, recruit students, and develop hands-on activities that are fun and meaningful. While the design is up to the industry partner, the GSI program coordinator provides guidance and expertise as needed. Student registration is also managed by the coordinator through an outside website. GSI provides individualized coaching on how to plan a meaningful experience for young people that might include a site tour, exposure to different careers in the field, and education required. GSI helps businesses translate their daily work responsibilities into interesting, hands-on experiences for youth. Many professionals don't work with groups of teens frequently, and they appreciate GSI's tips on engaging teenagers in conversation and insight on what kinds of questions to expect.

GSI also provides materials for students that contextualize the experiences. This includes customized brochures of the industry sector highlighted, including labor market information on a range of jobs. Short, pithy, professional profiles highlight individuals working in the field and include a typical day, her career and educational pathway, skills and equipment needed, and what she loves about her job.





## MID-COLUMBIA STEM NETWORK STEM LIKE ME!

### CRITERIA

- Design Fidelity
- Sustainability and Implementation at Scale

### FRAMEWORK

Career Awareness

### STAGE

Scaling

### QUICK FACTS

**Location:** Mid-Columbia region

**Target Population:** Middle school students

**Numbers Served per Year:** 600+

**Program Duration:** One time career exposure during class time

**Funding Model:** Grants and private funding

**Year Started:** 2015

**Website:** [www.WashingtonSTEMeducation.org](http://www.WashingtonSTEMeducation.org)

### PROGRAM SUMMARY

The mid-Columbia region, which includes the Tri-Cities of Richland, Pasco and Kennewick, is home to industries associated with the Hanford site as well as agriculture – and a wide range of STEM jobs available to young people beginning their careers. The Mid-Columbia STEM Network seeks to meet the region’s workforce needs by inspiring students through a mix of opportunities, including intensive STEM education and access to scholarships. STEM Like Me! was added in 2015 to spark early excitement for STEM occupations among middle school students.

STEM Like Me! targets schools with high populations of students who are underrepresented in STEM careers. STEM Like Me! brings STEM professionals into middle schools to introduce a variety of careers. Volunteer professionals are matched with teachers who want to incorporate career exposure into their curriculum. The program is organized into one-hour blocks during which four volunteers from across the STEM field present to small groups of students. The presentations are short – 12 minutes long - and designed to generate initial student interest. Each volunteer explains her career and educational pathway, leads a hands-on experience, and answers questions. Students may launch rockets, sample water quality, or use medical devices to get a taste of jobs available to them. Volunteers repeat the experience as students rotate around the presentations.

STEM Like Me! is currently offered in six schools, with plans to expand. Mentor and teacher surveys inform the program design and quality improvement. The program has evolved since its 2015 pilot year, as it continues to refine experiences that resonate with middle school students.

### UNIQUE FEATURES

**Challenge:** *High demand but limited capacity to support volunteers and teachers to integrate career connected learning into classrooms*

**STEM Like Me! Strategy:** *Create a turnkey, structured system for matching volunteers with teachers*

There is high demand for career connected learning opportunities for educators, and the Mid-Columbia STEM Network was the logical intermediary to make those connections. But it learned early on that an online tool to connect volunteers with classrooms didn’t work. Teachers were too busy to access the tool or lacked the capacity to effectively engage volunteers without facilitation assistance. Its turnkey solution was to organize what it calls “speed dating” for mentors and educators.

Success requires excellent customer service to volunteers and teachers. One event may require coordinating twenty volunteers or more in multiple classrooms and real-time problem solving. STEM

Like Me! staff manages coordination, scheduling, and ongoing communication between schools and mentors. The project coordinator addresses concerns immediately and ensures ongoing volunteer appreciation.

Volunteers are oriented to their role and provided with a clear guidance to prepare for their presentation. Volunteers appreciate the combination of structured support plus flexibility. Scheduling fits their availability, and they are free to present what excites them in STEM, whether it is their current job or other passions. Part of the customer service strategy is to keep interested volunteers engaged from the beginning. The Mid-Columbia STEM Network knows how quickly a potential volunteer will lose interest if there isn't an immediate action step. Volunteers are invited to observe presentations if there is no immediate match with a teacher or if volunteers aren't quite ready to lead their own sessions.

While the initial experience is a one-time connection between teacher and volunteer, the long-term outcome is the opportunity for this relationship to flourish on its own. Volunteers can sign up as an additional resource to the teacher, and teachers can turn to volunteers to join their classrooms during relevant units to add industry perspective.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Design Fidelity***

STEM Like Me! experiences are offered with consistency because the program structure is clear for everyone involved. The STEM Like Me! handbook documents effective volunteer and teacher recruitment strategies, includes sample emails, thank-you templates and check lists of steps needed to implement the program. There are instructions on how to approach a new school with the goal of reaching students least likely to have had STEM career connected learning exposure. This structure will help to weather staff transitions and provides clear templates for replicability in other contexts.

Thoughtful support for each role also ensures fidelity. STEM Like Me! provides teachers with a guide to the presentation and materials to prepare their students in advance. Volunteers are supported with a clear orientation and tips for engaging middle school students. A volunteer facilitator orients the group to the experience, manages the student rotations between volunteer presentations, and tracks time so that the volunteers can focus on engaging students.

### ***Sustainability and Implementation at Scale***

STEM Like Me! was conceived as a low-cost, scalable model to spark interest in STEM. Its core design is replicable in STEM and other sectors. The program requires coordination and a budget for materials, which keep its implementation costs modest.

However, the Mid-Columbia STEM Network learned the challenges of securing funding for an intermediary organization to recruit volunteers. Donors often prefer to fund agencies that provide the direct service to youth, not the backend functions that make the service possible. As a result, the Mid-Columbia STEM Network reoriented its funding approach to increase marketability. It branded its work as a program rather than a service. Participating businesses benefit from the promotional opportunity of being part of STEM Like Me! Small investments in program “swag” – pins and branded materials for mentors, or appreciation for company participation – nurtures that identification further. The STEM Like Me! brand has created an identity that businesses want to join. This hook brings in sponsorships and provides the structure for grant writing that is easily understood and “sellable” to support sustainability.



## NESPELEM SCHOOL RURAL COMMUNITY CONNECTIONS

### CRITERIA

- Business/Industry and Community Based Organization (CBO) Connections
- Part of a Continuum: Not a Stand-Alone Effort

### FRAMEWORK

Career Awareness

### STAGE

Emerging

### QUICK FACTS

**Location:** Nespelem, Okanogan County

**Target Population:** Middle school students

**Numbers Served per Year:** 40; open to other grades and schools

**Program Duration:** School year and summer programming

**Funding Model:** Grants for special projects; business partnerships provide in-kind time and materials

**Year Started:** Fall 2016

### PROGRAM SUMMARY

Nespelem School educates 166 students from pre-Kindergarten through eighth grade on the Colville Reservation. When the teaching staff began to build out its science curriculum in September, 2016, it intentionally designed an approach to weave in career connected project-based learning into the educational experience for children throughout the year. With over 95 percent of the students receiving Free or Reduced Lunch, this approach opens an opportunity to help students envision themselves in middle skill careers with high wages that are available in their local economy.

Hands-on learning hooks students who may be disengaged from their school work by giving them opportunities to learn in new ways and to interact directly with employers. The exposure to STEM-related industries is reinforced with classroom lessons and align with Next Generation Science Standards. The science teacher engages with business and academic partners to bring experiences to the students that demonstrate how science learning applies to the world of work. Some activities include building a utility line, exposure to advanced manufacturing through rocketry and robotics, 3-D modeling, and fish hatchery demonstrations. Instruction may also include connecting the learning to important themes to the tribe, like energy rights or food security. As the program develops, there are plans for afterschool clubs and summer programs, like NASA Space Camp, that deepen the experience for students

### UNIQUE FEATURES

***Challenge: Providing career exposure in rural remote areas with limited industry***

***Nespelem School's Strategy: Galvanize community wide goodwill and build partnerships***

With a population of around 220 residents, Nespelem is located in the heart of the Colville Reservation in a remote rural area between Omak and Grand Coulee Dam. There are good jobs available in the region, although they might not be readily visible to students. Although remote, there is a richness in opportunity and goodwill that is catalyzed toward a vision for youth. In Nespelem, one science teacher dedicates preparation time as well as volunteer hours to develop lessons and build relationships with industry and institutional partners. The school administration fully supports the work, and the entire school has opportunities to participate in learning activities. For instance, after building a utility line under the guidance of linemen, middle school students taught their new skills to elementary students. Students wore hard hats and work gloves, donated by General Pacific, and used the linemen's tools to complete the task from start to finish. Events are open to other schools in the region to send students. The tribal newspaper covers student events, highlighting their accomplishments to the entire community.

## CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES

### ***Business/Industry and Community Based Organization (CBO) Connections***

In Nespelem, the richness of opportunity is discovered through continuous readiness and persistent cultivation. Nespelem's program lead leverages community relationships by staying present to opportunity. One of the keys to this strategy is to have a mental "wish list" of possibilities for students to be ready with the "ask," whether it is on a phone call, a board meeting, or a chance meeting at a community event. Science teacher Ralph Rise – the program's catalyst and lead - is on the Nespelem Valley Electric Co-Op Board and intimately understands their long-term challenge in hiring for skilled linemen and other jobs. So he brought the utility into Nespelem School as part a long-term strategy. The company granted release time for its employees and allowed the use of company tools and materials. Staff from the neighboring Republic PUD attended the event and walked away with a plan to replicate the program at neighboring schools.

All partners bring important pieces to the programming and have unique motivations for participating. Businesses have long-term workforce needs as they look at an impending retirement cliff. Institutional partners are excited to reach rural and diverse youth and are ripe for partnership opportunities. WSU Extension, the NASA Space Grant Consortium at the University of Washington, and the 4H are some of the key institutional partners contributing materials, staffing, experiences, and expertise to STEM career exposure.

### ***Part of a Continuum: Not a Stand-Alone Effort***

Awareness of careers at a young age is most effective when it connects progressively to opportunities in high school and beyond. The long-term impact of Nespelem's career exposure in grades five through eight is to empower students with the skills they need for CTE when they enter high school. This includes providing a general awareness of different kinds of jobs, as well as an introduction of the educational requirements for different jobs. Nespelem's approach to experiences for middle school students is to provide developmentally appropriate levels of guidance with high degrees of structure to teach basic work skills. The hands-on experience helps students learn skills like weighing, designing, measuring, and breaking down tasks. Nespelem plans to coach students to start high school with a plan to develop their work skills along a career pathway, including encouraging them to enroll in CTE coursework.

The deep relationships with industry partners also have the potential for creating opportunities for students along a continuum. For instance, as mentioned above, Nespelem Valley Electric Co-Op opened the school year with an outdoor, hands-on demonstration for middle and elementary school students in building a mock power utility line. Industry professionals guided students in topics of safety, material handling and construction techniques. Now the utility company is developing a program to offer middle school students tours at the worksite and internships to high school students.



## CITY OF TACOMA TACOMA SUMMER JOBS 253

### CRITERIA

- Partnership Agreement
- Assessment of Effectiveness and Recognition of Skills

### FRAMEWORK

Career Preparation

### STAGE

Scaling

### QUICK FACTS

**Location:** Tacoma

**Target Population:** Incoming juniors and seniors in Tacoma Public Schools

**Numbers Served per Year:** 200/year

**Program Duration:** 96 hours during the summer

**Funding Model:** Blended public and grant funds with employer contributions

**Year Started:** 2013

**Website:** [www.summerjobs253.com](http://www.summerjobs253.com)

### PROGRAM SUMMARY

253. That's the area code for students attending Tacoma Public Schools. It is also the number of students who will be placed in summer internships in 2017 – a remarkable growth from the 50 interns when the program launched in 2013.

Summer Jobs 253 seeks to keep students on track for graduation – particularly those students who are already behind in credits - and prepare them for the world of work. Every year, students from eleven high schools compete for summer internships that blend worksite experience, education, financial literacy, connections to financial institutions, and soft skills development.

School building staff, supported by the Career & Technical Education (CTE) department, promote the program to students. The application process includes academic status, financial need, and essays on motivation and interests. Priority is given to students who are credit deficient and representative of the district's student demographics. Once accepted, students participate in a ten-week summer program. The first week is a 20-hour unpaid orientation that includes workplace etiquette and financial literacy. For the rest of the summer, students work 16 hours a week at their paid internship sites, plus one day per week in incentivized classroom activities. To the degree possible, students are matched with employers in their areas of interest.

With leadership from the City of Tacoma, this collaboration includes Tacoma Public Schools, The REACH Center, Tacoma Community House, Tacoma Community College, Workforce Central and local businesses. The REACH Center provides staffing as primary liaison with the employers as well as case management and support services to students.

### UNIQUE FEATURES

**Challenge:** *Funding that flexibly meets the needs of youth*

**Tacoma's Summer Jobs 253 Strategy:** *Braided funding supported by high-level leadership*

It costs about \$2000 per student, plus leveraged resources from Tacoma Public Schools for instruction, to operate the summer jobs program and pay for student wages. Tacoma uses a braided funding model to sustain and grow this effort. Employers contribute \$700 per intern into the program, which covers about 35 percent of program costs. While students earn \$11.15 an hour, the actual cost to employers is just \$7/hour. The City of Tacoma recently added Summer Jobs 253 to their General Fund – a large step towards stable and flexible funding. Other funding includes corporate grants as well as criminal justice tax funds, juvenile justice, and vocational rehabilitation grants - that are blended into a seamless funding mechanism.

The overarching result is a program nimble enough to enroll students who need the program without the jigsaw puzzle of funder requirements. Successful management of complicated funding is within the context of high-level leadership and commitment, which has been instrumental to the program's success. The program launched four years ago when Tacoma Mayor Marilyn Strickland stepped up to President Obama's challenge to create summer opportunity programs for youth. The Mayor leveraged her deep relationship with the Superintendent of Tacoma Public Schools to make summer jobs a community-wide priority. This leadership has set a tone that is evident at all levels of the program: if it is good for kids, just figure out how to "get to yes."

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Partnership Agreement***

The expectations of employers are well structured and designed to make it easy for them to invest in the success of an intern. Students are employees of Tacoma Community House, which is responsible for all wages, payroll, taxes, and benefits associated with the intern – an enticement for many employers to open their doors to opportunities. Throughout the summer, case managers and the employment coordinator visit the worksites and maintain ongoing communication with the supervisor to help problem-solve emerging issues.

Summer Jobs 253 provides worksite supervisors with the tools they need to support minors with limited work experience. Supervisors attend a one day training prior to the start of the internship. Supervisors learn the expectations for providing quality work experiences for interns, as well as how to orient interns to the workplace, intern evaluation expectations, and their role as mentor and trainer. Supervisors are coached to help interns put foundational skills – basic skills, thinking skills, people skills, and personal qualities – into the specific industry context.

### ***Assessment of Effectiveness and Recognition of Skills***

Assessment is formalized in both the worksite and academic components of the program. Supervisors give feedback to both the intern and the employment coordinator throughout the internship. They also complete an interim progress report mid-way through the internship. The progress report is leveled for reasonable expectations of skills and behaviors for an entry-level employee. The progress report reviews eight unique work ethic skills, such as motivation, time management, communication, and safety, plus reading, math, and listening skills. The uniform tool provides a consistent structure for supervisors, which includes definitions and examples across all domains, and uses a five-point scale.

Students can also receive up to 2.0 high school academic credits. Full completion of the worksite learning can earn a student 1.0 elective credit for their combined work experience and portfolio completion. Students can achieve additional credits depending on their academic track. Students who are credit deficient attend summer school as part of Tacoma Schools Summer Learning and receive general education credit in the subject(s) where they are lacking credit. Students who are on track to graduate can participate in the Microsoft Imagine Academy and earn industry recognized certifications and high school credit. In a new partnership with Tacoma Community College, students are dual enrolled and can get both high school academic credits and college credits. The credit attainment plus the real work experience contribute to the program's core success: keeping students in school to graduate ready for work.



## EDUCURIUS VIRTUAL MENTORING

### CRITERIA

- Design Fidelity
- Sustainability and Implementation at Scale

### FRAMEWORK

Career Exploration

### STAGE

Emerging

### QUICK FACTS

**Location:** Kent Meridian High School

**Target Population:** High School Students

**Numbers Served per Year:** 500+ - Ninth Graders at Kent Meridian High School

**Program Duration:** School year

**Funding Model:** Grant and fee based

**Year Started:** 2015

**Website:** [www.educurious.org](http://www.educurious.org)

### PROGRAM SUMMARY

Educurious strives to empower students through transformative educational experiences and meaningful workplace exploration. The Career Connection program is the newest addition to Educurious's suite of programs available to schools. The program has curriculum that teaches both career-related skills like professionalism and social-emotional learning skills like perseverance. It also includes work-based course work, exposure to professionals/experts, and worksite experiences. Virtual mentoring is an innovative component to connect students with professional experts.

School leaders determine how to integrate virtual mentorship into their vision for student learning. It can be applied as a standalone component or woven into project-based classwork. Educurious has a database of mentors it can draw on to match with the school's program, or it can recruit mentors with unique expertise to meet a school's interests. Industry experts from across the country are matched either to individual students or groups of students. Web-based meetings occur during the school day under the supervision of a teacher. The experience introduces students to new ways of thinking about academic questions and increases exposure to interesting career paths.

Educurious manages the key functions necessary to execute the experience. It does background checks on all mentors and provides online training, such as guidance in working with young people. Educurious also provides a school liaison who designs the project with school personnel, virtually introduces the mentor(s) to the teacher, facilitates a planning meeting between the teacher and mentor(s), and is available onsite for ongoing technical and content support to the teacher. The Educurious school liaison works with the school district's IT department to ensure connectivity so that the experience is seamless for the users. Implementation in each new school benefits from the existing foundation of materials, infrastructure, and expertise that Educurious has built over the years.

### UNIQUE FEATURES

**Challenge:** *Lack of technology infrastructure or skills can create barriers to participation*

**Educurious Strategy:** *Front-end preparation with both processes and people to ensure successful implementation*

Forming virtual relationships with mentors around the country can fill equity gaps for students with limited access to traditional social capital. A web-based experience opens new ways to interact with students, which is appealing to professionals anywhere in the country. However, despite this potential, technology exposes a range of new challenges.

There are both process and people questions specific to a

technological solution that require problem solving. The technology needs to work reliably. School districts may have to revise IT policies or firewalls that block student access. Students need access to computers that can support a web-based platform, and school buildings need up-to-date wiring. Student safety is a paramount responsibility in establishing adult-youth relationships. Both student and teacher may have insufficient comfort or skill at navigating the web-based experience – which may include everything from understanding log-in protocols to appropriate online communication.

Educurious dedicates staff to help navigate the gaps between school district IT systems, pedagogy, and the mentor/student experience. Support at the district level is essential if IT policies need to change. Educurious is responsible for choosing an appropriate online platform that meets the project’s needs. This includes safety and security, an easy interface that eliminates barriers to participation, and functionality that lets the teacher moderate interactions between student and mentor.

Setting up a high-quality virtual mentoring experience requires more up-front preparation than a face-to-face experience. Educurious can draw from their electronic library of off-the-shelf resources as well as customize the experience. Staff may need to do a practice run with teachers to understand the interface before going live in the classroom. Mentors are prepped ahead of time on the nature of each student interaction and the teacher’s goals for the experience. It’s often helpful to coach mentors on the backgrounds of students who may have had little prior career exposure. Teachers may need technical support and students need to learn appropriate online behavior. Online materials are available to guide teachers, students, or mentors through the processes of logging in and using the online resources.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Design Fidelity***

Each experience in a school is customized to the school’s priorities, assets, and limitations; this customization is implemented with fidelity to the research that underpins all program components. Educurious dedicates staff resources to ongoing assessment and implementation with fidelity. Programs are aligned to ten unique design principles – such as creating experiences for students to learn contemporary knowledge and skills and progression along competency based learning pathways. Staff assess each project roll out through a rigorous quality improvement protocol, grounded in learning sciences, against these design principles. Before implementation, data collection parameters are established that are designed to assess impact in three important areas: Does this have the intended impact on students? Does this positively support innovative teacher practice? And does this advance the Educurious business model? Components are tested and revised multiple times as needed, with feedback from students, teachers, and mentors to ensure both effectiveness and alignment with the design principles.

### ***Sustainability and Implementation at Scale***

Virtual mentoring is designed to complement in-person mentoring and offers flexibility and scalability. While in-person mentoring may result in deeper relationships through ongoing personal connections and access to local networks for young people, virtual mentoring offers additional opportunities for students. There are no limits to the numbers of mentors or professions that can be recruited, as there are no geographic boundaries. One-time investments can produce tools and resources that have a long life span after the initial investment by developing an online media library that is available to students and teachers. For example, experts can participate in discussion boards, produce video tours of their job sites, or document their own pathways to their careers.





## SEATTLE GOODWILL YOUTH GREEN CORPS/GOODWILL YOUTH CORPS

### CRITERIA

- Structured Learning Component
- Business/Industry and Community Based Organization (CBO) Connections

### FRAMEWORK

Career Preparation

### STAGE

Established, with emerging redesign

### QUICK FACTS

**Location:** Seattle/King County

**Target Population:** Opportunity Youth ages 18-24

**Numbers Served per Year:** 17-24

**Program Duration:** Nine months plus retention services for a year

**Funding Model:** Internal budget plus contract for services for youth wages; Basic Food Employment & Training (BFET) funding at the Community College

**Year Started:** Youth Green Corps -2011-2016; Goodwill Youth Corps to launch in 2017

**Website:** <http://seattlegoodwill.org/job-training-and-education/programs-and-classes/youth-programs>

### PROGRAM SUMMARY

For the past six years, Goodwill's Youth Green Corps (YGC) provided hard-to-serve Opportunity Youth who are out of work and out of school with intensive skill building and career-connected learning. YGC was one of three youth programs offered by Goodwill - Seattle, which also offers a myriad of employment and education programs for adults. YGC is evolving into a new program model in 2017 – Goodwill Youth Corps – that shares many of the promising practices of YGC.

YGC's goal was to provide work experience, college exposure, and future planning so that youth can leave the program ready to find employment or enroll in higher education. The program infused cultural relevancy into a mix of components to meet these goals over nine months. In partnership with Seattle Parks and Recreation, each cohort spent 24 hours a week restoring and maintaining trails in Seattle's Parks. This hands-on paid experience included learning activities in landscaping and conservation. Youth spent 12 hours a week in academic classes learning computer skills, exploring careers, developing life skills, and working on their GED or High School completion. In partnership with South Seattle College, youth attended classes for six months, and they could receive an industry recognized certificate in Ecological Restoration. Throughout the program, youth developed meaningful relationships with a case manager and employment specialist.

### UNIQUE FEATURES

**Challenge:** *Responding to complex challenges of Opportunity Youth*

**SeattleGoodwill Strategy:** *Tiered services to first address trauma and basic needs in a positive youth development environment*

For the right match, YGC could be transformative. For the past two years, 87 percent of the young people who completed the program were placed in jobs. However, in 2016, YGC staff tracked an important change in the program – and quickly addressed it. Fewer students were completing the nine-month program, most often due to behavior issues resulting in dismissal. And there has been a rise in criminal history and substance abuse among program participants.

Goodwill initiated a rigorous research, reflection, and redesign process to modify the program to meet the needs of the youth who struggled the most. Existing components continue to support student success, including work-based learning, wrap-around support, and employer partnerships. But the program structure will change. It wanted to offer a safe place to fail – and come back to again and again if the timing wasn't right the first time. It envisioned a program that let youth work at their own pace and that offered enough time to first fully address trauma and basic needs. Combining youth and team feedback with national research,

Goodwill prioritized three key elements to result in positive outcomes for high-risk Opportunity Youth.

The new YGC program that will launch in 2017 intentionally integrates Positive Youth Development, Trauma Informed Care, and Executive Functioning methods to promote positive behavior. Goodwill and external resources, as well as strong community partnerships, will be vital to the success of this new design. The program is more individually focused, designed to work with young people through four clearly defined but flexible phases. The program will continue to be cohort based but has the flexibility for youth to move at their own pace. Additional strategies will be put in place to re-engage youth who have left the program. It will add more counseling, which was a missing piece in addressing the deep trauma experienced by many youth. Phase 1 focuses on stabilization, identification of strengths, and setting goals. Phase 2 works on education and executive functioning, and Phase 3 adds work experience with additional executive functioning. Young people advance to Phase 4 for internships and further education only when 90 days of continuous employment has been achieved.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

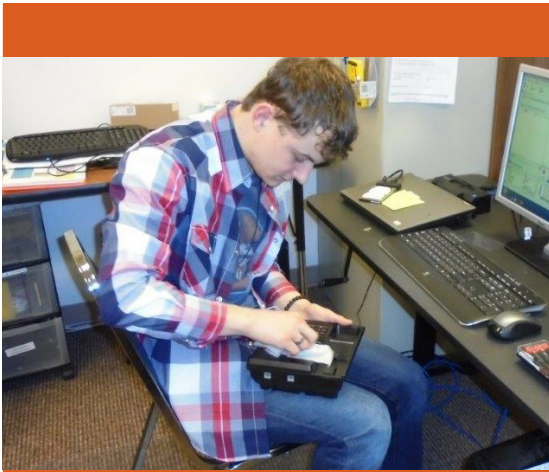
### ***Business/Industry and Community Based Organization (CBO) Connections***

Goodwill's Youth Corps will build on promising practices from YGC. Goodwill has strong business relationships with local government to create win-win opportunities for both government departments and youth. Altruism alone was not enough to motivate Seattle Parks and Recreation (SPR) to contract with Goodwill for YGC. SPR has a big task in maintaining the city's park systems, and this work could have gone to a competitive bidder in an RFP process. Instead, SPR contracts with Goodwill, which supplies work crews, supervision, and support services. Looking to the future program model, Goodwill is exploring other opportunities across city and county government and private industry to deploy youth work crews for work-based experiences.

### ***Structured Learning Component***

Prior to the partnership with South Seattle College, YGC was a youth program with a parks restoration focus. This expertise became the foundation for the next level of programming where youth could get credit for work they were already doing. A nine-credit Ecological Restoration certificate evolved from this partnership that fed into Landscape Horticulture credentials. The college taught two courses, and Goodwill/SPR oversaw additional curriculum, field work, and a student portfolio, for the third credit-bearing class. The strong relationship with the college and the support of its dean created the context where the partners could work out the details, including scheduling, curriculum, and supporting youth who have had little historic success in classroom settings. South Seattle College scheduled a specific class for this cohort and teamed with Goodwill staff to be present in the classroom to support behavioral or relationship issues.

YGC provided intentional structure for college navigation and life skills as well. Community College 101, its six-week structured course, was modified for YGC. This component emphasizes options in short-term, one-year degrees, and teaches students the nuts and bolts of successfully getting into college. This includes application timelines and processes, testing strategies, funding, educational pathways, and student success skills. Its life skills curriculum includes practical tools, like financial management, while emphasizing social-emotional tools for addressing stress, identifying personal strengths and weaknesses, and adapting to change.



## GRAYS HARBOR YOUTH WORKS, INC.

# YOUTH WORKS

### CRITERIA

- Partnership Agreement
- Assessment of Effectiveness and Recognition of Skills

### FRAMEWORK

Career Preparation

### STAGE

Established

### QUICK FACTS

**Location:** Grays Harbor County

**Target Population:** High school juniors and seniors

**Numbers Served per Year:** 40

**Program Duration:** Variable - 30-180 hours for 10-20 weeks

**Funding Model:** Grants, contracts, and contributions

**Year Started:** 2013

**Website:** <http://graysharboryouthworks.com>

### PROGRAM SUMMARY

Thirteen school districts and 2,224 square miles along the southwest corner of the Olympic Peninsula - that's Grays Harbor Youth Works' field of vision.

Grays Harbor Youth Works (GHYW) seeks to transform the experiences of youth in the county's rural communities by providing internship experiences that lead to higher education and employment. It is crystal clear on its focus: grow soft skills through mentorship, job shadowing, and hands-on experiences that occur at host business sites.

GHYW currently partners with seven school districts, with future plans to serve all school districts with high schools in the county. Students ages 16-19 are eligible to apply. There are more than 40 employers committed to hosting youth, and additional sites are recruited to best match with student career interest. Students earn certificates of completion, high school credit, and up to \$200 in scholarships, depending on the number of hours worked. Students can work between 30 and 180 hours, with an average of 60 hours for ten weeks. There is also a summer program for students with Individual Education Plans (IEPs).

GHYW is staffed with an executive director and a program coordinator (a Jesuit Volunteer/AmeriCorps). They tag-team on responsibilities across the large geographic region. The coordinator is responsible for recruitment, orientation, monitoring, and evaluating performance of both the student and host. The executive director also performs these functions, as well as administration, fund development, and board and community relations that are essential to the program's success.

One hundred students have gone through the program since 2013. All of the seniors who have participated have graduated from high school. The program is testing and modifying its data collection protocols. Initial results from the summer intern program show intern growth in soft skills, which is the goal of the program.

### UNIQUE FEATURES

**Challenge:** *Lack of employment opportunity across a wide geographic area with diverse student populations*

**Grays Harbor Youth Works Strategy:** *Customize programming by adding value and maximizing community relationships*

Young people in Grays Harbor County have limited opportunities for career exposure. The county's population is 70,818 with unemployment rate of 8.8 percent, compared to 5.7 percent statewide in 2016. Many of county's areas have limited industry, and transportation options are few. Each of the county's thirteen school districts has a unique cultural, demographic, and socioeconomic

profile. GHYW functions as a catalyst and connector to leverage community support, build sustainable practices, and add value to fill gaps.

The first step to opening doors is to truly listen to the whole community— including school district administration, parents, students, and employers. Programming is modified in each unique geographic area to meet student needs, like addressing lack of transportation, aligning with local cultural values, or scheduling around sports. The partnerships with school districts honors each school’s priorities as GHYW teams with schools to fill gaps.

In rural communities, informal but tightly knit webs of longstanding relationships can make things happen for youth when the right conditions are present. School leaders connect GHYW staff to local employers and chambers of commerce, and parents and interns promote the program to industry and students. The GHYW Advisory Board reflects the populations served and includes committed employers who make connections, foster community goodwill, host interns, and contribute funding.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Assessment of Effectiveness and Recognition of Skills***

Career exposure, onsite mentorship, and coaching are at the heart of the intern experience. GHYW responds directly to the Washington State Small Business Administration 2014 survey indicating concern that recent high school and college graduates lack soft skills. Interns are expected to maintain 95 percent attendance, and the program coordinator tracks attendance logs to resolve any issues as they develop. GHYW uses a soft skills rubric that was developed specifically for these internships. This includes 10 criteria along a 10-point scale with clear definitions and scoring instructions in areas such as ability to take direction, dress, teaming, and professional demeanor.

Data collected helps support intern learning and program quality improvement. The host scores the rubric three weeks into the internship and again at completion. The business host and intern review progression of soft skills during the first evaluation and exit interview. Interns journal in their timecards to reflect on the skills they learned that week. GHYW is also implementing targeted measures to track overall impact in their priority areas, including attendance, soft skills, post-program employment, and postsecondary or military attendance. Interns evaluate the experience along a rubric, which includes rating the experience with the mentor, the quality of their exposure to new work experiences and the support provided by program management

### ***Partnership Agreement***

Interns learn important workplace behaviors from the very beginning, where they are encouraged that “everything is negotiable,” as long as they can articulate their skills and listen to the employer’s needs. In their first meeting, interns negotiate terms with their business host, then sign a Student Attendance Agreement that commitments to days, hours, and number of weeks the intern will work. There are formal agreements with the students, parents, business hosts, and GHYW that include communication protocols, safety workplace requirements, and role clarification.

Parents are an important partner in the Work-Based Learning Partnership Agreement. They receive the same orientation as the intern and business host about the program and its expectations. Parents have their own breakout session during the orientation event where they review the required consent and liability release forms. There is a 12-point Student/Parent Agreement form that spells out roles and expectations for each party. This articulates the parent role in understanding expectations of interns and consequences (including forfeiting the scholarship or dismissal from the program) in areas such as grooming, attendance, and workplace behavior. To truly model a work experience, parents commit to communicate through appropriate channels if there is a problem rather than call the employer themselves or not pull their student from the internship for vacations.



## NORTHWEST YOUTH SERVICES

# WE GROW

### CRITERIA

Person Centered Approach

### FRAMEWORK

Career Preparation

### STAGE

Established

### QUICK FACTS

**Location:** Bellingham/Skagit and Whatcom Counties

**Target Population:** Homeless youth and young adults, ages 16 - 24

**Numbers Served per Year:** 75

**Program Duration:** Three months with possibility of extension

**Funding Model:** Foundation grants

**Year Started:** 2014

**Website:** [www.nwys.org](http://www.nwys.org)

### PROGRAM SUMMARY

Northwest Youth Services (NWYS) has been providing comprehensive services to runaway and homeless youth since 1976. Its continuum of services includes outreach, crisis management, emergency shelter, transitional and permanent housing, family counseling, teen court and vocational readiness training.

NWYS added its We Grow program in 2014 as its lowest barrier employment option. Youth learn hands-on skills and develop their soft skills in a structured and supportive environment. They work in the garden in four hour shifts each week, training in horticulture techniques and completing assigned garden tasks. Through the garden experience, they learn team work, responsibility, and work readiness skills. Youth reflect on their strengths and growth areas, progress towards their goals, and their relationships to others. They receive an internship wage for their three months of participation.

The garden-oriented program has opened up new partnership opportunities. Youth run a market stand during harvest, where they practice math, money management, and customer service skills. Partnerships with the local food bank and restaurants to supply fresh produce provide opportunities for networking and community service as well as learning marketing and business skills.

The program's primary goal is to build the foundational skills that young adults need for their first experience in the workforce. The skills learned in the garden help build their resume, and they learn job search and interviewing skills along the way. About 75 percent of the youth leave the program for employment, either through paid internships available through NWYS or unsubsidized employment. The flexibility in the program accounts for the real lives of these youth, as some need more than three months to develop their soft skills. As needed, youth renew their time in the garden to gain those skills.

NWYS subcontracts with Washington State University (WSU) to jointly deliver the program to 15 youth at a time. NWYS provides case management, individual job readiness coaching, and program coordination. Youth are in frequent contact with their case manager, reviewing their goals every two weeks. WSU provides the garden expertise and instruction, structures the seasonal and daily tasks in the garden, and integrates biology into the curriculum. Volunteers assist with coaching and mentoring youth in the garden. The WSU instructor and NWYS case manager communicate regularly on youth issues and skill development.

### UNIQUE FEATURES

**Challenge:** *Engaging hard to serve youth*

**We Grow Strategy:** *Low Barrier Approach*

We Grow is intentionally designed as a very low barrier program. There are few eligibility requirements - safety and trusting relationships are the essential starting point when working with very hard-to-serve youth. This low-barrier approach is particularly critical for youth who have not been successful in mainstream youth-serving institutions or who have had long histories of abuse. This safe environment gets young people in the door and connected to caring adults, opening up possibilities for progressive engagement with the program and the opportunities it offers.

The enrollment process requires a short application, and staff is available to assist. Applicants go through a three-question interview process where they are asked to reflect on their gardening skills (beginner is acceptable), their qualities that will help them in the job, and their ability to work in a team. Legal forms of identification are not required, as homeless youth rarely have them. The application process itself demonstrates to youth that the program will take their contributions seriously. Rather than a screening out process, the interview is designed to help screen homeless youth into the program by engaging them and asking them to think about their assets.

Low-barrier does not mean low-expectation, however. A job description and written expectations articulate both hard and soft skills appropriate to the population, like participating in group activities and leaving conflict aside. We Grow maintains a safe and welcoming environment for youth and volunteers. Youth may be removed from the garden for unsafe behavior and are offered support to demonstrate the skills needed in order to return.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Person Centered Approach***

An essential ingredient of We Grow is its person-centered approach to meet youth “where they are.” The holistic approach is more effective than narrowly focusing on pre-established goals, such as academic attainment or job placement. The case management philosophy emphasizes motivational interviewing that identifies goals which intrinsically motivate individual youth—be it career, personal or physical—and empowers the youth to chart his/her path in getting there.

We Grow staff use a Positive Youth Development approach that focuses on the psychological, emotional, and social development of youth rather than their deficits. Homeless youth commonly have experienced physical, emotional, or sexual abuse which may have changed their brain development or color their perceptions and behaviors. The program uses a trauma informed model that recognizes these impacts and intentionally arranges its physical environments, services, and relationships to avoid events that can inadvertently re-traumatize a youth.

The combined effects of Positive Youth Development and Trauma Informed Practices in We Grow create an environment of positive reinforcement and empowerment to change the patterning and behavior of youth as they prepare for the work world. For example, the garden experience minimizes chances of failure. Experiences are structured in short periods of time. Communication is explicit, repeated, and in multiple formats to leave no room for misunderstanding that might lead to frustration. We Grow may be the first time the participating youth have experienced the confidence building that comes with working hard, contributing to a team, and directly seeing the fruits of their labor.



## OLYMPIC EDUCATIONAL SERVICE DISTRICT 114 YOUTHWORKS PATHWAYS TO SUCCESS

### CRITERIA

- Person Centered Approach
- Part of a Continuum: Not a Stand-Alone Effort

### FRAMEWORK

Career Preparation

### STAGE

Emerging

### QUICK FACTS

**Location:** Bremerton, serving young adults ages 16-24 from Kitsap County

**Target Population:** Opportunity Youth

**Numbers Served per Year:** 18

**Program Duration:** One year plus one year of follow up

**Funding Model:** Government grants/YouthWorks, WIOA, and Carl Perkins funding

**Year Started:** August 2016

**Website:** <http://www.oesd.wednet.edu/Page/310>

### PROGRAM SUMMARY

YouthWorks Pathways to Success “isn’t about kids getting a job, but about having a future.”

The youth that come to YouthWorks Pathways to Success (YWPTS) have dropped out of school and have a long history of disengagement with education. They may have a great deal happening in their lives that become their day-to-day priorities. Some have histories of homelessness, mental health issues, or substance abuse. Others may be parenting. Some may have been in a position where the only way to meet their basic survival needs was through sexual exploitation. Too often, these youth may not see a positive future or the relevancy of education in obtaining a job. YWPTS provides the support, skill development, and access to employment that can help restore hope in a positive future. The YWPTS Educational Advocate is co-located in the county’s only dropout reengagement school – the Open Doors School in Bremerton. The Educational Advocate is part of the school’s fabric and plays a key role in supporting the job skills and social development of youth on her caseload. She works 1:1 with youth to align their employment and educational goals and to coach for job readiness and soft skill development.

YWPTS targets employers in sectors that interest youth for internships and offers 80-hour paid work experiences with businesses in the community. When possible, youth are placed in positions where they can attain industry recognized credentials. They are looking at career pathway opportunities for youth in areas such as Maritime Industries, Composites Manufacturing Technology, Health Care, Construction, and Electronics/Technical Design. The West Sound STEM Network partners with YWPTS to target four to six placements with regional STEM-related employers.

YWPTS is administered by the Olympic Educational Services District (ESD). The ESD coordinates other workforce development programs, including WIOA and Juvenile Justice programs, which help create a cohesive network of support for Opportunity Youth in Kitsap County.

### UNIQUE FEATURES

**Challenge:** *Engaging dropout youth*

**YWPTS Strategy:** *Seamlessly integrate with Open Doors School to provide basic needs and employment connections*

The Open Doors School, Kitsap County’s only dropout reengagement program, opened in 2015. Its ambitious vision is to serve as a community hub of services designed to draw in disengaged youth. This will be the place where Opportunity Youth can get their immediate needs met and engage with caring, compassionate, and competent adults from a network of community providers. The long-term intent is to offer comprehensive supports – including shelter

and access to health services - to help youth stabilize their lives, finish their education, and launch their careers. The Open Doors School and YWPTS are natural partners in realizing this vision.

While it is early in its program development, the potential synergy of the partnership to keep youth in school is evident. The YWPTS program offers a key relationship with a supportive adult within the school walls, and it offers tangible reasons to stay engaged. Employment draws youth in – they need to make money. Supportive services can meet basic needs and be an incentive to progressing towards educational goals. YWPTS may pay for bus passes, phone cards, and clothing to ensure that youth overcome barriers to successfully engaging in an internship. Through collaboration with the Open Doors School, YWPTS may pay for the youth’s GED testing or credential. With a focus on their education and employment pathways, YWPTS helps students develop a hopeful future.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Person Centered Approach***

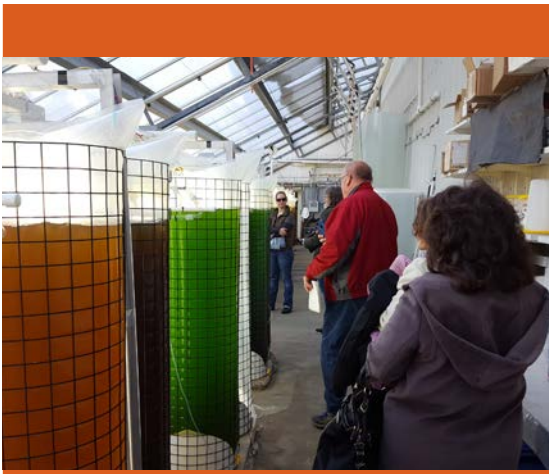
YWPTS and the entire Open Doors School team understand that youth won’t successfully leap to the next level of their educational or employment goals until they are truly ready to do so. Consistent, positive reinforcement helps to meet youth where they are in order to build a strong foundation. The school is a drop-in model to accommodate the real lives of its students. Everyone in the building works to create a welcoming environment to reach youth and keep them coming back. The Educational Advocate is available to youth both in the building and in the community, where she spends one day a week connecting with youth in their homes or on the street. YWPTS staff and the Open Doors School team recognize the effects of trauma on students. As they continue in their program development, they look to integrate trauma informed practice into their approach.

### ***Part of a Continuum: Not a Stand-Alone Effort***

The person centered approach is supported by a continuum of career connected experiences that are provided by partnerships. Career connected opportunities are tiered to provide growth opportunities for youth as they advance in their readiness to succeed. Many young people come to the Open Doors School with no work experience or soft skills, and they need a highly supportive, structured place to start. Through a partnership with Coffee Oasis – a local community based organization with expertise in homeless youth - youth learn basic work readiness skills and can train for barista jobs in the safe environment of Coffee Oasis’s own shops. This is a very low barrier entrance into career readiness.

The YWPTS team is clear on where their program fits in this continuum and seeks to be strategic when enrolling youth. YWPTS fits best when youth are more ready to succeed in a job in the community and have some basic work readiness skills but continue to need development and coaching. Youth who need a longer experience, including case management or longer term internships, can be referred to WIOA. The strong relationships across programs help facilitate cross referrals and support focused on individual needs.





## PACIFIC EDUCATION INSTITUTE FIELDSTEM TEACHER INDUSTRY SITE-BASED LEARNING

### CRITERIA

Sustainability and Implementation  
at Scale

### FRAMEWORK

Career Awareness

### STAGE

Emerging

### QUICK FACTS

**Location:** Shelton and Snohomish School Districts

**Target Population:** High school STEM and CTE  
teachers

**Numbers Served per Year:** 4 teachers in 2 schools

**Program Duration:** 3 months

**Funding Model:** Demonstration grant

**Year Started:** 2017

**Website:** [www.pacifieducationinstitute.org](http://www.pacifieducationinstitute.org)

### PROGRAM SUMMARY

The Pacific Education Institute (PEI) strives to support STEM learning through outdoor experiences. PEI's mission is to advance science literacy and deepen student engagement by empowering educators to teach real-world science using PEI's FieldSTEM® model. Since 2003, PEI has provided professional learning for outdoor field based education and facilitated partnerships between school districts and community partners. In 2016, PEI expanded this work to explore how to equip high school STEM teachers with the tools they need to infuse career exposure in their instruction.

PEI worked with the Shelton and Snohomish School Districts during the 2016-2017 school year to support a partnership between the STEM and Career and Technical Education (CTE) Departments. High school science teachers paired with CTE teachers to identify what they wanted to learn about careers in agriculture, natural resources, and the environment. Over the course of a few meetings, the CTE leads, who have industry connections and expertise, helped inform decision making that prioritized key employers to visit. The teams visited three local employers during winter and spring. To support the pilot, PEI provided teacher stipends, orientation and travel costs, and oversaw program evaluation.

### UNIQUE FEATURES

**Challenge:** *Providing STEM teachers with relevant career and industry knowledge*

**PEI Strategy:** *Leverage CTE and connect STEM teachers to regional employers through worksite visits*

By middle and high school, STEM and other academic teachers can play an important role in helping students understand the connection between their classroom experiences and the career pathways available to them. However, for many teachers, their professional life has been spent in schools. They may not have the frame of reference or up-to-date experience to truly help students understand the working world that awaits them.

PEI piloted teacher-driven worksite visits to build career awareness for educators. Passion for science grounded the experiences for science teachers, and they learned new tools to use in the classroom by witnessing how scientific innovation solves problems in industry. For example, teachers toured facilities designed to increase the production of oyster larvae and learned how shellfish production relies on the principles of aquaculture and water testing.

In both Shelton and Snohomish, teachers looked beyond the science to explore careers at each job site. They saw a diversity of STEM jobs requiring different skill levels that were filled by workers with wide ranges of backgrounds. Teachers asked about career paths, mobility, salaries, and company culture, and have shared this information with their students. They learned from business

professionals what it takes to be successful in those jobs, with an emphasis on soft skills. Teachers were able to apply their experiences immediately in science classrooms and career advisory courses, and to leverage their new relationships with industry professionals. Teachers have invited local professionals into their classrooms as speakers. One presentation inspired two students to apply for internships at that business.

The program is just developing, and teachers are thinking through how to integrate the experience in the classroom. They are planning to develop curricular materials using PEI's FieldSTEM Resource Guide. Participating teachers are also preparing a slide show demonstrating local careers, incorporating photos and knowledge gained from site visits, and exploring possible virtual site tours for their students. The new connection to the shellfish industry may result in sharing shellfish and algae samples that will be used in student research projects and will infuse career connected learning.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Sustainability and Implementation at Scale***

Prior to the teacher exploration pilot, PEI focused on core subjects (science, social studies, and math) for FieldSTEM teacher professional development. However, as it looked at high schools, it saw that the value of industry connection to career pathways required a change in orientation. Integration of core subject teachers with CTE was an opportunity to leverage CTE expertise and connections to STEM-related career connected learning. CTE departments have industry advisories, business connections that help them stay in touch with workforce trends, and resources that can benefit all students. When core academic subjects include relevant career awareness, all students – whether in CTE or general education - are well advised on career pathways.

PEI's pilot illustrates the conditions for success that are replicable and scalable. Most importantly, a school district vision at the superintendent and department levels is required for a holistic approach to career connected learning for all students. This creates a culture of collaboration that breaks down silos. Principals need to encourage a building culture that supports collaboration between departments, professional development, planning, and off-site teacher visits.

PEI will continue to look more closely at the logistics needed for sustainability, as practical questions remain. Teachers in this pilot received a small stipend and attended the site visits on their own time. Afterschool time remains a challenging time block for teachers. At scale, districts will need to assess their release policies or resources to pay for substitutes.

PEI will apply the lessons from its teacher exploration pilot to a statewide scale with key district leaders. At a system level, it will leverage its current FieldSTEM Statewide Leadership Institutes, which bring superintendents together each biennium to advance FieldSTEM learning. It will add CTE Directors to its 2017-2018 meetings as a catalyst to integrate a CTE/STEM approach to career connected learning. Teacher supports will complement the systems approach, as PEI looks at the next level of professional development for core subject teachers that includes tools, training, and curriculum enhancements to integrate career awareness into instructional practices.



## TACOMA PUBLIC SCHOOLS PAID INTERNSHIPS AND WORKSITE LEARNING

### CRITERIA

Business/Industry and Community Based Organization (CBO) Connections

### FRAMEWORK

Career Preparation

### STAGE

Scaling

### QUICK FACTS

**Location:** Tacoma

**Target Population:** High school students, ages 16+

**Numbers Served per Year:** Up to 50 paid internships and over 300 worksite learning students

**Program Duration:** One semester

**Funding Model:** Variable, may include CTE, other District funds, WIOA and employer contributions

**Year Started:** 2013

**Website:** <http://tacomaschools.org/wsl>

### PROGRAM SUMMARY

With the Whole Child Initiative setting the vision for all students being prepared for life after school, there has been a transformation underway in Tacoma Public Schools. Graduation rates increased from 53 percent to 85 percent in 2016. In the last two years, the percentage of students graduating with one or more industry recognized credentials jumped from two percent to 26 percent. The internship programs and worksite learning opportunities offered through the Career and Technical Education (CTE) Department are strong assets in realizing this vision.

Tacoma's centralized delivery model coordinates internships that open opportunities for career pathways and provides support to historically under-represented populations. There are several options for students. The 300 students who find employment on their own can earn 0.5 credit for every 180 hours of work through the Worksite Learning Program. CTE also coordinates internships within Tacoma Public Schools and with external business partners. Students receive wages and credit for participation in internships. These 180 hour internships are paid and designed for students who are not on a traditional four-year college track to gain exposure to middle skills jobs in "gray collar" industries.

The CTE coordinator manages the project's logistics and builds relationships between schools and businesses. Internships within Tacoma Public Schools are guided by instructors who oversee content as well as soft skill coaching. Business partners offer positions for up to 40 students in industries that include banking, human services, manufacturing, information technology (IT), and warehouse, and provide hard and soft skills training.

### UNIQUE FEATURES

**Challenge:** *Institutional barriers to hiring students*

**Tacoma Public Schools' Strategy:** *Commitment to changing policies and a central point of contact to address barriers*

As a large institution, Tacoma Public Schools has a large workforce – and a lot of hiring needs. Three years ago, the school district's Nutritional Services Department had a staffing problem – with nearly 60 school buildings, there could be ten to twenty absences on any given day. Rather than look outside for help, the department wondered if it could fill those gaps with the school district's own students, and they developed their ideas with the CTE Department.

There were numerous policy and procedural barriers to address first, however. Existing hiring processes precluded hiring youth, and there were union questions to answer. However, the commitment to find real opportunities for students created the drive for creative solutions. For the next eight months, the school district's Legal Department worked closely with Human Resources, CTE, Nutritional

Services, and the union to revise application and hiring processes that created up to eight positions for students.

This pilot became a model of interdepartmental partnership that has created internships for over 35 students in the last three years. Often, funding for the wages comes directly from the department overseeing the project. For example, CTE partners with the IT Department in the Laptops to Kids program, which refurbishes outdated laptops that are given to low-income students. The Curriculum and Instruction Department funds a project where students build science kits for use in classrooms.

Across the school district, departments, teachers, or even external partners are encouraged to generate ideas that give students hands-on work opportunities that meet a real business needs. The CTE Department has staff committed to addressing any institutional barriers that might arise to turn that idea into a program. CTE is the “grease” that makes the pieces work together, helping with everything from program development to sharing funding to recruiting students

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Business/Industry and Community Based Organization (CBO) Connections***

“Finding the money for student wages is the easy part.”

That’s because Tacoma’s CTE Department is particularly strong in its partnerships – be it with other departments, employers, or CBO partners. This is not a “one size fits all” model. CTE approaches employer engagement as a cultivation experience. Each employer has a personal relationship with the CTE coordinator, developed through face-to-face conversation, to build a shared vision. They talk about the assets that student workers can bring to a business, and they jointly explore the employer’s needs and concerns.

The experience for employers is customized and scaffolded. Some employers are willing to hire interns directly. For employers not ready to hire students just yet, CTE accesses WIOA funds for wages and support services through their partnership with a regional WIOA provider. Another creative compensation option that CTE employs is an employer-provided stipend upon completion of a 180-hour internship. These risk-free opportunities to demonstrate success are stepping stones to further engagement with cautious employers.

For employers to offer internships to students, it must make business sense to them and be free of bureaucratic hoops. It needs to appeal both to their interest to mentor a young person as well as their hiring needs in an economy where finding a skilled workforce is challenging. CTE makes that happen by navigating the structures across the school district to make this possible. They help write job descriptions, market job openings, or schedule interviews in school buildings. Businesses value the support the school district offers. Community partners have confidence in both the students and the school district to deliver, which in turn makes growing the internship program an easy sell.



## WASHINGTON STATE OPPORTUNITY SCHOLARSHIP **SKILLS THAT SHINE MENTORSHIP**

### CRITERIA

- Structured Learning Component
- Business/Industry and Community Based Organization (CBO) Connections

### FRAMEWORK

Career Preparation

### STAGE

Scaling

### QUICK FACTS

**Location:** Statewide

**Target Population:** College sophomores and juniors pursuing or enrolled in STEM and health care majors

**Numbers Served per Year:** 180

**Program Duration:** Seven months

**Funding Model:** 1:1 public/private partnership

**Year Started:** 2015

**Website:** [www.waopportunityScholarship.org/Scholarship-and-supports/STS-mentee-overview](http://www.waopportunityScholarship.org/Scholarship-and-supports/STS-mentee-overview)

### PROGRAM SUMMARY

The Washington State Opportunity Scholarship (WSOS) is an innovative solution to the state's talent gap in filling STEM and health care jobs. WSOS was founded in 2011 with legislative support and leadership pledges from the Boeing Company and Microsoft. This public/private partnership funds STEM-focused scholarships for low- and middle-income students pursuing high-demand fields in the state. More than 6,800 scholarships have been awarded to date, and nearly 2,200 students have graduated with WSOS support.

In addition to providing financial aid, WSOS identifies barriers to graduation and entry into workforce and targets program supports where they can have the biggest impact. A 2015 WSOS Post-Graduation Employment survey found that WSOS graduates valued mentorship in their field, yet only one-third of those surveyed had a mentor. WSOS sought to change that proportion by creating the Skills That Shine (STS) Mentorship program in partnership with the Boston Consulting Group and the Boeing Company. WSOS piloted STS Mentorship with 17 mentees and a series of three workshops in 2015-16. The full program launched in fall 2016 with 180 sophomores and juniors matched with field-specific mentors across the state. Mentors were recruited from industry leaders including the Boeing Company, Juno Therapeutics, McKinstry, the Allen Institute, and many others. Mentees represent a diverse student body with 56 percent women and 72 percent students of color in the 2016-17 cohort.

STS Mentorship supports mentees' professional growth through guided work-readiness activities and one-on-one mentorship. The program is bookended by an orientation in the fall and closing event in the spring. By participating in STS Mentorship, mentees build soft skills and increase their employability, explore career pathways, and expand their professional network. Mentees accomplish specific professional development milestones including crafting a personal elevator pitch, writing a resume, and participating in a mock interview.

### UNIQUE FEATURES

**Challenge:** *Ensuring quality experiences when mentors or mentees can't meet in person*

**Skills That Shine Strategy:** *Use of online learning and video conferencing*

STS Mentorship is scaling to ensure that every WSOS recipient who wants a mentor will have one in 2017-18. This has required rethinking its in-person workshop format to meet the needs of a larger pool of students. Mentees in the 2016-17 cohort attend 24 colleges from around the state. Additionally, evaluation data from the pilot year indicates that mentees seek mentors with professional expertise that aligns tightly with their own career interests. As the program scales, WSOS is taking steps to ensure a quality experience

when the mentor-mentees can't meet in person because of long distances, tight schedules, or challenging commutes. STS Mentorship's first step has been to pilot existing tools in an online learning format and to learn from the experience. Guided content for each unit, including instructional videos and support materials, is hosted on the WSOS website where it can be accessed at any time and from any place. The 1:1 conversations between mentor and mentee can occur via video conference or phone. WSOS will be assessing the quality of the experiences compared to face-to-face relationships. While it is early, WSOS staff are evaluating exit tickets and survey data to identify further refinement to the format of online materials for fall 2017. For instance, materials will be modified to improve engagement and clarity with more direction and scaffolding.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Structured Learning Component***

Not all mentors enter the mentoring relationship with career development or mentorship experience, and they can benefit from tools to structure their interactions. STS Mentorship uses guided content – including topics, skills, timelines, and orientation materials – to structure the learning objectives in the mentor/mentee interactions to address this gap.

Mentors and mentees are expected to meet 1:1 every other month, either in person or through video chat. There are three core areas of focus for the mentees, staged over the seven-month period. They start by building their networking skills, followed by resume writing, and finally, successful interviewing. Each unit has relevant materials that are available online for both mentor and mentee to review in preparation for their meeting. The materials include instructional videos, activity worksheets, and discussion guides. The discussion guide provides structure to the mentor/mentee conversation through icebreakers, key questions, and activities. Mentors and mentees also get monthly email tips that may include reading or TED talks relevant to the topic. Mentors are asked to customize the experience for their sector. For example, they may need to come prepared to discuss how their industry uses LinkedIn or how their company screens resumes. Each module ends with a short “exit ticket” for the mentor and mentee to assess both for understanding of the material and skill gain as well as quality of the experience.

### ***Business/Industry and Community Based Organization (CBO) Connections***

Mentors are recruited through WSOS's network of corporate partners and a series of lunch-and-learn style presentations to engage individual employees. WSOS makes it clear and easy for mentors to participate, which mirrors the organization's overarching strategy in developing strong business relationships. The philosophy is to have as many touch points as possible with the lowest barriers to engagement. This begins by being present – WSOS staff are active in professional STEM networking events connecting with businesses to create “buzz” and build relationships. Once the relationship is developed, there are a number of ways employers can participate within the WSOS structure – from worksite tours to promoting mentorship with their staff to internships. This is not, however, customized for each business, which would be unwieldy, but rather a “plug and play” model with clearly defined levels of engagement. The “ask” and commitment are explicit and clear. Adding mentorship opportunities is strategic cultivation that engages both employees as individuals and their employers as a company for a possible long-term relationship.



## AEROSPACE JOINT APPRENTICESHIP COMMITTEE (AJAC) YOUTH APPRENTICESHIP

### CRITERIA

- Structured Learning Component
- Partnership Agreement

### FRAMEWORK

Career Skills Training & Education

### STAGE

- Emerging
- Scaling

### QUICK FACTS

**Location:** Pierce County with a planned expansion to other regions

**Target Population:** High school juniors and seniors

**Numbers Served per Year:** 17 in the Tacoma pilot; variable by program design

**Program Duration:** One to two years

**Funding Model:** Grants, community/technical colleges, and apprenticeship program funding

**Year Started:** 2017

**Website:** [www.ajactraining.org/apprenticeship/youth-apprenticeship](http://www.ajactraining.org/apprenticeship/youth-apprenticeship)

### PROGRAM SUMMARY

The average age of an Aerospace Joint Apprenticeship Committee (AJAC) apprentice is 32.7 years - a compelling reason for industry to engage potential workers at younger ages. In 2017, Washington joined a small handful of states that offer apprenticeships for high school students and young adults.

In 2016, Governor Inslee announced his support and an investment for the innovative initiative of youth apprenticeships. This investment plus a recent Department of Labor and Industries award will result in ten regionally-focused youth apprenticeship programs around the state. Strong employer participation and availability of jobs in the local economy is a requirement. Partners include a secondary school, community or technical college, and AJAC as the apprenticeship sponsor. Each local environment will influence design decisions. Variation can include whether it is offered during the school day or after school, if the class instruction is held on a high school or college campus, if it leverages students in Core Plus programming, or how credit is awarded, for example.

The first youth apprenticeship in advanced manufacturing launched in Tacoma in January, 2017, in partnership with AJAC, Bates Technical College, and the Tacoma School District. With up to 2,000 hours of on-the-job training plus classroom instruction, apprentices learn fundamental skills required of a production technician - machining, metal fabrication, industrial maintenance, and plastic injection molding. Youth are recommended to the program by a teacher, should have a GPA of 2.0, and should have passed Algebra 1; they interview with an AJAC employer for hire for afterschool and summer employment.

As the apprenticeship committee, AJAC sponsors the program and oversees compliance with apprenticeship standards. It helps coordinate partnerships, brokers processes, and provides training. It leverages its existing network of AJAC employers to develop youth apprenticeships. The AJAC On-the-Job Training (OJT) Advisor works with businesses to structure the on-site program, and the Youth Apprenticeship Program Manager provides student support as well as connections to parents and schools.

### UNIQUE FEATURES

**Challenge:** *Employers reluctant to hire youth under age 18 due to safety concerns*

**AJAC Strategy:** *Work with Washington State Department of Labor & Industries to clarify requirements and develop resources for employers*

Employers are commonly reluctant to hire youth under 18 at job sites with heavy machinery or where there is the perception of a safety risk. Additionally, federal and state regulations on what youth

can do at a job site are not easily understandable or aligned. AJAC ran into these barriers as it began developing the youth apprenticeship program.

The AJAC team consulted with their peers in Wisconsin, which has used a youth apprenticeship model for over 25 years. AJAC's solution focused specifically on machinery used by production technicians, yet its approach is a model for expansion to other youth apprenticeships. AJAC worked closely with the Teen Worker Safety Division at the Department of Labor & Industries (L&I) in shared learning experience to interpret regulations to ensure safety standards while also providing opportunities for youth apprentices. They visited worksites, inspected machinery used in advanced manufacturing, and reviewed the safety standards that are part of the apprenticeship process. In partnership with L&I, AJAC developed lists of each piece of equipment that could be used by a 16- or 17-year-old apprentice, which is valuable guidance for employers. The groundwork was codified in a standard student learner variance permit that allows students to participate in production technician apprenticeships and provides assurances to participating businesses that they are in compliance with regulations.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Structured Learning Component***

Ninety-three percent of the learning occurs through on-the-job training with a master tradesperson in the apprenticeship model of training. The mentor/apprenticeship relationship is critical for learning. AJAC uses the Mentorship Matters curriculum, a seven-hour training developed specifically for the construction industry. OJT mentors receive training in techniques to effectively transfer their expertise, evaluate apprentice skill development, and provide feedback. Apprentices are coached in communication skills, understanding learning styles, and goal setting to prepare them to benefit from the experience.

The worksite training schedule is based on specific occupational competencies required on the job, such as machining basics and machine set up procedure. The apprentice and mentor jointly define the skill areas of focus for the training. Apprentices are evaluated quarterly on their demonstration of mastery of the competencies using a five-point scale. The apprentice, mentor, and AJAC OJT Advisor work together to identify skills and areas of support.

In addition to OJTs, apprentices attend class one night a week for 150 instructional hours, where coursework includes the theory of advanced manufacturing, precision machining, and CNC operations (computer controlled machinery). Graduates receive a nationally recognized journey level card, a short-term training certificate, two high school credits, and 15 college credits. This coursework articulates toward an adult apprenticeship program in machining, metal fabrication, industrial maintenance, or plastic injection molding, and can be applied to a college degree program. This structure can be flexibly designed.

### ***Partnership Agreement***

The apprenticeship model requires a work based learning agreement that details the roles and responsibilities of everyone involved. State and federal law ensures compliance with the design and administration of apprenticeships and the agreements made between employer and apprenticeship committee. The OJT Advisor visits the OJT site and works with each employer to plan the apprentice's specific training and ensure compliance with student waiver requirements.

Participation is at no upfront cost to employers; however, they are responsible to pay a percentage of the journey level wage for their industry, with wage progression based on the cumulative number of hours worked. Employers commit to rotating youth apprentices through processes and equipment available in the facilities. Employers dedicate a master tradesperson to mentor the apprentice and specify how and when the training will be delivered.

Apprentices agree to attend class one time a week, as well as submit monthly process reports that document their hours in key learning areas. As their youth are expected to work no less than 10 hours a week, families also play a formal role in supporting their success. Parents agree to ensure student transportation to class and the work site, as well as communicate in case of absences.





## ANEW TRADES ROTATION PROGRAM

### CRITERIA

- Business/Industry and Community Based Organization (CBO) Connections
- Assessment of Effectiveness and Recognition of Skills

### FRAMEWORK

Career Skills Training and Education

### STAGE

Scaling

### QUICK FACTS

**Location:** King County, with expansions to Pierce and Snohomish Counties (2017)

**Target Population:** Women ages 18 and up (includes men in Pierce and Snohomish)

**Numbers Served per Year:** Approximately 80 across four cohorts per year

**Program Duration:** 11 weeks

**Funding Model:** Grants, contracts and donations

**Year Started:** 1980

**Website:** [www.anewaop.org](http://www.anewaop.org)

### PROGRAM SUMMARY

As the oldest pre-apprenticeship program for women in the country, ANEW has addressed gender diversity in the construction workforce for over 35 years. This pre-apprenticeship program is designed specifically to prepare women to excel in a male-dominated industry. With a 77 percent placement rate among program graduates, women leave the program ready to earn a living wage job while learning a trade through their apprenticeship. Eighty-two percent are retained in high-wage, high-demand jobs.

The Trades Rotation Program (TRP) is a pre-apprenticeship model that assists women to successfully compete for construction, aerospace, manufacturing, and utilities apprenticeships and jobs. TRP uses a unique hybrid of classroom and hands-on training to develop technical and soft skills as well as increase physical fitness. The program provides career navigation, direct access to employers, and retention services for two years. This requires a team of specialists with a wide range of expertise, including a training coordinator in the shop for technical skills, a case manager, an outreach and retention specialist, and instructors for math and physical fitness.

The program does not have strict eligibility requirements, such as income limitations for enrollment, although financial need can determine eligibility for support services. Case management and support services, such as tools or gas, are provided as needed and are often a key to ensuring program completion. While a GED or high school diploma is necessary to enter an apprenticeship, it is not required to enter TRP as long as women are working towards it. The program supports credit attainment and completion, and participants can earn high school credit for some of the educational components built into the program.

### UNIQUE FEATURES

**Challenge:** *Ensuring well-informed long-term career decisions*

**ANEW's Strategy:** *Sector specific Trades Rotation and Life Skills*

Leveraging its rich employer relationships, TRP gives participants first-hand experience with apprenticeship training programs. Participants spend between four and eight hours each at ten different apprenticeship facilities and construction job sites. This variety and exposure helps them identify the best match for their skills and interests.

During the visits, participants get a detailed overview of the apprenticeship program and industry to understand the occupational demands of the work, including the math and physical and safety requirements as well as trade union expectations. Hands-on technical lessons teach the foundational skills needed for that specific trade. Participants network and form relationships with apprenticeship coordinators and potential future employers.

The occupational exposure is complemented by TRP's approach to life skills specific to careers in the trades. Long-term career planning, for instance, includes journey worker responsibilities and how to translate specific skills for advancement in the trades. Women develop their self-advocacy tools in a context that includes communication across genders and understanding union culture. Financial literacy includes practical understanding of the systems that directly touch people in the trades, such as worker's compensation.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Business/Industry and Community Based Organization (CBO) Connections***

One of the keys to ANEW's success is the depth and breadth of its employer relationships, combined with a sophisticated knowledge of the construction field. Each apprenticeship program has a unique application and hiring process, and ANEW's insider knowledge helps them to coach their participants in the specific hiring requirements of their field of interest, be it electrical, carpentry, or pipe fitting. By attending key events in the field, like project-labor meetings and industry forums, ANEW knows the immediate status of different construction jobs, who is hiring, and the specific requirements for hire. ANEW's real-time knowledge can quickly open doors for their workers.

The success of the industry relationships is grounded in trust and quality. ANEW does not recommend a worker who falls below its high standards for both construction skills and life skills, such as attendance and attitude. Graduates not only get placed, but they stay in the jobs, often at higher rates than others who did not come through the program. Employers' confidence in the quality of the ANEW curriculum stems from a key outcome: ANEW meets their core business need for skilled, reliable workers.

### ***Assessment of Effectiveness and Recognition of Skills***

The TRP curriculum is tightly designed to build specific hard, soft, and academic skills. Eight core modules are delivered through a combination of instructional and hands-on techniques on topics such as Industrial Safety/Trades Certifications, Tool Operation, Construction Trades Math/Test Prep, Life Skills, and Physical Fitness. Each module is documented to its standards, scheduled, and very specific on the skills to be gained.

Skills are evaluated throughout the program, with a mid-term assessment to identify areas where a participant may need additional assistance such as tutors, mentors, or fitness supports. Participants must reach at least 80 percent achievement to pass a competency section. In addition, participants are interviewed by a panel of apprenticeship partners twice during training. This rigor to quality that is woven into the program design and clearly demonstrated through assessment is essential to the participants' ability to thrive on the job and to the employers' confidence that ANEW graduates will come with the skills and attitudes to succeed in the job.



## THE BOEING COMPANY CORE PLUS

### CRITERIA

Structured Learning Component

### FRAMEWORK

Career Skills Training and Education

### STAGE

Emerging

### QUICK FACTS

**Location:** Available statewide

**Target Population:** High school students

**Numbers Served per Year:** 55 teachers trained to date, in at least 50 schools; approximately 1,500 students

**Program Duration:** Two years/1080 hours

**Funding Model:** Corporate funding; OSPI funding for school level implementation

**Year Started:** 2012

**Website:** <http://core-plus.org>

### PROGRAM SUMMARY

Providing avenues to high-paying manufacturing jobs is at the heart of Core Plus. Core Plus is a two-year curriculum designed to meet the needs of Washington's industry by preparing high school students for entry level manufacturing careers. The method is specific: teach students the exact skills they need to get hired right out of high school or to gain higher skills through postsecondary education.

The curriculum has been evolving since 2012, led by a partnership with the Boeing Company, the Office of the Superintendent of Public Instruction (OSPI), and the Manufacturing Industrial Council (MIC). It includes training on personal responsibility, material science, applied math, and hands on technical skills, which have been validated by industrial businesses in advanced manufacturing, maritime trades, construction, and agricultural support services. Instructors also work on soft skills, including teamwork, communication, resume writing, and mock interviews. The curriculum is currently available in skill centers and high schools around the state. Boeing and other industry partners have provided resources and in-kind donations to enhance the experience, such as access to facilities and equipment, industry tours, and speakers to add relevancy for both students and instructors. OSPI awards grants to schools to upgrade their machinery and train teachers in industry standards.

### UNIQUE FEATURES

**Challenge:** *The manufacturing sector faces a skills gap with few new hires coming directly from high school*

**Core Plus Strategy:** *Creating multiple opportunities for students to be ready for employment or higher education and develop hiring strategies directly from high school*

The manufacturing industry faces a looming workforce challenge, with large scale retirements projected in the next few years. The challenge is exacerbated as high schools around the state close their shop classes due to low enrollment. OSPI and the Boeing Company came together in 2010 to find a solution to a shared problem. The solution was to make technical skills training in high school immediately relevant to industry. Over time, the partners identified the need to standardize curriculum and teacher training, added industry partners, and increased academic rigor. The result of the Core Plus curriculum is industry confidence in a growing pool of potential workers who have been trained to high standards.

The development of Core Plus underpins a strategic shift in hiring practices at the Boeing Company to better meet their long-term needs. Until 2015, a majority of their new hires were from their suppliers. Skilled workers moved around, but without an adequate backfill to maintain a healthy industry for the long term. In 2015, the Boeing Company changed its hiring goals to increase focus on new hires directly from high school. The Core Plus curriculum provides

the backbone for strategic and targeted hiring. The Boeing Company and other aerospace manufacturing companies hope to align their job requirements to the specific competencies gained with in the curriculum. In real time, companies can pinpoint their recruitment for specific jobs to high schools and skills centers using the Core Plus curriculum. To date, around 200 Core Plus graduates have been hired by the Boeing Company alone, and many others have been hired throughout the sector.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Structured Learning Component***

There are two parts of the curriculum that structure learning around specific industry requirements. The first year is the “Core” curriculum, which emphasizes the general skills and knowledge needed throughout a cross sector of industrial businesses. These are relevant to advanced manufacturing, maritime trades, construction, and agricultural services. The curriculum includes topics such as shop equipment, precision measuring, material science, print reading, and safety. The second year is the “Plus” curriculum, which is customized for specific sectors to meet local needs. There is currently an aerospace curriculum built for the second year, and there is interest in expansion to maritime and agriculture technology. The Boeing Company worked closely with subject matter experts at OSPI and in the Educational Service Districts to align the curriculum for credit equivalency in math, science, and English Language Arts.

Each unit of the curriculum has teacher materials, including handbooks and power point decks, as well as student materials. The units are designed to be used in the context of hands-on projects that integrate work-like experiences with learning activities. Hands-on projects might include working on riveting aluminum for airplanes or fixing small engines.

Units have industry-defined competencies that include concepts, manufacturing processes, and tool usage, which are rated on a five-point scale by the teacher. There are clear, standardized definitions of levels of competency attainment, ranging from “not met” to having the ability to teach. Each standard is rated twice for both knowledge/critical thinking and skills technique/dexterity. Soft skills – punctuality, teamwork, and quality – are also assessed each quarter.

The curriculum can be delivered in either a skills center or comprehensive high school. There is a thoughtful division of how the skills are taught in the different educational models. The comprehensive high school model is shorter – 180 hours per year rather than 540 – and focuses on the most essential skills needed in industry. The 540-hour skills center model adds additional units, such as lean manufacturing, soldering, and applied physics.

The curriculum is open source and available to any teacher. In addition, the Boeing Company is working with industry partners, OSPI, and community colleges to refine teacher training protocols to support qualified CTE teachers. In October, 2016, twenty teachers spent a week at two of the Boeing Company’s training facilities. Teachers were given instruction by Boeing Company training staff on the essential skills for a new manufacturing employee. The teachers experienced what a new employee would be taught, the expectations, and skills need. They were also shown how to teach a student these skills. Afterward, teachers commented that this training was some of the most valuable, relevant, and useful training they had ever received. In June, 2017, Boeing will host another 20 Core Plus teachers for the same training.



## SOUTHWEST WASHINGTON STEM NETWORK INSTRUCTIONAL WORKSITE LEARNING FOR ADVANCED MANUFACTURING CAREERS

### CRITERIA

Business/Industry and Community Based Organization (CBO) Connections

### FRAMEWORK

Career Preparation

### STAGE

Scaling

### QUICK FACTS

**Location:** Southwest Washington - Camas, Evergreen, and Vancouver School Districts

**Target Population:** In-school youth in 11th or 12th grades

**Numbers Served per Year:** 75-100

**Program Duration:** Ninety hours with variation based on program delivery model

**Funding Model:** State Basic Education Funds, CTE Funds, SW WA STEM Learning Network and employer investments

**Year Started:** 2012

**Website:** <http://swstemnetwork.org>

### PROGRAM SUMMARY

Advanced manufacturing is one of Southwest Washington's essential industries that offers middle and high skill opportunities in STEM careers. In a highly competitive sector, these companies face a skills gap at the same time youth are leaving high school without the skills needed to fill those jobs. The Instructional Worksite Learning Program for Advanced Manufacturing Careers (IWL) is a regional, upstream approach to solving this community problem. It prepares young adults to fully participate in the 21st century economy.

The IWL model can be delivered at work sites or in schools. This competency-based soft and technical skills program fully trains students for careers in advanced manufacturing. Youth learn communication, teamwork, and conflict resolution skills. They develop career readiness as they learn about jobs in industry. They master foundational technical skills, such as lean manufacturing, statistical process control, and quality standards.

Students demonstrate their competency through work-based projects during their internship. Mentors identify real business problems for students to work on. Students understand both the "what" and the "why" of what they are asked to do – and they are motivated by the relevancy of their work. Math skills are inherent in manufacturing quality standards, which students learn through work-based applications. Academic standards are identified that align with the work-based projects, and students get high school and Clark College credit.

IWL is a collaboration among industry, schools, and the Southwest Washington STEM Network. Teachers support the delivery of the curriculum, coordinate with industry partners, and draw connections between workplace learning and academic studies. Students have industry mentors who coach them to understand the business applications of their training. Interns are recruited by school personnel who identify students most in need of career exposure and soft skills. Recruitment methods take active steps to ensure that the demographics and diversity of the intern pool mirrors the overall school population.

### UNIQUE FEATURES

**Challenge:** *Program intensity that was prohibitive to participation among hard-to-reach youth and smaller businesses*

**IWL Strategy:** *Develop high-quality, alternative service delivery models, including virtual internships*

IWL launched its robust worksite-based internship program in 2012. While this can be a transformative experience for students, there are limitations for both students and businesses. The ninety-hour commitment to an unpaid internship is challenging to youth lacking transportation, who are homeless, or who need a job immediately. The commitment for hosting a team of interns can require sixty to

eighty staff hours, which can be prohibitive for many small or mid-sized companies.

In 2015, IWL developed an alternative service delivery model with new access points for students. It piloted a virtual internship model in the Camas School District that includes virtual learning, two on-site visits, project-based learning, and industry mentorship. The essential program elements—21st century skills, industry foundation skills, career readiness, and work-based projects—are taught in an internship class. The curriculum is modularized through an online learning management system. Each training module includes industry-standard assessments and trainings. Teams of students are matched with industry mentors who communicate daily. The online training is complemented by six to eight project-based assignments. To model the worksite experience, students also practice the specific industry standards through school-based projects, like using industry standards to organize storage or warehouse space.

The addition of alternative program delivery models resulted in a thirty percent increase in participation among hard-to-reach students. With less intense demand of both time and resources, this approach has potential to engage more employers. The flexibility also allows for schools to customize the experience. The virtual experience is reinforced in the classroom. Teachers add additional real-life experiences to the trainings and enhance the curriculum to meet the unique needs of the class. The transparency of the online learning is a window for teachers who can see what students are working on and reinforce learning.

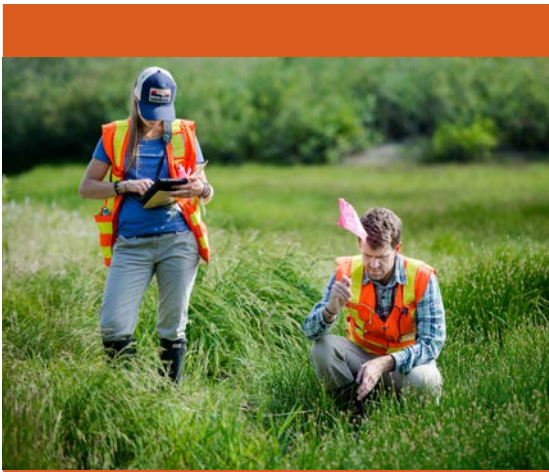
## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Business/Industry and Community Based Organizations (CBO) Connections***

SEH America, which manufactures silicon wafers, recognized that the regional skills gap was threatening its profitability. In 2011, company leadership initiated a partnership with community colleges and the Evergreen School District. The solution required solving several problems, including engaging youth who didn't see advanced manufacturing as a career option, overcoming an outdated stigma attached to manufacturing jobs, and addressing a skills gap in technical and soft skills. Today's model partnership is the result of commitment to truly understand business needs and translate it to a roadmap for education. The partnership built relationships, fostered corporate support, vetted curriculum, and addressed legal and compliance concerns.

SEH America offers ninety-hour worksite internships to 40 to 50 students per year. Part of the design is to make hidden workplace expectations explicit to youth and to build in the specific structures to teach the skills to meet those expectations. SEH developed a robust intern orientation and holds weekly meetings to scaffold learning, where interns learn communication skills, industry safety standards, and how to think about their futures. Success also demands high-level corporate support that sends the message to busy staff that mentorship is a company priority. Mentors need support and training in working with youth, which is built into the program.

SEH America realized early on that offering an internship program required investment. They created a coordinator position that supports not only the SEH interns but also the expansion of career connected learning opportunities through the entire regional industry. The program has expanded to include five companies that offer IWL experiences to students. The payout for industry is a pool of highly motivated and skilled young people graduating from high school. To date, of the 240 interns who have completed the program, one-third of them have been hired in one of southwest Washington's advanced manufacturing companies.



## WASHINGTON STATE DEPARTMENT OF TRANSPORTATION & THE EVERGREEN STATE COLLEGE **WETLAND MONITORING INTERNSHIP**

### CRITERIA

- Structured Learning Component
- Partnership Agreement

### FRAMEWORK

Career Skills Training & Education

### STAGE

Established

### QUICK FACTS

**Location:** Olympia

**Target Population:** Undergraduate and graduate students in natural, environmental, or biological sciences

**Numbers Served per Year:** 12-22

**Program Duration:** 11 weeks, 38 hours/week

**Funding Model:** WSDOT core funding

**Year Started:** 1996

**Website:** [www.wsdot.gov/Environment/Wetlands/Monitoring/internship.htm](http://www.wsdot.gov/Environment/Wetlands/Monitoring/internship.htm)

### PROGRAM SUMMARY

The Washington State Department of Transportation (WSDOT) and the Evergreen State College (TESC) have partnered for more than 20 years in a unique hands-on field and laboratory experience for interns assisting with wetland mitigation efforts.

WSDOT staff recruit students from TESC and from colleges around the state. This is a highly competitive process, as both the \$3000 stipend and the valuable hands-on learning experience are significant draws for students. Students are interviewed as part of the selection process. The interviews pay particular attention to both students' technical backgrounds and their abilities to work in teams. The students who are selected to participate in the internship program receive two weeks of training before beginning the field work in the summer.

Under the direction of crew leaders, interns travel in teams to WSDOT sites around the state for their field work. The field work consists of plant and wildlife identification, vegetation sampling, and statistical analysis. This field work is required under wetlands mitigation regulations for WSDOT's road projects. To support learning, interns spend one day a week in the plant lab, where lessons from the field are reinforced and new material is introduced. The field work is contextualized through a weekly seminar as well. Interns receive between 4-16 credits for their work and pay tuition to TESC.

This is a valuable experience for interns. The job is challenging both physically and intellectually, and interns learn practical and technical job skills that are hard to learn in an academic setting. The experience also broadens their perspective by contextualizing their work and exposing them to employers, including government. Nearly 83 percent of former interns surveyed found that the experience exposed them to new career options. To date, over 30 former interns have been hired by WSDOT, including the current program and monitoring managers overseeing the project.

### UNIQUE FEATURES

**Challenge:** *Sustaining funding for highly technical, seasonal project-based work*

**Wetlands Monitoring Project Strategy:** *Institutionalize into agency budget by demonstrating return on investment*

By the mid-1990s, the number of wetland sites requiring monitoring by WSDOT greatly expanded. Lacking the budget to hire enough FTEs for the seasonal work, a staff member who was also a TESC graduate student in Environmental Studies recommended TESC as a source of interns. Since its beginning, the program has been funded from the general WSDOT Environmental Services budget.

Confidence that the interns' data and analysis is accurate is an essential benchmark of success. The number of mitigation sites requiring monitoring has doubled since 2005, and the work has been supported by a growing number of interns. As many WSDOT employees are former interns themselves, there is high internal support. In addition, executive leadership understands and supports the model. The program, however, must regularly justify that the funds are used efficiently and appropriately. WSDOT reports on cost comparisons for different staffing models to fulfil the monitoring requirements to demonstrate cost effectiveness of the program. Tracking these costs and making the case have been key to sustaining the program as part of the agency's operational budget.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Partnership Agreement***

The Wetlands Monitoring Internship highlights potential replicability through strong infrastructure and clear collaboration between a government agency and an academic institution. This is a long-standing partnership of equals, with clear role differentiation between WSDOT and TESC. Meeting real business needs and a shared value set underpin this partnership.

Trust built by years of working together is codified in the contractual relationship between the partners. WSDOT is the lead on this partnership as the funder and project coordinator. It provides management, dedicated staffing for up to five crews of interns, and a plant biologist to teach the lab components. TESC assigns a coordinator for the college's responsibilities, is the employer of record for interns, and provides seminar instruction, classroom space, and state-of-the-art plant laboratories. Assignment of a single point of contact on campus has been essential to getting things done, from making sure students submit their payroll paperwork correctly to awarding credit to reserving rooms. WSDOT knows where to get answers to questions and has a partner in program planning.

### ***Structured Learning Component***

The hands-on work provides solid technical skills that make interns more competitive in the labor market. One of the important benefits is the contextualization of their work. WSDOT staff take great pains to articulate how the interns' work fits in the regulatory framework, why the data is collected in particular ways, and how it will be used. Understanding the work in the regulatory context helps interns apply their studies to career pathways.

The interns are on a steep learning curve which is made easier through the synergistic relationship between the field work, lab times, and classwork. The high degree of structure supports success across a cohort of undergraduates and graduate students who enter the program with a range of skills and academic training. Working in teams of two in the field, interns reinforce their own learning by working closely with their peers. Weekly lab time with WSDOT biologists deepens the field experience and strengthens plant identification skills. TESC teaches a weekly seminar, which is required for graduate students, to connect the hands-on field work back to theory. Interns discuss how their field work fits into different perspectives in the larger scientific literature, learn various methods of vegetation sampling, and read case studies of environmental restoration.

Interns are assessed through the process. Short, frequent quizzes test their botanical knowledge. The crew leads give them immediate feedback and review their field notebooks next to a model sample. For the final project, teams of interns prepare regulatory reports mirroring the ones WSDOT completes for their mitigation. Interns manually analyze the data collected rather than relying on statistical programs that automate the process - a new experience that connects the student's understanding with application. This final project further connects interns' tasks to real-world application in environmental regulation. The TESC coordinator is responsible for their final written evaluation, with input from WSDOT. The evaluation is the interns grade, but is also a recommendation to use for future employment.





## SOUTH CENTRAL WORKFORCE DEVELOPMENT COUNCIL YOUTHWORKS

### CRITERIA

Business/Industry and Community Based Organization (CBO) Connections

### FRAMEWORK

- Career Preparation
- Career Skills Training & Education

### STAGE

Established

### QUICK FACTS

**Location:** Area within Yakima County

**Target Population:** Opportunity Youth

**Numbers Served per Year:** 112

**Program Duration:** One year or more

**Funding Model:** YouthWorks, WIOA, Carl Perkins and local match

**Year Started:** 2016

**Website:** <http://www.southcentralwdc.com>

### PROGRAM SUMMARY

The South Central Workforce Development Council (SCWDC) added YouthWorks programming in 2016 to provide new opportunities for youth who have dropped out of school or have few job skills. Youth receive case management, work readiness training, and support services. They have access to business mentorships and job shadows as well as support for wages or incentives while in worksite experiences or training. Other activities may include leadership opportunities, community service, financial literacy, and building a 10-year plan using Career Choice software.

YouthWorks is the springboard for new career pathways in the construction trades for youth. The SCWDC partnered with Yakima Valley Technical Skills Center (YV Tech) to pilot a summer pre-apprenticeship program for out-of-school youth. This intensive full day program of 270-300 hours was a paid experience where youth learned construction skills and gained industry recognized credentials, including fork lift, OSHA 10, and flagger certifications. Eleven young adults enrolled in the first summer, and the SCWDC plans to expand enrollment in 2017.

The SCWDC provides vision, administrative, and leadership support, and contracts for direct services, including case management. YouthWorks integrates with SCWDC's existing Workforce Innovation and Opportunity Act (WIOA) services. Youthworks mirrors WIOA's eligibility and guidelines to better support co-enrollment, sustainability, and leveraging of resources.

### UNIQUE FEATURES

**Challenge:** *Identifying and engaging Opportunity Youth with extended training and education programs*

**SCWDC's Strategy:** *Building a comprehensive approach to engaging and supporting youth across systems, including youth-serving programs, education, and business*

Opportunity Youth have unique challenges to accessing high-quality career connected learning opportunities that lead to living wage jobs. It can be challenging to identify and engage youth who have dropped out of school and may not be engaged in any activity. Youth may be starting without the basic academic skills needed for many middle skills training programs. Financial roadblocks can get in the way of participating in programming as they may not have financial means to pay for needed supplies or transportation. They also may not have support networks to help them see a positive future or help them to problem solve as they work towards their goals.

SCWDC's approach is to ensure that comprehensive support is available to Opportunity Youth. Prior to the implementation of WIOA, the SCWDC's youth employment strategies started shifting services to out-of-school youth in the region. In 2016, it integrated YouthWorks funding into its WIOA strategy to embed case

management within existing programs serving Opportunity Youth and develop new ways of working across systems.

One successful effort is YouthWorks' connection to the pre-apprenticeship program at YV Tech. This partnership adds an additional pre-apprenticeship program during the summer specifically for Opportunity Youth. Prior to this, the pre-apprenticeship program had been focused on in-school youth, so additional elements were put in place to support out-of-school youth. Case management was integrated into the pre-apprenticeship program. YV Tech and the case managers work with the Yakima School District to identify drop outs for outreach and recruitment. YouthWorks supports part of the instructional costs of the pre-apprenticeship program. Having case managers integrated into the program helps to address issues as they arise and provides employment specific assistance. Youth receive wages and supportive services, which help address financial barriers to participation. They also participate in community-based GED and financial literacy classes.

SCWDC is expanding this cross-system approach for Opportunity Youth by integrating employment and training services with other services. For instance, SCWDC added employment-focused case management for homeless youth in the Neighborhood Health Homeless Program. It is also going deeper in its approach to employer connections for career opportunities for Opportunity Youth. SCWDC will host its first Employer Engagement Summit focused on Opportunity Youth in 2017 to build partnerships between industry, education, and the workforce systems.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Business/Industry and Community Based Organization (CBO) Connections***

Community based organizations (CBOs) can bring additional resources to youth and families that contribute to long-term employment and training success. Opportunities Industrialization Center of Washington (OIC) is an example of how multiple resources can be leveraged when working in low-income and diverse communities, including the region's sizable Latino community. OIC is a multi-service community action agency with a holistic approach. In addition to youth and adult employment and training services, it provides education, emergency food assistance, energy assistance, and youth and senior services. It's a longstanding and trusted provider in the community. With bilingual/bicultural staff and deep roots in the community, it has a long tradition of providing culturally responsive services.

OIC values the roles of family in supporting the success of young people. It also recognizes that in many families, there are practical pressures for young adults to work and contribute to the family that may conflict with a plan to finish their education or attend training. OIC engages with families on strategies to support their youth's educational or training success, be it through helping with basic needs or coaching.

OIC knows that youth come to the program with a range of assets and needs, and it seeks to support each youth holistically through a mix of services: youth attend OIC's onsite GED program; food assistance is available; and OIC can access resources through their farmworker program to help pay for on-the-job training. The case management funded by SCWDC WIOA and YouthWorks is a strategic piece of what OIC can offer to young people. This employment-oriented personal support helps to tie services together and keep youth focused on their long-term career goals.



## SPOKANE AREA WORKFORCE DEVELOPMENT COUNCIL NEXT GENERATION ZONE

### CRITERIA

- Sustainability and Implementation at Scale
- Design Fidelity

### FRAMEWORK

- Career Preparation
- Career Skills Training & Education

### STAGE

Established

### QUICK FACTS

**Location:** Spokane County

**Target Population:** Opportunity Youth

**Numbers Served per Year:** 600

**Program Duration:** Varies depending on youth need

**Funding Model:** Blended funding including WIOA, Open Doors, YouthWorks, and private funding

**Year Started:** 2007

**Website:** [www.nextgenzone.org](http://www.nextgenzone.org)

### PROGRAM SUMMARY

Next Generation Zone (Next Gen Zone) is the region's one-stop career center for young adults. Next Gen Zone serves primarily Opportunity Youth, including a large number of homeless youth, as well as others who may lack a high school diploma or competitive job skills. With a contemporary and welcoming design and a focus on education, employment, and postsecondary placement, Next Gen Zone creates an experience for young adults that emphasizes professionalism, partnership, and potential.

Located on the WorkSource Spokane campus, Next Gen Zone offers education completion, career and soft skills training, case management, paid work experiences, job placement, access to postsecondary education or occupational skills training, and college navigation. This facility includes a Learning Center, computer labs, classrooms, and on-site partners.

Next Gen Zone is a collaboration of three agencies – Career Path Services, Goodwill Industries of the Inland Northwest, and the Northeast Washington Educational Service District 101. These agencies are funded as a consortium by the Spokane Area Workforce Development Council (SAWDC). Other on-site partners include the Community Colleges of Spokane, the Spokane County Open Doors Reengagement program, Job Corps, and YouthBuild. The SAWDC plays a key leadership role, setting the vision and seeking resources for leverage and sustainability.

### UNIQUE FEATURES

**Challenge:** Program strategies that didn't prepare youth with skills to be competitive

**Next Gen Zone Strategy:** Redesign strategies to find business solutions and position youth as skilled assets to local companies

As part of Next Gen Zone's practice of ongoing quality improvement, it realized in 2014 that it wasn't hitting the mark with its employer relationships. Employers continued to emphasize soft skills, yet Next Gen Zone's training curriculum focused on job training. Many of the work experiences for youth focused on "first jobs" like customer service or fast food, which lacked the potential for career growth in high-demand occupations.

To ensure that young adults acquire the skills most desired by employers, Next Gen Zone developed its 21st Century Career Skills Academy. This is a three week, 36-hour training in fundamental skills and high-demand industries. In addition to job readiness and financial literacy, youth are introduced to options at community colleges. Youth finish the course with two industry recognized credentials – Microsoft Digital Literacy and the National Career Readiness Certificate.

In addition, there has been a re-orientation to business relationships and the nature of work experiences. Each Next Gen Zone career specialist approaches the work as an account representative. This reframing of the role helps build long-term industry expertise and develop meaningful relationships with employers to understand business needs. The conversation with employers shifted from emphasizing altruism – helping youth – to discussing how young adults have the skills to be part of a business solution. Next Gen Zone leverages WIOA funding for wages during training at a job with career potential, with the expectation that they will be hired after training. The result has been stronger business relationships, a deeper understanding of the mission and focus, and more successful placements of youth in business opportunities.

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Design Fidelity***

The SAWDC's consortium model to youth services, launched in 2007, asked agencies to deliver a unified, seamless approach to youth employment and education services. To further expand this vision, Next Gen Zone leadership initiated a quality improvement process two years ago. The result is its Three Pillars of Program Design model that is the framework for everything that happens at Next Gen Zone.

Trauma-informed care and continuous improvement underpin all activities in this framework. There are three key areas of intentional design – the workforce (youth), the workplace (employers), and the practitioner (Next Gen Zone staff). For youth, the strategy is to transform their experience through a case management approach that emphasizes empowerment, motivation, and clarity of action. All staff share the responsibility of forming a strong web of relationships and support around youth. This framework shifted the career specialists' relationships with employers from individual job development to long term customer relationship management. For practitioners, the framework emphasizes ongoing professional development for all staff and clear shared accountability.

One key to success involves engaging staff frequently and at all levels so everyone understands the relevance of this framework to their own work. Each element of the model has a vision statement, objectives, and action steps, which are on display onsite as a constant reminder of their shared work. Staff meetings reinforce topics to keep everyone focused. Site leadership is charged with ensuring new staff is trained on the model. The framework is articulated in core competencies that are included in all job descriptions for partners.

Shared values help create one team with members from different agencies and has improved staff retention. It provides leadership with planning tools to prioritize opportunities, including aligning resource allocation decisions within the framework. While there is a shared language and approach, the design also leaves room for individual expertise, which fosters creativity and problem solving.

### ***Sustainability and Implementation at Scale***

Next Gen Zone's intentional approach to building strong systems and strong staff leads to sustainability and scale. Flexible dollar investments help to institutionalize practice, such as its framework in its Three Pillars of Program Design, that have a long and transformative life span.

The SAWDC is the backbone support to sustain the work. WIOA funding is the foundation for employment services and is braided through most center activities. Partner programs leverage resources to enhance services. Next Gen Zone prides itself on self-reflection and an enthusiasm to try new ideas. The consortium works together to identify problems and propose solutions. The SAWDC's role in seeking funding for innovation and service expansion is essential to realizing Next Gen Zone's vision for a comprehensive service model for all young adults.



## TAF ACADEMY COLLEGE AND CAREER READINESS PROGRAM

### CRITERIA

- Part of a Continuum: Not a Stand-Alone Project
- Person Centered Approach

### FRAMEWORK

- Career Exploration
- Career Preparation

### STAGE

Scaling

### QUICK FACTS

**Location:** Kent, as part of the Federal Way Public School District

**Target Population:** In-school youth grades 6-12

**Numbers Served per Year:** Approximately 300

**Program Duration:** Up to 6 years or through a student's enrollment at TAF Academy

**Funding Model:** Partnership model - Public school financing, grants, business sponsorships, and donations

**Year Started:** 2008

**Website:** [www.tafacademy.techaccess.org](http://www.tafacademy.techaccess.org)

### PROGRAM SUMMARY

The approach at TAF Academy to career connected learning is deceptively simple: "Kids can't get away from the experience." That is the TAF way.

TAF Academy is an award-winning STEM-focused public school located in Kent that prepares students for colleges and careers using a project-based curriculum and an integrated career connected approach. An overarching purpose drives everything: reach low-income students and students of color and support their experience to graduate on time, go to the college of their choice, and pursue the career of their dreams. TAF Academy's College and Career Readiness Program (CCR) is a key strategy to reaching these goals. The TAF experience begins with selection – students and families apply into the program, drawn in by its reputation or an interest in STEM learning. However, there is no screening or entry test to enrollment. The result of this process is a diverse student body which is about 70 percent students of color. Half of TAFs students receive free and reduced lunch.

TAF Academy's approach ensures that CCR is woven into the entire academic experience for every student, every day. This is not the sole responsibility of one teacher or one classroom. It is a school-wide expectation that teachers build CCR into their projects and assignments. Project-based learning is core to TAF's pedagogical approach. Teachers integrate college and career readiness components into interdisciplinary projects by contextualizing academic content within real-world application.

The high expectation that teachers support students in career readiness is complemented by ongoing support. The onsite TAF CCR program manager is the point of contact on workplace connections – bringing in speakers, orchestrating career fairs, and finding internships. She structures the sequencing of career development through all grades and assists teachers with content and access to resources. She monitors that students are on track to gain career skills in each grade.

The approach is clearly working. The school has a 95 percent graduation rate, and 100 percent of their graduates are accepted into college.

### UNIQUE FEATURES

**Challenge:** *Balancing priorities in a school building or district to include genuine career connected learning*

**TAF Academy Solution:** *Partnership of equals to maximize expertise and integrate academic and career learning*

The Technology Access Foundation (TAF) is a Seattle based nonprofit dedicated to equipping students of color for success in college and life through the power of an interdisciplinary STEM education and

supportive relationships. TAF Academy is a public school in the Federal Way School District. The district and school provide the facilities, curriculum, and instructional leadership. TAF adds unique value in its expertise in college and career readiness, professional development for teachers, and access to STEM and corporate professionals.

This is far more than leveraging TAFs expertise and relationships, however. This is a true shared leadership model. TAF is considered the “guardian of the mission,” and has several key functions. It participates in principal and teacher hiring to ensure alignment with values of equity, STEM, and career connected learning. It helps with developing and implementing the academic model, pedagogy, and scheduling, where it has a clearly defined role in college and career readiness, technology education, and project-based learning.

This role clarity is no accident. It started with the highest level of shared vision between the district’s superintendent and TAF’s executive director, and it has been codified through a joint operating agreement that spells out role clarification

## **CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES**

### ***Part of a Continuum: Not a Stand-Alone Project***

TAF Academy has a formal CCR scope and sequence plan for all students that supports an internal career connected continuum. This is the school’s roadmap for specific activities and themes each month. Students continue their growth during the summer months with reading, skill building, and work experience. The faculty orients around specific monthly themes that progressively build awareness, soft skills, and experiences that are age appropriate. Sixth and seventh graders, for instance, begin to understand their interests and explore career possibilities. They learn how to “brag” about their experiences, which is the foundation for their resume in later years. Students learn the foundations of financial literacy, and they practice professional communication skills and mock interviews. In ninth grade, students are introduced to the internet-based career exploration tool, Career Cruising, build their resume, and begin career research and job shadowing. Tenth graders are matched with a career mentor and may have a ten-hour practicum.

### ***Person Centered Approach***

The TAF Academy model is rigorous in its structure but highly flexible in how it works with each individual student. Be it academics or career connections, the student experience is customized to his or her needs and interests. Students who need additional academic support have access to tutors – teachers, alumni, or volunteers - who are available both inside and outside of the classroom. All students attend a forty-five minute advisory block three times a week, led by one of their academic teachers. This time includes academic check-ins, college planning, and social/emotional development. Students focus on a sequenced plan for career exploration activities that tie to their interests.

This differentiated approach is particularly evident in the student internships in junior and senior years. Every student has an opportunity to have an internship or worksite experience. The priority for these internships is that they are meaningful, hands-on experiences where interns can learn about workplace norms and communication skills. The TAF program manager matches internships to career interests. About a quarter of the internships are paid, as TAF staff look for employers with quality experiences that also offer wages.



WENATCHEE SCHOOL DISTRICT, SKILLSOURCE, AND WENATCHEE LEARNS CONNECT

# WENATCHEE LEARNS

### CRITERIA

Business/Industry and Community Based Organization (CBO) Connections

### FRAMEWORK

- Career Awareness
- Career Exploration
- Career Preparation

### STAGE

Established

### QUICK FACTS

**Location:** Wenatchee

**Target Population:** In-school (elementary through high school) students and Opportunity Youth

**Numbers Served per Year:** Over 3,500

**Program Duration:** Varies

**Funding Model:** Blended; core funding includes local levy funding, WIOA, Carl Perkins, Open Doors, basic education funding, private donations, and local community grants

**Year Started:** 2013

**Website:** [www.wenatcheeschools.org](http://www.wenatcheeschools.org), [wenatcheelearns.com](http://wenatcheelearns.com), [skillsource.org](http://skillsource.org)

### PROGRAM SUMMARY

Wenatchee Learns is a comprehensive community initiative to prepare every school-aged youth for success in the 21st century. This regional confederation of related programs shares a purpose in transforming the city’s educational delivery system. Building a cohesive, effective career connected learning system for all students is one of the bedrock methods to reach this vision.

Wenatchee Learns emphasizes a personalized approach in a multi-dimensional solution to career learning. There are three essential legs to this strategy: the Career & Technical Education (CTE) Department of Wenatchee Public Schools leads strategies for in-school students; SkillSource manages Opportunity Youth strategies; and Wenatchee Learns Connect cultivates industry relationships across a continuum of work experiences.

The personalized learning system in Wenatchee Public Schools includes flexible schedules, authentic learning through STEM and project based learning, and expanded career awareness opportunities for all students. Project-based learning engages students in solving real problems in the community. Wenatchee’s CTE Department provides leadership in supporting career connected learning for all students. It developed the district’s College and Career Readiness direction for 9th-12th grade students and leverages its access to technology, industry advisory committees, and curriculum expertise in project-based learning.

Wenatchee is on a path to make career connected learning opportunities available to students in every grade. Partnerships provide career exposure at younger ages, like the 5G Future Fest, a career exploration experience for fifth graders and the Pizza, Pop and Power Tools program that gives middle school girls hands-on experiences in the non-traditional careers. High school students have access to internships, jobs shadows, college mentors, and career connected learning events.

SkillSource is a community based organization that operates a Learning Center in downtown Wenatchee that reengages 200 Opportunity Youth a year. Basic skills instruction, career planning, GED preparation, credit recovery, case management, support services, and access to workplace training are available onsite. Many students take advantage of paid and unpaid work experiences and internships to develop teamwork, punctuality, cooperation, and self-awareness and gain confidence. Partnerships with juvenile justice, vocational rehabilitation, foster care, social and health services, and other community agencies support youth. Strong working relationships with other secondary schools enable students to receive diplomas and vocational/technical credentials.

## UNIQUE FEATURES

***Challenge: A system lacking in capacity, career connected focus, and partnerships that limit opportunities for personalized learning for all students***

***Wenatchee Learns Strategy: Harness the power of a collective impact model***

In 2013, the Wenatchee School District launched a strategic planning process that included the voices of more than 4,000 youth, parents, school personnel, and community members. This input painted a vision where youth are fully prepared for life in the 21st century economy. Wenatchee Learns is the result of this process.

Community input informed strategies for an educational delivery system with genuine career exploration and career pathways for all students. Reaching this vision required redesigning the entire educational pathway for youth. This generated a dramatic shift from academic and college preparation to preparation for life. Wenatchee Learns expanded the definition of “teacher” to include businesses, parents, and other skilled volunteers. Educating youth to thrive in life is considered the responsibility of the entire community.

The result is a confederation of programs that demonstrate the core principles of a collective impact model. Wenatchee Learns Connect, SkillSource, and Wenatchee School District’s CTE Department form a centralized leadership structure charged with realizing the shared vision. Leadership, including from the Wenatchee Public School Superintendent and the Mayor of Wenatchee, foster a culture and ecosystem where career connected learning is nurtured. The vision is proactively embraced by key community organizations and partners.

There is strong trust and continuous communication among partners. Cross-sector coordination allows for mutually reinforcing activities. Whether it is informing career connected learning for high school students or leveraging resources for drop-out youth, the activities fit in an overarching plan that is coordinated and clear on its outcomes for youth. The model allows for ongoing adaptation to meet the needs of youth and businesses. The size of Wenatchee aids the likelihood of success – there are strong personal relationships and few hoops to jump through to go from idea to implementation of opportunities for students.

## CRITERIA FOR HIGH-QUALITY CAREER CONNECTED LEARNING - PROMISING PRACTICES

***Business/Industry and Community Based Organization (CBO) Connections***

Prior to 2013, the Wenatchee area lacked the infrastructure necessary to create learning partnerships with industry across the entire community. Resources were realigned to fill this gap. With the encouragement of the community, the Wenatchee School District board redirected levy funds to hire staff and to create Wenatchee Learns Connect – the backbone for critical business and community relationships.

The Wenatchee Learns Connect Partnership Center Program provides personalized learning through community-school connections. It develops business partnerships, recruits skilled volunteers, and develops career connected learning experiences that include mentorship, job shadows, internships, and career exploration events. It coordinates career connected learning events for all age groups. An online portal provides a centralized platform for businesses, volunteers, students, parents, and teachers to post or access learning opportunities.

Wenatchee Learns Connect is co-located in the Wenatchee Valley Chamber of Commerce. Wenatchee Learns Connect staff meet regularly with Chamber staff charged with member engagement. This proximity is one of the keys to success – there is ongoing potential to incubate and launch ideas. In its first year, over one third of Chamber members participated in Wenatchee Learns activities.



# APPENDIX A - DETAILED LESSONS LEARNED

Appendix 1 elaborates on the Lessons Learned found in the report. Foundational pillars of success (leadership, relationships, relevance and integration) and strategies for Opportunity Youth are not discussed here, as they are fully explored in the report. Cross-cutting themes discussed in this section:

- Comprehensive strategies for career connected learning
- Genuine employer engagement
- Opportunities in the K-12 system
- Opportunities in the post-secondary system
- STEM-oriented career connected learning
- Intentionality of program design-emerging practices
- Measurement of success and quality
- Funding and sustainability
- Other systems gaps

## COMPREHENSIVE STRATEGIES FOR CAREER CONNECTED LEARNING

Several of the programs are grounded in a vision of large scale, community-wide transformation. These programs had different areas of focus, from a regional workforce strategy in advanced manufacturing to creating one stop for employment and education services to ensure all students throughout the district have opportunities for career connected learning. These programs all have clear strategies for how they deliberately contribute to a continuum of career connected learning experiences that align with all or part of the Framework for *Career Connected Learning – Career Awareness, Career Exploration, Career Preparation, and Career Skills Training & Education*.

### Summary of findings

- Sustained leadership is required to set the tone, garner resources, and break down boundaries that impede comprehensive approaches.
- Leadership can set an institutional vision to ensure lasting change. There are risks when the vision and passion for the work are held by few people and do not become ingrained in the day-to-day work of the organization.
- Three general approaches emerged to supporting youth as they progress along a continuum of career connected learning experiences: **linking** strategies, **scaffolding** experiences, and creating **scale** and **volume**
  - Sector- or industry-specific trainings are natural platforms for **linking** to the next stage in career pathways, including employment, training, or apprenticeship. There may be opportunities to advance this work by building career pathways at earlier ages, including more career awareness and exploration activities.
  - Most programs that individualize work experiences for youth work across multiple sectors or training institutions as they link to the youth's next step on a career pathway. The individualization of this approach can make it challenging to develop up-to-date expertise across the breadth of the labor market. These programs can be supported if labor market information was easily accessible to all programs supporting youth.
  - **Scaffolding** experiences across all elements of the continuum over an extended period of time is possible in settings like schools with a strong framework that includes skills and experiences and adequate resources.
  - Community-wide strategies can effectively expand the **scale** and **volume** of opportunities available across the continuum for all youth in an area. As this can be a broad-brush approach, this strategy is powerful when combined with strategies that individually support youth along intentional career pathways over time.
- Youth and young adults benefit from improved coordination across multiple systems. This includes connecting the youth and adult serving systems as well as connecting unique systems within the youth serving sector. This coordination requires sustained effort.
- Dedicated resources for connecting roles to work across silos or coordinate services help with systems development.

## Learning Lab approaches

### Leadership vision

Sustained and visible leadership at the highest level is essential for any ongoing initiative. Elected officials (e.g. city mayors), school district superintendents, local Chambers of Commerce, and business leaders have tremendous influence in unifying a vision, bringing resources to the table and setting community and company cultures that value career connected learning. Leadership sets the tone, and effective implementation requires alignment at all operational levels. Leadership can direct staff to figure out how to use administrative or other legal requirements to accomplish the best outcomes for youth. The strong mandate from leadership also sets the expectation to work across departmental or agency boundaries, and to bust traditional silos.

### Continuum approaches

About half of the Learning Lab programs have a clear strategy contributing to a continuum of career connected learning experiences for youth that align with all or part of the Framework for Career Connected Learning. While these are not mutually exclusive, there are generally three distinct approaches, each with different assets and opportunities:

- **Linking strategies** - Programs that focus on one type of experience within the Framework and intentionally link to the next phase of a career pathway;
- **Scaffolding strategies** - Programs that work with set groups of youth across multiple experiences in the Framework, and intentionally scaffold development over an extended period of time; and
- **Scale and volume strategies** - Programs that focus on building scale through a mix of opportunities through the Framework continuum available to students across the community.

#### Continuum approach: Linking strategies

Many of the programs focus deeply on one element in the Framework of Career Connected Learning and link to the next stage phase of a career pathway. This progression fits most naturally in programs offering career preparation activities, such as internships, or career skill training and education. These experiences for youth usually range from a few months to two years in duration.

Sector or industry specific training programs, such as apprenticeships or advanced manufacturing training, are particularly strong in building links to career pathways. These models include skill competencies that prepare a youth for the next step in their career in that sector, which may be direct employment or additional training. This approach is often tied tightly to industry needs, and the pathways developed are current with labor market demands and trends.

There is opportunity to develop mechanisms for engaging youth in career pathways at earlier ages. In these instances, the overall career connected learning system would benefit by building pathways into these programs for exposure and basic skill building at earlier ages, starting in middle school. This could include more worksite tours or industry connection to middle school classrooms, as well integrating some basic industry skills into STEM learning at younger ages through hands on learning.

Most programs were not specific to a sector or industry, and use more individualized strategies to link youth to their next step. Providers using this approach typically develop expertise and relationships with employers or community colleges throughout the region that match youth career interests. Given this breadth, providers, whose day-to-day work is focused on youth, may lack the capacity to also stay up-to-date on regional labor market information that can inform career choices. Some of this information is available through hard data sources, but the most current information is usually tracked by entities “in the know,” such as the Workforce Development Council (WDC) or industry groups. Some agencies take steps to develop expertise in targeted high-demand industries. There may be benefit to developing systems or communications structures that make local labor market information easily accessible to the programs serving youth.

#### Continuum approach: Scaffolding experiences over an extended period of time

A few of the Learning Lab programs effectively tier experience and skill development through all or most of the phases on the Framework over an extended period of time, often several years. This is most easily accomplished when there is high likelihood of ongoing engagement with cohorts of young people, such as those who are in school.

Stages of career development along the Framework can be articulated with specific activities (e.g., career oriented field trips at young ages and internships at older ages) and competencies that create a continuum of experiences both structured and specific to a student's unique interests. This is powerfully demonstrated when done intentionally through a student's school experience, with progressive developmental stages through the grade levels that are structured and tracked. The student plan and interest is the heart of this work, and is best supported by frequent and consistent adult coaching. This may be more suited to a small or magnet school model, although it is possible in a large district with vision and dedicated resources for career connected learning, and community organizations with multi-age programming options.

### **Continuum approach: Creating a volume of career connected opportunities**

Other regional or system-wide approaches are demonstrating success in galvanizing a community of employers to create a wide number of opportunities at all points in the Framework. While the student experience is the outcome of this approach, the energy of the day-to-day work is to create a scale of opportunity that youth can experience at different stages of their development. Given the breadth of this approach, the challenge is to align these opportunities with an individualized, progressive experience for young people. Some youth may take more advantage of opportunities than others, or the experiences may not be tied to a larger career pathway. It may also be challenging to ensure that each worksite experience is high quality. Strong partnerships with schools that have well developed infrastructure for career counseling, and dedicated resources to support the employer experiences are helpful.

### **Collaboration across systems that serve youth**

There is a myriad of institutional systems that youth navigate. Several programs that seek to be comprehensive have intentional strategies to coordinate or streamline the connection points for youth between systems. Ideally, this is seamless from the youth perspective.

Quality career connected learning for older youth creates intersections between the youth and adult educational systems. Connection between high school (and high school aged youth programs) and post-secondary education or training opportunities is a natural bridge for progressive career connected learning. Some high school programs have developed articulation agreements or have partnered with community colleges to develop new classes for co-credited programs. Many programs are building comprehensive support for the transition to post-secondary education and training. More examples of these strategies are in Opportunities in Post-Secondary Education, below.

There is a soft boundary between the youth and adult workforce systems. Some programs are integrating with WorkSource, the adult one-stop employment and training system, by registering high school youth with WorkSource or connecting them to training opportunities. Others are seeking to leverage business outreach strategies that are available through the WorkSource system. As some providers move from traditional "first jobs" for youth to placing youth on career pathways, the employer assets available in the WorkSource and other adult systems may be increasingly fruitful.

Some programs identify the larger ecosystem that serves Opportunity Youth, and develop strategies to bring those systems closer together in a youth-centered approach. Youth benefit from improved coordination among the key players in the ecosystem, including workforce development, education, juvenile justice, homeless and housing providers, substance abuse/mental health services and ethnic-specific organizations. Some programs are bringing those services on-site through partnership agreements, or by streamlining outreach and referral systems to reduce redundancies. As employment needs are often a motivator for young adults, partnering with these systems to provide career connected learning opportunities (especially when they are paid) that can help unify strategies and fill gaps.

### **Connecting roles**

Initiatives of all sizes benefit from structured, dedicated, and connected functions that work across sectors. What that role does is specific to the regional need and can be located in an intermediary or within an institution. For instance, it can garner resources, recruit students or problem solve within a school district. Initiatives may function as the catalyst to bring partners together across industry and education. It can translate between business needs and educational systems or schools to spark relationships and develop opportunities for students.

## GENUINE EMPLOYER ENGAGEMENT

All of the Learning Lab programs have intentional strategies to engage industry. Industry partners can speak to the career options available to youth and are motivated by their need for a vibrant, well-trained workforce. Real-world work experiences add relevancy to education and provide genuine opportunities to learn the skills most valued in the labor market. Employers were actively involved in every element across the Framework of Career Connected Learning, including hosting worksite tours, running hands-on learning projects, developing curriculum, and hiring interns and workers.

Below are some of the effective techniques shared among programs that are exceling in business relationships.

### Summary of findings

- Programs need to devote staff resources to cultivating deep employer relationships that truly understand business needs for their future workforce.
- Developing relationships at both the CEO or leadership level and across multiple departments within companies can help weather staff transitions or changing priorities, as well as set a stage for scaling.
- Offering a menu of participation options is helpful to engaging businesses of all sizes, as well as a strategy for long-term progressive relationship management. This includes light touch, low commitment options to more intensive or long-term engagement.
- Many programs are shifting their approach with businesses to emphasis career pathways rather than “first jobs.” In some situations, this can require going deeper in a smaller number of business partners rather than creating wide but less intense relationship with more employers.
- The messaging for engaging businesses needs to resonate for the intended purpose of the program as well as the long-term motivations of industry. This may vary between industry’s community interest in supporting youth to its own need for a highly-skilled workforce.
- Participating businesses appreciate their return on investment. There may be use for system-level development of analyses and materials that local programs can use to help engage more businesses.
- Youth and employers benefit when there are clear and sustained mechanisms for supporting employers in working with youth. This ranges from legal and technical support to building skills in working effectively with young people.
- Industries that share foundational skill requirements for entry level workers are potential partners for collaborative strategies with many business partners or sectors. Collaborative efforts can create relevant curriculum or leverage industry strategies for a cohesive approach. Adapting these opportunities to youth at younger ages is a potential next step.

### Learning Lab approaches

#### Reaching employers and sustaining relationships

Employer relationships need constant nurturing, and effective programs dedicate staff to cultivate relationships with local businesses, although it is more common to integrate that responsibility into other jobs, such as program coordinators or case managers. Either way, the key to those relationships is the investment of time to truly understand the business, its values, the skills needed in its workforce, and its long-term workforce needs.

Programs that seek to scale often benefit from cultivating relationships at high levels in a business. CEO-level enthusiasm for the work is important to engage the participation of the whole company. In many business communities, there is a healthy mix of collaboration and competition in industry sectors. This can create momentum in the community where businesses bring other businesses into the initiative.

Some programs have made strategic decisions to go deeper with fewer businesses rather than a wider but lighter touch engagement with many businesses. Either may be appropriate to the program intention and population. Focusing on fewer businesses may offer more opportunities to develop career pathways within the company and to customize youth experiences around unique employer needs, particularly in large companies or major industry sectors.

Business relationships start from personal relationships and progressive trust. There is a challenge, however, when corporate interests change, or internal allies in a company leave. Particularly in large companies, developing relationships in

multiple departments and with leadership, helps to build a strong foundation to weather changes.

### **Supporting participation**

Many high-quality programs balance individualized attention with defined avenues for business participation. These can range from light touch experiences that have low risk or low levels of commitment to high intensity experiences that require increased commitment of time and resources. Having options for business partners, including mentors, is an effective strategy to support scaling the relationship over time. This helps businesses of all sizes find easy ways to participate. It also helps to “stair step” a relationship. Early successes in lighter touch experiences, like speaking in classrooms, create momentum for future engagement that can lead to internships.

Programs with strong employer relationships are thoughtful about every interaction. They make communication with business partners easy. For instance, it is often helpful for there to be a single point of contact for employers to help get questions answered or to coordinate programming. Effective programs also celebrate their business partners, which recognizes their civic contributions, validates their experiences and helps promote them to the community at large.

### **Shift from job development to meeting business needs**

Several programs have intentionally shifted their orientation for the purpose of work experiences. Rather than focus on an internship or a first job that gives youth a taste of employment and a place to learn soft skills, these programs are looking for opportunities that may lead to longer-term career pathways in high demand industries. To support this focus, several programs have changed how they approach businesses. Rather than emphasizing how a business can help a youth, programs focus on finding workforce solutions to help fill skills gaps. Industry can offer opportunities to bring in skilled, effective young people who are a workforce asset today and in their future. This orientation may not be appropriate for every program model or in geographic areas with limited industry; however, the intentionality of emphasizing career pathways is noteworthy.

Some programs have increased the use of On-the-Job Training (OJT), which reflects a strong career pathway approach to experiential learning. Employers may pay all or part of the training wage, or wages may be paid from other sources such as WIOA. Unlike internships, employers enter the relationship that the youth is an employee or prospective employee. The youth receives hands-on job training at the worksite. Ideally, there is a job offer at the end of the experience, as the young person has demonstrated the skills and abilities to do the job.

One of the overarching messages is the return on investment (ROI) for employers in this approach, be it implicit or explicit. Participating businesses in these programs invest the upfront costs of time and resources in the long view of their business needs. However, few programs have the resources or technical expertise to develop high-end materials that demonstrate ROI in multiple sectors. There may be system-level comprehensive analysis or material that programs around the state could access to help them engage new business partners using an ROI framework.

### **Supporting employers to work effectively with youth**

Many effective programs understand that a successful experience for business is a well-supported experience. This includes addressing business questions about working with young people. Some of these questions are legal or regulatory. Many programs assist businesses in understanding laws related to hiring minors, including what minors can or can't do on a job site. Some programs put youth on their own payroll to ease employer concerns on liability.

Many high-quality programs account for the reality that most professionals do not spend their working day with young people and may not be fully prepared to work with adolescents. Programs invest in tools and training to support the adults to work effectively with youth. This starts with clarity of roles in relationship to the youth. There are different expectations and techniques required of mentors and supervisors, for instance, and it is important to be clear what is asked of the adults on a worksite or in coaching relationships to youth.

Many business professionals engaged in career connected learning opportunities also appreciate support on how to work with adolescents. This can include learning how to bridge communication differences, engaging youth, or giving effective

feedback. It also helps to orient adults to youths' background and academic experiences, as it may be different than their own experiences. Business partners often design and lead hands-on projects in career connected learning experiences. It is helpful to offer tips and techniques in designing effective projects that are age appropriate in these models.

### **Leveraging common skill needs across industry**

Many sectors share a basic set of entry level technical skill requirements. This creates an opportunity for collaboration among multiple businesses and programs to address a shared need. For example, several programs that promote pathways into advanced manufacturing recognize that foundational technical skills are shared across the industries. Industry has led or partnered with educational experts to develop curriculum and work experiences that build those specific competencies. This approach is relevant across many industry sectors that are looking to meet long-term workforce goals. It is also an effective strategy to engage more employers in career connected learning.

The developments in advanced manufacturing illustrate potential next steps, both for this sector as well as other industries. Several programs developed curriculum or training at an entry level worker standard. Curriculum and training can be leveraged to build out career pathways. For instance, the AJAC youth apprenticeship pilot in Yakima will use the manufacturing Core Plus curriculum for foundational skills. One next step may be to modify industry-approved curriculum for younger students. For example, sections of industry approved curriculum appropriate for high school students can be adapted for middle school students to prepare them to enter high school with basic skills and knowledge.

## **OPPORTUNITIES IN THE K-12 SYSTEM**

Twelve of the Learning Lab programs connect directly to middle or high schools. These are operated either directly by a school or district or through partnerships with outside entities (community based organizations or intermediaries). These programs are intentionally designed to make academic learning relevant to students. They incorporate professional development, tie academic curriculum to real issues in business, or offer opportunities to expose youth to how academic skills apply to jobs in their communities.

Repeatedly, students interviewed during the Learning Lab visits responded very positively to these experiences. Relevancy is particularly useful for Opportunity Youth or students who do not see themselves on a traditional college track, as it can be the hook that re-engages them with learning.

In the context of school settings, experiences point to structures that can support or impede quality career connected learning.

### **Summary of Findings**

- Teachers benefit from professional development opportunities and flexibility to develop curriculum that is relevant to real work industry questions or needs, including soft skills valued in the work world. This will require both commitment and resources to provide teachers with the expertise needed.
- Work experiences that are tied to industry practices can be credit-bearing when aligned to academic standards. Math, science, and English language arts are part of many quality career connected learning experiences.
- Schools are challenging to navigate, both within districts and for outside partners, and have structures that don't align to business availability. It is helpful to have points of contact and dedicated assistance to navigate challenges.
- Career and Technical Education departments are rich in assets that can be leveraged for holistic career connected learning experiences for all students.

### **Learning Lab approaches**

#### **Leadership, culture and support**

The culture of a school or district can set the tone for the value of career connected learning. As several initiatives demonstrate, school district leadership creates the environment that values experiences both in and out of the classroom. Career connected learning works best when fully integrated into an academic experience for students. If career connected learning is perceived as an "add," it will be locked in competition with instructional time. Schools with a focus on academic

achievement and “college for all” may miss opportunities to expose students to a range of STEM and middle skill career options.

Outside of Career and Technical Education departments, it is not usual to find teachers who have worked in industry for any length of time. That personal experience outside of the classroom can help teachers in enhancing curriculum or coaching students on career options. Expanding professional development to include mentorship by business professionals, externships or worksite visits can support teachers in applying career exposure into their lessons.

Making career connected learning opportunities available for all students will require that teachers through all grade levels are equipped with the information and resources they need to do this successfully. This career-related expertise will require instructional leadership that values the experience as well as the resources to support professional development, including funding for substitutes, release time for experiences and curriculum development. Some of the teachers used their personal time to develop an understanding of local industry and jobs available to their students. This is admirable but not scalable.

### **Classroom experiences that teach both academic and work skills**

Skills needed to be a successful student may be different than skills needed to be a successful worker. Students benefit when classroom instruction reinforces both skill sets. Classroom-based projects can integrate soft skill development, such as how to create a punchy PowerPoint presentation in a business setting, write a professional email, or how to approach a supervisor with questions.

There were several techniques for embedding career connected learning into the curriculum to align with academic standards. This effort helps students understand the “why” of their studies in new and exciting ways. Light-touch approaches include tying guest speakers or field trips into a larger curriculum arch. More intensive strategies use real business challenges or examples through project based learning, and award credit because the academic standards are aligned with business skills. Programs dedicated significant time to work across educational experts at the state or district levels and industry to align math, science and English language arts standards into the career connected learning experiences. Regardless of the approach, the key is to tie learning to real industry issues and professionals.

### **Support navigation of schools and problem solve student barriers**

Matching students for specific career connected learning opportunities that advance their goals requires support. Navigating schools to offer opportunities to students is challenging, particularly in larger districts or across wide geographies. Several Learning Lab programs noted that there is no streamlined way to identify access points for students. Even when there is leadership and enthusiasm, there is no easy way to connect with an administrator or teacher who is in a position to partner on a project. These connections are frequently relationship based and differ school to school. While there is no single solution to this challenge, it is very helpful to have clear points of access and communication protocols to help navigate schools and target students.

Several programs noted that creative problem solving is necessary to offer certain career connected learning opportunities in partnership with schools. Supporting student work experiences at a worksite might need to take place during business hours, which then requires flexibility in student scheduling. Transportation to worksites or experiences is a common barrier. Some projects benefited from school district-level administrative support, such as technical guidance or relationship building departments.

### **Integrating Career and Technical Education for career connected learning for all students**

The Career and Technical Education (CTE) departments are a tremendous asset to enhancing career connected learning opportunities for all students. In some school districts, CTE is a siloed effort, and the expertise is limited only to a subset of students. However, districts with clear visions on career connected learning for all students have removed the barriers between CTE and other core academic departments. CTE has employer advisories with current industry knowledge and relationships with local businesses. It also has access to career readiness curriculum and skills, aligning instruction to student career interest. These assets can offer creative experiences that align to the world of work for all students when integrated with the full academic experience.

## OPPORTUNITIES IN POSTSECONDARY EDUCATION

Postsecondary education, including community colleges, universities, and extensions, are natural partners in career connected learning for students and young adults across the age and skill continuum. Students take campus tours and enroll in training programs. Programs have partnered with postsecondary education for both high-school-aged youth as well as young adults to support career preparation and skills training.

### Summary of findings

- There is a mix of opportunities available in partnership with postsecondary education that can be developed with shared values and flexibility.
- In addition to connecting youth with postsecondary training available on campus, there are multiple avenues to leverage academic expertise for credit or specialized programming:
  - Providing instructional/content expertise in programming for STEM learning
  - Creating credit bearing basic skills/career readiness programming for high school students
  - Awarding credit for skills training provided in community based programming that is aligned to college standards
  - Creating undergraduate and graduate level academic classes that support the field-based learning of STEM interns
- Postsecondary students benefit from partnerships that can provide targeted student support, including transition assistance, access to internships or mentors, or instructional design to meet the specific needs of the student population.

### Learning Lab approaches

#### Shared vision and values

Programs from across the spectrum – secondary education, community based providers, apprenticeship programs and government agencies – demonstrate synergistic relationships with post-secondary educational institutions. This requires the right match with a post-secondary institution, which includes leadership support, shared values or a commitment to hands-on learning. Developing effective post-secondary experiences take time and flexibility, as partners need to understand parameters and requirements of all institutions involved. A willingness to experiment and be flexible with the design of the class experience is also helpful, particularly in developing programs for youth who have not been successful in traditional academic settings, such as Opportunity Youth.

#### Leveraging instructional expertise

Several Learning Lab programs utilized post-secondary opportunities in several effective ways. Washington State Extension added instructional support and materials for hands-on community based programming. Programs have partnered with colleges to develop articulation agreements and new classes that award credit for high school and college-aged students. Specialized programming can be developed, either through leveraging college funding or through contracted services, that add to the experience for young adults. Programs have leveraged existing college funding to customize instruction and provide educational pathways for youth, both on campus and in community settings.

#### Student support

Partnerships benefit post-secondary institutions in succeeding at their primary missions as well. Post-secondary institutions have unique expertise in education, yet may not have the depth of expertise or infrastructure to provide the range of student support needed. Community agencies that can connect to industry, or have expertise in supporting youth, help to enrich student experiences. Partnerships can provide access to internships or mentors that help students envision career pathways.

There are several emerging practices on college navigation that support student success. The transition to a college setting, whether it is a large university or local community college, is a complicated and intimidating transition for many students. Sustained, individualized efforts should begin with college exploration and financial aid and continue into the first several semesters to help students settle into new routines and balance competing priorities.



Program strategies include a mix of academic and individualized support services co-located on campus or even in the classroom. While educational institutions have expertise in instruction and content, the design of programs can be enhanced when informed by partners who have expertise in the unique issues of the student population, including Opportunity Youth.

## **STEM-ORIENTED CAREER CONNECTED LEARNING**

More than half of the Learning Lab programs have deliberate STEM strategies woven into their programming. Of those, about half are explicitly focused on STEM, as their primary purpose is to support youth in exploring STEM careers. The rest include STEM careers into their mix of program options. They weave STEM skill development and exposure to STEM careers as a component or unit, but it is not the exclusive focus of their efforts. STEM focused programs include middle and high skill career options that may or may not require a college degree.

STEM-related industries are willing partners in supporting career connect learning efforts. Part of this motivation is their need for a pipeline of workers in careers throughout industry that require a wide range of education.

### **Summary of findings**

- STEM career connected learning is relevant for all youth, from traditional college track students to Opportunity Youth, which opens doors to middle and high skill career options.
- STEM industries are highly engaged in several Learning Lab programs. Some areas have successfully leveraged intermediary organizations to access a range of STEM industry partners.
- STEM career connected learning is highly applicable to hands-on learning and can have a unique impact on younger age groups to engage students with their science studies.
- Industry partners can lead creative hands-on activities with youth with the right support. Integrating industry-informed STEM practice into instruction requires support for teachers, including professional development or linkages to industry partners.
- STEM mentorship is effective at helping youth see themselves in STEM careers. The nature of the mentoring relationship changes depending on the age of the youth. It is helpful when youth have mentors that relate to them, demographically or through their career interests. Finding this match, however, is challenging.
- There has been growth in advanced manufacturing and pre-apprenticeship/apprenticeship models that provide career pathways to high-demand STEM careers.

### **Learning Lab approaches**

#### **Engaging all youth**

Learning Lab programs provide STEM career connected learning for youth with a wide range of skills and interests. Some programs provide career connected learning opportunities that highlight high skill, high-wage careers requiring a college degree, such as medicine, engineering or ecology. However, several programs are building career pathways in STEM related fields that can lead to middle skill careers and do not require a college degree. These programs demonstrate that this emphasis can resonate for youth at all points along their development. Some programs for Opportunity Youth use STEM careers as the platform to engage and connect with youth who have been disconnected from education and the workforce. These programs use hands-on experiences, such as agriculture or ecological restoration, as the entrance to career pathways. Partnerships with secondary education helps to solidify that the STEM skills learned are scientifically solid, and have potential to award credit that can be applied for further study.

#### **Connecting to STEM industries**

Connection to STEM industries is essential for quality learning experiences at all points across the Framework. Some areas have leveraged their STEM Networks to open doors to industry partners for worksite tours, career presentations, and internships. Other strategies include accessing professional associations and plugging into professional networking events.

#### **Project-based learning**

STEM career connected learning is well suited to project-based learning approaches that integrate academic learning with

applications from the work world. Programs have used project-based learning across age groups, from middle school to young adults. One successful method is to have industry partners develop and lead short term projects (e.g., professionals coming into classrooms to lead activities, or school groups participating in hands on activities led at worksites.) This exposure at early ages – middle school or younger – can create relevance for the sciences at those young ages.

Another method is to have structures in place in which industry can inform instructor led projects. STEM teachers may be grounded in science and yet may lack the industry connections to make their classroom experience relevant. They benefit from a combination of assistance in connecting to industry and professional development that informs their instruction. This partnership might include using STEM industry product samples for experiments or industry equipment for classroom based lessons that tie to applications in the labor market. This requires dedicated staff with expertise to make these connections and resources for professional development. Teachers are well equipped to maintain relationships with industry partners and to integrate their expertise into the classroom, but need assistance in building the initial relationships.

### **STEM mentorship**

STEM mentorships also emerged as a promising practice at both the secondary and post-secondary education levels. Recruiting and supporting mentors require infrastructure and expertise. The nature of the match to a mentor can vary depending on the age and interests of the youth. At younger ages, mentorship serves to deepen understanding about possible careers and to learn about career possibilities. Older youth, including college students, benefit from connecting to mentors in their area of interest. This experience can help a student understand the unique elements of work in that field and to demystify some of the unique talking points or tips to getting hired in that industry.

Some programs are taking extra measures to recruit diverse STEM professionals. Like all mentorships, having an adult who can relate to a youth's experience helps the young person see themselves in those careers. Some of this may reflect racial or ethnic diversity, and programs can support mentors by coaching them to tell more of the "stories" of their career paths, especially if they have been non-traditional.

### **Advanced manufacturing and apprenticeship models**

There is also development in advanced manufacturing and the building trades that include strong STEM grounding and lead to high-wage, middle skill careers. Four programs focus exclusively in these areas, offering curriculum, internships, and apprenticeship/pre-apprenticeships. These programs have worked with educational partners at the secondary and post-secondary levels to align with academic standards and award credit for STEM learning that occurs through career connected learning experiences.

Youth apprenticeship and pre-apprenticeship programs are emerging as promising practices for youth and young adults to access on-the-job training that leads to middle skill, high-wage careers, including careers in the STEM field. There are several key characteristics of apprenticeship that set it apart from other training models. Participants are paid to learn through on the job training experiences, usually over an extended period of time. While there is classroom instruction, most of the education occurs in a very structured way under the guidance of a master craft person. Programs have a relationship with a registered apprenticeship program and have relationships with local employers.

Given the intensity of the apprenticeship model, these projects each devoted significant planning time to engage local industry and work through complicated logistics with educational partners. Youth apprenticeships require a unique body of expertise and relationships, including reviewing labor laws, aligning industry and academic curriculum, meeting standards for apprenticeship, and engaging employers at a high level of commitment.

## **OTHER EMERGING PRACTICES**

Many effective practices and creative solutions are highlighted in this report through the case studies. This section pulls out a few practices of note that reflect intentionality of program decision to achieve impact and quality.

## Summary of findings

- High-quality programs build in strategies and structures to navigate a range of planned and unplanned **transition points**. This includes transition to postsecondary or immediately engaging youth who disengage from services.
- All programs encourage **soft skill development** (communication, team work, problem solving, etc.). Programs emphasize different soft skills, and many create their own tools. There may be benefit in having content or tools available across the system. High-quality programs share a rigorous approach to soft skill development.
- **Trauma-informed care** is emerging as an effective practice in some programs serving Opportunity Youth. There may be high value in expanding these concepts to other youth-serving institutions.
- **Adults** working with youth need support and ongoing professional development, including clear frameworks and standards for their roles.
- Intentional strategies to engage **families** can help them support their child's career development and reduce barriers to participation.

## Learning Lab approaches

### Transition points

High quality programs intentionally structure services around challenging transition points for youth whether they are natural, planned transitions or unplanned. Planned transitions are supported through specific actions that prepare youth for success on the next level of their career pathway. They ensure that youth have had the experiences to make informed decisions and the opportunities to learn foundational skills to be successful at the next stage. It also includes ensuring staff, resources and tools are available around major transitions, such as transitioning to post-secondary education.

It is important for programs to develop strategies for unplanned transitions, particularly for out-of-school or Opportunity Youth who may not be connected to other supportive systems. This includes building intentional systems to identify when a youth disengages from services, and having immediate action steps and responsibilities to reconnect with youth to engage them in services. This requires staff flexibility or partnerships to do community outreach to find youth.

### Soft skills

Soft skills frameworks are not a new idea in career connected learning, and industry repeatedly stresses the value of personal attributes like work ethic, communication or "21st century skills." Every program in the Learning Lab has some element of soft skill development, although they may emphasize or prioritize different skills. These differences make sense; it gives programs the opportunity to customize to developmental stage and industry. At the field level, there may be value in identifying a comprehensive framework of soft skill development as well as industry specific soft skills, with supporting tools, resources, techniques, and assessment methods that can be applied across a range of approaches.

There are many different approaches to the delivery of soft skills across the programs and several elements that high-quality programs share to ensure that soft skill development is not left to chance:

- Clarity that defines how each specific soft skill is demonstrated that is shared with both the employer and youth.
- Clear structures for accountability, including role clarification, on what soft skill content to focus on and how to deliver it.
- Assessment tools that are scored on a scale that help employers assess youth skills with consistency.
- Opportunities for youth reflection on their own learning and challenges.
- Multiple opportunities for feedback and clarity for youth.
- Training or support for adults working with youth in how to give feedback and coach skill development.

### Trauma-informed care

Trauma-informed care is emerging as an effective practice, particularly in programs that work with Opportunity Youth. Using a trauma-informed model may make it possible for some youth to build the foundational skills necessary to benefit from career connected learning opportunities. Trauma-informed care demands high intentionality on processes, experiences, the organization of space, and how staff plan and communicate with youth who may have experienced trauma. This requires sustained organizational resources, commitment, and ongoing quality improvement.

Currently, application of trauma-informed approaches is mostly limited to programs or organizations with deep expertise in youth dealing with trauma, such as homeless providers or re-entry programs. To some degree, these are populations who have not experienced success in more mainstream institutions. Less intensive application of trauma-informed methods in more mainstream institutions like the WorkSource system or community colleges, may be effective in supporting youth transitions to these systems. Trauma-informed care's high level of intentional practice could prove to be effective in working with all populations, not only those who have experienced trauma.

### **Ensuring adults have the skills to support youth**

High quality programs share a characteristic in how they support staff and volunteers. The way adults work with youth can make the difference between learning or disengagement. Up-front consideration is needed to articulate the framework or model for how each adult relates to youth through the experience. This may include, for instance, a clear case management approach, best practices in project based learning, or the parameters of the mentoring relationship. While challenging, it is effective to dedicate resources for ongoing professional development, and be clear on how new staff are onboarded to the framework. This is a funding and capacity challenge.

### **Family engagement**

A few programs incorporated intentional points of intersection with families. This helps parents and caregivers support career awareness for their children. For students participating in work experiences, it proves beneficial to orient families to what is expected of their child, including rules around attendance, communication, and dress codes. One of the challenges we heard repeatedly is that parents and caregivers may not have up-to-date awareness of the labor market and the jobs available at all levels of educational attainment to best support their children's career development. Additionally, families living in poverty have a set of daily struggles that put pressures on their children. Access to resources to holistically support the family can help reduce barriers that can limit participation in work experiences or training.

## **MEASUREMENT OF SUCCESS AND QUALITY**

Every program in the Learning Lab project is committed to understanding the impact of their strategies and ongoing quality improvement. Although there is wide variation, all programs collect data relevant to program intent. What they collect is largely determined by where their program sits on the Framework and funder requirements. There are varying levels of sophistication and infrastructure in place that are used to assess program impact and quality. Several themes exist across the field at large, although there is wide variation in how programs measure success.

### **Summary of findings**

- All programs collect data, although there is a wide range of what is collected. Some of this variation reflects where the program is situated on the Framework.
- Career awareness and exploration programs collect unidentified participation data while career preparation and career skills training and education programs collect identifiable data.
- Career awareness and exploration activities typically have data that is potentially duplicated. We can learn the number of total experiences and youth participation, but it is difficult to assess impact on any given youth over time. These programs frequently build in real time feedback loops for evaluation and program improvement to measure the quality of each experience.
- Career preparation, training, and education programs can measure impacts per individual, typically skills gained or employment. There are rigorous methods for assessing industry-validated skills in several sectors.
- There are different methods of measuring an individual youth's growth over time. These include benchmarking experiences along a set continuum and measuring progress towards youth-set goals. Both approaches have strengths and weaknesses, and some programs use a hybrid of the two approaches.
- There is a great deal of enthusiasm for better understanding the quality of the experiences for youth and employers. There is more work that can be done in measuring for quality. This would require capacity and appropriate measurement tools. The field could use resources and technical support in this area.
- Comprehensive use of data for genuine quality improvement is limited, often because funder-requirements for outcome measures aren't aligned with program quality. There is potential for shared learning and partnership

between funders and providers.

- Data collection can be complex and requires infrastructure that large institutions or backbone organizations have the capacity to provide. This complexity, however, may be a deterrent to some community based organizations that are uniquely positioned to advance an equity agenda.
- Organizational culture plus resources are essential ingredients to ongoing quality improvement.

## Learning Lab approaches

### Approaches for measuring career awareness and exploration

Career awareness and exploration program models commonly collect participation data. This is usually numbers (and sometimes names) of youth participating in a worksite tour or workshop or number of events held. This is useful in both standalone programs as well as community wide initiatives to quantify the scale of opportunities available and usage.

Understanding impact is challenging, particularly at earlier stages of career awareness and exploration. Some programs use qualitative techniques for ongoing program improvement. The most comprehensive approaches use interviews or surveys that include multiple perspectives, including youth, employer and/or instructor. It is helpful to have a clear theory of change – what does this strategy intend to do and how – and to customize the queries around that desired change. For example, can youth identify new jobs available in their community? Do they understand the educational path required? Did professionals make a personal connection with a young person?

To a large degree, that information is limited to the single career awareness or exploration experience. It is difficult to tie to long term impact. We know the experiences of a youth during a particular day, but what they do with those experiences or how it contributes to their career thinking is harder to measure.

It is also difficult to track unduplicated data for programs offering career awareness or exploration activities, depending on the program model or scale. It may be a challenge to understand if the effort is reaching new youth, or if the same youth are having multiple experiences. Both outcomes are positive, so understanding that effect is relative only to the degree it supports the program intent. For example, large scale/community initiatives that seek to offer career connected learning to all students would benefit from an unduplicated count; as would programs seeking to target youth who have been disadvantaged in accessing career connected learning. One common proxy for this measurement is to track where the event is held or where recruitment is focused (e.g., low income schools).

### Approaches for measuring career preparation, training and education programs

Career preparation, training, and education models can more easily tie individual participation with intermediate outcomes, such as employment, skills gains, credits or certifications. These models commonly use methods to measure skill attainment. Sector specific training that has industry recognized standards commonly used a framework of industry-validated skills. Many high-quality programs use assessment rubrics that include both skill and knowledge acquisition, and are typically scored by the supervisor or instructor. Ideally, there is an ongoing feedback loop with the student, time for reflection and a deep understanding of what is required.

Learning Lab programs have different models and capacities in reviewing longer-term outcomes. This is a function of capacity and funding, as it requires some time of follow up. Intensive programs with retention requirements stay in touch with participants for a period of time, which is common in programs with workforce development funding. Other programs make periodic efforts to follow up with past participants, usually through surveys, to better understand the long-term impact of the effort.

Soft skills training is a common theme across many programs, although there is no shared standard of what it means or how it is measured. There are mixed strengths across participating programs in their ability to effectively measure soft skills. Many programs have developed their own tools for measuring soft skill growth. Others have integrated soft skill competencies within their technical skill assessment systems. While having one standard list of 21st century soft skills is not desirable, as there is variation needed by industry as well as age group, there may be benefits to streamlined access to resources and tools for measurement. (This is discussed more in Intentionality of program design-emerging practices/Soft skills.)

### Measuring growth over time

There are a few different approaches to measuring youth growth over time, and some programs use a hybrid approach.

Programs that provide progressive skill development through multiple years or phases of the Framework use measurement approaches that track career connected learning experiences and skills. This approach has clear benchmarks for activities that are tracked per individual over time (e.g., they have a resume or internship).

In this approach, the measurement is whether a youth is progressing along a set of predetermined milestones. It tracks activities, but not necessarily outcomes. It is useful in directing the activities to help youth grow, and in the aggregate, understanding where the program may need to enhance its services model to build out experiences (e.g., focus on providing more internships). This approach is best complemented by mechanisms that also measure the quality of the experience (e.g., is it a compelling resume or did they master work skills during the internship).

The second approach to growth over time reflects the orientation of a person-centered approach. This is most typically found in youth development programs, particularly those serving Opportunity Youth in our Learning Lab. There may be practices here that are transferrable to the field at large.

Unlike a measurement approach that sets predetermined benchmarks, in this model the youth establishes goals that are relevant to his trajectory. These goals may be career related, or they may be more foundational (e.g., attain housing, enter substance abuse treatment, etc.). It is the movement toward progressive goals that is tracked. The flexibility is an asset of this approach, particularly for Opportunity Youth, because it is directly relevant and motivating to youth – it is what they value, not adults, systems or funders. Yet success is difficult to measure in many outcome and reporting paradigms that establish fixed benchmarks or timelines. One of the challenges is to ensure that the goals being set are appropriate and building a progressive skill set.

### Measuring quality

While most programs can measure that youth are having career connected learning experiences, the field is still developing in its ability to measure the quality of those experiences. Many programs noted that they would like to be doing more in this area if they had the capacity. Going deeper in this area requires staff capacity and use of tools to effectively measure the quality of the experience. This includes opportunities for youth to reflect on the nature of their experience, including skills gained, the quality of supervision, and what they learned about themselves during the experience. This also includes employer or instructor reflection, both on youth skill gains but also the employer/supervisor experience, including the quality of the support they received from the program to be successful in their role. While both youth and employer reflection are incorporated into many practices in Learning Lab programs, its consistency ranges from informal or periodic to more structured.

### Funder roles in measurement and quality improvement

Funding often drives what gets collected, at least as a starting point. While not a universal statement, programs with heavy reliance on government funding have measurement systems around pre-determined activities or outcomes, and programs with more flexible funding (self-funded, private donors, etc.) have less rigor but more emphasis on quality measures.

The funding community can help support measurements of success that results in real program improvement and impact on youth, and should be aware of the unintended consequences of its requirements. Most mainstream funding sources will pay for data collection and reporting, but rarely fund the capacity necessary to analyze and use data for quality improvement. Blended funding models, which are excellent strategies for building a more comprehensive approach to services, are also challenging when outcome measures and data collection requirements don't align. Programs collect and report on a wide range of data points may have different definitions, standards or points in time, which is administratively complicated. This serves the purpose of accountability – what did a funder get for their money - but it may not advance quality services.

Funder orientation to their role has an impact on how they support quality. A few programs demonstrated a genuine partnership between funders and providers that included high standards of accountability, while also working together

to improve relevance of measurements. This included funding adequate capacity for quality improvement processes and making sure data is useful and relevant to program staff as well as funders. This shift in perspective moves the relationship from compliance and oversight to a partnership which allows room for shared learning and innovation.

### **Quality improvement begins with organizational culture**

One of the most important organizational assets that drives impact is an organizational philosophy plus resources that allow for reflection and improvement. Some programs regularly bring their teams or partners together to engage with their data. The act of making meaning of their own data is a powerful structure for shared ownership of outcomes and quality improvement. Program quality and youth outcomes benefit when all staff consider evaluation as part of their job every day, and not a stand-alone or seasonal effort. It provides for healthy freedom to critique their own work and flexibility to make adjustments that lead to small and large change that improves services and impact. This takes leadership but also resources. This may require professional development and technical assistance to develop reusable tools or frameworks, and staff support to ensure that time is dedicated to these activities. While this is difficult to measure, it is an important indicator to both look for and fund.

## **FUNDING AND SUSTAINABILITY**

Every program in the Learning Lab project has a unique funding strategy and set of challenges. There are a few overall observations on strategies employed in high-impact programs.

### **Summary of findings**

- Many areas utilize a mix of federal and state resources for core funding, including BFET, WIOA, CTE funding, and Open Doors as the foundation of service models. This is especially evident in programs serving Opportunity Youth. BFET and Open Doors can be leveraged further for additional career connected learning. Federal funding opportunities may become more limited for many of these programs, depending on priorities at the national level.
- Flexible funding, with fewer restrictions or complexity than federal funding, is needed for innovation, to fill important gaps, systems building, or quality improvement.
- Flexible or pilot funding is often short term in duration. Programs can institutionalize practice or dedicate infrastructure for resource development, although sustainability or scaling can be a challenge.
- Most programs are funded with multiple funding streams. Some use a seamless method of blending funding. The most complex methods require an infrastructure to manage administrative complexity so that the youth experience of the program is unified, seamless, and consistent.
- The public-private funding model is a viable practice when it ties to industry needs and long term return on investment.
- Viewing government as a business partner with resources and workforce needs may open funding for work experiences.
- Sustainability is a challenge for all programs, although some common strategies include clarifying the return on investment, dedicating a collaboration lead for fundraising with the capacity and reputation to access resources, and investing in one time activities that have a long lifespan.
- Rural areas have significant funding challenges.

### **Learning Lab approaches**

#### **Core and flexible funding strategies**

Many programs use a mix of government funding streams for the core of their services. Several of these can be leveraged beyond current usage to enhance services or to serve more youth.

- WIOA funding, and partnership with the regional Workforce Development Council, can be an important cornerstone funding stream for Opportunity Youth, particularly with its recent shifts from in-school to out-of-school youth.
- BFET (Federal Basic Food Employment & Training – funded through the Department of Social and Health Services DSHS) and BFET RISE (a BFET enhancement grant) are accessed both by community colleges and by Community Based Organizations for training and support for low income individuals. Simply speaking, the funding mechanism

for BFET dollars is not fixed or formula based. Resources can be drawn commensurate with need, within parameters of the program. There may be additional capacity to use BFET funding for career connected learning opportunities.

- Leveraging CTE expertise and resources is a promising practice for expanding career connected learning opportunities.
- Open Doors (state funding) is funding for youth ages 16-21 who have dropped out or are not on track to graduate. This funding is increasingly being accessed to expand educational and support opportunities, including re-entry programs, in alternative models to education. Students in Open Doors programs are well served when the program model pairs with employment and case management support. There is more opportunity to leverage Open Doors funding to grow services in local areas.
- Federal funding opportunities may become more limited for many of these programs, depending on priorities at the national level.

Sustained, flexible funding is needed for ongoing professional development and to ensure strong program planning and quality improvement processes. Strategic use of flexible or less restricted funding has driven innovation or has funded essential connective tissue in some areas. YouthWorks funding, for instance, has been used to fill gaps in existing programs by providing additional capacity, and has funded new strategies such as college transition for Opportunity Youth.

Very few programs have little or no reliance on grants or contracts. More often, organizations rely on corporate or foundation grants, and to a lesser degree, government funding to fill gaps, fund small projects, or pilot ideas. Pilot funding may be short term in duration and challenging to sustain unless there is a long-term commitment by the funder. This is a challenge to stability or ability to scale. Although this is only part of their overall revenue strategy, a couple of the programs have assets that they can leverage to generate revenue through sales or fees-for-service that can be reinvested back into programs.

### **Multiple and blended funding strategies**

Many initiatives use multiple funding streams to support the program. Most often, the different requirements of the funding result in variations in the services that youth receive. For example, some participants may be eligible for support services while others are not.

Some programs use a more integrated blended funding mode. At its most complex and wide reaching, this requires a sophisticated infrastructure to manage multiple tracking and accounting requirements. This also requires the use of flexible funding to soften the limitations that come with certain core funding streams so that there is no distinction in services provided. A few of the programs have figured out the back-end logistics of their blended funded model to present a large scale, seamless program to the youth participating in services. Youth experience a program with a single set of eligibility requirements and cohesive services, not a set of disparate requirements, uneven services or different program names per funding stream.

### **Public-Private Partnerships**

Several Learning Lab programs are supported fully or in part through a public-private partnership funding model. Dedicated public dollars match private investments. There are several models for use of the funding, from paying for program staff to investing in curriculum development to focusing private industry investments on youth for work experiences. Anecdotally, an important motivation for industry investment is recognition that it needs a pipeline of skilled workers (including reaching a diverse workforce) and a long-term view of its return on investment.

### **Government as a business partner as well as funder**

Government as a funder of services is a clear and longstanding role. In some areas, local government has increased their dedicated investments in career connected learning to back up their policy priorities to support quality educational workforce development for young people. The funding is more secure if it is incorporated into government budgets as part of a general fund expenditure rather than a special grant or initiative. Education levy funding is another potential funding option in districts with strong visions for career connected learning.



An emerging practice is to utilize government as a business partner, which has the potential for accessing additional resources for work experiences at scale. There are functions that state or local government as well as schools must provide as part of its operational responsibilities, but doesn't need to hire full time staff to do, e.g. parks maintenance or wetlands surveys. There are likely many untapped opportunities with government departments to assess staffing or crew needs and develop work experience programs that provide multiple public benefits. This is operational funding, not youth development or youth employment funding. This would require leadership and vision, as well as a commitment to working through a myriad of technical or human resource questions.

### **Sustainability practices**

There is no single method to ensure sustainability, which is a challenge to programs in the Learning Lab. In fact, strategies to sustain or grow the work naturally change over time. The strategies above, such as maximizing a core government funding or building public-private partnerships, are used both to launch new ideas as well as sustain existing programs.

- Many programs have a clear method to demonstrate return on investment and have regular communication and engagement with funders, decision makers, and internal advocates to keep their programs on the radar screen.
- Some programs have clear roles and responsibilities for fundraising which helps to harness resources, particularly in collaborative approaches. This includes identifying a lead for sustainability. The role is best served when the lead agency has the fundraising capacity, a strong reputation, and relationships with public and private funders throughout the region or beyond.
- Many programs partner with other organizations, including large institutions, for elements of their programming. Partnering not only brings new kinds of services or expertise into the program, but new institutional relationships that may open doors to different funding streams. Partnering with a university, for example, can open access to national STEM or demonstration grants that fit the purposes of the career connected learning program.
- Some programs identify what processes or information can be codified for future use. These programs develop materials, purchase equipment, document processes and content so that they don't need ongoing staff support. This may include curriculum development or training tools, for instance, or making materials available online for wider distribution.

### **Funding challenges in rural areas**

Rural areas in particular, are challenged by lack of funding to sustain the work. Several programs in the Learning Lab benefit from the extraordinary efforts by passionate individuals who typically dedicate a great deal of uncompensated time to make things happen for youth. This is not sustainable in the long term, however. The investment gap includes resources needed for services to youth and capacity building. Common funding needs, like transportation, are multiplied in rural areas as well.

## **OTHER SYSTEMS GAPS**

Two issues were raised repeatedly that reflect the larger landscape. Regional and state attention to these issues could support local efforts.

### **Summary of findings**

- There is a notable rise in youth homelessness, substance abuse, and mental health issues that is challenging the capacity of many providers.
- There are community misperceptions, particularly of manufacturing careers, that discourage youth from pursuing those careers.

## **Learning Lab approaches**

### **Acuity of needs**

Across many of the programs there was a repeated concern in the rise of homelessness, substance abuse, and mental health issues. While many build partnerships to support these challenges, few programs or communities have the resources and expertise to address these barriers at the scale that they are seeing. These are often problems begging for larger systems responses.

### **Community awareness and perception**

There are subtle dynamics that influence youth perceptions of their career choices. One includes community perceptions of job opportunities within the local labor market. If given the right tools, school leader, teachers, elected officials, and parents have a role in promoting a modern picture of the labor market. They need to have realistic perspectives of the jobs available and what kinds of training are needed. Some programs are combatting outdated perceptions of manufacturing jobs as “dirty” and physically demanding, which may unconsciously discourage youth from considering advanced manufacturing careers that require a high degree of technical skill.

## APPENDIX B - ACRONYMS

Several acronyms and terms appear repeatedly through this report.

**BFET** – Basic Food Employment & Training program. This U.S. Department of Agriculture program is administered by the Washington Department of Social and Health Services. It is used for employment readiness opportunities for Basic Food (SNAP) recipients.

**CTE** – Career and Technical Education. In this report, this refers to departments in school districts as well as the content of delivering 21st century technical and soft skills in the K-12 system.

**ESD** – Educational Services Districts. These regional education units serve multiple school districts. There are nine ESDs in Washington that provide a range of support, including instructional support, business operations, data processing, and much more. This is the acronym used most frequently in the case studies.

**ESD** – Employment Security Department.

**FTE** – Full time equivalency for hiring and staffing.

**IEP** – Individualized Education Plan. This is a plan for public school children who need special education.

**L&I** – Washington State Department of Labor & Industries. This state department’s scope is dedicated to the safety, health, and security of Washington’s workers. Its relevant functions related to this Learning Lab project include youth workplace safety and hours requirements.

**OJT** – On-the-job training

**OSPI** – Office of Superintendent of Public Instruction

**Open Doors** – Administered by OSPI, this is public school funding used for dropout reengagement services to older youth, ages 16-21.

**Opportunity Youth** – Youth between ages 16-24 who are neither in school nor working.

**WDC** – Workforce Development Council. There are twelve WDCs in Washington.

**WIOA** – Workforce Innovation and Opportunity Act. U.S. Department of Labor funding that is administered locally by WDCs.



STEM Education Innovation Alliance

March 1, 2017

Meeting Location: Washington State Capitol Campus - John L. Cherberg Building, 298 15<sup>th</sup> Avenue SW, Olympia, Washington 98504

## MEETING NOTES

STEM Alliance Co-Chair Gene Sharratt welcomed directors and representatives from Washington STEM Networks, coming from ten different regions across the state.

Paul Francis mentioned a recent newspaper article, an initiative by Lieutenant Governor Cyrus Habib, on raising private funds to cover fees for advanced placement tests [*The Seattle Times*, February 15, 2017, "Group aims to cover cost of test fees for students"].

The [STEM Dashboard](#) and [2017 STEM Education Report Card](#) are available online.

### Youth Apprenticeships and Career Connected Learning

#### *Learning from the Swiss about Apprenticeship*

Suzi LeVine, *Former United States Ambassador to Switzerland and Liechtenstein*

Eric LeVine, *CEO, CellarTracker*

- Vision for 20 years of 100% lifelong career readiness
- Washington state and Switzerland are similar in size of population, gross domestic product, political structure - with slight differences in hydroelectric power energy mix and key industries
- Unemployment in Switzerland is 3% and is lower for youth, in part due to apprenticeships. Two-thirds of students go into apprenticeship training instead of 10<sup>th</sup> grade. Companies start apprenticeships with students after the 9<sup>th</sup> grade, and companies start recruiting while students are in the 7<sup>th</sup> grade.
  - 3-4 days in job and 1-2 days in academic setting
  - Apprenticeships are 3-4 years
  - Project-based learning with compensation
  - Students work with adults, get a paycheck, develop products and are part of the workforce
- Keys to success for the Swiss:
  - Diversity: Have 250 federally registered apprenticeships, from white to blue collar

- Permeability: Can do vocational track or more academic – permeability – lots of on- and off-ramps
- Certification for transferable “currency”
- Prestige – many CEOs started as an apprentice – not “those kids” but “all kids”
- Business must lead on this – and business benefits greatly from it
  - Collaborate to reach critical mass; contribute majority; participate in associations
  - Receive portion of investment returns; evaluate trainees and gain skilled workers
  - Investing into each apprentice works as all businesses participate
- Currently 5.8 million jobs unfilled in the US
  - Several Swiss businesses with facilities in US started apprenticeship programs in collaboration with community colleges
  - Established Swiss-US agreements and partnered with 30 companies that committed to bringing this model to US
    - Typically post-high school in partnership with the community and technical colleges
    - Some are returnees or re-trainees to update skills
  - Colorado is first state with Swiss model
    - Started with a boot camp in June, 2015 that inspired a key US business leader.
    - Key business leaders put together a delegation to go to Switzerland in January 2016 (Colorado’s Governor, CEOs, heads of public schools, labor, and philanthropists)
    - Set up nonprofit organization CareerWise Colorado via public/private partnership.
    - LinkedIn Youth Apprenticeship Marketplace - launching a pilot project with 50 companies who will offer over 175 apprenticeships
    - Starts in 11th and 12<sup>th</sup> grade
    - Goal to grow to 20,000 apprenticeships by 2027 (10% of high school juniors and seniors in Colorado)
    - Gives Colorado a competitive advantage in its workforce development opportunities; China and Brazil looking at model
- How do we mobilize in Washington state?
  - If you suspend reality and apply the Swiss investment and savings metrics to Washington, because an apprentice in Switzerland is 40% cheaper than a high school student and because Swiss companies invest 1% of GDP into apprenticeship, Washington could save an estimated \$668 million if two thirds of all high school students participated, with an investment of \$4.2 billion (1% of GDP) in apprenticeships by companies in Washington state.
  - Some benefits:
    - Washingtonians being lifelong career ready

- Washington state becomes first choice for business investment because of quality and quantity of labor workforce
  - Reduced recruitment costs to businesses because local talent is now homegrown
  - Decline in crime rates as people are skilled and employed
- Questions
  - What are fixed costs and long-term return on investment? loyalty – one example 50-80% retention after apprentices leave (civil service requirement); going into system but not necessarily in one place – salary to apprentice; mentorship; training
  - Colorado provided \$11 M as seed funding (combo – national philanthropies, local philanthropies, State & DOD).
  - In North Carolina group established “Apprenticeship 2000” – state just committed to fund community college aspect for registered apprenticeships
  - LeVine suggests not about tax credits to companies but about education credits via funding to institutions – US Department of Labor has site with examples
  - Regarding adult reengagement - can do apprenticeships through age 48 in Switzerland though emphasis is on youth apprenticeship – relevance in US for older apprentices is greater. Each state has career advising offices.
  - Biggest hurdles are credential consistency; prestige; creating full ecosystem for permeability; critical mass; need more than one business to avoid poaching
- Chris Reykdal – *Washington State Superintendent of Public Instruction*
  - Washington ends up reverting to our known systems and policy frameworks
  - Switzerland invests early – world language at early age rather than secondary system
  - Consider pathways – torn with 20 year ago and 100 year ago versions (seat time; high stakes exit exams; tracking)
  - Switzerland also develops braided pathways and a prestige
  - What are incentives for districts and how do we reward besides on-time graduation – do we have the courage to reward for technical pathways?
  - The framework needs to land on a policy platform that will work
- Washington State Department of Labor & Industries
  - Youth registered apprenticeship –
    - Piloting youth apprenticeships – Aerospace Joint Apprenticeship Council – Lincoln High School has 17 production technicians; culinary program in Spokane and expanding to Yakima community and technical education classes
- Glenn Malone – Puyallup School District
  - Q: 2/3 not going to 10<sup>th</sup> grade - \$3 M – how is Colorado thinking about funding?

- A: Cherry Creek Public Schools (Greenwood Village, Colorado) invested in mechanical training center
- Michael Schutzler – Washington Technology Industry Association
  - Learning on the job needs to consistently yield college credit; job certifications in tech needs to establish prestige
    - Need to help receiving institutions map demonstrated competencies to credentials
    - Need to help tech employers develop consistent competencies and standards for jobs
    - A successful adult apprenticeship program will drive tech employers to develop access for youth apprenticeships

#### National Governors Association - Policy Academy on Work-Based Learning Update

Eleni Papadakis, *Executive Director, Workforce Training and Education Coordinating Board*

- 70 organizations participating in grant to expand work-based learning experiences and some pilots
  - Historically, Washington has invested in pilots but has not been able to bring high quality programs to scale
    - Where program exist, underserved populations participate at lower rates
  - The Policy Academy's activities over the past year or so have included:
    - Define quality work-based learning
    - Developed framework and environmental scan
  - Identified programs to serve as learning labs – 22 across the state
  - Working on cultivating and nurturing relationships with businesses as co-investors
  - Developing an e-harmony type system – deeper understanding of compatibility – WorkSource Washington (<https://worksourcewa.com/>), which is designed for unemployed or underemployed to find jobs, will be likely hub
  - Governor's Summit on Career Connected Learning on May 31, 2017, will simultaneously connect 29 sites, including the meeting location at Microsoft in Redmond, and will reach about 900 people from across the state and across all stakeholder groups. Via WSU Extension Rural Economic Development Program – virtual dialogue with Governor Inslee on policy framework

#### STEM Regional Networks Update

Lee Lambert, *Regional Networks Director, Washington STEM*

- Works in computer science, career connected learning, early math and science & engineering
- Aspire to a Future Ready Washington – many partners – 10 regional STEM networks

- Partners with Washington Opportunity Scholarship and over 3,000 applications many from STEM Network regions
- Karen Borders – *Director, West Sound STEM Network (Bremerton)*
  - Want students to be globally competitive and cooperative
  - Leverage funding to scale work and provide experiences to teachers – example is Olympia STEM Pathways Partnership targeting teachers for application in classroom and leadership – 35 teachers and 18 districts – 3 year cohort – industry level technology to investigate local phenomena – K12, business, county, institutions, etc.
- Sue Kane – *Director, Apple STEM Network (Wenatchee)*
  - 3 separate cohorts of Networks – sharing learnings and best practices and foundation
  - Week-long series of events aimed at different audiences to explain needs in STEM education – example North Central Washington College & Career Expo – 9<sup>th</sup> and 11<sup>th</sup> graders – business partners meeting their future workforce
  - Legislative forum educating candidates and solicit opinions
  - Regional field trip exploring industry partners and school initiatives

#### Seattle Regional Partnership

Maud Daudon, *President & CEO, Metropolitan Seattle Chamber of Commerce*

- Bend our thought process to career connected learning and we will hit our 70% attainment goals
- SRP is a number of partners in Seattle
- Jobs, people leaving plus new jobs and a total of 3.9 M jobs in 2021
- Today employers are struggling to fill despite a lot of people not participating in workforce
- Boston Consulting Group – nonprofits and governmental; education & training; building connections; growing jobs – but not a system; some partnerships in place
  - Job seekers or employers are challenged
- Seek a region where residents can benefit from economic growth and employers have talent they need
- Bring employers together more effectively – they are eager
- SRP will convene employers to inform pipeline
- Bringing largest employers in certain sectors; workforce development by sector (health care) – review pain points, talent recruitment efforts and thoughts on developing an ecosystem and inform and improve career connected learning, mentoring, internships, apprenticeships and career pathway awareness
- Finish with sectors of healthcare, technology and manufacturing and maritime – then construction and trade



- On April 27, 2017 – Education Workshop – Seattle Metro Chamber will convene CEOs and human resources executives for a half-day of robust discussion about how to ensure that kids who grow up here are aware of, and ready for, the career pathways local employers offer.

#### Legislative Update

Maddy Thompson, *Government Affairs Director, Washington Student Achievement Council*

- March 8, 2017 is deadline for passing bills out of House of origin
- Governor’s proposal:
  - \$6 M career connected learning
  - \$6 M computer science
  - expansion of MESA in community and technical colleges
  - expansion of WSOS for professional technical students
  - State Need Grant
  - tuition freeze
- Caroline King noted Washington STEM will provide 1 to 1 match
- Paul Francis noted there are capital requests related to STEM

#### The Honorable State of Washington Governor Jay Inslee

- More pathways for careers - a lot of support and interest
- Setting the stage for transformative change
- Engaging the business community and leaders – prepare our students for the 740,000+ new jobs projected over the next five years
- Message is constant regardless of industry; critical thinking and teamwork always required
- STEM starts in preschool
- Basic funding package is necessary first
- AJAC beginning registered youth apprenticeship in Tacoma and Yakima – we have initiatives but can learn from Colorado
- Community and technical education dual credit programs provides seamlessness
- \$6 M required
- Small task force of Alliance members and others to advise Career Connect Washington - will advise Governor on career and connected learning – big task but huge opportunity to develop a new model
- When looking at Switzerland and Colorado – we need to develop a Washington plan that builds on our initiatives and culture

#### John Aultman – Office of Governor Inslee

- Placed a youth apprenticeship at the Department of Labor & Industries with the Washington State Apprenticeship and Training Council

- Expanded learning labs
- Announcements at Governor's Summit on Career Connected Learning should be good for regional components
- WSU Pathways to Prosperity hosting 27 regional sites in conjunction with Governor's Summit on Career Connected Learning
- Let John know if you are interested in taskforce
- Here is a link to Washington's new Youth Apprentice Signing Day video:  
<https://youtu.be/AqmLBE7apsI>

**NEXT MEETING**

Wednesday, May 31, 2017

1:10 to 2:10 PM

Microsoft Conference Center – 16070 NE 36<sup>th</sup> Way, Redmond, Washington 98052

Meeting held in concert with Governor's Summit on Career Connected Learning

## MEETING ATTENDEES

STEM EDUCATION INNOVATION ALLIANCE - March 1, 2017 Meeting Attendees		
STEM ALLIANCE MEMBERS		
First Name	Last Name	Organization
John	Aultman	Washington State Office of the Governor
Marty	Brown	State Board for Community and Technical Colleges
Maud	Daudon	Seattle Metropolitan Chamber of Commerce
James	Dorsey	Washington Mathematics Engineering and Science Achievement (MESA)
Paul	Francis	Council of Presidents
Janet	Frost	WSU Spokane Health Science STEM Education Research Center
Evangelina	Galvan Shreeve	Pacific Northwest National Laboratory
Caroline	King	Washington STEM
Kathryn	Kurtz	Pacific Education Institute
Glenn	Malone	Puyallup School District - Assessment, Accountability & Student Success
Mike	Meotti	Washington Student Achievement Council
Rai Nauman	Mumtaz	Student Representative
Eleni	Papadakis	Workforce Training and Education Coordinating Board
Ben	Rarick	Washington State Board of Education
Chris	Reykdal	Office of Superintendent of Public Instruction
Dana	Riley Black	Everett Public Schools
Joel	Sacks	Washington State Labor & Industries
Naria	Santa Lucia	Washington State Opportunity Scholarship
Michael	Schutzler	Washington Technology Industry Association
Gene	Sharratt	Office of Superintendent of Public Instruction/Association of Educational Service Districts Network
Brian	Teppner	Renton School District
Nancy	Truitt Pierce	Monroe Public Schools
Kevin	Wang	Technology Education and Literacy in Schools (TEALS) / Microsoft Philanthropies
Yale	Wong	General Biodiesel
STEM ALLIANCE MEMBER ALTERNATES		
First Name	Last Name	Organization
Jane	Broom Davidson	Microsoft Corporation
Nova	Gattman	Workforce Training and Education Coordinating Board
Nimisha	Ghosh Roy	Code.org
Michaela	Miller	Office of Superintendent of Public Instruction
Tim	Probst	Washington State Employment Security Department
Juliet	Schindler Kelly	College Success Foundation
Randy	Spaulding	Washington Student Achievement Council

OTHERS		
First Name	Last Name	Organization
Jamie	Allwine	Capital Region STEM Network
Cindy	Arnold	Southwest STEM Network
Kandace	Barnes	Snohomish STEM Network
Melissa	Beard	Washington State Office of Financial Management
Alisha	Benson	Spokane STEM Network
Vicki	Bogenberger	Mid-Columbia STEM Network
Breann	Boggs	Washington State Office of Financial Management
Kareen	Borders	West Sound STEM Network
Deb	Bowen	Mid-Columbia STEM Network
Mark	Cheney	South Central STEM Network
Christina	Chesnut	Capital Region STEM Network
Kat	Cirar	Tacoma STEM Network
Dennis	Conger	Apple STEM Network
Matt	Cronin	Washington STEM
Pat	Cusack	Capital Region STEM Network
Patrick	D'Amelio	Washington STEM
Angela	Dorsey	West Sound STEM Network
Doug	Dowell	West Sound STEM Network
Jack	Eaton	Apple STEM Network
Ryan	Eddy	Pacific Northwest National Laboratory
Amanda	Fankhauser	Washington STEM
Ted	Feller	Southwest STEM Network
Tom	Fitzsimmons	Independent Colleges of Washington
Krista	Galloway	Snohomish STEM Network
Dru	Garson	Capital Region STEM Network
Jesse	Gilliam	Washington STEM
Kristi	Grassman	Aerospace Joint Apprenticeship Committee
Doreen	Harden-Cato	Capital Region STEM Network
Renee	Hartman	Apple STEM Network
Lisa	Heaman	West Sound STEM Network
Vickei	Hrdina	Southwest STEM Network
Derek	Jaques	Southwest STEM Network
Alex	Johnston	Washington STEM
Michelle	Judson	Skagit STEM Network
Sue	Kane	Apple STEM Network
Lee	Lambert	Washington STEM
Eric	LeVine	CellarTracker
Suzi	LeVine	Former Ambassador to Switzerland and Liechtenstein
Meg	Lindsay	Spokane STEM Network
Ellen	Matheny	Washington Student Achievement Council
Luke	Matlack	South Central STEM Network
Daryl	Monear	Washington Student Achievement Council
Tana	Peterman	Washington STEM
Ric	Pilgrim	South Central STEM Network
Wes	Pruitt	Capital Region STEM Network
Kyle	Roffler	Tacoma STEM Network
Jenny	Rojanasthien	Apple STEM Network
Mike	Schweigert	Skagit STEM Network
Rachelle	Sharpe	Washington Student Achievement Council
Andy	Shouse	Washington STEM
Elizabeth	Smith	Washington State Labor & Industries
Nick	Streuli	Washington State Employment Security Department
Lynn	Strickland	Aerospace Joint Apprenticeship Committee
Maddy	Thompson	Washington Student Achievement Council
Margaret	Tudor	Pacific Education Institute
Gilda	Wheeler	Washington STEM