

March 31, 2021



Co-Chair Senator Lew Frederick
Co-Chair Representative Susan McLain
Members of the Joint Ways and Means Subcommittee on Education

RE: SB 5513 and STEM Investments for the 2021-23 Biennium

Dear Co-Chair Frederick, Co-Chair McLain, and members of the Joint Ways and Means Subcommittee on Education,

On behalf of the Oregon CTE-STEM Employer Coalition, I urge you to fully fund the \$5.4M STEM investment in SB 5513, which is included in the Governor's Recommended Budget for 2021-23. This investment will allow Oregon to continue its work to better engage diverse learners who have historically lacked access to STEM opportunities through the Regional STEM Hub Network, STEM Innovation Grants, and Oregon Mathways.

Since 2012, our coalition representing 65 employers, businesses, and labor organizations has been working to advance CTE and STEM education for students from early learning through careers. We also partner with the STEM Investment Council, elected leaders, educators, state education agencies, nonprofits, and philanthropic foundations. We advocate visionary investment in CTE and STEM as part of a well-rounded education. That investment fuels Oregon's economic success and it prepares Oregon learners for meaningful careers and lives.

As communities across Oregon grapple with the impact of the COVID-19 pandemic on learning, the critical need for community-based, collaborative organizations, like STEM Hubs has never been clearer.

STEM Hubs bring together families, K12, postsecondary, CTE, and business partners. Throughout this crisis, Oregon's 13 STEM Hubs have been leaders in their communities. They provided online resources and curriculum, distributed thousands of at home STEM kits, provided professional development for educators, and worked with employers to bring virtual career-related learning experiences to students.

The hands-on, project-based learning that is at the core of STEM education engages students, helps them graduate, and prepares them for postsecondary education and careers. In that regard, Oregon offers real opportunity. By 2029, Oregon expects more than 52,000 new job openings in STEM-related fields. Yet too many students are emerging from our education systems without the skills to fill these positions.

To be clear, those job openings are at companies like mine. Current and future Pacific Power employees need access to the skills derived from CTE and STEM education. Furthermore, the communities we serve throughout Oregon need these job opportunities and family-wage jobs to help create economic prosperity.

Oregon has made great progress in CTE and STEM, but we need to do more. We are working to accomplish the ambitious goals outlined in the Oregon STEM Education Plan as gaps in CTE-STEM participation and outcomes remain too wide for women, students of color, low-income students, and rural students.

This strategic investment of \$5.4M will accelerate our progress and allow us to put more students across the state on a pathway to opportunity. Thank you for your continued support.

Sincerely,

A handwritten signature in black ink, appearing to read "Stefan Bird", written over a white background.

Stefan Bird
Chair, Oregon CTE-STEM Employer Coalition
Chair, Oregon STEM Investment Council
President & CEO, Pacific Power



INSPIRE AND PREPARE OREGON STUDENTS TO THRIVE THROUGH STEM AND CTE EDUCATION

Policy & Investment Priorities 2021-23

OUR VISION

All learners, especially historically underrepresented students of color, rural, low income, and female students, will have access to high quality, engaging, and inclusive science, technology, engineering, and math (STEM) and career technical education (CTE). All learners will have the knowledge and skills to become creative, life-long learners who discover their interests, develop their talents, and access pathways to their aspirations.

INCREASE EQUITABLE ACCESS TO OPPORTUNITY

The skills and mindsets developed through STEM and CTE – problem solving, critical thinking, adaptability, design thinking, and professional skills – are exactly those skills that will help our young people thrive in a changing economy and build Oregon’s economic well-being. Investing in STEM and CTE from early childhood through postsecondary will ensure more equitable engagement and outcomes, greater access to postsecondary credentials, apprenticeships, and degrees, and ensure that all Oregon learners are prepared for a future of opportunities.

CTE-STEM POLICY & INVESTMENT PRIORITIES

1 Increase STEM investments to Expand Equitable Access & Opportunity from Preschool through Postsecondary

- Approve funding of \$5.4M for Mathways, the STEM Hub Network, and STEM Innovation grants to expand engagement of diverse learners in STEM.
- Approve HB 2570 to develop a statewide, long-term computer science education strategy.

2 Maintain funding for STEM and CTE to Prepare Learners for Future Success

- Maintain current investments in STEM and CTE programs, High School Success, and secondary and postsecondary career pathways to close opportunity gaps and prepare learners for the future.
- Maintain current investment in the Engineering Technology Sustaining Fund (ETSF) for universities to increase degree attainment in STEM fields.

ABOUT THE OREGON CTE-STEM EMPLOYER COALITION

The Oregon CTE-STEM Employer Coalition, an initiative of the Oregon Business Council, advocates for CTE and STEM education and engages employers with partners in a shared vision of inspiring and preparing students to thrive in education, the workplace, and life. Contact Kyle Ritchey-Noll, kritcheynoll@orbusinesscouncil.org, for more information.

Why STEM and CTE Are Vital

Closing the Talent Gap. Oregon’s economic well-being depends upon Oregonians being prepared for high-demand careers.

- STEM and CTE prepare learners to access opportunities in high-wage, high-demand careers and contribute to the state’s economy.
- Gaps in STEM-CTE participation and outcomes remain too wide for women, students of color, and low-income Oregonians.
- By 2029, Oregon will have nearly 52,000 new job openings per year in STEM-related fields.
- Student outcomes in math remain below the national average (NAEP).
- Student time on science in elementary schools remains among the lowest in the nation.

Future Ready Learners. STEM and CTE are essential for equipping learners for success in our evolving world.

- They nurture creativity, critical thinking, adaptability, problem solving, teamwork, and habits of mind that are essential for success.
- They prepare learners with core academic knowledge.
- They engage and motivate learners.
- They help them develop their talents and envision a pathway to reach their aspirations
- Students who take these courses have higher graduation rates.
- STEM and CTE experiences are an important part of a well-rounded education that closes opportunity gaps.

DRIVING IMPACT ACROSS THE STATE FOR OREGON LEARNERS

Oregon's 13 STEM Hubs form a network of regional collaboratives to connect learners to discovery and opportunity through STEM and CTE. When students are shown real-world connections to learning material and given opportunities to apply their knowledge outside of the classroom, they actively engage in their learning and see possibilities for their future.

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| <p>Supporting quality distance learning</p> | <p>During comprehensive distance learning at home, STEM Hubs across the state have provided learning resources and curriculum, thousands of STEM kits, virtual professional development, online career related learning, and helped students with internet access.</p> |
| <p>Connecting learners to the world of work</p> | <p>Oregon Connections is a web-based tool connecting educators to industry professionals. Through in-person and virtual sessions, industry professionals connect with classrooms to share their skills and inspire students through real-world opportunities.</p> |
| <p>Providing leadership opportunities</p> | <p>The Chief Science Officer Program engages 6th to 12th grade students as STEM liaisons in their schools and communities. Chief Science Officers receive leadership training, mentorship, and opportunities to work with business and civic leaders.</p> |
| <p>Ensuring equitable access for all students</p> | <p>STEM Beyond School builds the capacity of out-of-school educators to provide high-quality, hands-on STEM learning to students experiencing poverty, students of color, students with disabilities, and English Language Learners in grades 3-8.</p> |
| <p>Breaking down mathematics barriers</p> | <p>Math in Real Life and Oregon Mathways seek to reimagine equitable mathematics education through relevant learning experiences and by aligning math pathways to a learner's needs and aspirations.</p> |
| <p>Ensuring equitable science access and outcomes</p> | <p>High School Science for All, a three-year curriculum and approach implemented in 98 high schools in 51 districts, ensures that all students access rigorous, foundational science and engineering knowledge in Physics, Chemistry, and Biology courses that prepare them for postsecondary success.</p> |
| <p>Supporting educator professional development</p> | <p>Teacher externships place educators with an industry partner, offering them the opportunity to experience how STEM knowledge, skills, and practices are used in the workplace and bring that knowledge back to the classroom.</p> |

