Findings from Washington's Pilot Project on Workplace-Based Learning for Low-Wage, Lower Skilled Adults

Executive Summary

More than a third of Washington high school graduates enter the workforce armed with only their high school diploma, working mostly in low-wage, low-skill jobs with limited growth potential. Too often low-wage, under-skilled working adults are not taking, or feel they cannot take, advantage of Washington's education system and expanded online learning opportunities. They are frequently left out because they are unaware of the myriad of learning options, don't have access to or understand the technology, cannot afford tuition, do not have time for school, or feel under-confident that they can actually be successful in school. Without an industry-relevant postsecondary education credential, these workers are highly likely to remain in stagnant jobs with low incomes, and no possibilities for advancement. On average, an individual today needs at least one year of postsecondary education and a postsecondary credential to have a job that pays enough to support oneself and one's family. In the meantime, Washington's employers continue to struggle to find workers that are qualified to help grow their business. It seems critical therefore that in today's economy, education and training be re-tooled to reach those most in need of it, and ensure employers get workers with the right skills for today's jobs.

The Workplace-Based Learning for Low-Wage, Lower Skilled Adults project, spearheaded by the Workforce Education and Training Coordinating Board (Workforce Board), is a pilot program intended to bridge the gap between the needs of working adults for postsecondary education, and the needs of industry for qualified workers. The premise is simple: bring education to where working adults are every day, the workplace. The criteria and implementation requirements require some shifts in how community colleges target student populations, work with industry, and deliver education. They also require a shift in how employers promote and make possible onsite learning opportunities for their employees. To test these implementation requirements, The Workforce Board with the guidance of the Workplace-Based Learning Initiative Steering Committee (established in 2008), secured a grant in 2011 from the U.S. Department of Labor to pilot three Workplace-Based Learning Laboratories. This report offers findings and recommendations from interviews with employers, college partners, community partners and participants across the three sites: Clark College; Skagit Valley College and Whatcom Community College; and South Seattle Community College. Each partnered with a unique industry, including Health Care, Early Childhood Development, and Aerospace and Defense Manufacturing.

Findings from the focus groups include strong confirmation of key design features, including:

- Strong employer partners that can commit workplace learning space, employee learning time, flexible scheduling, access to technology, and mentoring and ongoing support (including upfront targeting and promotion of the opportunity to certain employees in a way that says "you are important, and I believe you can do this," as well as ongoing support as mentors for the application of learning during work);
- College leadership and staff that can: adapt or create new coursework that is a hybrid of online, at-work and classroom learning; ensure that courses are credit-bearing and clearly connect to a viable career pathway; provide hands-on, high touch tutoring, mentoring and academic counseling; and act as coordinator for other needed participant supports;

- Ready and willing participants identified and pre-screened for success, including a demonstrated interest, and willingness to engage in online, at-work and classroom study.
- The power of the cohort model which provided formal and informal peer support, sharing and camaraderie, and
- The power of actual applied learning due to the nature of workplace-based learning being centered around the place of work and everyday work tasks and competencies.

Project Goals and Background

In June 2011 Washington embarked on a project to pilot the development, delivery and expansion of workplace-based education and training for low-wage, lower-skilled adult workers. The project relied on three community college-industry partnerships to test the concept of workplace-based learning, including the following hypotheses:

- Workplace-based learning can bridge the physical and mental distances between the workplace and the classroom so that working adults can acquire meaningful education and training that advances their careers and improves their standards of living;
- Workplace-based learning can provide new opportunities for working adults to participate in credit-bearing courses that provide a foothold into well-defined career pathways that lead to upward career mobility;
- Effective workplace-based learning initiatives are customized to the workforce needs of a target industry and the learning needs of its workers, but rely on a set of common design features including:
  - Strong employer partners within the target industry who can commit workplace learning space, employee learning time, access to technology, and leadership and mentoring for participants from experienced staff;
  - College leadership and staff that can: adapt or create new coursework that is an industry-driven hybrid of online, classroom and at-work learning; establish a learning community of necessary partners, mentors, and facilitators so participants and employers are adequately supported; and
  - Willing and ready participants who demonstrate interest and agree to participate in instructor-led, online, and self-paced learning.
- Successful workplace-based learning initiatives can inform policy and resource allocation decisions at the community college, state and federal levels that better address the issues of under-skilled working adults.

This pilot project represented the next step along a continuum of actions and advocacy spearheaded by the Washington State Education and Training Coordinating Board since 2008 focusing on workplace-based learning. In 2008 the Washington State Legislature passed ESSB 6295, creating the Workplace-Based Learning Initiative Steering Committee (Steering Committee). This committee identified policies addressing workplace-based education, including criteria for Workplace-Based Learning Laboratories. The work of the Steering Committee prepared the Workforce Board to seek federal funding to pilot Learning Laboratories in Washington. The three community college-industry partnership sites summarized in this report are the result of successfully securing a two-year grant from the U.S. Department of Labor (The Workplace-based Distance Learning for Low-Wage, Low-Skilled Adults grant).

To carry out the project, the Workforce Board issued a request for proposals, and selected the following partnership sites for participation: 1) a partnership of Whatcom Community College, Skagit Valley Community College and the early childhood development industry; 2) Clark College and PeaceHealth Southwest Medical Center; and 3) South Seattle Community College, the Aerospace Joint Apprenticeship Committee (AJAC) and Pioneer Industries.

This report is a findings report, commissioned by the Workforce Board and written by Lindsey Woolsey of the Woolsey Group, LLC. This is not a formal evaluation. Findings are based on focus groups and interviews conducted with partners and participants of each site in April 2013 (see Appendix for participants). The report includes the original intention and objectives of each partnership site, and based on focus groups, the key design features of each partnership's program, changes made during the course of implementation, suggested changes needed for program expansion or replication, and evidence of impact on the adult worker participants, as well as key education and industry partners. The report is organized by individual summaries of findings for each site, with common themes and recommendations offered as a final section.

The Workplace-Based Distance Learning project was a proof of concept initiative, and as such provided a testing ground for an expanded definition and approach to providing the critical education, skills and experience to working adults that will allow them to remain attached to, and advance in, today's labor market. This report should be considered an early assessment of the Workplace-Based Distance Learning project, and is intended for a broad audience of potential stakeholders, including employers, colleges, local workforce development centers and their boards, State boards such as the Workforce Board and the Washington State Board of Community and Technical Colleges, other policy and practice entities around the country, and federal agencies and members of U.S. Congress.+

Clark College Health Care Site-Based Learning Laboratory

Background and Key Objectives
Clark College, Corporate and Continuing Education, established a partnership with PeaceHealth Southwest Medical Center, a major hospital serving the Vancouver, Washington area to establish a workplace-based learning laboratory. The project targeted a four-county area (Clark, Skamania, Western Klickitat and Cowlitz), inclusive of urban, suburban and rural areas. During early partnership conversations, PeaceHealth initially highlighted the ongoing need for Registered Nurses, but quickly identified additional middle-skill to higher-skill occupations in need of qualified workers over the next one to two years, including: medical assistants, emergency medical services technicians, nursing assistants, pharmacy technicians, lab support technicians including phlebotomist, monitor technicians, medical technologists and surgical technologists. Because PeaceHealth is part of a larger provider network including locations in Longview and Bellingham, Washington, both partners agreed such a project would enhance participants' job mobility opportunities as well as potentially lead to more rapid take-up and replication of the model if successful by hospitals in other locations.

The partnership's goal was to engage 40 participants (most of them low-wage, low-skilled hospital employees in the janitorial services, cafeteria and transportation technician occupations; some of them certified nursing assistants) for in career interest assessment, and to enroll and support through completion 32 participants in: preparation to pass the Clark College entrance exam, remedial instruction (reading, writing, math), completion of the credit-bearing Nursing Assistant Certified program (NAC), and completion of a minimum of two credit-bearing courses

needed for application to a Clark College health care pathway program, including Nursing. Credit bearing courses could include Health Care Fundamentals, Communications in Health Care, and Introduction to Medical Terminology, and a non-credit Introduction to Anatomy course. As of May 2013, the Clark College-PeaceHealth partnership is on track having served 39 lower skilled, low-wage employees of PeaceHealth, 37 of whom enrolled in credit-bearing classes, and 13 of whom completed the classes.

Key Design Features
During focus group interviews, partners (employer and college) and participants emphasized certain core design features of the Clark College Health Care Site-based Learning Laboratory as critical to overall success. These can be broken down into four categories:

- **Participant supports** including onsite mentoring and advising, academic counseling, remedial education tutoring, personal counseling, Information Technology (IT) support and tutoring onsite, assessment testing and coaching, library space for studying;
- **Employer partner commitments** including assigned mentors (experienced staff) to each participant responsible for advising, listening, pro-active engagement of participants in conversations about their career futures, and connections to hospital resources; onsite computer labs, classrooms and library; office space for Clark College Academic Success Advocate (ASA); education and advocacy to direct supervisors of employees to ensure provision of support and flexible schedules; recruitment support from PeaceHealth Human Resources Department; a supportive IT department willing to partner with Clark College to troubleshoot online program implementation; and an initial and overall commitment from PeaceHealth to the value of learning and employee advancement
- **College partner commitments** including institutional flexibility to allow course and credit adaptation processes necessary for workplace-based learning; acknowledgement that other training providers outside of the college may be necessary to provide the right training at the right time for participant success; an IT department willing to partner with the PeaceHealth IT department to troubleshoot online program implementation; a full-time ASA onsite at PeaceHealth responsible for pro-actively engaging each participant for regular (weekly) coaching related to time management, course selection, interest assessment, troubleshooting, study habits, communication, and connection to onsite mentors; onsite tutoring for remedial education; and liaising with onsite mentors about each participant's status, challenges, and opportunities.
- **Selection of courses, tools and pacing of course offerings** including the Oregon Career Information System program and Compass assessment tool; emphasis on online learning, including orientation and ongoing tutoring and supports for using computers and online programs; high value placed on the participant cohort model which allowed for essential peer support and camaraderie across participants; flexible scheduling, self-paced learning and at-place-of-work.

The above design features represent program requirements highlighted multiple times by partners and participants during focus groups as the elements most critical to success. College and employer partners additionally highlighted three areas of surprise in terms of essential requirements for participant success. These are:

- **The true level of needed flexibility in scheduling**: PeaceHealth employees, particularly at the low-wage and low skilled levels, have little schedule security, and in fact typically do not know their shift schedules until their first Monday of each work week. This required a high level of flexibility and management by the ASA in order to adjust course offerings, weekly check-in meetings, and availability of tutoring for each unique participant. Additionally, partners and participants agreed that more awareness and buy-in from direct supervisors is needed to allow participants to have priority in shift scheduling that will accommodate class and study schedules.
- **The true level of needed remedial math**: Onsite mentors, the ASA and tutors agree this was a surprise. They report enormous amounts of personal time spent tutoring participants in basic math, and in tutoring participants on the use of the computer and the online math program. Participants report they would have had to quit entirely had the Project Manager and ASA not been available to troubleshoot and tutor. The ASA reports a need for around-the-clock (evenings and weekends) tutoring support.
- **The true level of hand-holding, coaching, and confidence-boosting:** Onsite mentors, the ASA and tutors also agreed that they were surprised at how quickly and easily discouraged this population could become. Keeping participants engaged did get easier as the program progressed, but only because participants began to see early personal success that over time boosted their confidence. Early in the program, for participants to stay engaged, they needed intensive, high-touch advising, tutoring and counseling to overcome discouragement about a poor grade, difficult work-school-family pressures, or discouraging remarks from supervisors or others.

Changes needed for expansion and replication
During the course of focus groups, partners and participants provided thoughtful feedback and ideas for improvement, based on lessons learned from the pilot program. Ideas are a mix of general feedback and very specific suggested changes. They include:

Prepare for high level of troubleshooting IT challenges
- Each course used a different online platform, which meant that participants had to learn to use each one separately, and meant that the PeaceHealth IT department had to install multiple programs, and content with multiple and different challenges of transferability from the college IT system to the hospital's (e.g. different firewalls, etc);
- Participants reported that evening access to computers onsite at the hospital would have helped, particularly because they worked shifts that were in evenings or overnight, and could have used the computers during breaks or before and after shifts.

Be clearer about expectations from and for partners, staff and participants
- Hospital and college partners agree that they needed to pre-empt the heavy workload of setting the program up by **better allocating resources and time** upfront;
- Hospital and college partners agree that they may have needed **to adjust eligibility requirements** upfront due to an overwhelming number of applications, and **build in staff time** to be able to counsel and guide applicants that were not accepted to the program;
- Partners agreed that **two Academic Advocates** were needed. This work is very high touch; needed someone to handle evenings and weekends.
- Onsite mentors were unclear about their **role and expectations**, and reported needing better training and regular meetings with each other to share ideas and tips;

- **Marketing and advertising** within the large health care institution could have been better and more accurate (most supervisors and participants had the impression this was solely a CNA program, when in fact it was much broader, inclusive of lab technicians and other occupations).
- **Better prep, outreach and partnering with managers and supervisors needed** so they would have more consistently supported flexible scheduling and accommodations. One related idea related is to create formal awards ceremonies for employees that engage supervisors more directly in the value of the program. Partners also agree that better self-advocacy coaching for participants to have confidence to approach their own manager about accommodations was also missing.
- The college believed that a partner was missing: they should have **better leveraged funding and resources from WorkSource** (American Job Centers) since many participants were already engaged there.

Establish formal communication processes and agreements between employer and college
- **Child care** changes were needed: participants report that you only qualified if you had pre-existing child care; some did not but still needed it (e.g. "it was my Mom, which doesn't count, but she can no longer do it, so technically I need it but I'm not eligible");
- The grant did not fund paying general student fees, which limited access to some resources funded by the student body—state funded resources were available. While the Clark College academic advisor ensured that all the resources needed to be successful were provided to the student by direct grant funding, such as access to computers and tutors to help with classwork, having a **college identification card** and access to all the campus resources may help some students be more successful. In the future, paying the student fees for accessing student funded resources and issuing college ID cards (which was not done in this pilot) may help a student feel more like they are truly a part of the college and, from an emotional standpoint, help them with future success.

Evidence of Impact
Workplace-based learning offered unique opportunities for participants, employers, and college partners. Below, in their own words, is a snapshot of those stated opportunities:

- **PeaceHealth, the employer,** sees this work as an opportunity to: advance current workers from within which builds staff morale and loyalty, while saving recruitment and potential turnover costs down the line; engage more meaningfully with education partners ("we now have an inside track with our college"); and promote specific occupations in need of qualified workers, such as laboratory technicians and nursing assistants.
- **Employer-based mentors** see this as opportunity to: connect to specific caregivers and workers within the institution that they would otherwise never know; and to communicate all that is available to workers, like scholarships, especially to non-clinical staff who are typically out of the loop of communication.
- **Clark College leadership** sees this as an opportunity to: break down the barriers of access to education by working adults; to motivate adults to become lifelong learners; to give them the confidence that they can learn and advance; to partner (not just serve) with industry; and to shift the definition of where and how education happens.
- **Participants** see this as an opportunity to: work and learn (education is coming to them, and they could never access education otherwise due to time, money, and time-off constraints);

validate that they *can* learn, that they have skills; access and learn about technology ("to catch up with rest of world"); and to apply new learning immediately to their job.

- o **"**This program demonstrated that I have skills and value, gave me confidence to pursue something better, which I never would have done otherwise."
- o "This got me thinking about my skills, what's in my heart, and where I truly want to be."
- o "After the communications class, I actually could relate better to patients who were frustrated or aggressive. I behave differently as a result."
- o "From here on out I am a do-er. I believe in myself. I could never say that before."
- o "I'm actually prepared to go to school. That was not the case before. I know how to balance my time and prioritize. I know my abilities, I'm confident, and I'm realistic. I know it will be hard. But it was a complete revelation to know that I am capable of having all these balls up in the air and succeed."

Two student success stories are worth noting: Roselle, an older student who had worked as a laundry attendant at the local Veterans Administration hospital and at PeaceHealth, took the CNA course offered through the grant, and completed and passed her course and state certification exam. She was immediately offered a CNA position at PeaceHealth, working days instead of nights, and earning more. Lori, a housekeeping worker at PeaceHealth, entered the program with little confidence she would succeed in school, but over the course of the program with support from mentors, academic tutors and peers, she built up confidence and her ability to successfully study and take exams in the CNA track. The instructors were so impressed with her abilities, they hired her as a CNA instructor. For Lori, the program was "life changing"

As a result of participation, the six participants (mostly housekeeping staff and current nursing assistants) in the focus group report new career pathway goals, including: sign language interpreter; nursing assistant instructor; nursing assistant; psychologist; a registered nurse (enrolling at Clark in the Fall); and an emergency room technician. Other participants report new career goals in Respiratory Therapy, Occupational Therapy, Health Care Advocate and Chemical Dependency Counseling.

Northwest Corner Professional Development in Early Learning Grant – Whatcom Community College and Skagit Valley College

Background and Key Objectives
Whatcom Community College partnered with Skagit Valley College to target employees in child care centers, family child care homes, and early childhood learning programs. Employees included child care providers (including self-employed), assistant teachers and aides earning low wages and unqualified to progress in their career due to a lack of or limited credentials. The colleges partnered with individual child care providers, early learning centers and schools, YMCA early childhood development programs, and children's learning camps. The providers and teachers targeted by the Skagit Valley site were an entirely Spanish-speaking cohort, representing a significantly underserved portion of the community and a population in unique need of increased accessibility to education and advancement opportunities.

The NW Corner project combined group classroom learning, individual online learning, and onsite mentoring and applied learning. All classes pre-existed at Whatcom and Skagit colleges. Group for-credit class options included Introduction to Early Childhood Education, Music Education for Children, and Work Experience. Online classes included STARS Basics in Child

care, Introduction to Education, Health/Safety/Nutrition, Intro to Exceptional Children, Math for Children (lab class), Science for Children (lab class), and Observation/Assessment and Recordkeeping (lab class). Hybrid (classroom plus online) classes included Introduction to Education, Behavior Management, and Curriculum Development.

As of April 2013, a total of 59 child-care employees were enrolled, exceeding the original target goal of 40 employees. Participants continued to receive face-to-face, hybrid, web-enhanced and online courses. (See list of courses at the bottom of this report.) The students are preparing to take the Child Development National Credentialing Program (CDA) exam. Educators who earn a CDA credential demonstrate their ability to nurture children's physical, social, emotional, and intellectual growth. Many early childhood development programs recognize the CDA and require this credential or equivalent college credits (12) for Lead Teacher positions. Most of the 26 Skagit scholars have now earned at least 12 credits toward their CDA. 17 scholars have earned 9 or more credits. 27 Whatcom scholars have earned at least 2 credits in Early Childhood Education (ECE). Seven Whatcom scholars have exited the program, two of whom earned 16 credits.

Key Design Features
During focus group interviews, partners (employer and college) and participants emphasized certain core design features of the Northwest Corner Professional Development in Early Learning Grant as critical to overall success. These can be broken down into four categories:

- **Participant supports** including onsite mentoring, academic counseling, tutoring, personal coaching, computer lab access and tutoring;
- **Employer partner commitments** including employer-based mentors responsible for working with employees to apply learning; in cases of independent child-care providers, mentors were drawn from other project partners such as licensors and union representatives who worked with multiple providers, and brought them together to discuss, share and learn from each other;
- **College partner commitments** including initial focus groups to assess needs of the early child care and education industry; setting clear expectations upfront of employers and employees; providing formal onsite mentor training; integrating scholars into campus life, including providing access to campus computer labs and tutoring; and acting as the lead coordinator for communication between college instructors, mentors and scholars.
- **Selection of courses, tools and pacing of course offerings** including high value placed on the participant cohort model which allowed for essential peer support and camaraderie across participants; integrating classroom with online learning, allowing scholars to be physically on campus but also flexible access coursework and tests (in addition to offering the opportunity to learn about technology and computer use); and designing mixed classrooms of "experienced, working adults" with young, no-experience college students.
    - Participant quote: This was huge confirmation for what I do. I realized that I had value to others in the classroom who had no experience. That gave me self-confidence I didn't have before.
    - Instructor quote: For the first time, I had real workers with real experience in my classroom. It added significantly to the content and diversity. It made what I was teaching real.

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The above design features represent program requirements highlighted multiple times by partners and participants during focus groups as the elements most critical to success. College and employer partners additionally highlighted two areas of surprise in terms of essential requirements for participant success. These are:

**The critical role that good mentors played*:* Employers and mentors report that the presence or lack of early and ongoing support by mentors will "make or break" the experience for participants. If participants struggle even a little in the beginning without support, they will quit. What did mentors do? They provided tutoring, access to supports, personal conversations about time management and family, access to technology, and lots of conversations about being assertive and being a self-advocate at work and school. Mentors had to get to know each participant and adapt their approach accordingly, including meeting with them at all hours in all places (evenings, weekends, lunches, coffee shops, sat in on classes with them, went to their place of work, etc.)

- "She sat down with me, helped me prioritize, helped me do the right pacing and timing of courses, explained which were available when or yearly or more often, which courses were really heavy, which ones I should take together because of complementary content, which I should take because I did well in a similar course, and then she pressured me to always do just a little bit more."

The direct and immediate application of learning: Employers, self-employed providers and mentors report that this was the biggest surprise. The design of coursework obviously hit the target, and the cohort model helped participants discuss new learning off line with peers about how to apply new learning to their workplace. Evidence of direct application of the learning by working adults may also be an indication that in fact adults already working in their field possess a higher level of readiness for application of learning than younger, inexperienced students.

- "I changed my block area totally. Blocks don't just go into a bucket anymore; it's a math project now, and the kids love it. Discipline has totally changed too. It's now true guidance. My colleagues, other teachers, come in and tear up when they see what I've done. They are learning from me. The program has given me specific strategies, small changes that have big impact, and I've become a resource for my preschool center. There are thousands of tactics, and if you take little bits from each one, you can teach any kid. Meanwhile, other teachers are just trying to hammer in one way, one way. It won't work. I now have a very positive classroom, and it shows."
- "I've applied something to my center from every class I've taken."

Changes needed for expansion and replication
During the course of focus groups, partners and participants provided thoughtful feedback and ideas for improvement, based on lessons learned from the pilot program. Ideas are a mix of general feedback and very specific suggested changes. They include:

Be clearer about role of mentors
- Ideally **do not mix the instructor/mentor role**. Instructors often cannot give the supports needed without favoring a student too much; there's a conflict of interest.
- **Lack of consistency across the onsite/employer mentors**: Some report really understanding their role, others report not understanding their role as well, or not being clear about how much support might be needed (some self-report too little; others self-report too much).

Participants report some mentors that were pro-active about helping participants apply their learning; others report less interaction. Some mentors seem very supportive of time away for classroom learning; others less so.

Address remedial math and writing early in the program
- College mentors, instructors and participants expressed concern about not being **stringent on the math/writing test component during the program**. If participants do want the certificate, they must take these tests, and they will need remediation. Will they get the support they need when not in program?

Better assess what can be shared and not shared across two college campus
- Whatcom College was surprised that only one student checked out a **laptop** (were they really not needed?); but Skagit needed them and they weren't readily available because they were housed at Whatcom. **Each college needs their own equipment and tech support; it's not easy to actually share this.**
- Finding ways to **combine classes across Skagit and Whatcom** would have been a strong addition; they were isolated from each other. Partners report needing ways for Spanish-speaking providers and non-Spanish speakers to interact to take full advantage of the diversity and learning.

Provide child care and off-hour supports more consistently
- **Campus child care** was missing, and a big issue for some (especially Spanish-speaking providers);
- **Evening and weekend support** was missing, specifically open and available tutoring and libraries, as well as advising related to financial aid and registration in the evenings.

Evidence of Impact
Workplace-based learning offered unique opportunities for participants, employers, and college partners. Below, in their own words, is a snapshot of those stated opportunities:

- **Employers** see this as opportunity to: upgrade skills and competencies and have participants immediately apply new learning to the workplace; connect learning and experience across the generational gaps that exist in this industry.
  - Employers and participants report a significant **secondary benefit of other colleagues (teachers, providers) learning and applying new ideas** to their own centers and classrooms just based on being around those participating in the program;
  - Employers report a **new ability by providers/teachers to articulate** what they were doing with children and why. This was a big change;
  - Employers report that their **employees now are different** – they have a vision for their future and how they do their job;
  - Employers are surprised at the benefits of having an **alliance with a college** ("never would have occurred to me that this would be valuable").

- **Colleges and college mentors** see this as opportunity to: get working providers back into school, help them get over the fear; demonstrate to them that they can be successful in school; get providers back in school with others that share their background, current situations and experience; give providers the chance to learn about technology.

- o Instructors and mentors see additional benefits from technology training, including **significantly improved writing abilities**, especially for non-English speaking participants (computer spell check and grammar correction is a learning tool); and **providers' own children and children in their care are being exposed at home to technology** because they see their mothers and fathers using it;
  - o **College mentors** report a benefit of personal and professional **exposure to a new industry and new type of student**;
  - o **Instructors report benefits of having real workers with real experience** in their classroom ("It adds to content and diversity and makes the content real").

- **Participants** see this as opportunity to: to go to college; break out of a "going nowhere" job and start seeing this as a career where I can advance; do it all – family, school, work, self-fulfillment; stay in school and finish it; become a professional, not just a child-care provider.
  - o Participants (Spanish-speaking) report a secondary benefit of being able to **help people in their community and families of the children they care for to fill out online applications and forms**;
  - o Multiple participants report that **parents of the children in their classrooms and centers report noticeable change**s in how the center operates and their children's enjoyment, curiosity and learning at school or daycare;
  - o All participants report significant **changes to the set-up of their center or classroom, new activities,** and new ways of teaching and working with children;
  - o One participant said she was even **more confident when communicating with the state** on licensing and procedures because she now knows her value, feels relevant, and confident to assert herself as a professional person, not a babysitter.

Additional participant quotes and testimony to the value of the Partnership program;
- "Eat or study? I can't afford both. This program changed that."
- "I would not have gone back to college without this. I am a single mother. I pay all my own household expenses. I have two kids ready to go to college themselves, and one still in the house. This program gave me the only chance I would get."
- "I got into my first class, got my first paper back, and was ready to quit right then and there. I was devastated. I said 'why am I torturing myself?' I was in tears. But I talked to my mentor and teacher, and they helped me. I figured out what they wanted vs. what I thought they wanted! I got through that first class, a huge hurdle for me, and it made me come out of my shell."
- "I did want to go to school. I've been working and love it, but I realized that I wanted to run my own center, and create an awesome one! To do that I need to be credible, and I need a degree for that."
- "I never thought of school. I can't afford school, and thought school wasn't for people like me. But I didn't even know there was such a thing as night classes. I didn't know that instructors would respect me and work with me. I had no idea of the support and flexibility possible."
- "I always thought I was that person who was "not college." I work. I love working. But now I know I also learn and go to school."
- "It might sound counterintuitive, but once I got into the program, I did not want to let the scholarship down. If I had the money, and were to spend my own money, I actually wouldn't feel as motivated or committed!"

- "My husband and I make just enough to cover our rent. None of this would have worked for me if everything had not been there: the scholarship, the mentoring, the supports, everything was covered. No one let's you fall."
- "Being older, I wondered 'how long can I keep doing this? How will I actually retire?' This program has energized me, and I'm not ready to retire! I now look at it from a truly professional angle, and in fact I even hired an assistant for 5 hours a day, and we're now adding onto our house and want to add another employee. My business is expanding."
- "I'm older, so now I'm thinking I actually want to get my degree and work for a school district. This is a path to benefits and retirement."

Pathways Through Apprenticeship – South Seattle Community College

Background and Key Objectives
The South Seattle Community College's (SSCC) Georgetown Campus is a major educational apprenticeship hub providing required supplemental education courses for apprentices tied to the Aerospace Joint Apprenticeship Committee (AJAC) and for apprentices employed through other trades including cement masons, masonry trades, finishing trades and the Construction Industry Training Council. As a workplace based learning laboratory site, SSCC had two areas of focus: one focusing on existing apprentices to earn college credit toward a degree by completing a Prior Learning Assessment (PLA); and another focusing on assisting existing workers without their GED to earn their GED, a prerequisite to become an apprentice.

Out of 94 outreach efforts to first- and second-year apprentices, eight were enrolled by SSCC to complete a PLA course called CAEL 100 (designed and delivered by the Council on Adult and Experiential Learning – CAEL). The PLA course involved a 60-hour online course (6-10 hours per week) plus development of a portfolio that documented the competencies and past work experience of apprentices, for a possible three to 9 college credits through the American Council on Education (ACE). Five of the apprentices enrolled from AJAC, one from the Finishing Trades, one from the Cement Masons and Plasterers and one from Western Washington Masonry Trades. By the end of the program, one apprentice completed the 60-hour online course.

The two biggest barriers for entrance into AJAC programs, or other apprenticeship programs, are the need for a high school diploma or GED, and math scores high enough to meet a 10th grade proficiency standard. SSCC therefore designed a program to assist working adults to earn their GED, and enrolled six entry-level machinists employed by Pioneer Industries in a GED preparatory program. Pioneer Industries is an aerospace parts manufacturer. The company employs, among others, ex-offenders, both out-of-prison and those still-in-prison on work release. These employees were helped by a Puget Sound Educational Services District coach to prepare for GED exams. The GED preparation involved an online customized GED+ program and hands-on tutoring for one hour, four days per week at a workplace-based computer lab and during work hours. One machinist earned her GED and two others hope to complete their GED in May.

Also under the SSCC contract, two additional deliverables were created: a customized applied math curriculum and an On-the-Job training best practice manual. SSCC, AJAC and the LightHouse for the Blind developed a new 10-hour math course, with an online component, face-to-face instruction, and five two-hour modules. It is intended for use at the worksite. SSCC, AJAC, the International Association of Machinists and Aerospace Workers, and aerospace

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employers, also conducted research to identify On-the-Job Training best practices to assist future apprentice training processes, providing guidelines for creating successful programs and support journey-level trainers' ability to pass their skills and knowledge to entry-level employees. AJAC completed its work and published its "On the Job Training Best Practices" manual, available in hard copy and pdf. The manual is a tool for companies that don't have an existing training program, or for companies that have an informal training program. The purpose is to assist them to make their On-the-Job Training structured, more efficient, effective and formal and provide a document for them to reference or look back on as they develop it. The following businesses participated in developing the manual:

3V Precision Manufacturing Inc.	Lighthouse for the Blind
Advantage Manufacturing Technologies, Inc.	Machinists, Inc.
Allflight Corporation	Pioneer Human Resources
Bradken	Polaris Machining
Damar Aerosystems	Precision Machine Works, Inc.
ElectroImpact	Proto Technologies, Inc.
GE Aviation	Sandvik Special Metals
Global Machine Works	Sound Propeller Services, Inc.
JWD Machine, Inc.	TK Machine Co.
L&M Precision Fabrication, Inc.	Umbra Cuschinetti, Inc.

Key Design Features
During focus group interviews, partners (employer and college) and participants emphasized certain core design features of the GED component of the Pathways through Apprenticeship project as critical to overall success. Core design features of the PLA are not highlighted here as the PLA component of the program did not reach full implementation phase. Thoughts on needed changes to the PLA component are included below. Core design features of the GED component can be broken down into four categories:

- **Participant supports** including tutoring, personal coaching, and computer lab access.
- **Employer partner commitments** including in-house promotion of the GED class opportunity, and support from supervisors for employee participation; paid time-off during the one-hour GED classes four days per week; and an onsite computer lab for the GED classes and for employees to access on breaks or off-time.
- **College partner commitments** including program coordination with Pioneer Industries, GED instructor and testing sites on behalf of students.
- **Selection of courses, tools and pacing of course offerings** including a redesigned GED course that integrated hands-on support at the workplace; high value placed on the participant cohort model which allowed for essential peer support and camaraderie across participants, including cross-generational support (younger and older workers); a strong math component that included high-touch tutoring from GED instructor and online program that allowed self-paced progress; a strong routine (same time, same place everyday); and integrating classroom with online learning that allowed employees to learn computer technology.
    - "I didn't even know that a computer had an on/off button before this class."

The above design features represent program requirements highlighted multiple times by partners and participants during focus groups as the elements most critical to success. College and employer partners additionally highlighted one area of surprise in terms of essential requirements for participant success. This was:

The true level of needed tutoring and support: The GED tutor was more than just a tutor; he represented someone who was reliable and hands on. Participants report that without the hands-on, always-there-to-answer-questions approach, they would have quit. The GED tutor reports this is a two-person job in terms of time, troubleshooting, mentoring and tutoring.

Changes needed for expansion and replication
During the course of focus groups, partners and participants provided thoughtful feedback and ideas for improvement, based on lessons learned from the GED and PLA components of the pilot program. Ideas are a mix of general feedback and very specific suggested changes. They include:

Changes needed for both GED and PLA components:
Set up benchmarks and objectives along the way for participants so that there is a line of sight from beginning to end, including critical tasks and achievements along the way.

Changes needed for PLA component:
Tighten up the communication between the college, AJAC, and CAEL: Sometimes follow-up and paperwork was dropped simply because the communication lines about specific student needs were weak, or it was unclear whose responsibility it was to follow up with students.

Plan for and conduct better pre-screening of candidates (selective service, interest level, number of subject tests remaining, math ability, etc) to ensure higher enrollment and retention.

Be clear about which types of apprentices will benefit from a PLA. SSCC, AJAC and CAEL agree that older, more experienced (fourth year) apprentices or post-apprentice workers might be a better target than first and secondears because they are more likely to have their sights set on finishing needed credits toward a degree. Partners also speculated that the heavy online (60 hours) and writing (actual portfolio development after the online course) components of the PLA may not be a good fit for apprentices that by nature are hands-on learners. They may simply prefer to get their three credits another way.

Better understand and be clearer about program benefits, outcomes and expectations.
SSCC and AJAC agreed that the actual design of the PLA course, even after being trained on it, was not exactly what they envisioned. The marketing for the course therefore may have established mixed expectations for apprentice candidates. Specifically, lack of clarity upfront existed around: the high level of online work and the reliance on email for communication purposes ("these guys check their email once a month"); the lack of clarity that the 60-hour online course did not actually include the development of the PLA portfolio (the portfolio was to be developed by participants *after* the completion of the 60-hour course, more reflective of an independent study); the high level of required writing for the portfolio development; and the need for back up documentation from past schools, trainings and employers (which most of the candidates did not have or could not easily get).

Changes needed for GED component:

Budget for testing costs and individual tutoring: Partners agreed and regretted that actual GED **testing costs** needed to be covered but were not (five tests at $30 each are too much for participants), and that a limit on budgeted individual tutor time should be established, with the expectation that more time is spent encouraging and coaching individuals for self-study success.

Improve IT system support at the place of employment and provide 24/7 access to computers: IT troubleshooting to install and maintain the GED program was more complicated than expected, and because computers were workplace-based, the burden fell on employer to fix any problems. IT support should be a shared task across the employer and college. Access and orientation to campus computer labs should also be included in the program to encourage self-study, to expose participants to the college campus, and to provide additional computer tutoring.

Coordinate and provide more comprehensive supports such as 24/7 access to computers with high speed internet, access to reliable transportation (including securing a valid license); self-study materials and coaching; tutoring on computer basics; coaching about living arrangements that afford time for self-study; access to a phone with texting capacity; scheduled time for needed one-on-one tutoring; and more available testing sites at colleges that are closer to participants' home base. These issues should be incorporated into eligibility interviews and actual supports into program implementation.

Coach participants to understand on an ongoing basis their responsibilities: clocking in and out procedures and knowing the proper input codes; maintaining quality work on the floor; being alert and attentive in class ("this is not a repeat of your high school experience"); notify supervisors well in advance of testing days offsite. Provide **binders for students** with: login information; online studying processes; point of contact information; maps of testing sites and directions; planning calendars, apprenticeship opportunities, notebook, etc. Give students a **line of sight** pathway with benchmarks (i.e. study, test, get GED, secure job, do better on the job, advance and/or qualify and enter an apprenticeship program)

Focus on math first: instructors must be exceptionally strong in math, and competent in other areas (reading and writing) of GED testing; not the reverse. Participants also must receive instruction that heavily emphasizes the math components. It is simply the area in most need of remediation.

Improve marketing and enrollment procedures: Many workers could take advantage of this (Participant quote: "I know my co-workers want this, they just don't know about it or understand it."). Set up waiting lists, market for **continuous enrollment** into the program, and **prioritize candidates** with less than five needed tests to complete GED. Market and get **buy in from direct supervisors**; involve them in how to overcome challenges to production when workers are in the classroom, and find ways to point out how even GED learning can be applied on the floor so that supervisors can play the role of mentor along the way. Participants self-report that they never understood square areas or cutting angles before, or could not always effectively apply blueprint specs to their work ("Most guys just copy what the next guy is doing. Not anymore. I cut to exact specs and now I know why. Now they copy me.")

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Further investigate and brainstorm solutions to prisoner work-release challenges, including transportation and access to computers: One persistent challenge was how to best meet the needs of work-release employees. These participants have little to no access to computers and have strict requirements around transportation between worksites to receive the GED instruction.

Evidence of impact
Workplace-based learning offered unique opportunities for participants, employers, and college partners. Below, in their own words, is a snapshot of those stated opportunities:

- **Pioneer Industries, the employer,** sees this work as an opportunity to: create a quality and engaged workforce;
- **South Seattle Community College and AJAC** see this as an opportunity to: get apprentices or pre-apprentices on a track to earning college credit toward an AA; to become qualified to be an apprentice (GED requirement); and develop new courses and programs.
    - **AJAC On-the-Job-Training Manual** is a big deliverable of this project: 20 employers interviewed, best practices and tools for employers to assist in the training process and on-the-job mentoring to support journey-level trainers' abilities to support entry-level employees to learn and advance.
    - Designed a **new 10 hour applied math course** to be used by AJAC's 10-week pre-apprenticeship program; and by Pioneer Industries' applied math remediation course.
- **Participants** see this as an opportunity to: get back to school; get their GED, or actually finish it; and increase job security
    - "I had always planned on going back to school, ever since I got kicked out in high school. But there was never a chance. This was my one chance."
    - "I wanted to be able to say 'Yes' on job applications when asked if I have my GED. Saying 'No' cuts me out of a lot of jobs."
    - "When I was young, if I'd known how important this was, I would have graduated. But I was young. You can't change young. You got toa have this second chance. Education is the most important thing in your life. It's the reason you get a job, a good job versus no job or a bad job that can't support a family. It will change your entire life. It will change your children's opportunities too. It starts right here. This class could change my entire life."
    - "I was in jail. I took GED classes inside, but then I got out, and it all just ended, as if I'd done nothing at all. This was my chance to actually start and finish something."
    - "Do not end this program. Keep it going."

Strong Common Themes and Recommendations from across the three Learning Laboratories

Common themes confirming original hypotheses
Across the three sites, strong common themes emerged from the focus groups, all of which confirm the project's original hypotheses. Workplace-based learning can: bridge the physical and mental distances between the workplace and the classroom; provide new opportunities for working adults to participate in courses that provide a foothold into well-defined career pathways; and can be customized to the workforce needs of a target industry and learning needs of its workers. Focus groups confirmed a set of common, critical design features including:

- Strong employer partners that can commit workplace learning space, employee learning time, flexible scheduling, access to technology, and mentoring and ongoing support (including upfront targeting and promotion of the opportunity to certain employees in a way that says "you are important, and I believe you can do this," as well as ongoing support as mentors for the application of learning during work);
- College leadership and staff that can: adapt or create new coursework that is a hybrid of online, at-work and classroom learning; ensure that courses are credit-bearing and clearly connect to a viable career pathway; provide hands-on, high touch tutoring, mentoring and academic counseling; and act as coordinator for other needed participant supports;
- Ready and willing participants identified and pre-screened for success, including a demonstrated interest, and willingness to engage in online, at-work and classroom study.

Additional common themes
In addition to the above common themes, the three sites provide evidence of positive impact from two additional design features: the power of the cohort model which provided formal and informal peer support, sharing and camaraderie, and the power of actual applied learning due to the nature of workplace-based learning being centered around the place of work and everyday work tasks and competencies.

Potential learning transfer from site to site
Certain comments made during focus groups and follow up interviews indicated strong opportunity for learning across sites. For example:

- For Whatcom and Skagit college participants, two comments were directly related to credits for prior learning ("I had all these credits from years ago, but they don't count.") While the SSCC experience for PLA may not have hit the target, there may be value in exploring if it is a better fit for different industries or types of workers;
- Clark College students lamented the lack of access to the actual college campus, while Whatcom and Skagit scholars emphasized how important it was to have access to the campus in addition to workplace based applied learning. It gave them access to computers, tutoring, the library, as well as confidence that they too could be college students;
- Students across all sites worried about their ability to succeed without ongoing financial, tutoring and other supports offered during their programs, but Whatcom and Skagit students specifically expressed concern about succeeding in math remediation, a component that was not emphasized during their engagement with the project, without the familiar and essential supports of the project. Mentors expressed similar concerns. Clark and SSCC spent much of their project time and resources focusing on the math remediation component upfront.
- Clark expressed a need for stronger mentor training upfront. This is something that mentors at Whatcom and Skagit specifically called out as very effective and critical.
- SSCC realized a need to work with multiple colleges to ensure GED testing sites for participants who live in areas other than South Seattle. Clark College was able to tap into a pre-existing (but very recently developed) network of colleges and providers (the Southwest Washington College Consortium) to meet the needs of their students in terms of courses not offered by Clark college, or in cases where Clark could not respond quickly enough to provide the course.

Policy insights and recommendations
Finally, true to the original hypothesis that successful workplace-based learning can inform policy and resource allocation decisions at the college, state and federal levels that better address the needs of under-skilled working adults, the following specific insights and recommendations were made during focus groups and interviews:

- Partners across the three sites agree that this type of work targets existing workers with the most to gain from education that will advance them to a higher position or give them expanded job opportunities and job security. They agree that by targeting lower skilled adults to advance into middle-skill jobs is a feasible endeavor for everyone involved: workers, employers and colleges alike, and with potentially high return on investment;
- Employers agree that workplace based learning is well worth their investment of time and resources, and that in the mid- and long-term, it is a cost-reducer in terms of typically high recruitment and turnover costs;
- Partners and employers agree that this type of intervention must be formalized in ways that publicize why it works, and how to implement it. They also agree that as many policy tools as possible should be employed to do so, including tax incentives, formalized return-on-investment models; formal marketing and awareness; development of common terminologies for this type of learning; and college and state policy changes that make it easier for colleges to create for-credit occupational training courses for working adults that may not be enrolled full time in school.
  - Typically the academic for-credit side of a postsecondary institution is completely independent from the workforce/continuing education (non-credit) side. For students and jobseekers, the disconnect between non-credit courses and for-credit programs can mean never earning any sort of postsecondary education credential. State funding formulas for colleges are mostly based on per-credit enrollment; subsidies are largely non-existent for non-credit programming.
- Participants and partners agree that this type of intervention must be aggressively marketed to partners and working adults, including marketing at places of work and by employer sponsors. This sends a powerful message from employers to employees that education and advancement are tightly linked, and that both are possible even for working adults in low-income, low-skill positions;
- All agree that this must be expanded and replicated; and
- All agree that return-on-investment models and indicators should be developed, including at a minimum sharing success stories from employer and employee perspectives, and ideally that demonstrate the overall value to the economy and to end users and beneficiaries of improved worker skills (such as patients in hospitals, families of children and the children in daycare centers and schools, and manufacturers and their buyers).