Career and Technical Education in Oregon High Schools

Amy Arneson
Senior Researcher
REL Northwest at Education Northwest

Steve Klein
Director
Education Northwest

Please introduce yourself in the chat! List your name, affiliation, and role.

IES Institute of Education Sciences

This presentation was prepared under Contract ED-IES-17-C-0009 by Regional Educational Laboratory Northwest, administered by Education Northwest. The content does not necessarily reflect the views or policies of IES or the U.S. Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

How to access the study and infographic

Arneson, A., Hodara, M., & Klein, S. (2020). *Career and technical education in Oregon: Exploring who participates in high school and the outcomes they achieve*. Portland, OR: Education Northwest, Regional Educational Laboratory Northwest. https://eric.ed.gov/?id=ED607349

Infographic link:

https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/cte-infographic.pdf

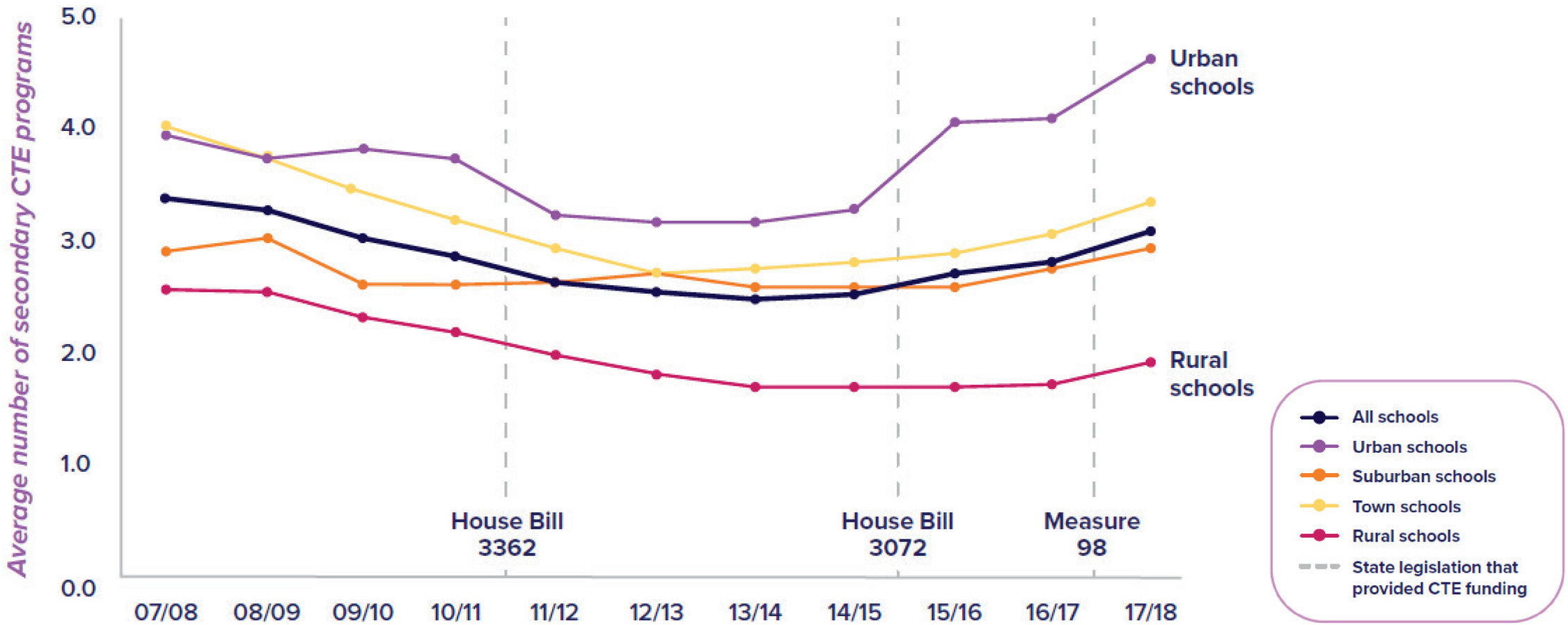
What were the study goals?

- To provide state-level stakeholders with a **retrospective landscape study of CTE** in Oregon to be used as a baseline for tracking trends between the *Perkins IV* and *Perkins V* implementation years
- To inform the comprehensive CTE needs assessments that local providers will be developing and submitting every two years

What did we do?

- Examined the CTE landscape in Oregon during the *Perkins IV* years (2007/08 through 2017/18)
- Organized findings into three main areas:
  - Secondary CTE program offerings
  - High school participation in CTE
  - Academic and workforce outcomes of secondary CTE concentrators

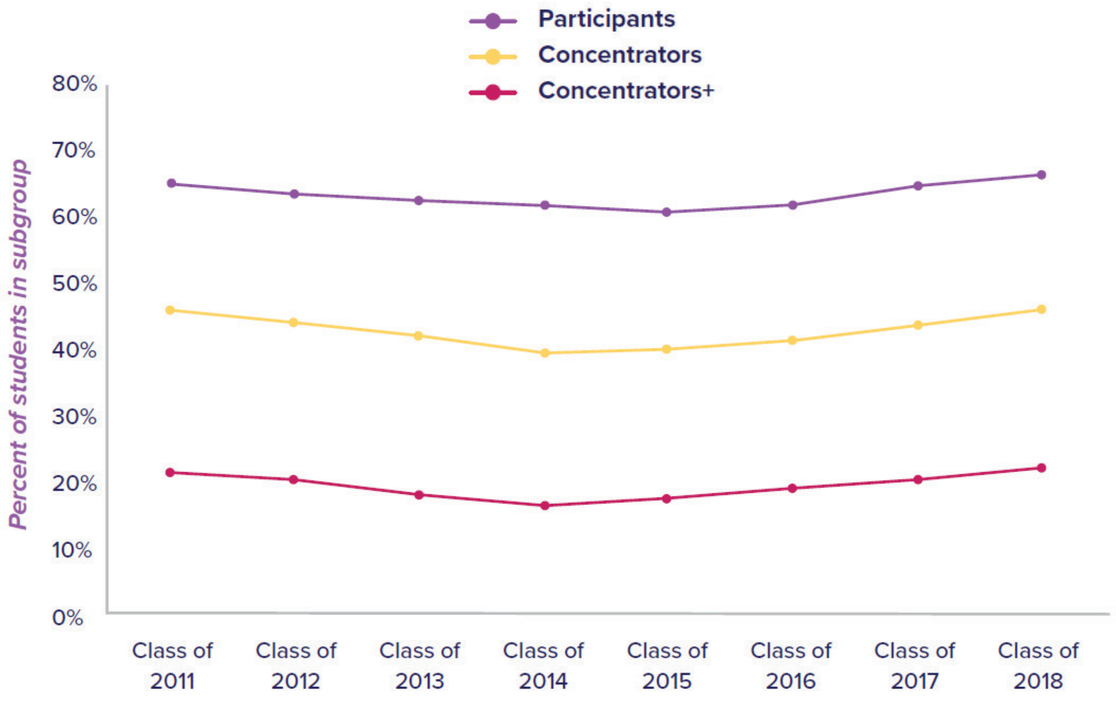
What did we learn about secondary CTE program offerings?



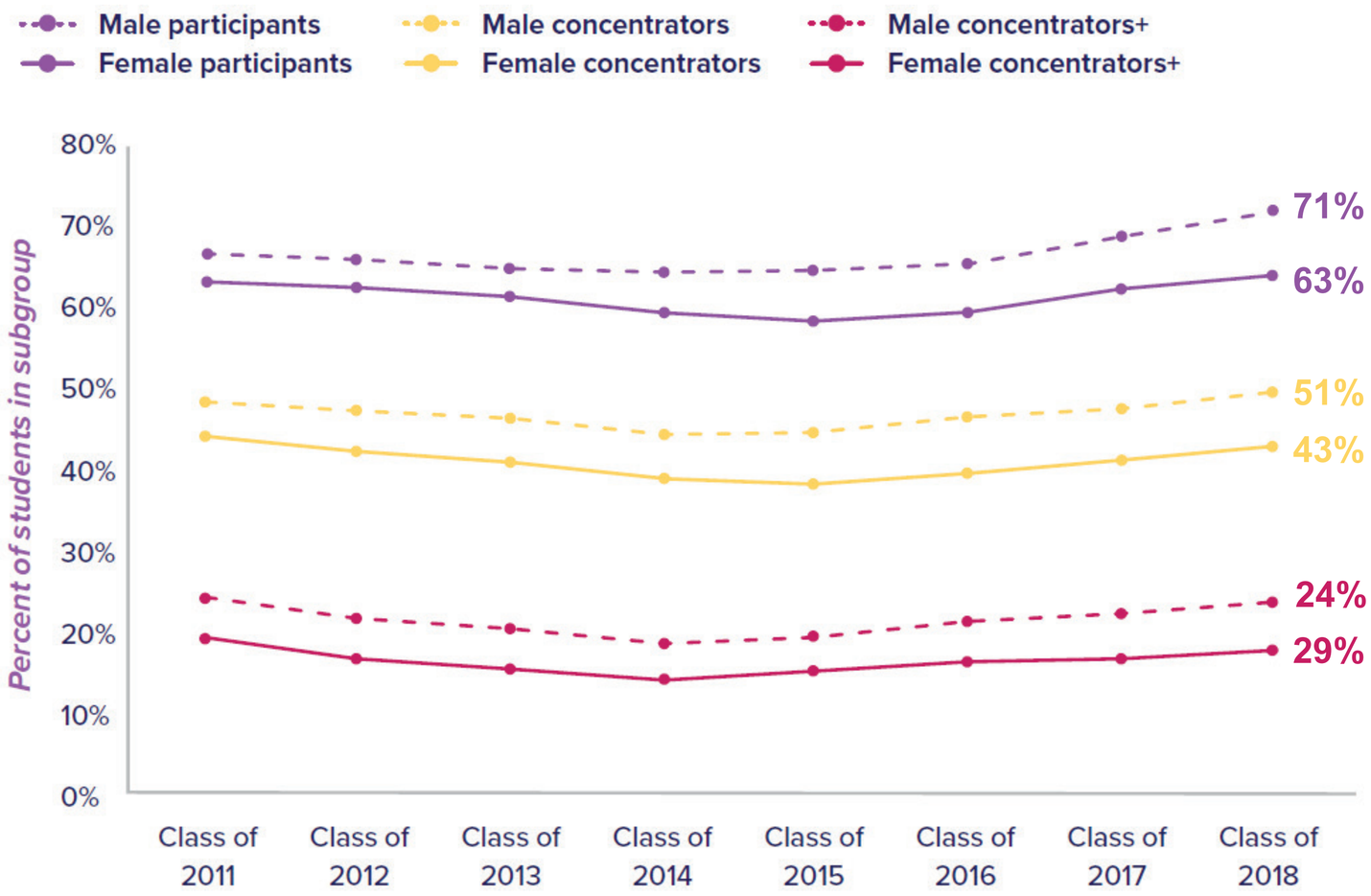
What did we learn about high school student participation?

High school students were classified into four participation levels, based on the number of CTE credits earned in *a single program/program of study.*

- **Nonparticipants:** Fewer than 0.5 CTE credits
- **Participants:** 0.5 or more CTE credits
- **Concentrators:** 1.0 or more CTE credits (Note: *Perkins IV* concentrator)
- **Concentrators+:** 2.0 or more CTE credits (Note: *Perkins V* concentrator)



What did we learn about high school student participation?



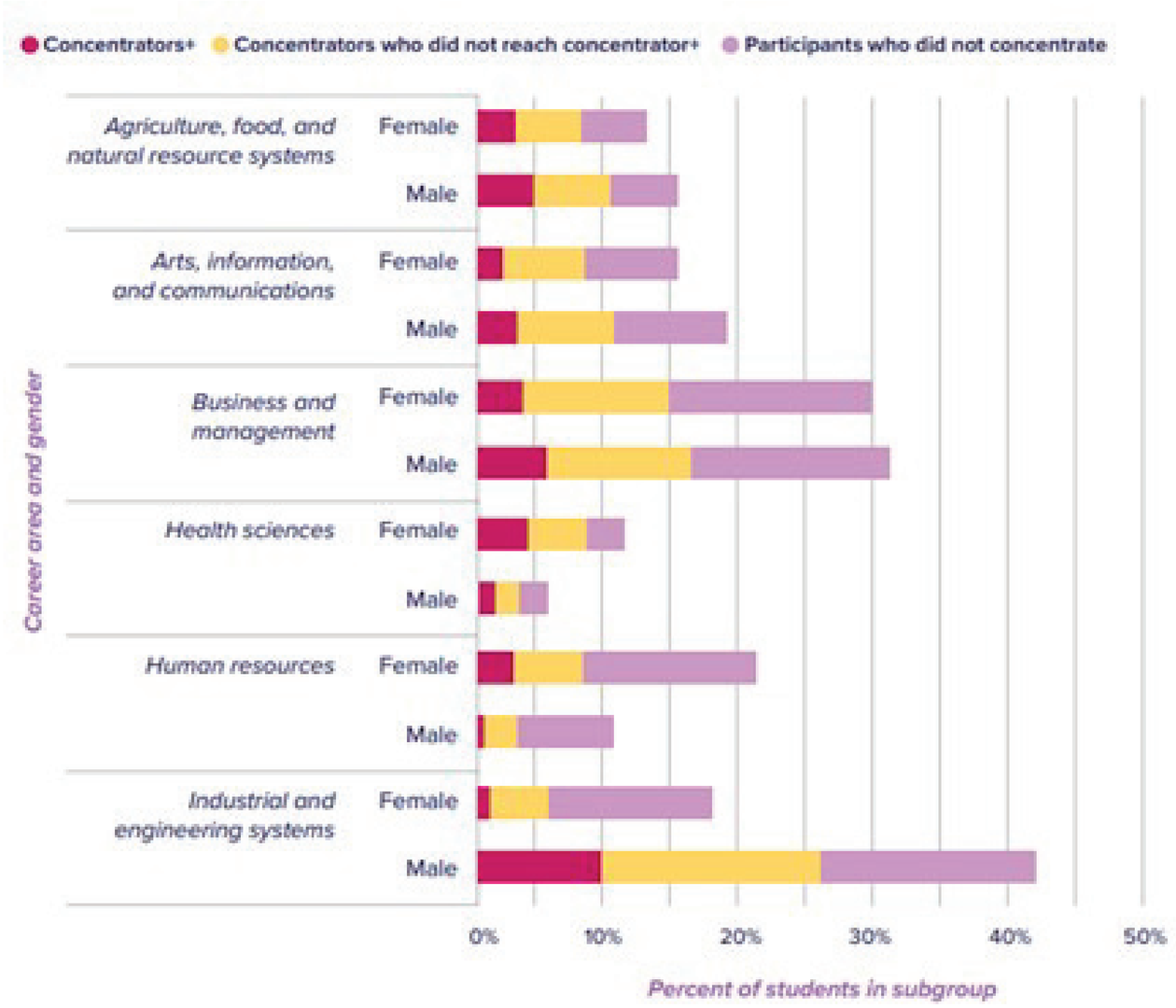
What did we learn about high school student participation?

Rates of participation, concentration, and concentration+ rates differed by gender within career areas.

- **Participant rate:**

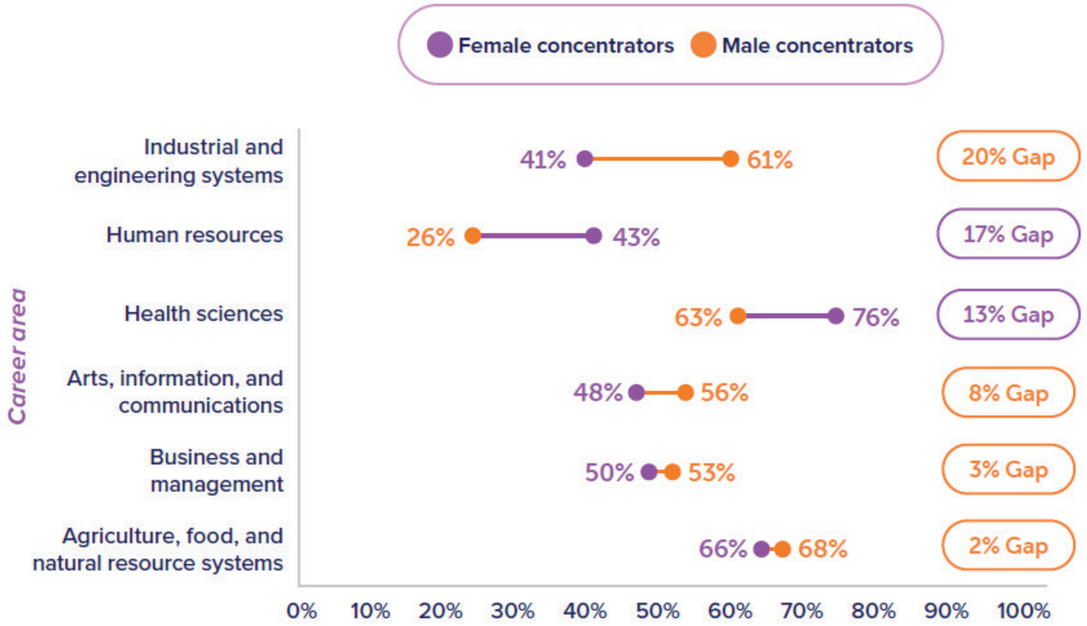
$$\frac{number\ of\ participants}{number\ of\ students\ in\ cohort}$$

- Concentrator and concentrator+ rates are calculated similarly, using the whole cohort size as the denominator



What did we learn about high school student *persistence*?

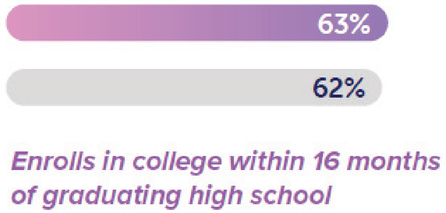
Rates of persisting from participant to concentrator also varied by gender within career areas.

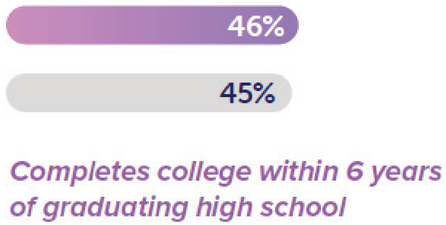


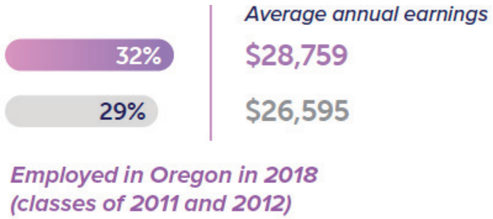
- **Persistence rate:** $\frac{number\ of\ concentrators}{number\ of\ participants}$

- Note that the denominator differs from the last slide.

What did we learn about the academic and workforce outcomes of secondary CTE concentrators?





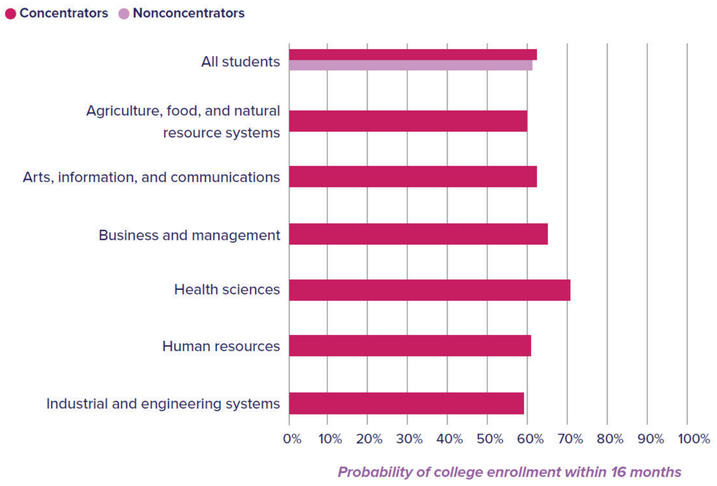


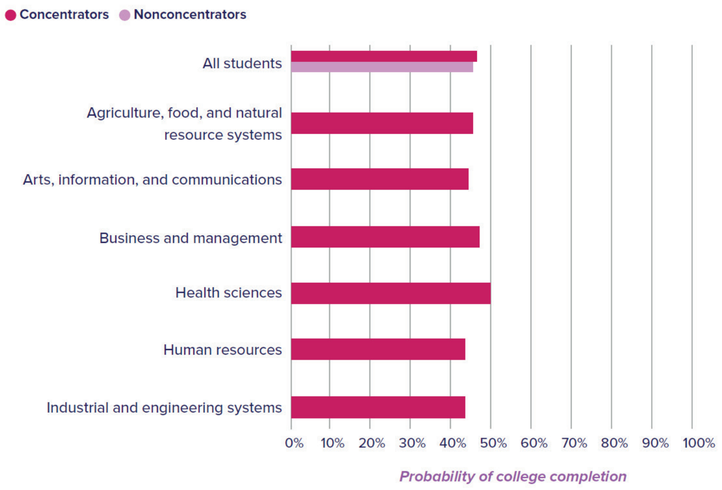
Among high school graduates, those who concentrated in CTE in high school were just as likely as those who did not to enroll in college.

Among college enrollees, those who concentrated in CTE in high school were just as likely to complete college as those who did not.

Among all students in the classes of 2011 and 2012, those who concentrated in CTE in high school were moderately more likely to be employed in Oregon six to seven years after high school and had moderately higher annual earnings.

What did we learn about the academic outcomes of secondary CTE concentrators?





College enrollment by career area of concentration

- College enrollment among high school graduates varied by the career area of concentration.
- Health science concentrators had the highest rates of enrollment.

College completion by career area of concentration

- College completion among college enrollees varied by the career area of concentration.
- Health science concentrators had the highest rates of completion

Implications for policy and practice in Oregon

- Consider policies that help **rural, small, and low-income high schools** offer a minimum threshold of CTE programs.
- Consider strategies for expanding student participation and retention in CTE programming, **given the differential rates of concentration overall and in different program areas**—especially by student gender.
- Recognize that the historical **stigma** that college was less of an option for CTE (or "vocational") students is not supported by evidence, as CTE concentrators have similar college-going and completion rates as nonconcentrators.

Implications for policy and practice in Oregon

- The study uncovered differences in student outcomes by career area, **with concentrating in the health sciences related to the most positive outcomes.** More research is needed to understand **what drives these differences** so that CTE programs in all areas contribute to positive outcomes for students.

And, not covered in previous slides:

- As concentrators+ are demographically similar to concentrators, Oregon can use the information about equity gaps learned under *Perkins IV* **as it transitions into the *Perkins V*** era to drive policy and supports for CTE providers.

Discussion

- What findings stood out to you and why?

Discussion

- How will you use these state findings to inform your work?

Follow-up work and discussion

- What questions do you have about the training series?
- How will you use district-specific data to inform your work?

Contact Us

REL Northwest at Education Northwest
101 SW Main Street Suite 500
Portland, OR 97204-3213

ies.ed.gov/ncee/edlabs/regions/northwest
@relnw
relnw@educationnorthwest.org
800.547.6339