STEM Education Innovation Alliance Meeting
September 27, 2016

AGENDA

Meeting Location:
World Trade Center West – 2200 Alaskan Way, Seattle, Washington – 4th Floor, Board Room A/B/C

9:00 AM **Welcome, Meeting Overview & Updates**
Facilitator: *Gene Sharratt*, Executive Director, OSPI/AESD Professional Learning Network
Host: *Michael Schutzler*, CEO, Washington Technology Industry Association

9:20 AM **Washington Technology Industry Association: Update on Launch of *Apprenti***
Jennifer Carlson, Executive Director
Washington Technology Industry Association Workforce Institute

9:45 AM **Washington STEM's 2017-2019 K-12 Priorities and State Funding Request**
Caroline King, Chief Policy Officer, Washington STEM

10:15 AM **Policy Recommendations Discussion**
Facilitator: *Randy Spaulding,* Washington Student Achievement Council

Governor's Legislative Priorities - *John Aultman,* Office of Governor Policy Office
Summary of Survey Results and Draft Policy Recommendations – *Randy Spaulding*

11:30 AM **Subcommittees Discussion and Formation** – *John Aultman*

1) **Computer Science/Technology for All –** goal is to emerge with a plan that will align curriculum with state standards and apprenticeships
2) **STEM Talent Supply & Demand Dashboard**
3) **STEM Education Report Card –** annual report due to legislature January 10, 2017
4) **P-20 STEM Strategic Plan**

11:50 PM **Next Steps** – *Gene Sharratt*

Washington STEM Summit at Microsoft on November 29, 2016
– STEM Alliance meets at Summit - 9:50 to 11:10 AM
2016 STEM Education Report Card - review

12:00 PM **Adjourn**

LEGISLATIVE RECOMMENDATIONS TO THE GOVERNOR

September 27, 2016

INTRODUCTION

The STEM Education Innovation Alliance recommends the following actions to meet the growing need in Washington for workers prepared to meet demand for talent in Washington's growing science and technology industries. These recommendations address the current shortage by investing in successful strategies to increase student success across the state, particularly for the underrepresented students.

The STEM Alliance recommendations include:

1) **Increase support for underrepresented populations in STEM fields.**
2) **Ensure our education system is STEM ready by providing resources to schools and to teachers to provide a rich STEM experience for students, including Computer Science for All students.**
3) **Expand opportunities for career-connected learning.**

STRATEGIES

Each recommendation includes several strategies to ensure its success.

Increase support for underrepresented populations in STEM fields.

– Continue investments to expand the MESA program to make it available at every community college in Washington.
– Continue to support the Washington State Opportunity Scholarship to meet workforce needs in Washington.
– Provide greater access to dual credit programs, including expanded funding for College in the High School to serve all qualified students and provide greater access to the advanced coursework necessary for success in STEM majors.

Ensure our education system is STEM ready by providing resources to schools and to teachers to provide a rich STEM experience for students, including Computer Science for All students.

Early Learning and Elementary

– Toolkits for pre-kindergarten through grade 5 – Implement a toolkit for preschool-kindergarten mathematics that links preschool and K-12 mathematics, provides intensive teacher learning supports and disseminates effective parent/family engagement resources (Source: Washington STEM initiative)
– Teacher Learning Support – Develop instructional materials that build on the strength of the current K-5 "kit" system, supplement those materials to support engineering practices through design challenges and feature the work of local industry across the state (Source: Washington STEM initiative and STEM Alliance survey).
– Expand pre-kindergarten through 5th grade student opportunities to develop computational thinking skills by creating incentives.
– Provide additional professional learning opportunities for K-8 teachers and/or modifications in teacher preparation programs.

Middle and High School

– Provide opportunities for students in every high school to engage in meaningful computer science instruction.
– Expand professional development in computer science, including innovative programs like Technology Education and Literacy in Schools.
– Develop additional opportunities for middle school students to earn credits in STEM fields that will meet high school credit requirements.
– Expand student opportunities in high school to develop computational thinking skills by creating incentives.
– Support additional professional learning opportunities for high school teachers and/or modifications in teacher preparation programs.
– Provide equipment funds to support computer science expansion and to keep equipment updated to industry standards.

Postsecondary

– Expand enrollments in computer science and other high employer demand STEM programs through targeted funding to higher education institutions.

Expand opportunities for career-connected learning.

– Support development of pre-apprenticeship programs that prepare students to enter the Registered Tech Apprenticeship program developed by Washington Technology Industry Association. May include a stipend or other dedicated support. May be able to leverage existing scholarship and financial aid resources, depending upon the provider.
– Expand apprenticeship opportunities into other high demand technology fields.
– Provide additional means to support students as they complete high school and plan for career and postsecondary education through improvements in supported guidance such as enhanced high school and beyond planning, advisory courses, work integrated learning opportunities, and Jobs for Washington Grads.
– Increase funding for State Work Study and allow colleges to create new mentor partnerships with K-12 by allowing 100% match rates for programs that enable college students to help at-risk secondary school students.

Names of Discussion Group Members:

_____   _____   _____

DISCUSSION NOTES

Legislative Recommendations to the Governor

1. Your thoughts, likes, support for the recommendations:

2. Issues or concerns about recommendations:

3. Friendly amendments to any of the recommendations or, if you want to add another recommendation, please do so on reverse side of paper.

DRAFT
2017-19 LEGISLATIVE AGENDA: CRADLE TO CAREER

Our Legislative Agenda focuses on building student opportunity and success through STEM from Cradle to Career, with a focus on underserved and underrepresented students:

EARLY LEARNING	K-12 *	HIGHER EDUCATION
Support efforts to include STEM in early learning.	**Drive equity and career- and college-readiness in K-12 basic education through STEM**	**Expand incentives and supports for high-demand, technical, and 2- and 4-year degrees**
• **Focus**: Early Math	• **Focus**: Computer Science, Career Connected Learning, Science & Engineering, Early Math • **Focus**: Improve and grow STEM capital grant program	• WSOS scholarships • MESA Community College footprint • Apprenticeships and 4-year STEM degree opportunities

* For further detail, see 2017-19 K-12 Priorities + Washington STEM's State Funding Request on next page.

AT A GLANCE: 2017-19 K-12 PRIORITIES + WASHINGTON STEM'S STATE FUNDING REQUEST DRAFT

THE HEADLINE

As the state works to fully fund a K-12 basic education, the state must prioritize the investments that matter most – closing opportunity gaps, bolstering student opportunity and success, and building a robust next generation talent pool. To that end, Washington STEM urges a $45M investment ($22.5M public + $22.5M private) over the biennium to advance STEM education access as well as career and college readiness across Washington state. Washington STEM calls for specific state investments, matched 1:1 by private donors, and policy actions in four priority areas: computer science, career connected learning, early math, and science & engineering. Washington STEM is prepared to be an expert broker of state resources and catalyst for raising unprecedented levels of private matching dollars for K-12 education. Approximately 85% of the total investment would support driving equity and outcomes through direct services (e.g. teacher training, curriculum resources, student internships); 15% of resources would support Washington STEM's project management, best practices evaluation, and statewide capacity building functions. For relevant context and additional details, see the full report following this at-a-glance summary.

PRIORITY #1

Ensure all students have access to Computer Science (CS) learning opportunities by 2025.

- Expand public-private grant fund to support: 1) CS course development (standalone and integrated) and access for students; 2) professional learning and resources for educators; and 3) technology **($12M investment: $6M public + $6 private)**.
- Launch CS4WA.org, creates a state CS implementation plan and deploys CS education fellows who are teacher leaders **($2M investment: $1M public + $1M private)**.
- Amend state policy through the Professional Educator Standards Board (PESB) to ensure amply supply of CS teachers. This includes supporting PESB as it refines the computer endorsement process for current high school teachers who want to gain an endorsement quickly, creating a "micro-credential" for elementary teachers to earn an endorsement quickly, removing barriers and standardizing the approach for certifying career changers and continuing to support the retooling program that provides scholarships to current educators.

PRIORITY #2

By 2025 all high school graduates have the communication, problem-solving and collaboration skills necessary to thrive in work and life, supported by high-quality Career Connected Learning experiences at elementary, middle and high school.

- Scale-up 10 local Career Connected Learning programs/experiences based on learning **labs ($8.4M: $4.2M public + $4.2M private)**.
- Develop 10 Career Connected Learning Technical Assistance Centers and provide technical support in the form a "navigator/broker" in each STEM Network region to serve as a CCL connector (to support scale up of learning labs, industry design challenge creation, or other concrete deliverables). **($4.6M: $2.3M public + $2.3M private)**.
- Amend state policy through the State Board to enhance competency-based options for earning credit in middle and high school through high-quality work-based experiences that effectively engage students and result in credit that counts toward graduation.

PRIORITY #3

Ensure that all PreK3 students demonstrate grade-level competency in math by 2025.

- Implement a toolkit for preschool-Kindergarten mathematics that links preschool and K-12 mathematics, provides intensive teacher learning supports and disseminates effective parent/family engagement resources **($10M: $5M public + $5M private)**.
- Amend state policy to ensure that mathematics teachers in the early grades have deep content knowledge.

PRIORITY #4

All students engage in investigations aligned with newly adopted state standards to learn how science and engineering relate to natural systems, challenges, and key industries throughout the state.

- Develop instructional materials that build on the strength of the current K-5 "kit" system, supplement those materials to support engineering practices through design challenges and feature the work of local industry across the state **($4M: $2M public + $2M private)**.
- Enable Washington STEM to develop 10 industry-based challenges that engage teams comprised of regional STEM education leaders, engineering industry professions, higher education partners and teachers to identify regionally-relevant engineering design challenges **($4M: $2M public + $2M private)**.

Apprenti provides you a path and a plan to a career in technology.
Your future in tech starts now.

Why Apprenti?

Right now there are more than 8,000 tech job openings in Washington State.
These high-paying jobs are in high demand and waiting for you. The tech industry is seeking to diversify its workforce, so Apprenti is actively recruiting women, minorities, and veterans, although anyone is eligible to apply.
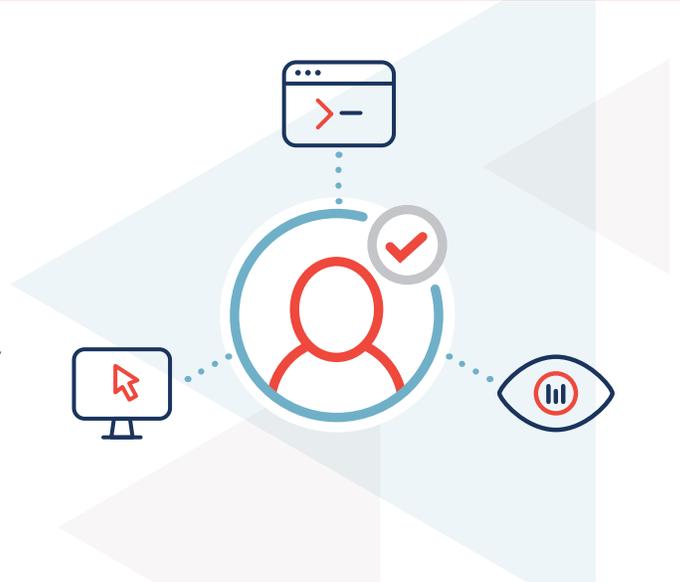
Every day our hiring partners, from startups to well-respected global names, are on the hunt for talent like you who have a knack for tech and are willing to work hard to succeed.

Apprenti is an apprenticeship program that offers you a path and plan to a career in the tech industry. It is the only program registered with the Washington State Department of Labor & Industries designed to meet the technology industry's specific workforce needs.

Get Started Today

STEP 1
If you're over 18 with a high school diploma or equivalent, and a U.S. citizen or permanent resident, you can apply for this competency-based program today by taking the online assessment at ApprentiCareers.org.

STEP 2
Top performing candidates will be asked to interview with a panel, including hiring partners such as F5, Microsoft, Russell Investments, and Accenture.

STEP 3
Candidates who are accepted will be offered a full-time position paying at least $42,000 with benefits prior to entering into the registered apprenticeship program.

STEP 4
Apprentices will enroll in technical training full-time for two to four months. The first cohort of apprentices will receive free training sponsored by JP Morgan Chase. Apprenti is working to identify financial assistance for future cohorts.

STEP 5
Apprentices begin on-the-job training at their paid position.

Your Career In Tech Awaits You

A thriving career in technology awaits you. Right now, we have hiring companies seeking registered apprentices for:

- Database Administrators
- Project Managers
- Network Security Administrators

- Software Application Developers
- Web Application Developers
- *And more on the way!*

Get your career in tech started today with a registered apprenticeship through Apprenti.
Learn more at www.ApprentiCareers.org.

Career and Technical Education Improves Student Achievement in High School, College and Career

Parents play an important role in their children's college and career success.

Here's why you should encourage your child to participate in CTE.

ACADEMIC AND COLLEGE SUCCESS

80% of high school students taking both CTE and college prep courses meet college and career readiness goals, versus 63% who are college and career ready through college prep courses alone.[1]

600,000+ high school students enroll in dual-credit CTE courses to earn college credit.[2]

CAREER PLANNING

6 out of 10 students plan to pursue a career related to the CTE area they're exploring in high school.[3]

Students enrolled in **CTE** courses are significantly more likely to develop problem-solving, project completion, research, communication, time management and critical thinking skills during high school.[4]

CAREER AND TECHNICAL EDUCATION (CTE)

EMPLOYMENT AND EARNINGS

36% **of STEM** jobs require postsecondary credentials that CTE students can obtain within two years of high school graduation.[5]

Graduates with technical or applied science associate degrees can out-earn bachelor's degree holders by $11,000.[6]

SCHOOL AND JOB SATISFACTION

81% of high school dropouts say relevant, real-world learning opportunities, like CTE, would have kept them in school.[7]

Graduates are twice as likely to be engaged at work if they had a meaningful internship or job while in college.[8]

My career tech class has enabled me to do something I love and opened my eyes to possibilities that are ahead. – Kelsey McClure[9]

I'm forever grateful to career tech. I have learned how to manage time and money, be more responsible and support myself while being reliable to other people. – Zachary Zigler[10]

[1] Southern Regional Education Board, [2] Thomas et al. 2013, National Center for Education Statistics, [3] NRCCUA® and ACTE 2016, [4] Lekes et al. 2007, National Research Center for CTE, [5] Rothwell 2013, Brookings Institution, [6] Schneider 2013, College Measures, [7] Bridgeland et al. 2006, Civic Enterprises, [8] Gallup-Purdue Index report, [9] Ohio Department of Education Career-Technical Education Success Stories, [10] Ibid.

To World Trade Center Seattle*
2200 Alaskan Way, Suite 410
Seattle, WA 98121

From north of Seattle on I-5 South:

• Take Exit 167 (West Mercer Street/Fairview Avenue)

• Go straight on Mercer Street

• At the 9th Street intersection, stay right and merge onto Broad Street

• Continue on Broad Street to Elliott Avenue, and turn left

• Once you pass the Wall Street intersection, park in the Art Institute of Seattle parking garage on your immediate right

From south of Seattle on I-5 North (coming from Sea-Tac Airport):

• Take the Madison Street exit (also called Convention Place exit)

• Turn left onto Madison Street

• Stay on Madison Street until you come to the waterfront

• Turn right on Alaskan Way

• You will pass Pier 66 on your left; the next street after the skybridge is Wall Street

• Turn right on Wall Street

• Turn right on Elliott Avenue

• Park in the Art Institute of Seattle parking garage (second driveway on the right)

• Take the skybridge to the Conference Center

• To access, cross the skybridge to the mid-way point and take the elevator on your left down to street level. Walk south in front of the World Trade Center Seattle WEST building and enter the main doors that share access to the Starbucks.

• Take the elevator to the 4th floor

*Please note: due to on going construction and traffic improvement projects, directions might be slightly adjusted.

Please note the two parking garage entrances, Elliott Avenue and Wall Street.
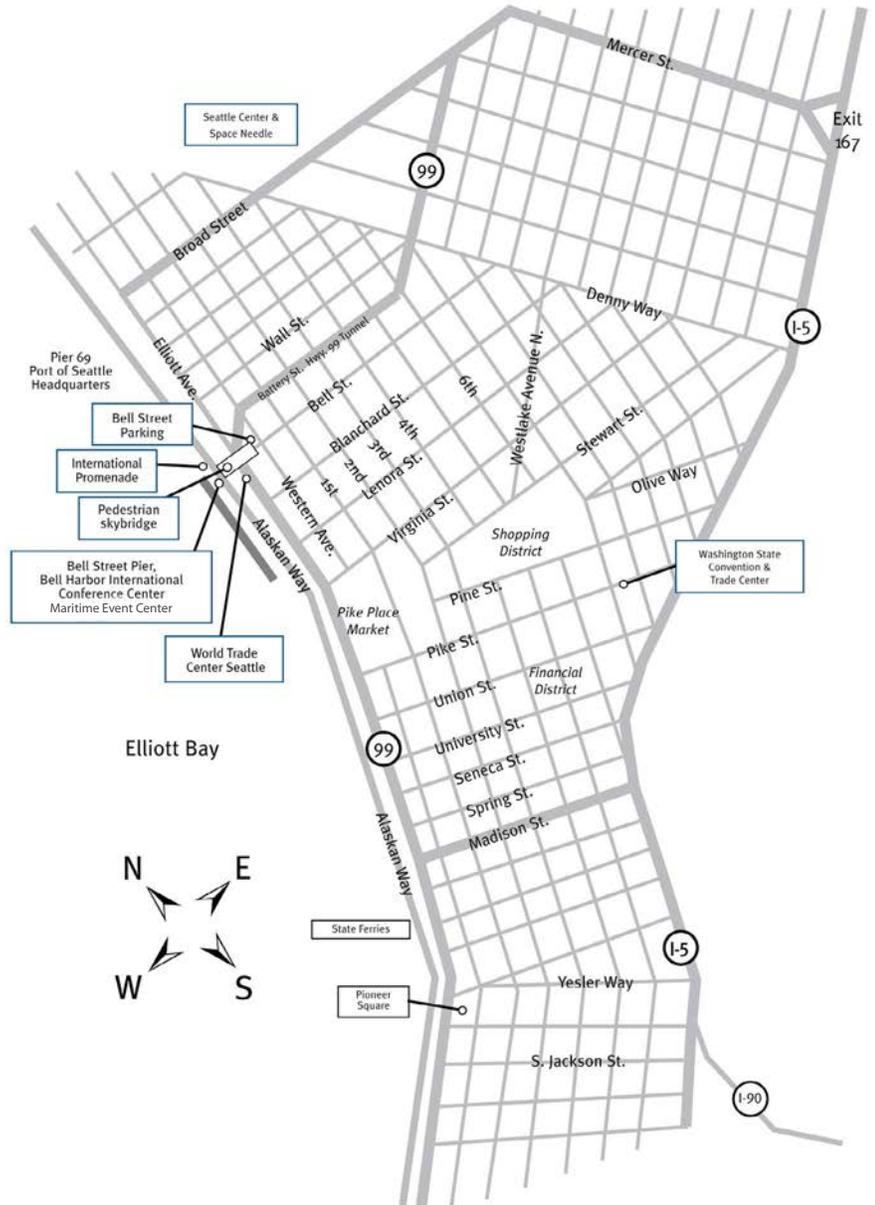
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COLUMBIA HOSPITALITY

Elementary-school teacher from Quincy named 2017 Washington Teacher of the Year

Originally published September 19, 2016 at 2:59 pm Updated September 19, 2016 at 7:09 pm

Camille Jones, from Quincy, Grant County, was named the 2017 Washington state Teacher of the Year in a ceremony Monday at the EMP Museum in Seattle.

By Paige Cornwell

Seattle Times staff reporter

Camille Jones, an elementary-school teacher from Quincy, Grant County, was named the 2017 Washington state Teacher of the Year in a ceremony Monday at the EMP Museum in Seattle. She is the first winner since 2015 from outside the Puget Sound area. Two years ago, Seattle teacher Lyon Terry won the honor, and last year, it was Nathan Bowling, a high-school teacher from Tacoma.

Jones, 29, doesn't teach a particular grade at Pioneer Elementary in Quincy, where she spent her childhood on a farm. Instead, she works with students in the school's STEAM Lab, where she offers challenging activities in science, technology, engineering, art and math.

She's credited with teaching students to think both locally and globally, and for working with her community.

When her district put a bond measure on the ballot in 2014, for example, she met with farmers and young couples who didn't have children to explain why the schools needed the money. The measure passed with 64 percent of the vote.

She also worked on a project where her school created a "Big Friendly Monster" that was displayed in 40 participating schools in seven countries. Each school described a body part for the paper monster, which the students then put together with colorful paper, glittery paint and yarn.

During her acceptance speech, Jones stressed the importance of community and family, and noted that her husband, brother and father all came to the ceremony, even though

they're farmers in the middle of the apple and onion harvest. And they never leave the farm during harvest, she joked.

Jones was one of eight finalists from across the state. The other seven are: Timothy Larson (PC Jantz Elementary in Odessa, Lincoln County); Jose Corona (Kirkwood Elementary in Toppenish, Yakima County); Kendra Yamamoto (Martin Luther King Elementary in Vancouver); Carol McKay (Capital High School in Olympia); John Gallagher (Port Angeles High School); Alisa Louie (Evergreen Heights Elementary in Auburn); and Elizabeth Loftus (Olympic View Elementary in Oak Harbor).

Jones was selected by a state committee based on interviews and a written application. The criteria include community involvement as well as teaching accomplishments, ability to analyze an education issue and a commitment to strengthening the teaching profession. Nominees also must write a proposed platform, outlining what their message as teacher-of-the-year would be.

The selection committee includes past state teachers-of-the-year, and representatives from the Washington Education Association, the Professional Educator Standards Board, the Washington Association of School Administrators, the Smarter Balanced Assessment Consortium and the Washington State Legislative Youth Advisory Council. As the winner, Jones now is a contender for the national teacher-of-the-year competition.

Quincy's Camille Jones named 2017 state Teacher of the Year

BY RICK STEIGMEYER
World staff writer

SEATTLE — A Quincy teacher has been named Washington's 2017 Teacher of the Year.

Camille Jones of Pioneer Elementary School in Quincy was named the state's top teacher at an Office of State Superintendent of Public Instruction ceremony Monday in Seattle. Jones was one of eight regional finalists.

At Pioneer Elementary, Jones serves as a STEAM (Science, Technology, Engineering, Art, and Math) enrichment teacher providing opportunities for all students.

Her approach is inspiring, said her principal, Nik Bergman. "Students in her Enrichment and Highly Capable Program come from poverty, ELL, and Special Ed backgrounds," he said, "and Camille's ability to bring out the best in all students is an absolute pleasure to watch."

Jones facilitated Pioneer's first international collaborative project, which involved over 40 schools in seven countries to create a "Big Friendly Monster" for display in each participating school. She also led a team to "Destination Imagination," a student-led, creative problem-solving competition.

Jones grew up on a farm where she learned that people work with the soil they have and that people can bloom where they are planted, according to an OSPI press release. After majoring in Spanish, studying abroad in Mexico and Spain and pursuing a master's degree in teaching the gifted and talented, she

Camille Jones
Washington 2017
Teacher of the Year

returned to Quincy to cultivate all farm kids with her unique perspective on language and roots.

She served on Quincy's 2014 levy steering committee and promoted the district's $108 million bond campaign. She's also active in Quincy's Habitat for Humanity program.

Jones will now become Washington's nominee for National Teacher of the Year. The next president of the United States will announce the winner in a special ceremony at the White House in the spring.

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