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## OREGON EDUCATION INVESTMENT BOARD

### Outcomes and Investments Subcommittee

Members: Dick Withnell, Chair, Pam Curtis, Ron Saxton,  
Hanna Vaandering, Duncan Wyse

**February 19, 2015**

**10:00am – 12:00pm**

Oregon Department of Education  
Public Services Building, Basement A  
255 Capitol Street, NE, Salem, OR 97310

*Call-In Number (888) 204-5984*

*Participant Code: 992939*

### **AGENDA**

- 1. Introductions**  
Dick Withnell
- 2. Snapshot of OEIB Research Team's Work**  
Dr. Cheng-Fei Lai, OEIB
- 3. Systems-Level Research and Evaluation *With Oregon's Regional Collaboratives***  
Dr. Krissi Hewitt, OEIB
- 4. Multi State Data Exchange**  
Dr. Michael Rebar, OEIB
- 5. Visits to K-12 districts in March**  
Dick Withnell
- 6. Public Testimony**  
*Members of the public wanting to give public testimony must sign in.  
There will only be one speaker from each group.  
Each individual speaker or group spokesman will have three (3) minutes.*

All meetings of the Oregon Education Investment Board and its subcommittees are open to the public and will conform to Oregon public meetings laws. The upcoming meeting schedule and materials from past meetings are posted [online](#). Staff respectfully requests that you submit 25 collated copies of written materials at the time of your testimony. Persons making presentations including the use of video, DVD, PowerPoint or overhead projection equipment are asked to contact board staff 24 hours prior to the meeting. A request for an interpreter for the hearing impaired or for accommodations for people with disabilities should be made to Seth Allen at 503-378-8213 or by email at [Seth.Allen@state.or.us](mailto:Seth.Allen@state.or.us). Requests for accommodation should be made at least 48 hours in advance.

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Version. 1: 2/10/15

# Snapshot of OEIB Research Team's Work

Cheng-Fei Lai, Ph.D.  
Research Analyst  
OEIB Research & Policy Team

# Projects

- \* stORytime
- \* Quality Education Model
- \* Chronic Absenteeism
- \* Culturally Responsive Pedagogy Practices
- \* Science, Technology, Engineering & Mathematics (STEM) Hubs
- \* Regional Achievement Collaborative Initiative (RAC)

## Methodology

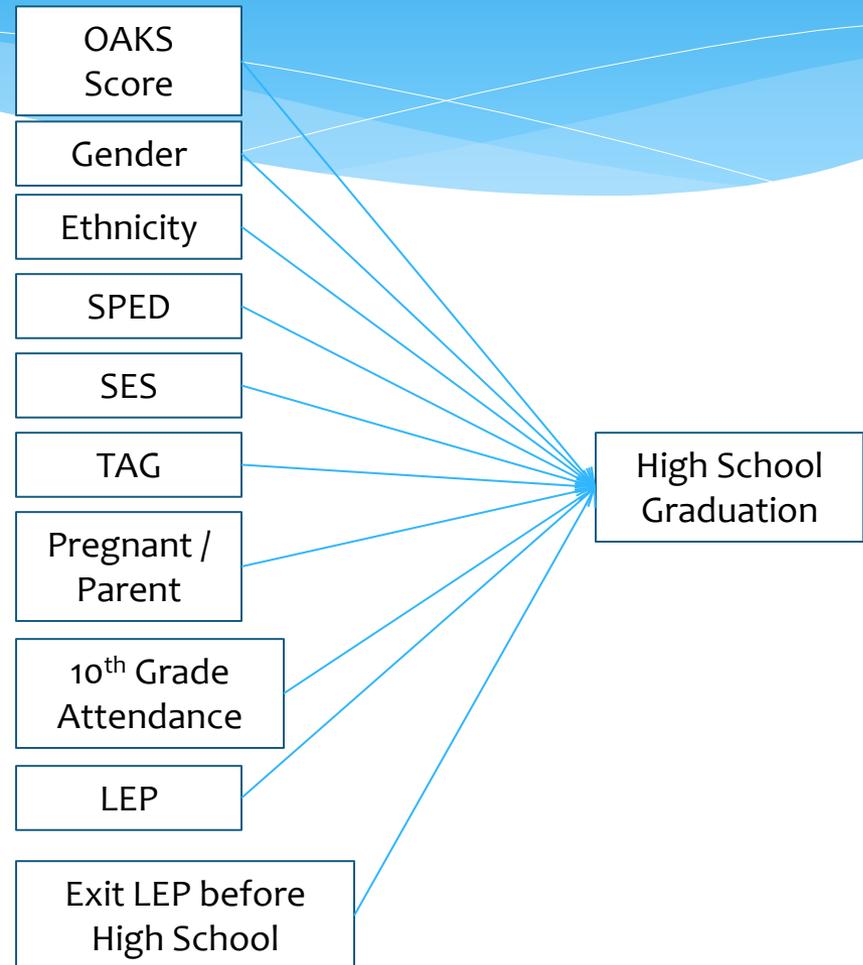
- \* Quantitative
- \* Qualitative
- \* Mixed-methods

# stORytime

- \* Evaluate the reach of stORytime campaign messages to parents, businesses, and local community organizations
- \* Descriptive analysis
  - \* Survey
    - \* Paper-pencil
    - \* Phone
- \* Qualitative methods
  - \* Short phone interview

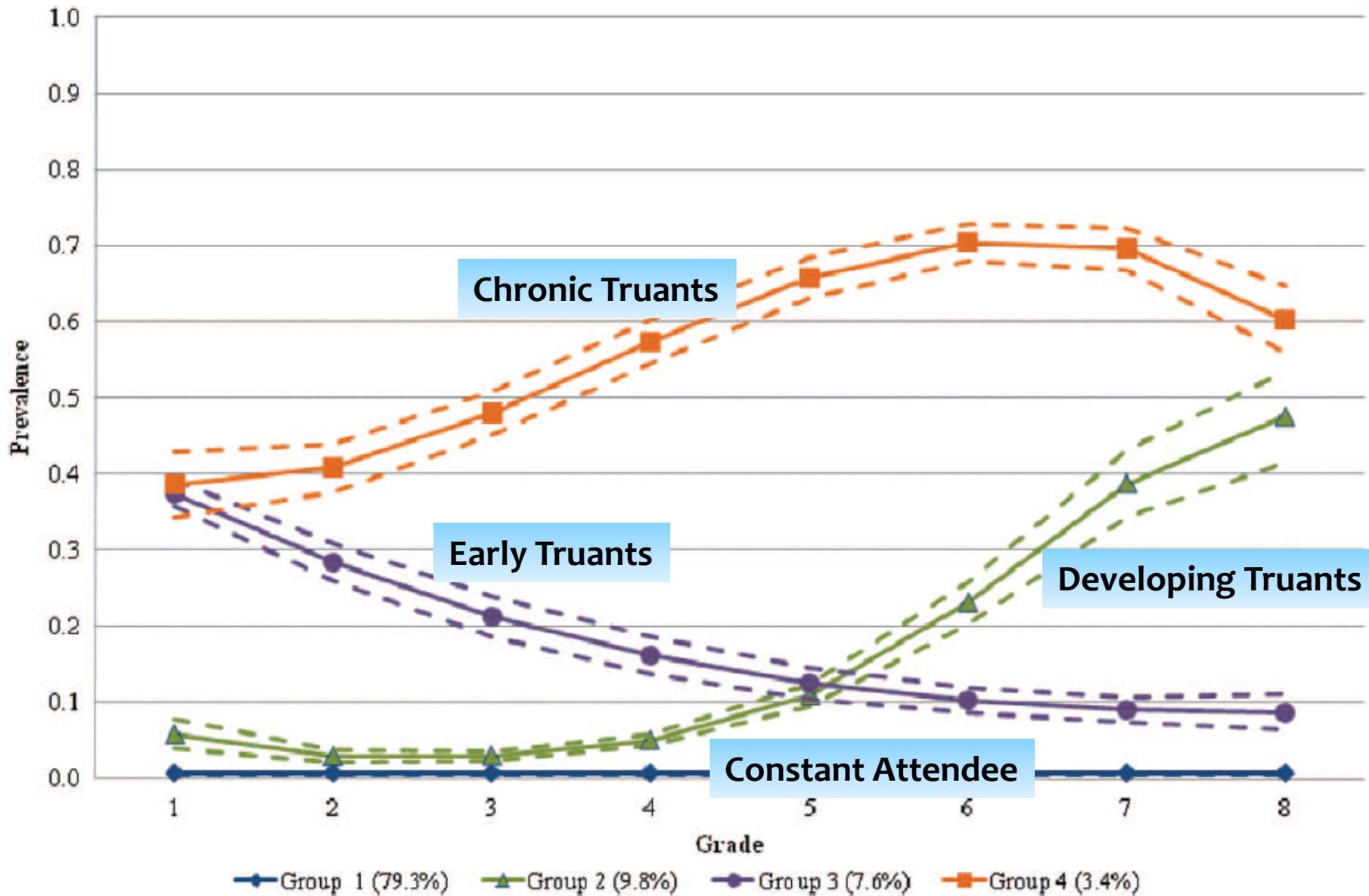
# Quality Education Model

- \* Replication of the Student Achievement Model
  - \* 3<sup>rd</sup> grade cohort
  - \* Estimate the probability of graduating in High School
  - \* Compare methods of data-retrieval and selection
    - \* Descriptive, Predictive, & Sensitivity analyses
    - \* Model comparison



# Chronic Absenteeism

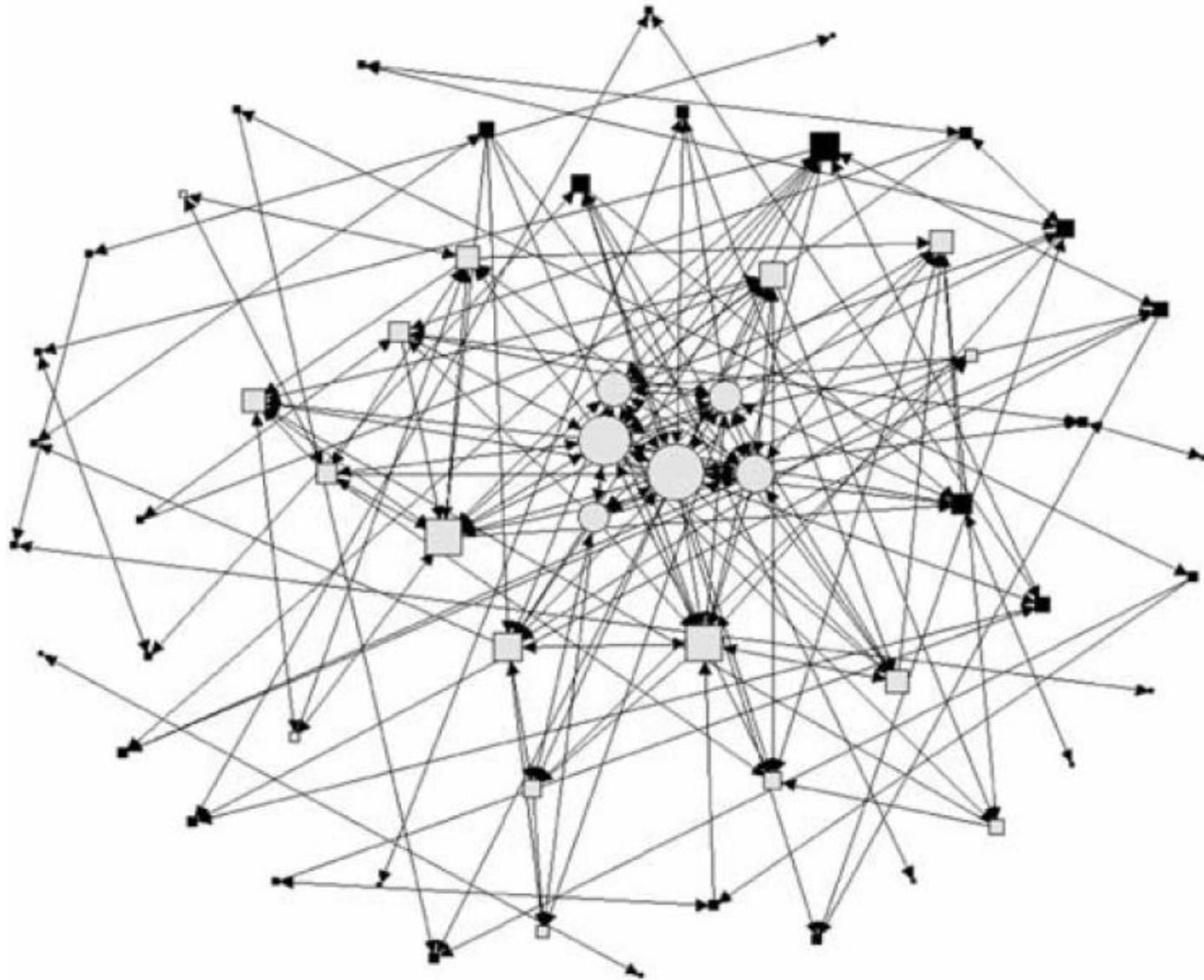
- \* School selections
  - \* Descriptive analysis
- \* Identify groups of students with different attendance patterns
  - \* Longitudinal study of a cohort
  - \* Latent class growth analysis



**FIGURE 1. Four group Attendance Trajectories with 95 Percent Confidence Intervals. (Color figure available online.)**

# Culturally Responsive Pedagogy Practices

- \* Case study of selected schools
- \* Examine teacher's communication patterns
- \* Study teacher's knowledge of culturally responsive pedagogy
  - \* Social network analysis



**Fig. 1** Communication network (*To whom do you communicate with in regard to work related tasks...and at what frequency?*)

# References

Daly, A. J. & Finnigan, K. S. (2009). A bridge between worlds: understanding network structure to understand change strategy, *Journal of Education Change*, 11(2), pp. 111-138.

Schoeneberger, J. A. (2012). Longitudinal Attendance Patterns: Developing High School Dropouts, *The Clearing House*, 85, pp. 7-14.

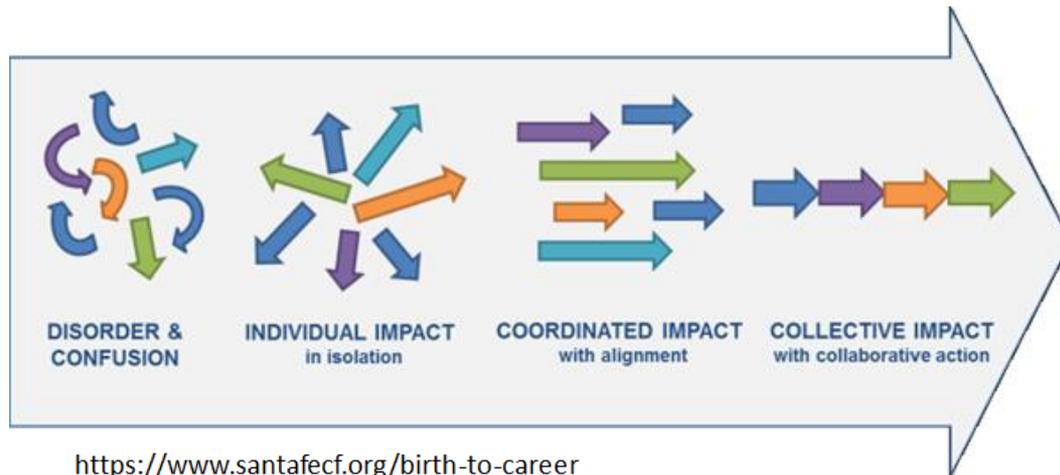
# **Systems-Level Research and Evaluation** ***With Oregon's Regional Collaboratives***



Krissi M. Hewitt, PhD  
Oregon Education Investment Board



# Multi-Sector Collaboration as a Model for Community Change



1 Common Agenda

2 Shared Measurement

3 Mutually Reinforcing Activities

4 Continuous Communication

5 Backbone Support

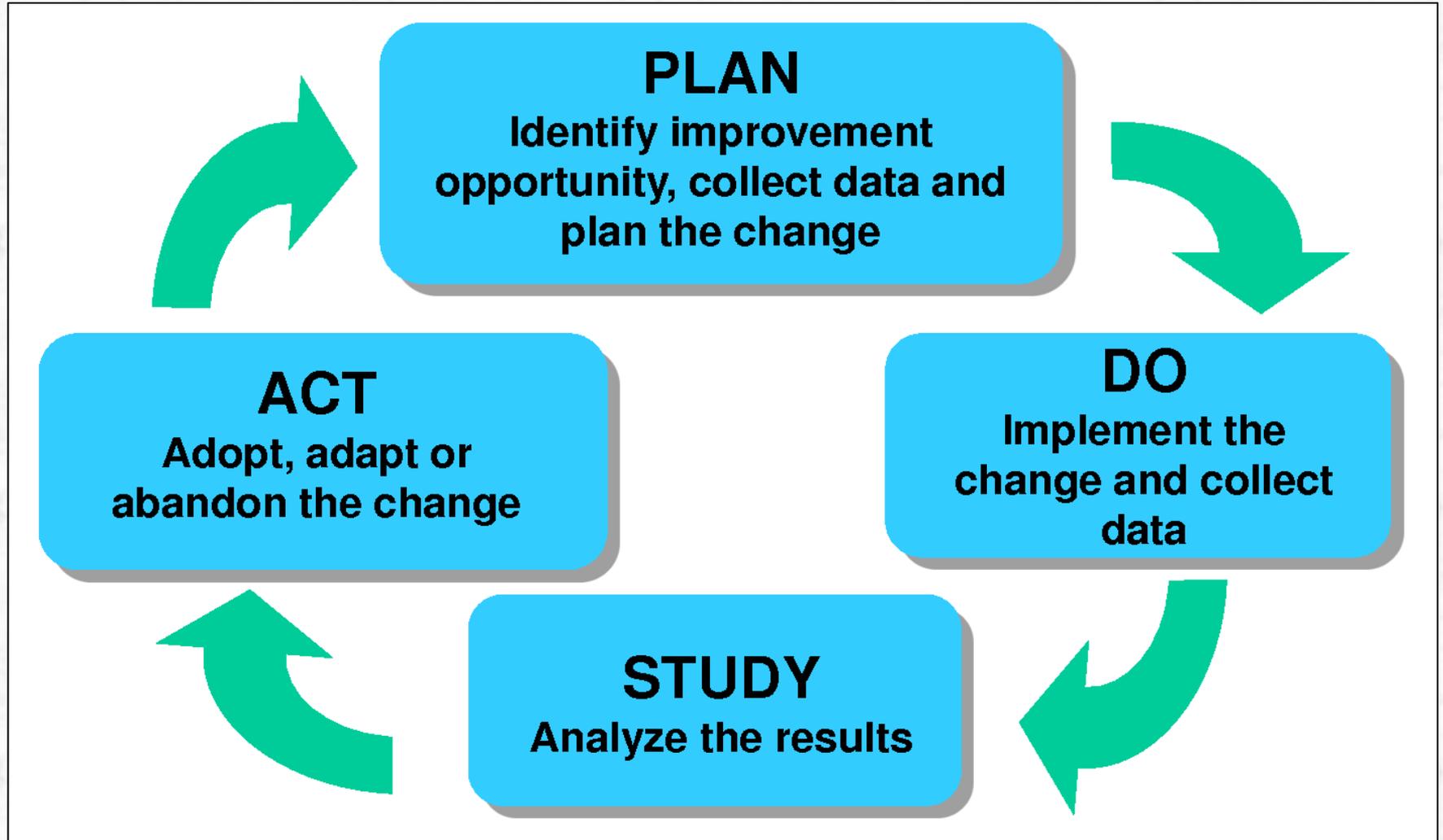
# A Shared Outcomes Framework for Oregon's Regional STEM Hubs



## Common Outcomes Enable:

- Ongoing learning related to Hub efficiency and effectiveness
- Evaluation of systems-level change related to strategic investments
- Sharing of tools and resources both within and across regions

# Continuous Improvement Cycle and Systems Change

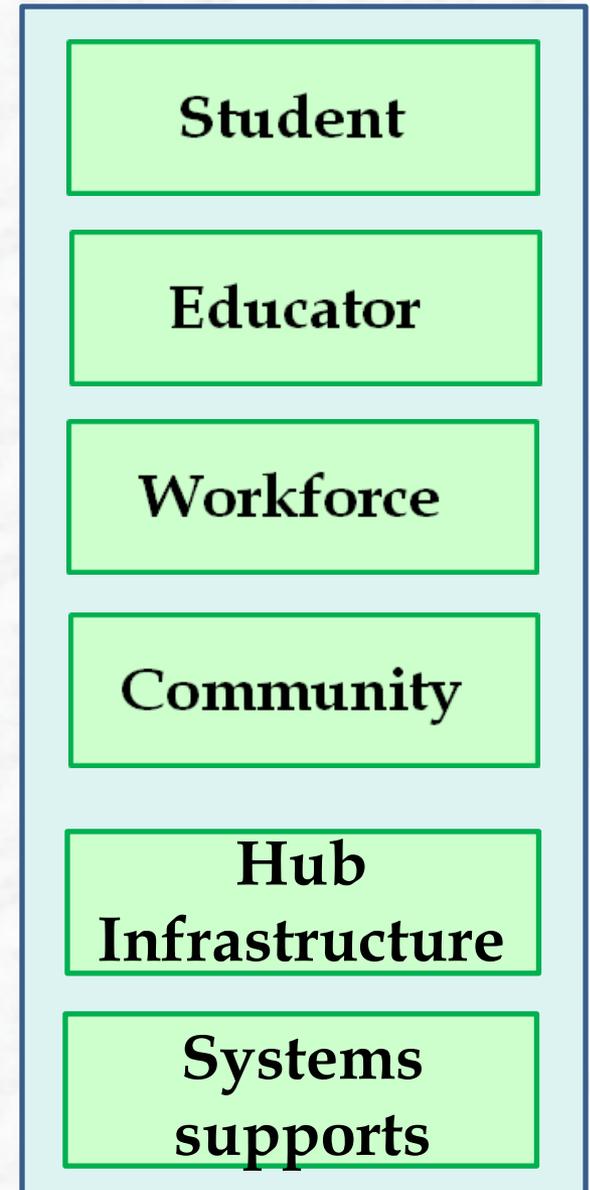


# Outcomes Selection Process

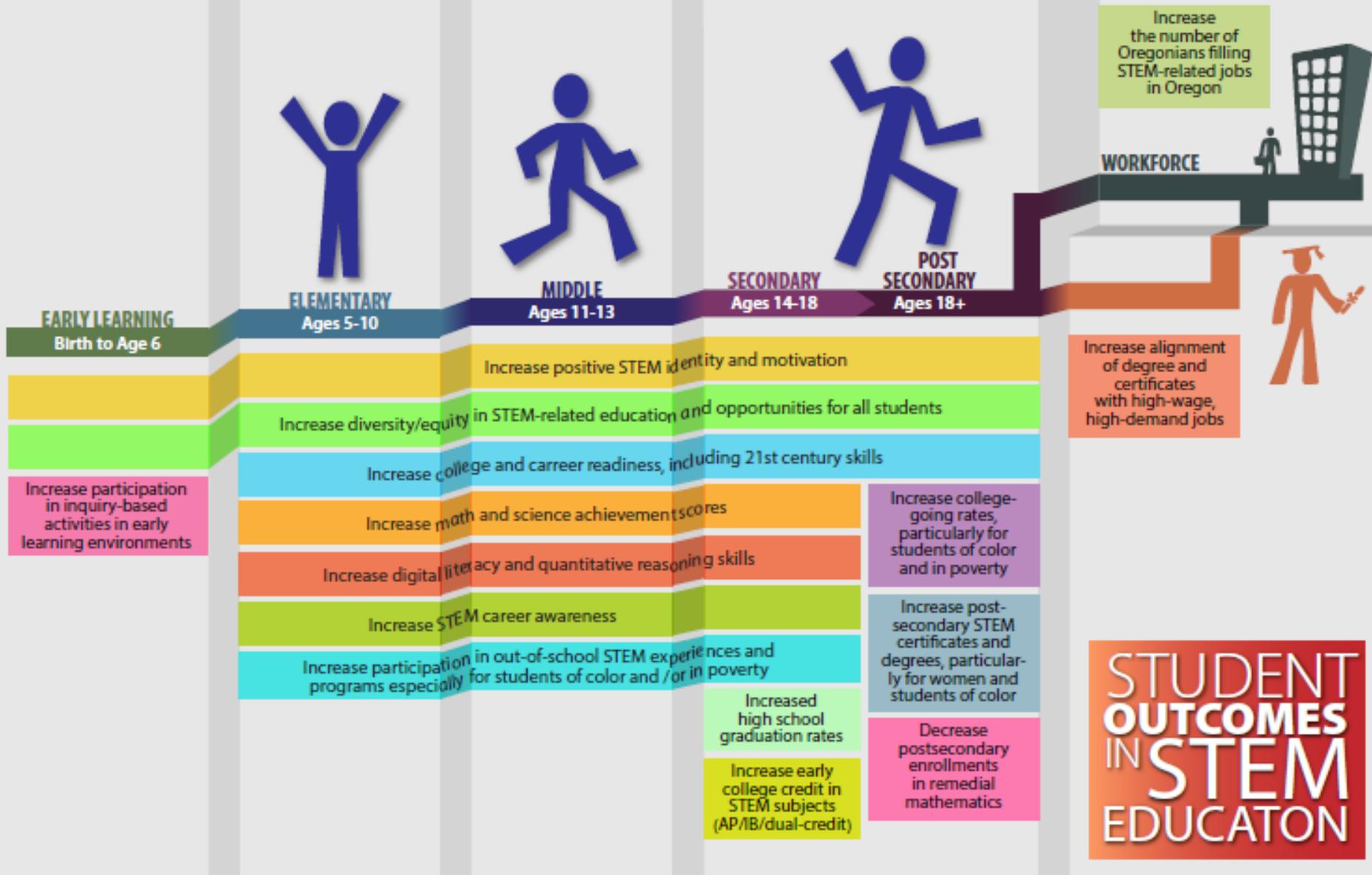
- Overlap amongst Hubs' locally defined outcomes
- Legislative requirements
- Investment requirements
- Evidence-based practices regarding effective partnerships



**Systems Outcomes DO NOT Supplant  
LOCAL Outcomes**



# \*Draft\* Student-Level Outcomes



# Considerations for Present and Future Practice

- Continuous input from the field
- Complexity of systems change requires flexibility
- Outcomes support reflective improvement of partnerships
- Many potential outcomes – share those that are most informative at the systems-level



# Contributions and Acknowledgments

- Oregon's Regional STEM Hubs Leaders
- OEIB Research and Policy Team
- Mark Lewis, OEIB Director of STEM and CTE
- Education Policy Improvement Center
- Oregon Department of Education





**EARLY LEARNING**  
Birth to Age 6

**ELEMENTARY**  
Ages 5-10

**MIDDLE**  
Ages 11-13

**SECONDARY**  
Ages 14-18

**POST SECONDARY**  
Ages 18+

**WORKFORCE**

Increase positive STEM identity and motivation

Increase diversity/equity in STEM-related education and opportunities for all students

Increase college and career readiness, including 21st century skills

Increase participation in inquiry-based activities in early learning environments

Increase math and science achievement scores

Increase digital literacy and quantitative reasoning skills

Increase college-going rates, particularly for students of color and/or in poverty

Increase STEM career awareness

Increase participation in out-of-school STEM experiences and programs especially for students of color and/or in poverty

Increase post-secondary STEM certificates and degrees, particularly for women and students of color

Increase high school graduation rates

Increase early college credit in STEM subjects (AP/IB/dual-credit)

Decrease postsecondary enrollments in remedial mathematics

Increase alignment of degree and certificates with high-wage, high-demand jobs

**STUDENT OUTCOMES IN STEM EDUCATION**

Increase the number of Oregonians filling STEM-related jobs in Oregon

# Oregon Education Investment Board: In Pursuit of 40-40-20

Discovering Higher Education and Workforce Outcomes  
Statewide Longitudinal Data Systems (SLDS)

Michael Rebar, Ph.D.

# WICHE Project



- \* Western Interstate Commission on High Education
- \* 15 Western states and the Commonwealth of Northern Mariana Islands
- \* *Rebranded: MLDE – Multistate Longitudinal Data Exchange*

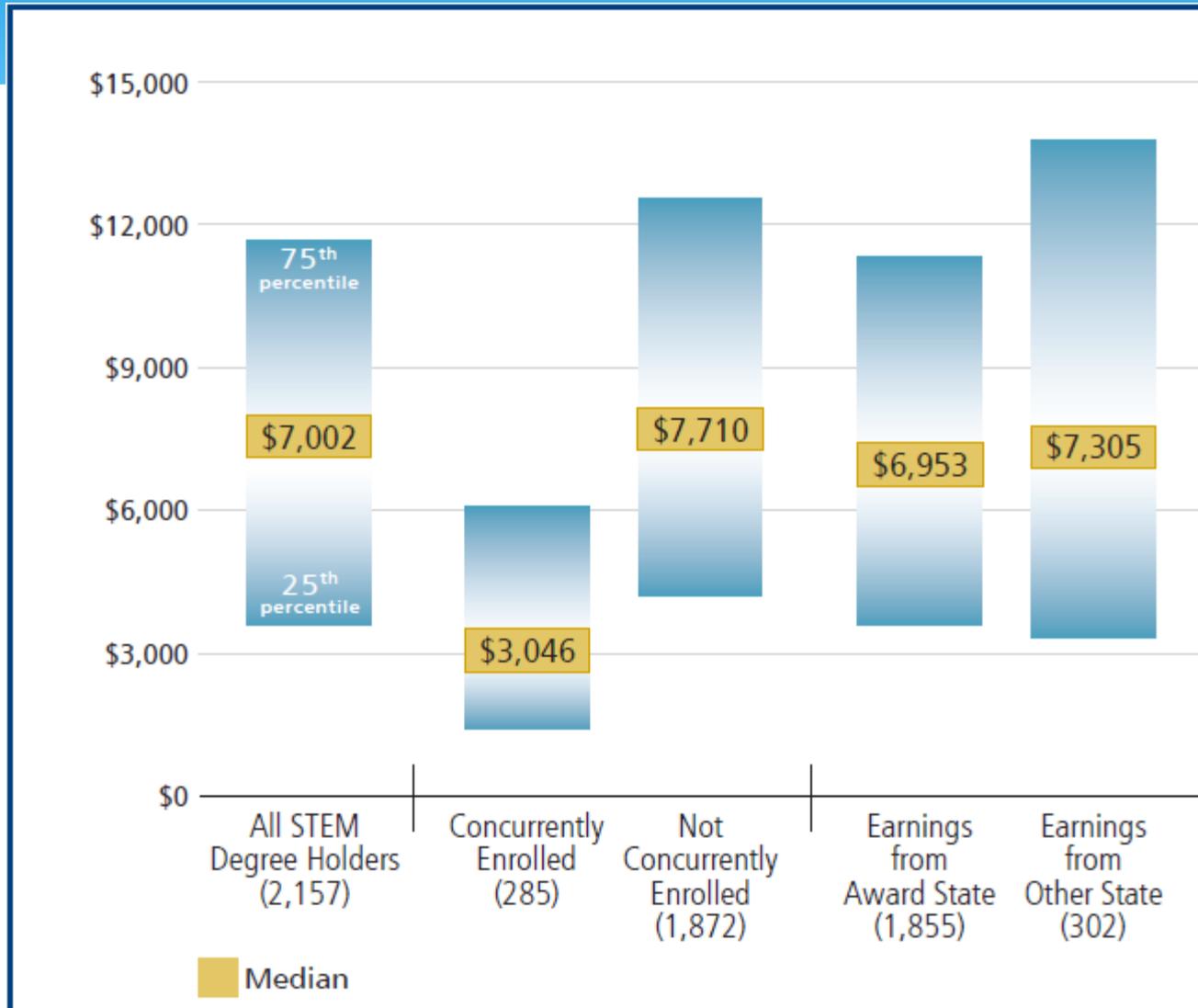
# MLDE Project

- \* A **M**ultistate **L**ongitudinal **D**ata **E**xchange
- \* K-12, Higher Education, and Workforce Data
- \* *Building Capacity for Tracking Human Capital Development and Its Mobility Across State Lines*
- \* <http://www.wiche.edu/info/publications/PI-150105-MLDE-Policy%20Insights.pdf>

# Why 40-40-20?

- \* Consider a popular degree...
  - \* Forestry
- \* *Are we educating Oregon foresters, or supplying the nation?*
- \* *Where are they employed?*
- \* *What percentage are employed out of state?*
- \* *What do Oregon foresters earn compared to non-Oregon foresters?*

# STEM



# Oregon State Agency Partners

- \* K-12 Data: Department of Education
- \* Higher Education Data: Higher Education Coordinating Commission
  - \* Oregon University System and Independents
  - \* Community Colleges and Workforce Development
  - \* Private and Career Schools (Possible)
- \* Employment Data: Oregon Employment Department

# K-12 Data

- \* High School Completers (possibly include Non-Completers)
- \* Career and Technical Education
- \* Dual Enrollment
- \* Higher Education Readiness
  - \* Highest Math
  - \* Final GPA
  - \* Readiness Tests (Advanced Placement, International Baccalaureate, and similar)

# Higher Education Data

- \* Enrollment
- \* Degree Completion (Award Type and Area of Study)
- \* Certificate Completion
- \* Declared Major
- \* Need for Remedial Coursework
- \* Success in Gateway Courses

# Workforce Data

- \* Unemployment Insurance (wage records)
- \* Wage records do NOT contain names
  - \* Social Security Number (SSN) is the only field on which to match
- \* No personally identifiable information contained in records
- \* If an agency did not contribute an SSN, it will not receive an SSN
- \* Hours Worked
- \* Wages

# OEIB Research & Policy Team

- \* Peter Tromba, Director of Research and Policy
- \* Shadiin Garcia, Deputy Director
- \* Angela Bluhm, Executive Support Specialist
- \* Holly Cruzen, Project Manager SLDS
- \* Krissi Hewitt, Ph.D. - Research Analyst
- \* Cheng-Fei Lai, Ph.D. - Research Analyst
- \* Michael Rebar, Ph.D. - Director of Systems Integration
- \* <http://education.oregon.gov/Pages/OEIB-Staff.aspx>