STEM Education Innovation Alliance
May 31, 2017
Meeting Location: Microsoft Conference Center – 16070 NE 36th Way, Redmond, Washington 98052

MEETING NOTES

STEM Alliance Co-Chairs John Aultman and Gene Sharratt welcomed members of the STEM Alliance, alternate members and guests to the meeting. The group met during a breakout session at the Governor's Summit on Career Connected Learning. A list of people attending the meeting is located at the end of these notes.

The members separated into small groups to discuss how their respective organizations can support career connected learning opportunities for qualified students. The following are some of the comments that emerged from the report out from the breakout groups.

- Develop clearinghouse for internships, mentorships, sponsorships and ensuring all students can interview with someone in the intended industry.
- Perceived barriers may not be the real barriers – Puyallup developing apprenticeships – share with other districts to make connections – engage small businesses as well.
- Technology Education and Literacy in Schools (TEALS) / Microsoft Philanthropies has student portal that connects high school students, searchable by state and nationwide.
- Education has natural connections but might be random – is there way for state to create environment to match employers to students?
- Expand the work beyond career and technical education – be careful about messages that limit options – families and kids do not know all options in the community – could we launch a marketing and education campaign that shifts the conversation "Did you know?" – robust trainings for kids and parents – school systems may not be equipped to do that – parents are an untapped resource to shift the conversation.
- Develop a practitioner forum in addition to the policy conversation.
- Baseline skill set targets that meet workforce industry demands – you can see changes in less than a year – Washington State Department of Commerce and Washington State Employment Security Department (ESD) gather data and wrote a report but we need more recent data.

- Improve use of the teacher as a content expert and allow them to safely explore opportunities.
- ESD just turned out their annual update by jobs in demand by county.
- ESD working on leveraging technology with Washington Roundtable and University of Washington – youth platform data – Looking to expand technology to not just look at permanent jobs but use the posting/matching for youth internships, summer work, etc.
- State Board for Community and Technical Colleges (SBCTC) will work with K12 to be sure students can be mapped to meta majors through SBCTC's Guided Pathways.
- Identify best practices and communicate those while ensuring the value industry and school districts are participating – look for opportunities to expose students at younger ages.
- Ensure the STEM Alliance is referencing all aspects of STEM (i.e., dental science, agriculture, geologists, etc.).
- Sharpen the understanding of the needs so we are guiding to students to the right programs for positive outcomes.
- Consider STEM competencies needed across industries in addition to STEM jobs, for training needs.
- Cloning Washington Technology Industry Association (WTIA) programs in different fields and geographies – for instance, a training camp in drafting – reach out to smaller employers and less than first tier universities with a vetting progress with student and faculty co-nominations and find students internships – working in this region in IT – consider also other regions and other industries.
- Clone WTIA's APPRENTi program in other fields such as manufacturing – find a set of people carefully vetted for capabilities – provide them skills and guarantee a job in other areas of the state and economy.
- Engage business and articulate the return on investment – we don't want business to necessarily create the program for K12 that might be ultimately rejected.

John Aultman (Office of Governor) noted many aspects of this discussion have been brought up throughout the last 18 months. He recommended a taskforce be established. Washington state needs to be a leader state – Washington Student Achievement Board and/or Washington State Workforce Training and Education Coordinating Board could co-lead the work. Washington state wants to aim for additional funding for these programs, say $12 million. The State of Colorado is moving forward in developing and funding these programs. The regional site in Tumwater included the City of Tenino mayor and Thurston County commissioners. There may be other places poised for additional work.

Maddy Thompson (Washington Student Achievement Council) reviewed the budget proposals from the State of Washington Governor, Washington State House of Representatives and Senate related to the STEM Alliance agenda (summary contained in meeting handouts).

Ellen Matheny (STEM Alliance Coordinator) described the upcoming changes in the STEM Alliance membership. Membership terms will now run for two years – the next term extending from July 1, 2017, through June 30, 2019. Governor Inslee will send out invitation letters to new and returning members. STEM members are welcome to send a designee when they are unable to attend meetings. However, the Governor is no longer going to send formal invitations to alternate members, effectively July 1, 2017.

Breakout Group Discussion Notes

Submitted by: **Dana Riley Black**

How can we go beyond the big companies (Microsoft & Boeing) to engage small business?

Apply APPRENTi apprenticeship program in other sectors & high demand areas.

Pleased that business is at the table. Don't want business to create a program for K12 that won't align to K12 (and then fail like the Small Schools Initiative failed).

Need more strategies for articulating return on investment (ROI) to business for internships and apprenticeships. Also, articulate ROI to educational leaders; some principals are hesitant to promote internships.

Submitted by: **Evangelina Galvan Shreeve, Brian Teppner, Ryan Eddy, Maija Thiel, Kathryn Kurtz**

Make sure STEM includes all kinds of STEM, including agriculture, timber industry, dental hygienist (examples of some professions that are not necessarily thought of as STEM fields).

Identify best practices and get scale up funded and supported.

STEM Alliance to ensure communication and value of all players in business & schools is considered & recognized.

Tout outcomes movement toward two educational attainment goals: 70% postsecondary credentials, 100% high school graduation in Washington State.

Ensure equity by ensuring career connected learning is in K-12 project based. Career connected curriculum intentionally embedded in scope & sequence.

Help communicate to industry partners why investing in K-6 is so critical to keeping the pipeline open for ALL kids – articulate what is the return on investment for businesses & why it needs to start early.

What can we do today?

Finance these types of programs.

Provide staff hours to career connected learning programs.

Communicate the impact in a personal way - need to have diverse personnel so a variety of industry staff see themselves.

Submitted by: **Janet Frost**

Increasing the number of postsecondary credentials through:

1. Increased internships and apprenticeships.
2. High quality early learning, provided this includes connections to these initiatives.

More information provided to K-12 staff and their students' parents about students currently in STEM credential programs (health sciences).

Washington State University Spokane possible outreach:

1) Connect with hospitals and other health care industry employers to develop partnerships with PreK-20 education
2) Demographically diverse medical students and other health science professional students by outreach to rural & undeserved population students, families, communities [Note: This outreach is already planned in WSU's Elson S. Floyd College of Medicine, College of Pharmacy, College of Nursing, but could be increased and further defined.)

Submitted by: **Nancy Dick**

Expand internship and apprenticeship opportunities for career and technical college students.

Awareness building for middle & high school students & parents.

Increase opportunities in rural areas.

Math/STEM awareness in early learning.

43% of kids are kindergarten ready; move to 90% by 2020.

Encourage employer engagement (i.e., hospitals connecting with K12 in addition to postsecondary).

Continue work to identify & reward high wage, high-demand STEM fields to incentivize program development in those areas.

Continue MESA expansion and Washington's Guided Pathways Initiative, funded by College Spark Washington.

Submitted by: **Dan Torres**

70% postsecondary completion by 2023, align goals, STEM outreach to K-12

Include parents in Early Math & STEM pipeline.

Continuum is important from birth to career.

Hospitals → K-12 connections, learn from teacher recruitment efforts.

Submitted by: **Joseph Williams & James Dorsey**

Ever-refreshed baseline skill set targets that meet current industry workforce demands.

Teacher as content expert in the classroom, teacher training in a safe environment.

Submitted by: **Juliette Schindler Kelley**

Puyallup School District – Ajax (programming language) - limitations on kids meeting graduation requirements, biggest hang-up. State has seldom used substitute requirements - give guidance to school districts.

OSPI representatives to meet with K-12 population and local businesses.

Support graduation priority through advising.

Share the opportunities and materials with our students.

NEXT MEETING
Wednesday, September 20, 2017
10:00 AM to 2:00 PM
University of Washington Paul G Allen School of Computer Science and Engineering

MEETING ATTENDEES

STEM EDUCATION INNOVATION ALLIANCE - Governor's Summit on Career Connected Learning - May 31, 2017			
STEM ALLIANCE MEMBERS			
First Name	**Last Name**	**Position Title**	**Organization**
John	Aultman	Executive Policy Advisor for Higher Education and Workforce Development	Washington State Office of the Governor
Maud	Daudon	Director & CEO	Seattle Metropolitan Chamber of Commerce
James	Dorsey	Executive Director	Washington Mathematics Engineering and Science Achievement (MESA)
Susan	Enfield	Superintendent	Highline School District
Paul	Francis	Executive Director	Council of Presidents
Janet	Frost	Director	WSU Spokane Health Science STEM Education Research Center
Evangelina	Galvan Shreeve	Director, Office of STEM Education	Pacific Northwest National Laboratory
Caroline	King	Chief Policy Officer	Washington STEM
Kathryn	Kurtz	Executive Director	Pacific Education Institute
Ed	Lazowska	Bill & Melinda Gates Chair	University of Washington Computer Science & Engineering
Glenn	Malone	Executive Director	Puyallup School District - Assessment, Accountability & Student Success
Marcie	Maxwell	Citizen Member	Former State Representative
Mike	Meotti	Executive Director	Washington Student Achievement Council
Rai Nauman	Mumtaz	Graduate & Professional Student	Student Representative
Dale	Peinecke	Commissioner, Executive Programs	Washington State Employment Security Department
Dana	Riley Black	Executive Director STEM, Legislation & Partnerships	Everett Public Schools
Naria	Santa Lucia	Executive Director	Washington State Opportunity Scholarship
Michael	Schutzler	CEO	Washington Technology Industry Association
Gene	Sharratt	Executive Director, OSPI/AESD Professional Learning Network	Office of Superintendent of Public Instruction/Association of Educational Service Districts Network
Brian	Teppner	Principal, McKnight Middle School	Renton School District
Nancy	Truitt Pierce	Director, School Board	Monroe Public Schools
STEM ALLIANCE ALTERNATE MEMBERS			
First Name	**Last Name**	**Position Title**	**Organization**
Jane	Broom Davidson	Senior Director	Microsoft Philanthropies
Tim	Probst	Director, Workforce Development Strategic Initiatives, Executive Programs	Washington State Employment Security Department
Juliet	Schindler Kelly	Director, Government Relations and Advocacy	College Success Foundation
Randy	Spaulding	Director, Academic Affairs & Policy	Washington Student Achievement Council
OTHERS			
First Name	**Last Name**	**Position Title**	**Organization**
Jessica	Calabrese-Granger	Chief of School Improvement	Renton School District
Kenney	Chan	Program Manager	Technology Education and Literacy in Schools (TEALS) / Microsoft Philanthropies
Nancy	Dick	Director for Workforce Education	State Board for Community and Technical Colleges
Mark	Doumit	Executive Director	Washington Forest Protection Association
Ryan	Eddy	Senior Policy Advisor, Deputy Director	Pacific Northwest National Laboratory - Northwest Regional Technology Center
Ellen	Matheny	Assistant Director of Operations	Washington Student Achievement Council
Daryl	Monear	Associate Director for Academic Affairs and Policy	Washington Student Achievement Council
Rachelle	Sharpe	Deputy Executive Director	Washington Student Achievement Council
Angela	Sheffey Bogan	Principal, Sarfori STEM Elementary	Renton School District
Martin	Simon	Director, Economic, Human Services & Workforce Division	National Governors Association, Center for Best Practices
Liz	Smith	Assistant Director for Fraud Prevention and Labor Standards	Washington State Department of Labor & Industries
Maija	Thiel	Director of Instructional Leadership - CTE	Puyallup School District
Maddy	Thompson	Director of Policy & Government Relations	Washington Student Achievement Council
Dan	Torres	Director of Policy and Partnerships	Thrive Washington
Joseph	Williams	ICT Sector Lead, Office of Economic Development and Competitiveness	Washington State Department of Commerce