

STEM Investment Council UPDATE

Lindsey Capps Chief Education Officer (Acting) Jim Piro Chair, STEM Investment Council Mark Lewis STEM Policy Director



Connecting Education to Careers

Oregon CTE Investments

- CTE Revitalization Grants
- Regional & Summer Programs
- Sustainable Funding

Shared Outcomes

- Economic prosperity
- Increased graduation rates
- Career and college readiness
- Equity for underserved students
- Student motivation & engagement
- Academic and technical proficiency
- Creativity, critical thinking, problemsolving, communication

Shared Approaches

- Hands-on/minds-on
- Community-based, purpose-driven
- Interdisciplinary learning
- Opportunities for student choice
- · Authentic, "messy" problem-solving
- Using data & analytics
- Innovation & entrepreneurship
- Industry partnerships
- Early career experiences

Shared High-demand Careers

- Health Sciences
- Engineering & Construction
- Advanced Manufacturing
- Computer Science & IT
- Precision Agriculture &
 - Food processing

Oregon STEM Investments

- Regional STEM Hub Network
- Innovation Grants
- High-demand Post-Secondary Programs



STEM Investment Council



- Established by HB 2636 (2013)
- Advance Science, Engineering, Technology and Mathematics (STEM) education goals to drive economic growth:
 - By 2025, **double** number of students proficient in math and science
 - By 2025, **double** post-secondary STEM degrees and certificates

High Quality Jobs

	Non-STEM Job	STEM Job	% Difference
High School Diploma or Less	\$15.55	\$24.82	60%
Some College or Associate Degree	\$19.02	\$26.63	40%
Bachelor's Degree Only	\$28.27	\$35.81	27%
Graduate Degree	\$36.22	\$40.69	12%

STEM = higher lifetime earnings (~25% more on average)

- Higher state tax revenues
- More \$ in the economy
- Family wage jobs and break cycle of poverty
- Decreased reliance on social services

STEM Outcomes for the Class of 2005



Source: ECONorthwest analysis of ODE and National Student Clearinghouse data.

Strategic Planning

- Draft available for public comment
- Convening public focus groups
- Engaging with professional organizations
- Final STEM Investment Council Action this Spring
- State Board of Education and Higher Education Coordinating Commission

Data & Metrics

- Defined STEM jobs
- Defining STEM degrees and certificates
- Identified initial student, educator, and systems metrics
- Gathering baseline data for Strategic Plan

Communications

Communications framework developed

Vision: To build an inclusive, sustainable, innovation-based economy by reimagining and transforming how we educate and empower individuals and communities.

GOALS

- Inspire and empower our students to develop the knowledge, skills, and mindsets necessary to thrive in a rapidly-changing, technologically rich, global society.
- 2. Ensure equitable opportunities and access for every student to become a part of an inclusive innovation economy.
- **3.** Continuously improve the effectiveness, access to resources, and the number of formal and informal STEM educators.
- **4.** Create sustainable and supportive conditions to achieve STEM outcomes aligned to Oregon's economic, education, and community goals.

Student Outcomes



What?

• Collaborative partnerships: K-12, workforce boards, economic dev, postsecondary, out of school programs, business/industry, civic leaders.

Why?

- Take collective responsibility for education in and out of school
- Breakdown systemic isolation at all levels
- Support regional solutions to regional needs
- Accelerate spread of promising practices across state
- Increase connections between the field with policy and research

How?

- Educator professional development
- Industry partnerships (internships, mentoring, etc.)
- Aligning assets & programs to goals
- Bridging programs
- Access to quality out of school experiences

One Hub leveraged state funding:

\$600K **→** \$3.4M

2013-15 STEM Investments





Funded STEM Hubs, \$2.8m

Un-funded Hub Applicant

STEM/STEAM/CTE grants, \$2.5m

STEM Lab Schools, \$2.2m

HB 3072

Regional STEM Hubs, \$5m

- "Backbone" Coordination functions
- Program Funding
- Scale-up Initiatives

STEM Innovation Grants, \$4.75m

- Mathematics
 - Pilot adaptive learning platforms
 - "Math in real life" contextualized professional development
- Digital Literacy & Computer Science
- Out of School network and programs

Post Secondary Success, \$2m

- Underserved and underrepresented students
- Support services: Recruitment, retention, attainment

CHIEF EDUCATION OFFICE

Frontier Oregon

Lane County

Southern Oregon STEM Hub

Oregon's STEM Hubs 2015-2017



Questions?