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OF THE STATES

STEM: A National Policy Perspective

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Your education policy team.

Overview of Presentation

- About ECS
- What *is* STEM?
- Recent STEM policy trends
- State STEM plans: A cautionary tale
- Two approaches to coordinating: MA and UT
- Computer science

Who we are

The essential, indispensable member of any team addressing education policy.

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What we do

We believe in the power of learning from experience and we know informed policymakers create better education policy.

How we do it

REPORT

RESEARCH

CONVENE

COUNSEL

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Before we move on…

What *is* STEM?

- Adding math, science credits to HS graduation requirements?
- Overlap between STEM and CTE?
- Computer science?
- Project-based? Real-world? Hands on?

STEM Policy Trends

- Organizing/coordinating the work
- Early college opportunities
- Scholarships
- Teacher recruitment scholarships

Organizing the Work

Idaho: STEM Action Center

Michigan: MiSTEM Advisory Council

North Dakota: STEM Advancement Initiative

Early College/Work Opportunities

Colorado: P-Tech Model

Iowa: Appropriation to support STEM internships

LOTS of policy action re: CTE with implications for STEM

Scholarships

Montana: Montana STEM Scholarship Program

New York: NYS STEM Incentive Program

Rhode Island: Stay Invested in RI Wavemaker Fellowship

Teacher Recruitment Scholarships

Indiana: STEM Teacher Recruitment

New York: NYS Math & Science Teaching Incentive Scholarships

STEM Plans

- Numerous states have adopted

- Plans to date have not necessarily "solved" STEM challenges in states

Challenges with STEM Plans

- Wanting to take on too much
- Not supported by adequate funding streams

"We have studied countless state and other STEM plans over the past 2 years and found them to be overly complex and largely inactionable as they seek to do too much with too few resources."

Dr. Tom Peters, Executive Director
South Carolina Coalition for Mathematics & Science

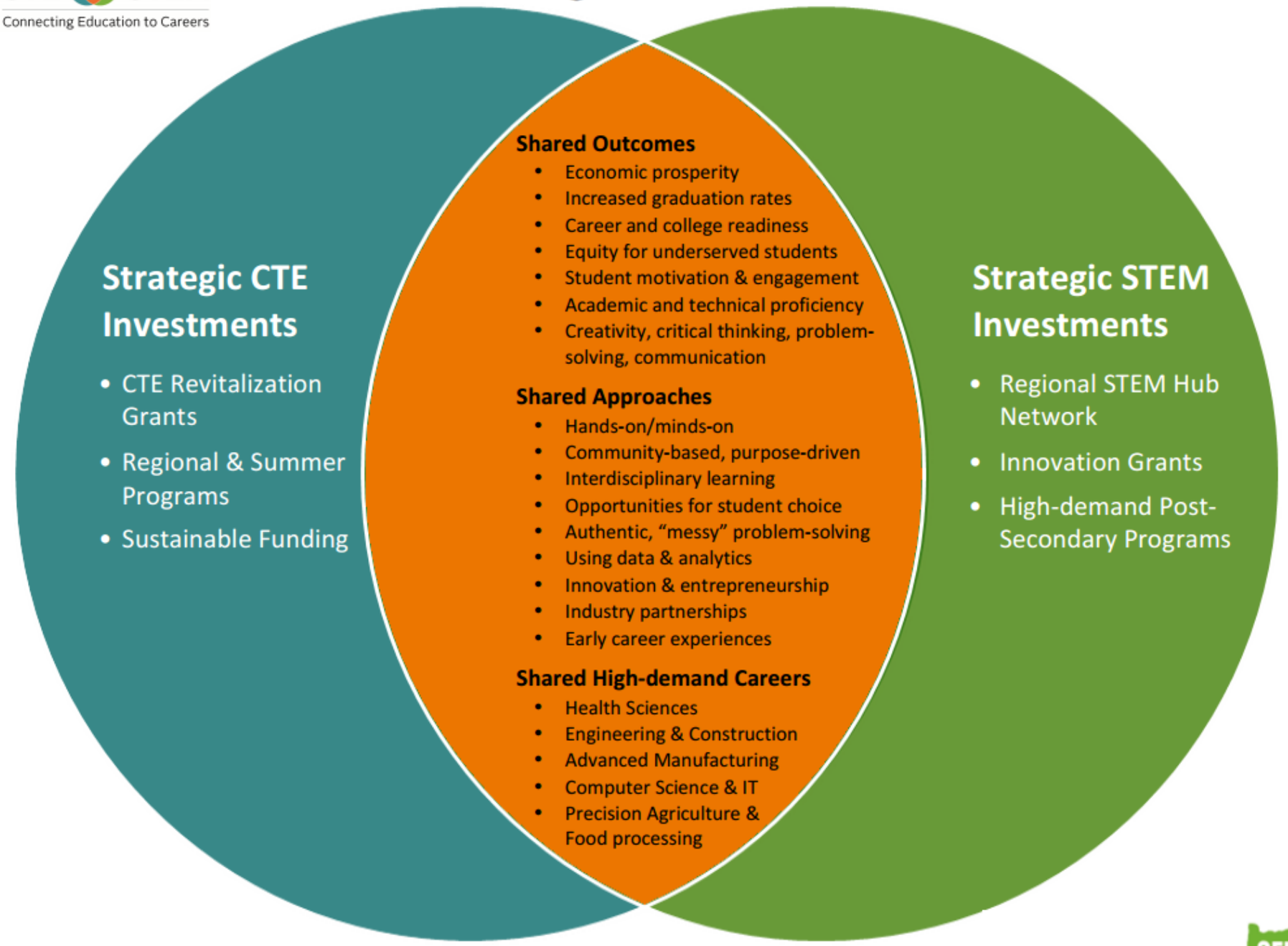
Challenges with STEM Plans

- Inadequate state coordination of efforts
- Unclear to what extent plans are being implemented
- Sometimes hinge on one extraordinary leader
  - And go away when that individual leaves office

How can states develop a cohesive approach that doesn't attempt to take on too little or too much, and that has adequate and dedicated funding?

CTE STEM
Connecting Education to Careers

Connecting Education to Careers



Oregon Department of Education | Oregon Education Investment Board 2015

Office of the Chief Education Officer OEIB

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Regional STEM Hub Network

State (or state-coordinated regional) networks active in ≥ 14 states

Bring together K-12, PS, business/industry, other partners to address education and workforce needs

Regional STEM Hub Network

Not all have seen equal success

What have been lessons learned?

Massachusetts

Issued "Recommended Functions and Related Performance Criteria for STEM Networks" in July 2015

Establishes

- Eligibility criteria for funding
- Three areas of performance criteria

MA: Three areas of performance criteria

- Informing regional stakeholders about regional STEM initiatives and needs
- Actively collaborating with regional partners to form regional STEM initiatives
- Track changes in regional STEM indicators related to 5 qualitative goals of state STEM plan

Utah STEM Action Center

- Single statewide hub
- Staffed by multiple FTEs
- Coordinate activities from early grades through postsecondary
- Provide research- and experience-based policy recommendations and implement legislative/agency directives

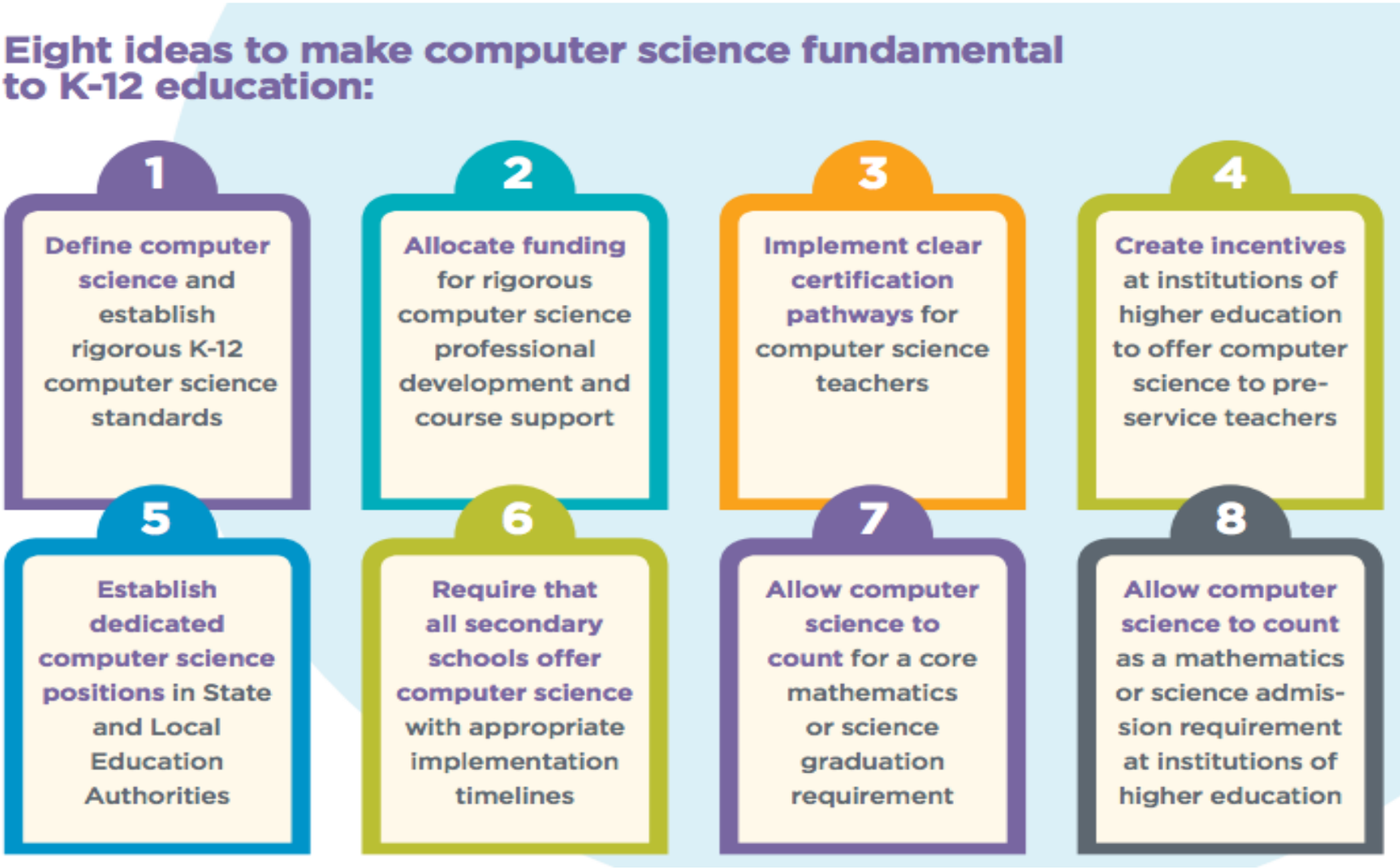
Computer Science

What Can States Do? Pathway Toward Access for All Students

Source: Code.org

Computer Science

What Can States Do? Policy Reforms



Source: Code.org

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Computer Science

What States Are Already Doing

Sampling of State CS Policy Work and Implementation
(Teal Boxes Represent Active Policy Efforts)

	Standards	Funding	Certification	Higher Ed Incentives	Dedicated Position	All High Schools	Count for Grad	Count for Higher Ed	State-level Implement -ation
AR	■	■	■		■	■	■	■	■
ID	■						■		■
MA	■	■							■
UT	■		■		■		■		■
WA	■	■	■		■		■	■	

Source: Code.org

QUESTIONS?

Contact Us

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