HIGHER EDUCATION COORDINATING COMMISSION

CAREER PATHWAYS: A PARTNERSHIP APPROACH

DONNA LEWELLING, EDUCATION DIVISION DIRECTOR

March 7, 2017

Presented to: House Higher Education and Workforce Development Committee

CAREER PATHWAYS

A series of connected education programs and student supports enabling individuals to get the training they need to secure a job or advance in a demand industry or occupation.

Goals

Increase the number of Oregonians with certificates, credentials and degrees in demand occupations.

To ease student transitions from high school to community college and from pre-college to credit postsecondary.

KEY PATHWAYS AND TRANSITION POINTS

Pre-college outreach: help students and families plan for and achieve postsecondary success (Oregon ASPIRE, FAFSA Plus+, as well as campus-based outreach programs).

Accelerated Learning: college credits while in high school boost preparedness, and help students save on college costs.

Academic Transitions: community college to university transitions, articulation and transfer, and HECC-led academic initiatives to promote successful pathways.

Career and postsecondary training programs to build successful futures, such as Adult Basic Skills, GED programs, and Career and Technical Education.

"PATHWAYS" – OREGON'S MULTIPLE USES

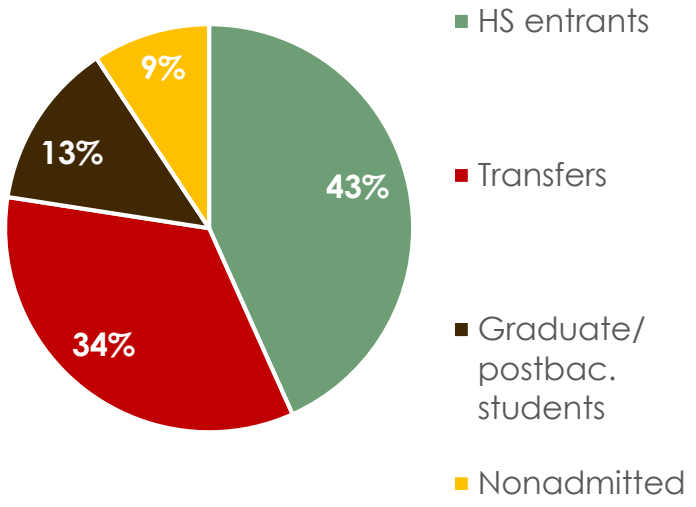
- WIOA Career Pathways
- Community College Career Pathways Initiative
- Guided Pathways
- Programs of Study
- Secondary Career Pathways Funding (HB 3072)
- Career Pathway Certificates of Completion

OUR STUDENTS ENTER THE POSTSECONDARY PATHWAY FROM MANY POINTS

Over 32,000 of Oregon's 18-19 year olds are enrolled in public higher education

- 24,725 community colleges
- 7,339 in public universities

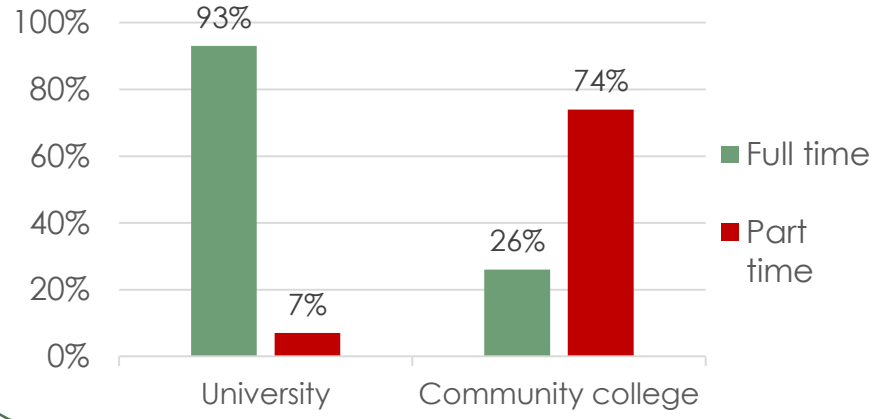
LESS THAN HALF OF ALL STUDENTS ARE RECENT HIGH SCHOOL GRADUATES



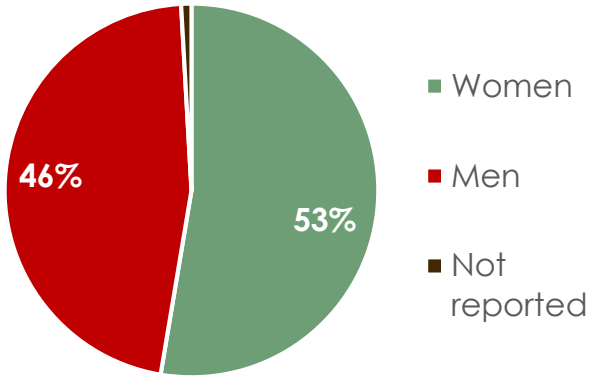
Source: HECC analysis of student-level data. Notes: Recent high school graduates in community colleges are defined as 18-19 year olds enrolled in for-credit courses, degree-seeking, and not in accelerated learning. Recent high school graduates in universities are defined as incoming students who graduated high school the previous spring. University data slightly undercount the actual number of recent high school students if some students enroll until winter term after graduating high school. Community college data count all students for the academic year

STUDENTS WHO ENTER DIRECTLY FROM HIGH SCHOOL ARE DIVERSE

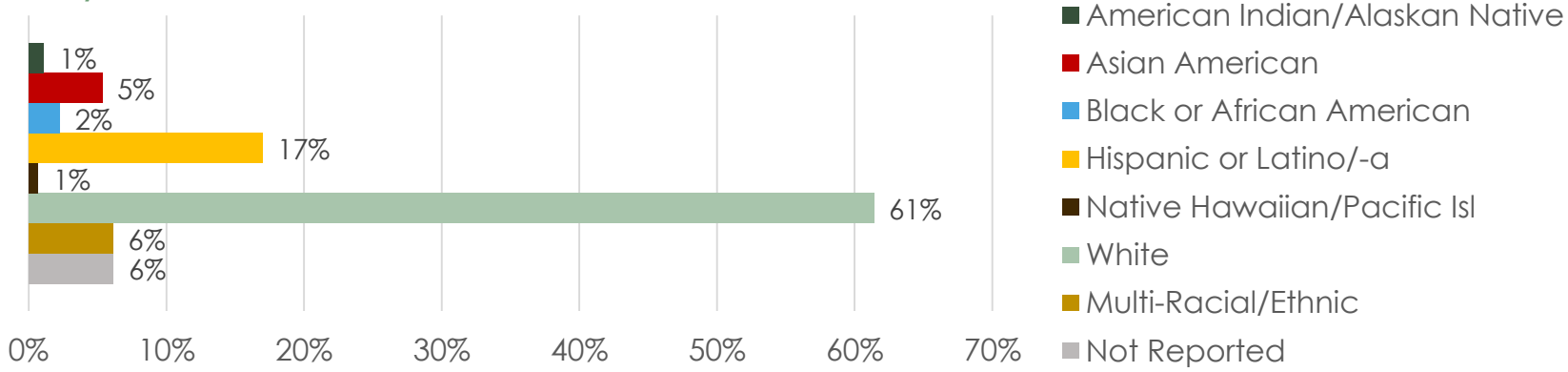
Most recent high school graduates at a university enroll full time and at a community college part time



GENDER



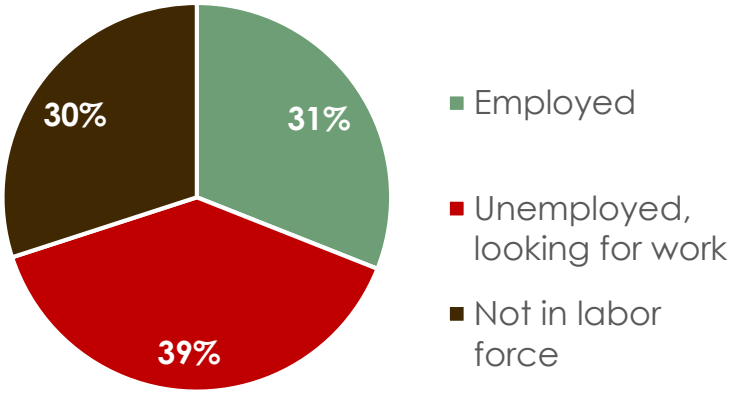
RACE/ETHNICITY



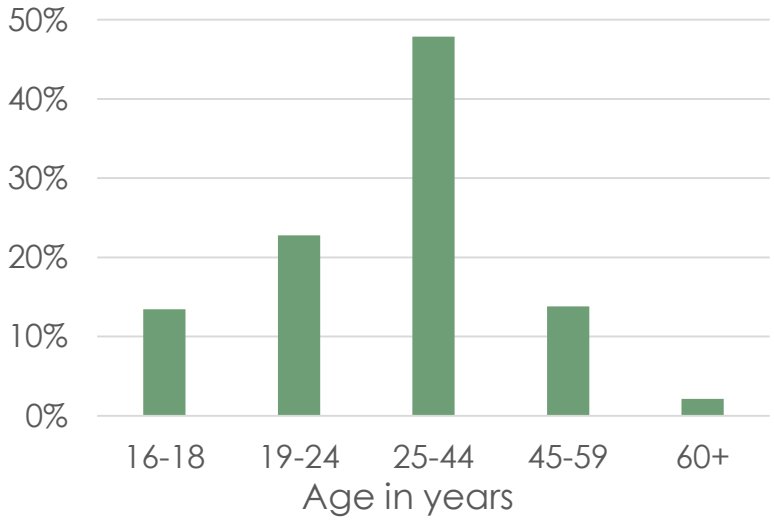
*Community college students only
Source: HECC analysis of student-level data
Note: Includes students enrolled in dual credit courses for lower division coursework and career technical education

ADULT BASIC EDUCATION STUDENTS ARE ALSO DIVERSE

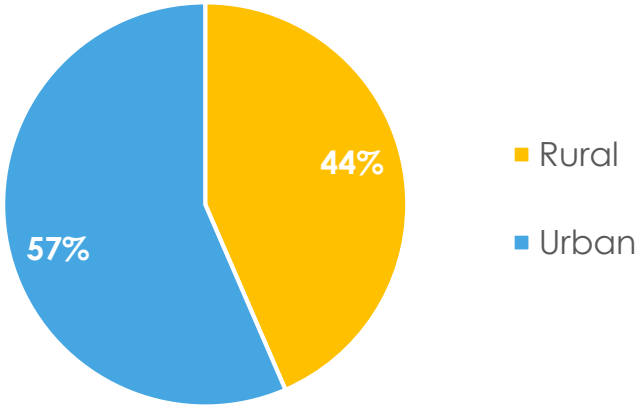
EMPLOYMENT STATUS



AGE



GEOGRAPHY



Source: HECC analysis of student-level data
Note: Participants are adults 16+ with 12+ contact hours with Title 2 (ABS) programs in Oregon

GED STUDENTS ARE ALSO DIVERSE

A total of 9,100 students took GED tests in 2016

- 66 percent were unemployed
- 73 percent reported annual income of $5,000 or less
- 39 percent reported a family member influenced them to obtain their GED
- 58 percent of students were male
- Average age of GED test takers: 24 years old

Source: GED® Analytics

ACCELERATED LEARNING MODELS

Dual Credit

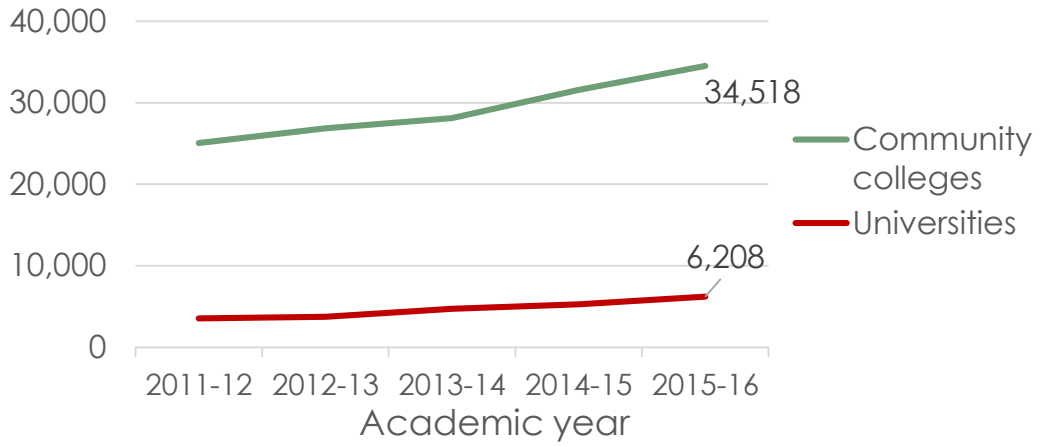
Sponsored Dual Credit

Assessment Based Learning

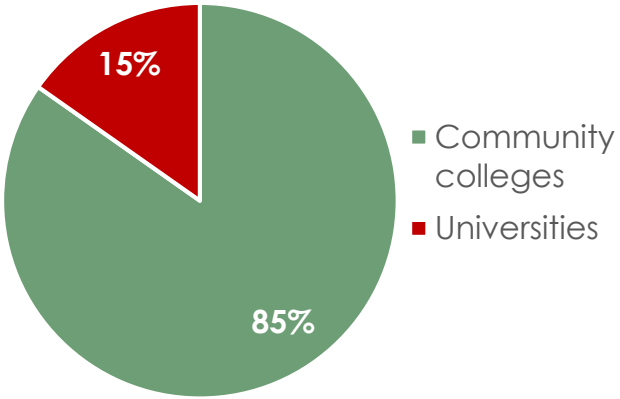
A GROWING NUMBER OF HIGH SCHOOL STUDENTS ENROLL IN DUAL CREDIT PROGRAMS

40,726 Oregon high school students took dual credit courses in 2015-16

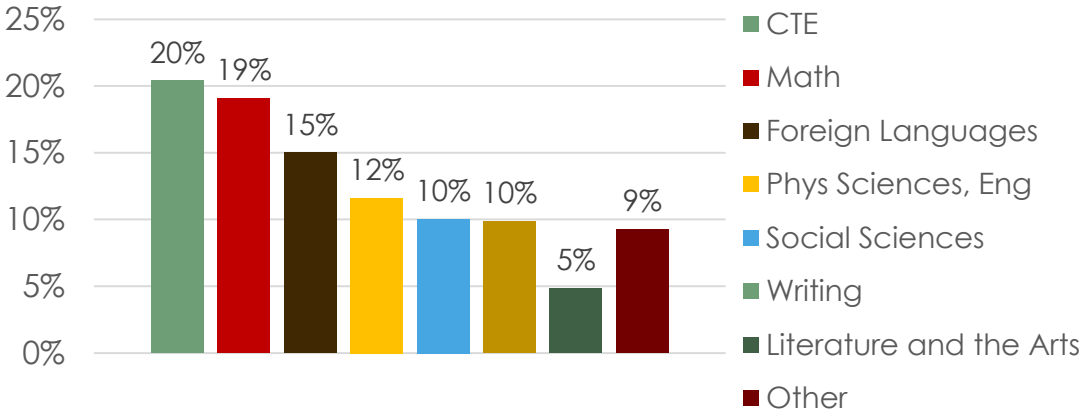
RISING NUMBER OF DUAL CREDIT STUDENTS



PROGRAM SITE



COURSE FIELDS*



*Community college students only
Source: HECC analysis of student-level data.
Notes: Includes students enrolled in dual credit courses for lower division coursework and career technical education.

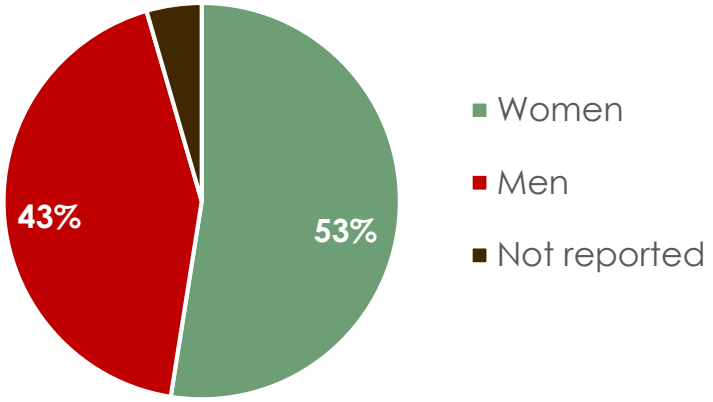
HIGHER EDUCATION COORDINATING COMMISSION

DUAL CREDIT STUDENTS RANGE WIDELY

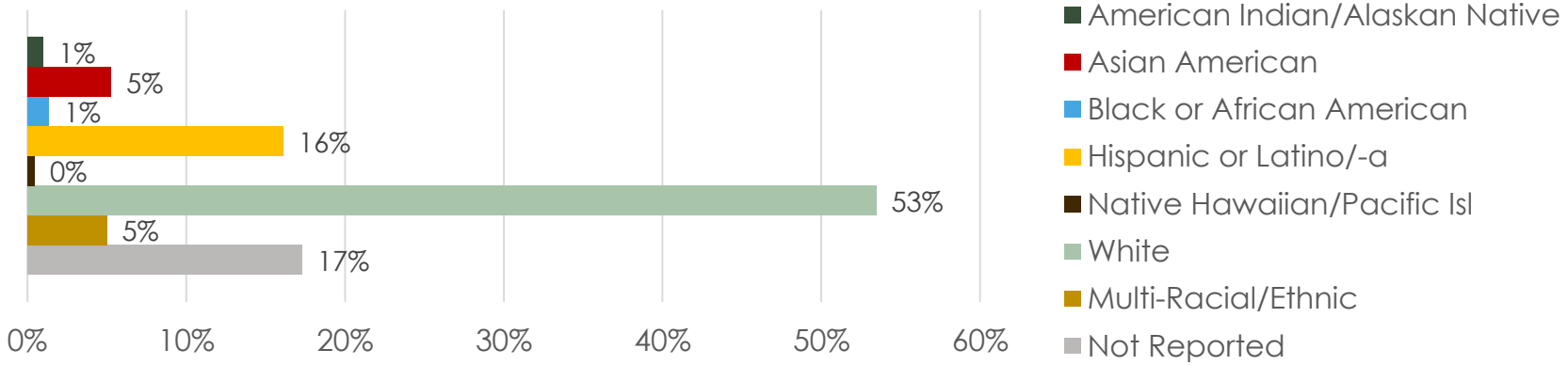
Students in 2015-16*

- Took 8 credits on average
- Passed 95% of dual-credit courses

GENDER



RACE/ETHNICITY



*Community college students only
Source: HECC analysis of student-level data
Note: Includes students enrolled in dual credit courses for lower division coursework and career technical education

HIGHER EDUCATION COORDINATING COMMISSION

COMMUNITY COLLEGE PARTNERSHIP EXAMPLES

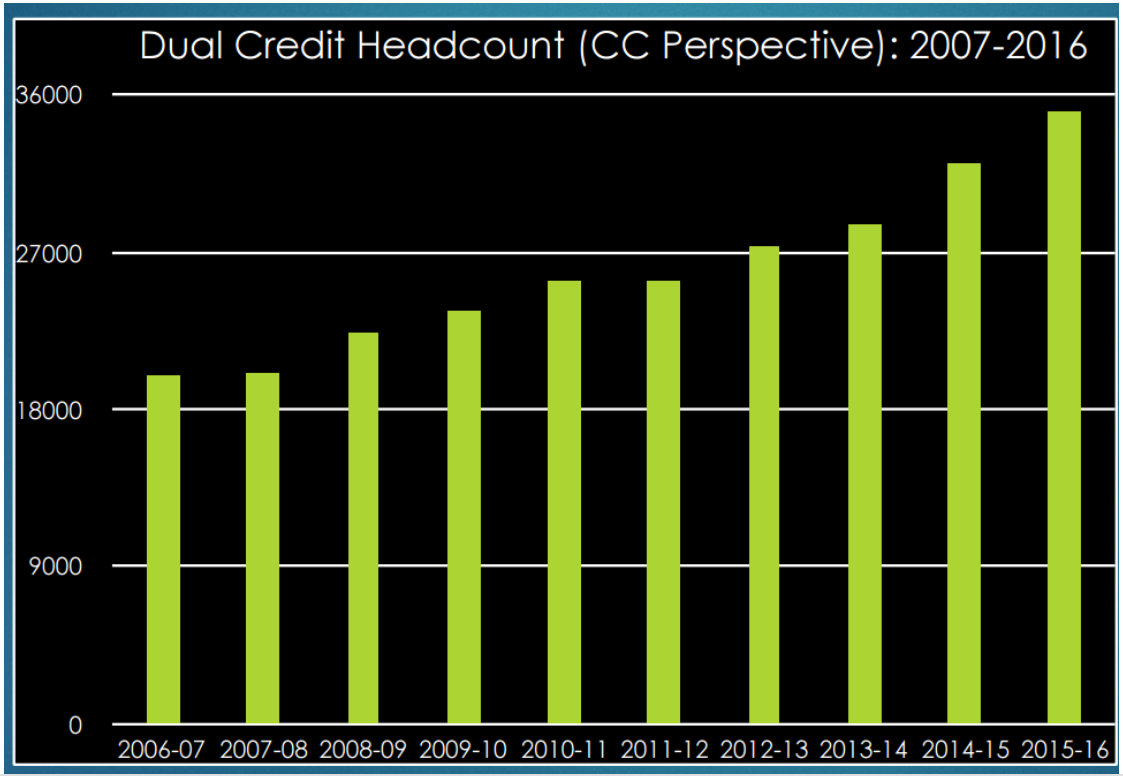
JESSICA HOWARD

President

Portland Community College, Southeast Campus

PATHWAYS FROM HIGH SCHOOL TO COLLEGE

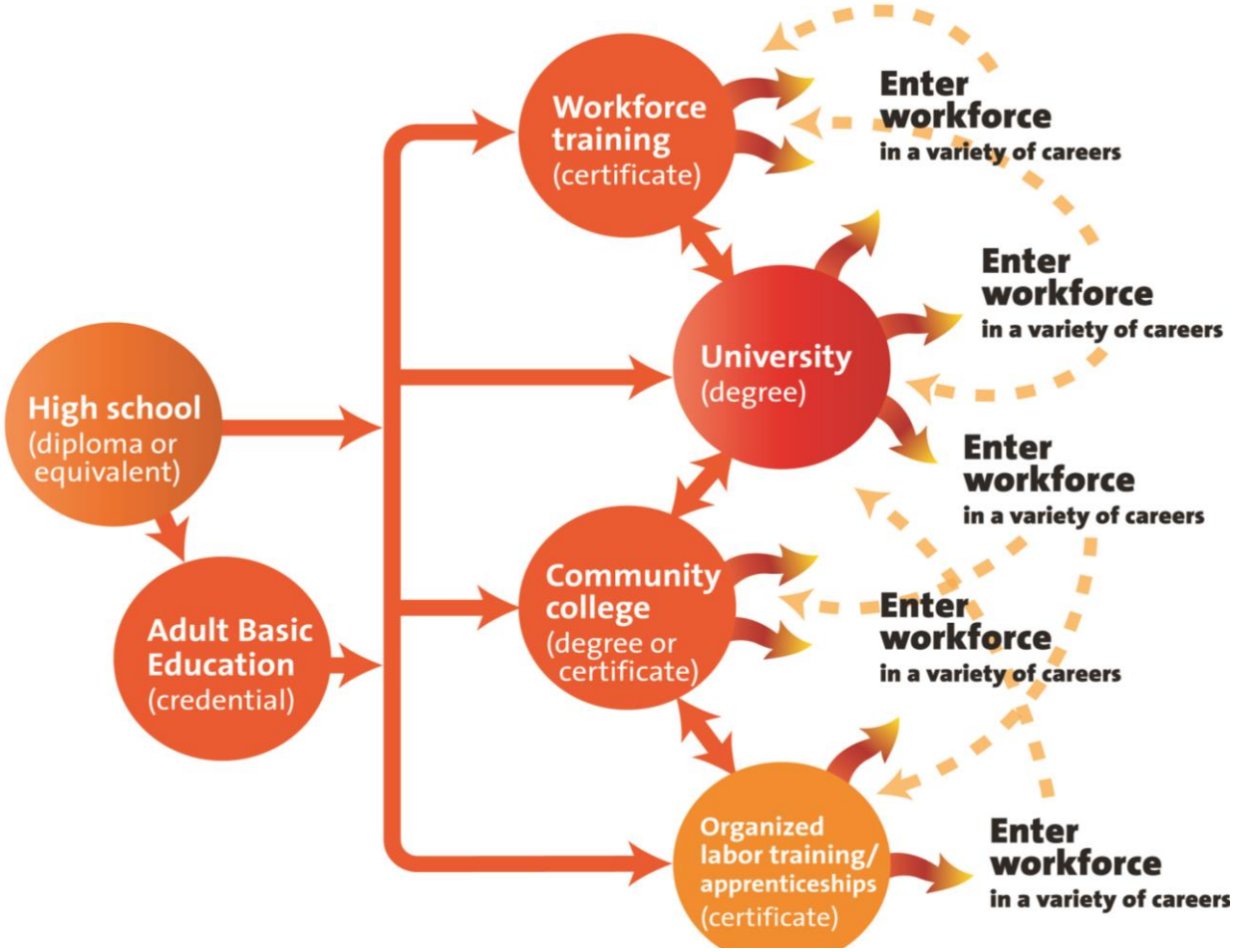
- Accelerated learning (college/university credit or coursework performed in high school)
- College credit acquired by high school students on the college campus
- CTE pathways
- Bridge programs



CAREER PATHWAYS

Sequences of high-quality education, training and services connected to industry skill needs. They have multiple entry and exit points that allow individuals to achieve education and employment goals over time.

CAREER PATHWAY SYSTEMS

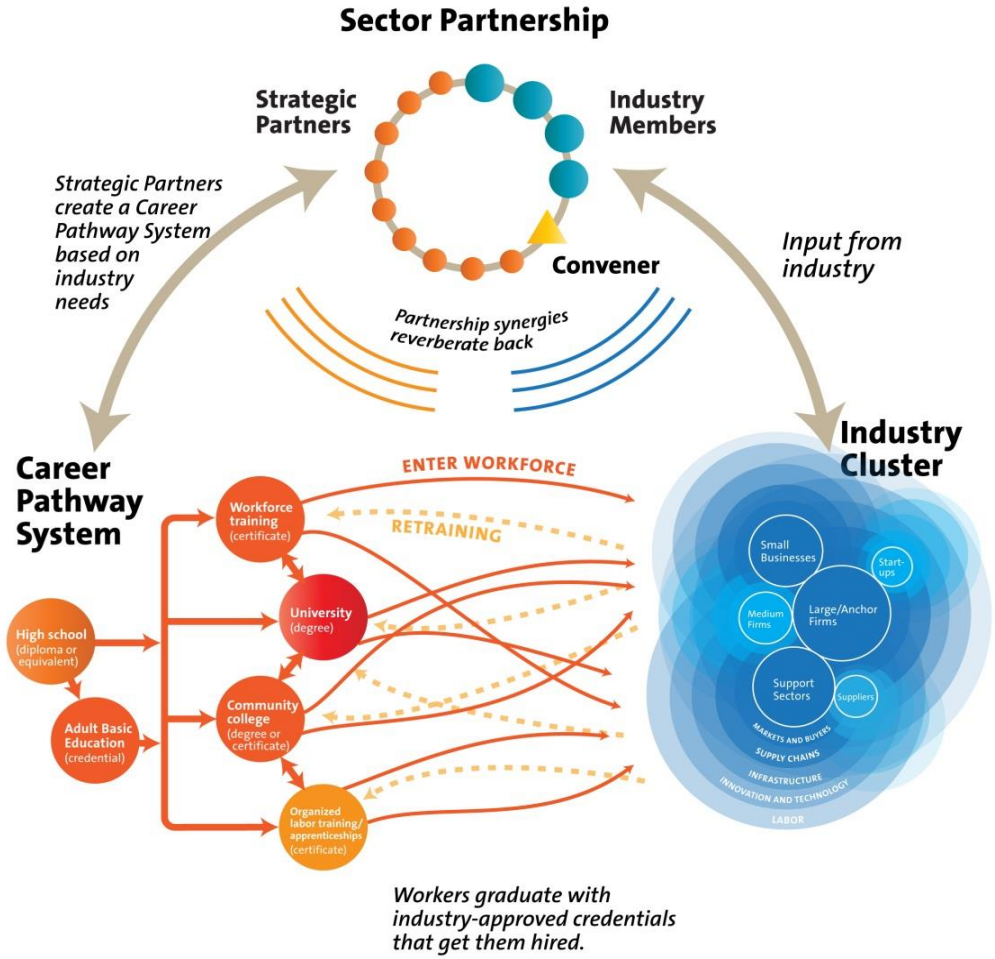


NATIONAL GOVERNORS ASSOCIATION

THE WOOLSEY GROUP

Sector Partnerships: The Keystone to Connecting Career Pathways to Industry Cluster Growth

Sector Partnerships align education and training programs with industry needs to produce readily employable workers.



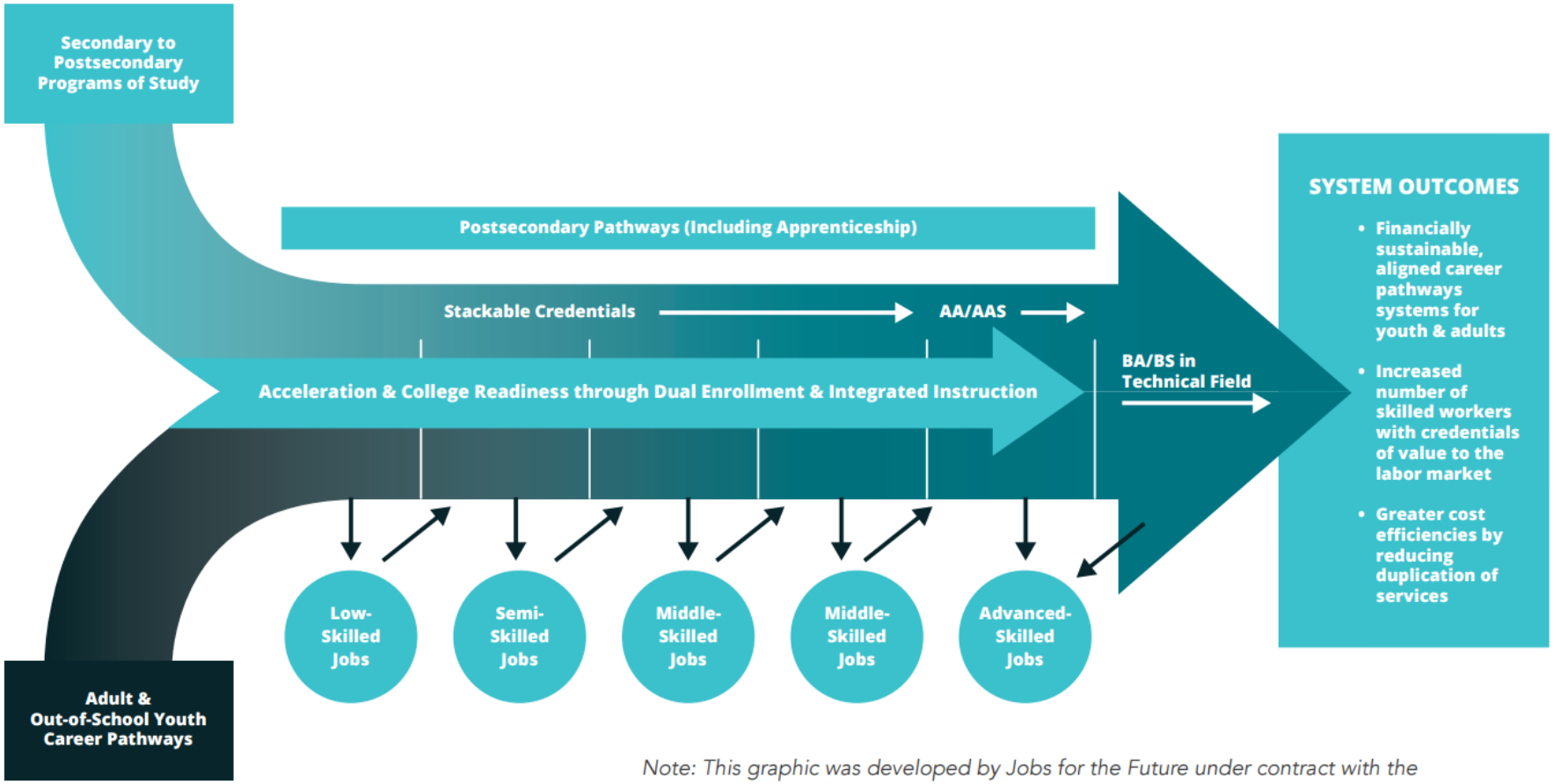
NATIONAL GOVERNORS ASSOCIATION

THE WOOLSEY GROUP

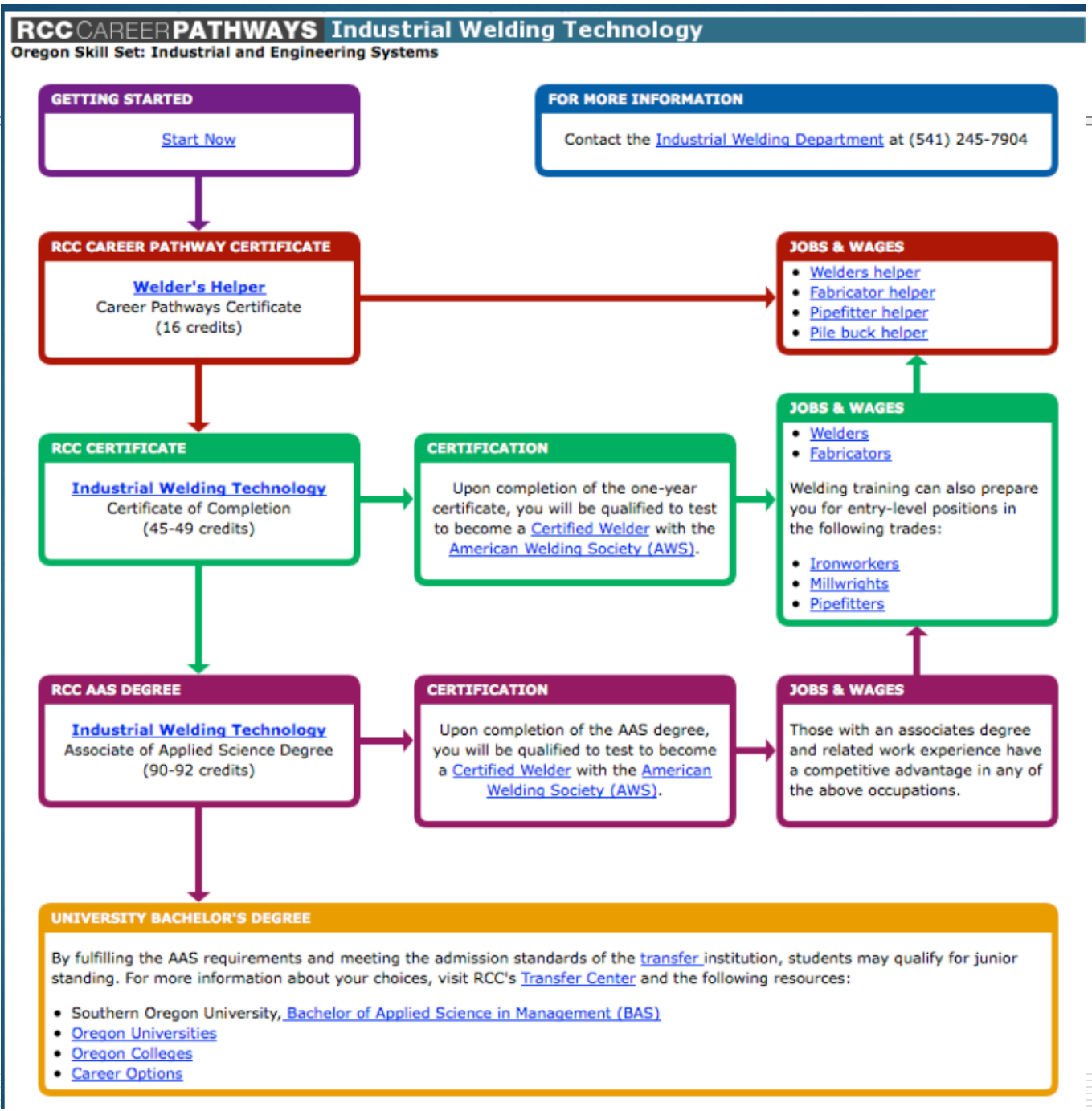
CAREER PATHWAYS IN OREGON'S COMMUNITY COLLEGES

- An initiative since 2004
- Statewide strategy creating short-term college certificates that lead to in-demand occupations, and that stack to the next highest level of a certificate or a degree
- Eases/facilitates transitions
- A targeted investment in supporting accelerated learning for low-skilled adults (e.g. I-BEST)
- Since 2008, creation of 450+ short-term CTE certificates and 100+ one-year certificates, and awarding of over 17,000 short-term certificates

CTE CAREER PATHWAYS



Note: This graphic was developed by Jobs for the Future under contract with the U.S. Department of Education on the Advancing CTE in Career Pathways project.

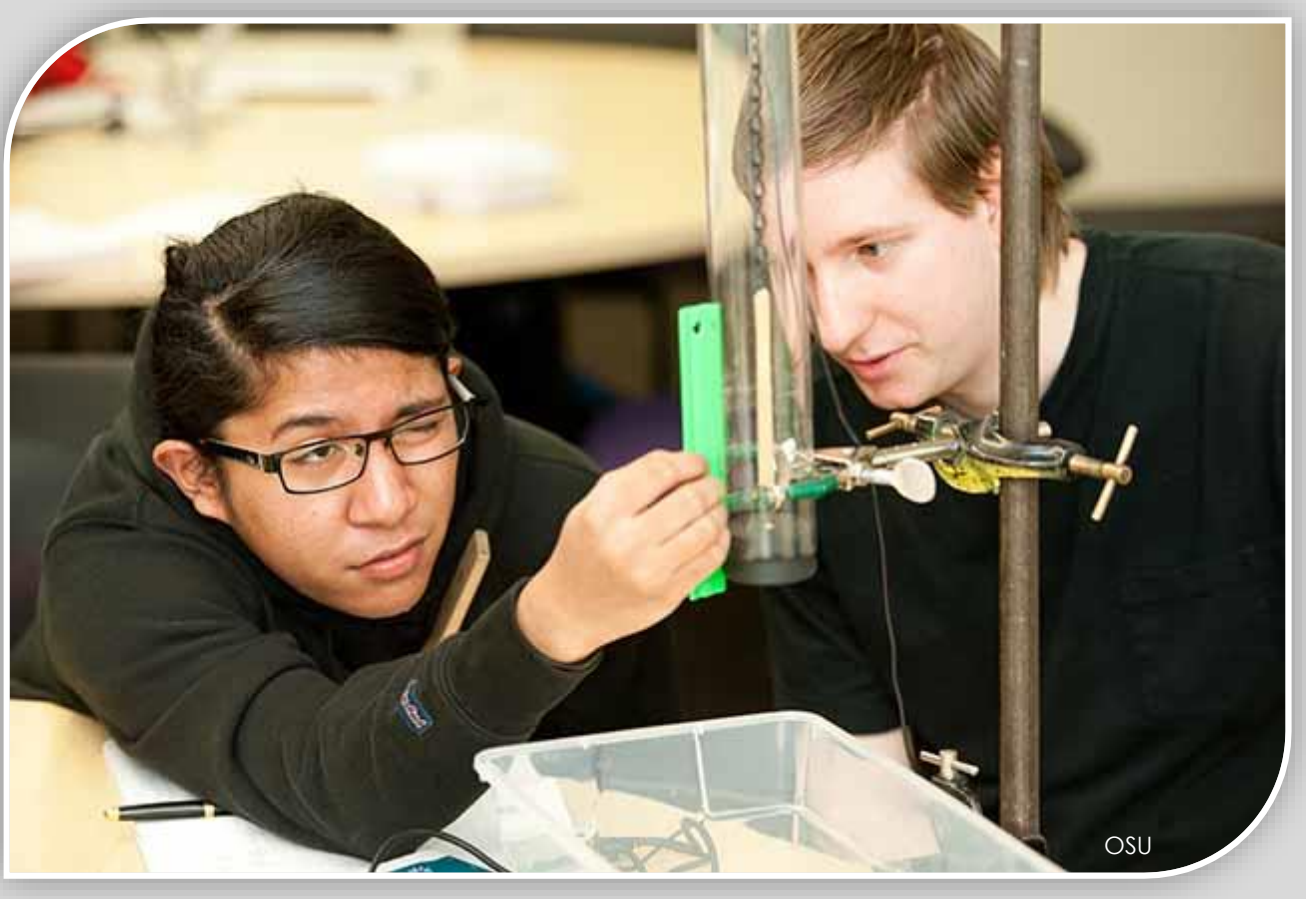

RCC CAREER PATHWAYS Industrial Welding Technology
Oregon Skill Set: Industrial and Engineering Systems
GETTING STARTED
Start Now
FOR MORE INFORMATION
Contact the Industrial Welding Department at (541) 245-7904
RCC CAREER PATHWAY CERTIFICATE
Welder's Helper
Career Pathways Certificate
(16 credits)
JOBS & WAGES
Welders helper
Fabricator helper
Pipefitter helper
Pile buck helper
RCC CERTIFICATE
Industrial Welding Technology
Certificate of Completion
(45-49 credits)
CERTIFICATION
Upon completion of the one-year certificate, you will be qualified to test to become a Certified Welder with the American Welding Society (AWS).
JOBS & WAGES
Welders
Fabricators
Welding training can also prepare you for entry-level positions in the following trades:
Ironworkers
Millwrights
Pipefitters
RCC AAS DEGREE
Industrial Welding Technology
Associate of Applied Science Degree
(90-92 credits)
CERTIFICATION
Upon completion of the AAS degree, you will be qualified to test to become a Certified Welder with the American Welding Society (AWS).
JOBS & WAGES
Those with an associates degree and related work experience have a competitive advantage in any of the above occupations.
UNIVERSITY BACHELOR'S DEGREE
By fulfilling the AAS requirements and meeting the admission standards of the transfer institution, students may qualify for junior standing. For more information about your choices, visit RCC's Transfer Center and the following resources:
Southern Oregon University, Bachelor of Applied Science in Management (BAS)
Oregon Universities
Oregon Colleges
Career Options

GUIDED PATHWAYS MOVEMENT

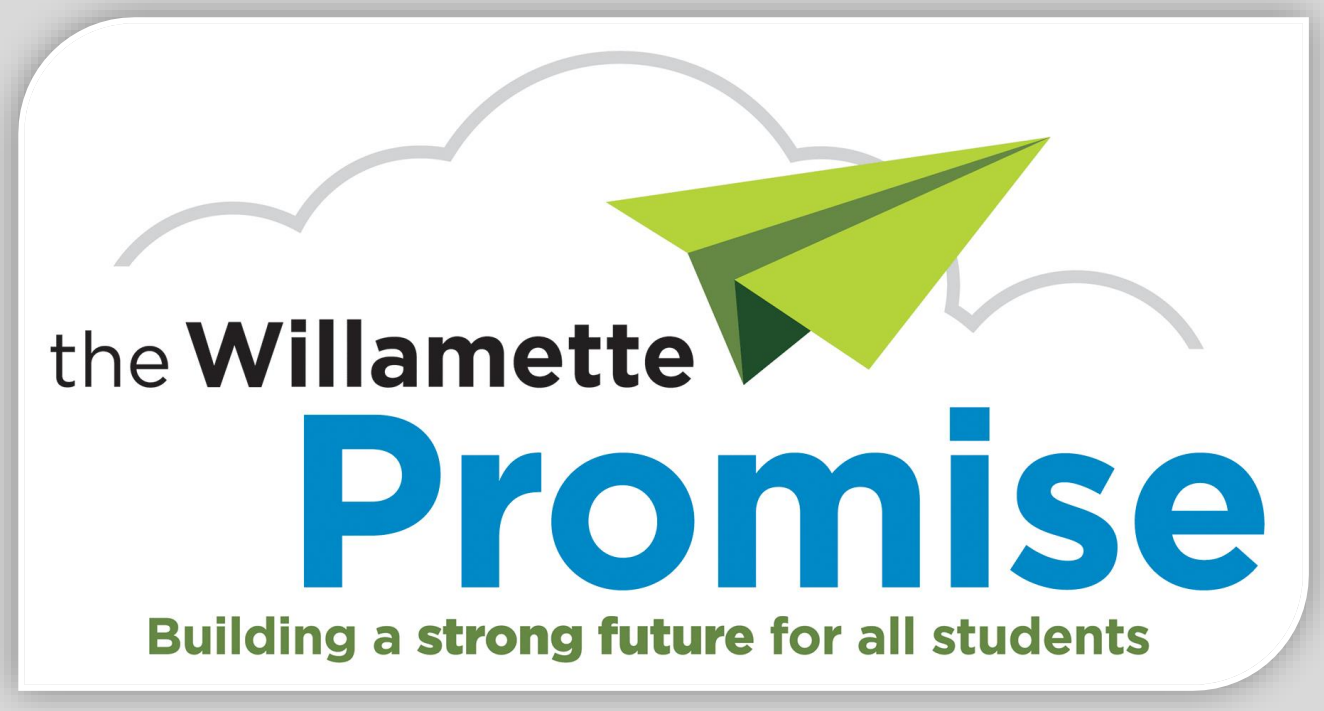
An effort to help colleges/universities provide clearer roadmaps to credentials, specify course sequences, identify progress milestones, establish program learning outcomes, and provide extensive supports and counseling.

FROM CAFETERIA COLLEGE TO GUIDED PATHWAYS

Cafeteria College	Guided Pathways
Paths to student goals unclear	Clear roadmaps to student goals
Intake sorts, diverts students	Intake redesigned as an on-ramp
Students' progress not monitored	Students' progress closely tracked
Learning outcomes not defined and assessed across programs	Learning outcomes/assessments aligned across programs



UNIVERSITY PARTNERSHIP EXAMPLES



WILLAMETTE PROMISE

DAVE MCDONALD
Associate Provost
Western Oregon University

Eastern Oregon University · Oregon Tech · OSU Oregon State · Portland State University · Southern Oregon University · University of Oregon · Western Oregon University

WILLAMETTE PROMISE

Meaningful partnership with high school teachers

- Has a major impact
  - 40 school districts from Astoria to Salem
  - 231 high school teachers
  - 19 college courses taught
  - 1,819 students earned 10,494 college credits in 2015-16

- Focus on all students
  - 45% of participating students received Free or Reduced Lunches
  - 40% of students were from underrepresented minority groups
  - 58% of students were female

the Willamette Promise
Building a strong future for all students

KEY ASPECTS OF WILLAMETTE PROMISE

- Collaborative Partnership focused on student learning and preparation for college
- High school teachers meet with college and university faculty in Professional Learning Communities (PLC's)
  - Participation in PLC's is mandatory. PLC work includes:
    - Setting learning outcomes and assessments
    - Cross-scoring at least 20% of student samples
    - Supporting increased student learning and performance
    - Rigorous external assessment of all aspects of the WP
- Initial WOU results for first cohort of WP students are positive
  - Started at WOU Fall 2015
    - More successful than AP students
    - 87% retention to Sophomore year
    - Had lower high school GPA than AP students

the Willamette Promise
Building a strong future for all students

SOUTH METRO-SALEM STEM PARTNERSHIP

Carleen Drago Starr

Academic Partnerships Coordinator

Oregon Institute of Technology

SOUTH METRO-SALEM STEM PARTNERSHIP

Mission: *The South Metro-Salem STEM Partnership (SMSP) catalyzes Oregon students to achieve STEM degrees and certificates, and reach Oregon's education goals by increasing the access, excitement and engagement of students in STEM courses and experiential learning.*

Vision: *The South Metro-Salem STEM Partnership will collectively optimize PK-20 STEM education by utilizing a full spectrum of public and private resources and model instructional practices to develop a career ready, diverse, and adaptable workforce that enhances the regional economy and community.*

SMSP PARTNERS

Educational Partners

Amity School District
Canby School District
Central School District
Dallas School District
Dayton School District
Gladstone School District
Lake Oswego School District
Molalla River School District
Newberg School District
North Clackamas School District
Oregon City School District
Salem-Keizer School District
Silver Falls School District
Tigard-Tualatin School District
West Linn-Wilsonville School District
Woodburn School District
Chemeketa Community College
Clackamas Community College
George Fox University
Oregon Tech
Pacific University
Portland Community College

Business Partners

3D Systems, Inc.
Autodesk
Eaton
First Tech Credit Union
FLIR Systems
Garmin AT
Intel
Legacy
Meridian Park Medical Center
Mentor Graphics
PGE Foundation
Xerox

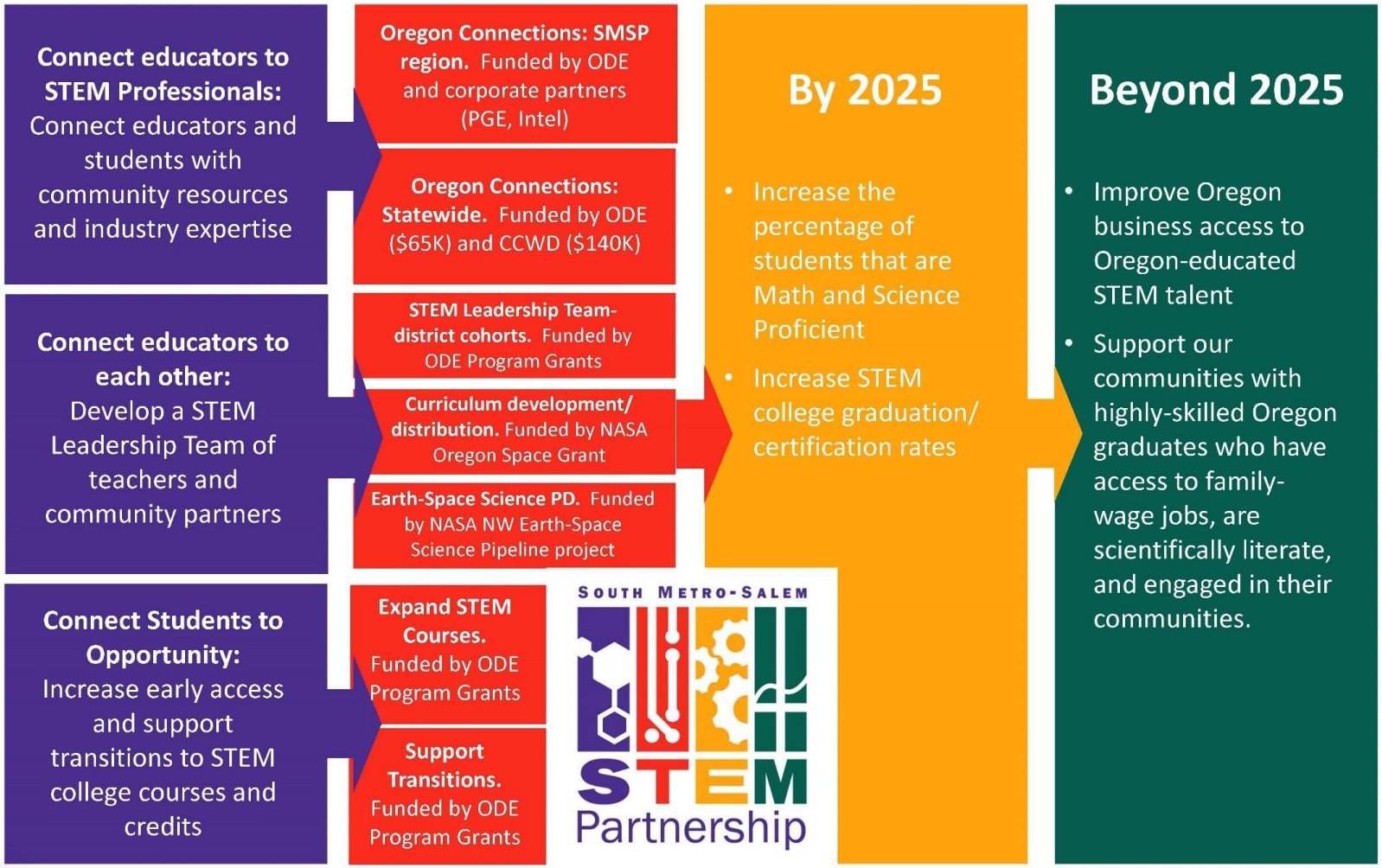
Community Partners

Business Education Compact
Clackamas Career and Technical Education Consortium
Evergreen Aviation and Space Museum
Girls Incorporated of the Pacific Northwest
Mad Science
Oregon After School for Kids (ASK)
Oregon Computer Science Teachers Association
OregonFIRST
Oregon MESA (Mathematics, Engineering, Science Achievement)
Oregon NASA Space Grant Consortium
Project Lead the Way
Salem-Keizer Education Foundation
Saturday Academy
Technology Association of Oregon
Tualatin Chamber of Commerce
Wilsonville Library
World of Speed

WHY STEM? WHY NOW?

1. Jobs Pipeline
2. Equity & Social Justice
3. Economic Competitiveness
4. Innovation & Creativity
5. Transforming Education
6. Individual Prosperity
7. Informed Citizenry & Societal Participation
8. National Security
9. Improving the Human Condition

SOUTH METRO-SALEM STEM PARTNERSHIP



STEM LEADERSHIP TEAM

- Approximately 200 teachers over 3 years in regional collaborative model of STEM leadership development
- Emphasis on integrated, project-based approach to STEM learning: the SMSP STEM Attributes Framework
- Emphasis on connecting classrooms to community and career
- 16 districts developed and currently implementing a STEM Implementation Plan with key teacher-leaders

CONNECTING CLASSROOM TO CAREERS

Education Users	**998**
Industry Professionals	**451**
Oregon STEM Hubs represented	**9**
Organizations represented	**59 school districts, 214 companies/non-profits**
Students reached (virtual)	**>7200 (>1500 coming in Feb/March!)**
Students reached (In-person)	**>2000, 89 sessions**
Videos accessed	**>300**

ACCELERATED CREDIT WORK GROUP

- 2013-15 biennium data:
  - >40 sections of STEM dual credit added among 4 higher ed partners, plus assessment-based credit (Willamette Promise) in 2014-15; 24 teachers qualified
  - 2100 credits, 700 students earning accelerated STEM credit
  - National award-winning print media campaign (stemoregon.org/jumpstart) being used to promote Accelerated Credit across the state
  - Supporting coordinated outreach to increase dual credit among partners, reaching down to middle school
- 2015-17 add-ons:
  - 100 teachers and counselors coached in STEM-specific and equity-focused advising for STEM-interested students

STEM PATHWAYS FOR RURAL STUDENTS

Kyle Cole

Director, Precollege Programs

Oregon State University

STEM EDUCATION PATHWAYS FOR RURAL STUDENTS

OSU MISSION: land grant institution committed to teaching, research, outreach and engagement, to promote the economic, social, cultural and environmental progress for the people of Oregon, the nation and the world.

- **Precollege Programs** focus on education equity for underserved, underrepresented students, especially rural students.
- **OSU has many K-12 serving programs**
- **In 2016**
  - 98 Programs, from summer campus, to STEM clubs, to STEM teacher professional development
  - 52,874 interactions with K-12 students, teachers, and families
  - 855,997 program contact hours

Nyssa middle school students at summer Mobile STEM Camp

OSU Oregon State University
Precollege Programs

K-12 STEM EDUCATION PATHWAYS FOR RURAL STUDENTS

SMILE Challenge

SMILE (Science and Math Investigative Learning Experiences)

- 4th – 12th grade afterschool STEM clubs & teacher professional development workshops
- 707 students, 39 Clubs, 18 rural school districts
- 100% of SMILE seniors graduated high school 2016
- Established in 1987, funded through OUS

Bruck Sameshima & Osbaldo Magdaleno describe scholarships and financial aid to 9th graders

Summer Mobile STEM Camps

- Focus on STEM careers and CTE in rural areas
- 2016: 18 camps serving over 300 students

Beaver Hangouts

- College students mentor K-12 students online
- Provide college access and career information
- 65 college mentors, 68 classrooms, 750+ K-12 students

OSU Oregon State University Precollege Programs

SUMMER BRIDGE PROGRAMS

- Residential camps prepare underrepresented, underserved students for college
- Time management, professionalism, research project, campus resources
- Build peer connections
- Cultural Centers provide welcoming community
- SMILE, LSAMP, CAMP, and more

SMILE Summer Bridge students visit Centro Cultural César Chávez

OSU Oregon State University
Precollege Programs

UNDERGRADUATE STEM SUCCESS PROGRAMS

GOAL: support students from beginning of their first term

STEM Leaders Ana Aranda and Carolina Guillen

Louis Stokes Alliance for Minority Participation (LSAMP)

- Coordinated financial, academic, social, and professional support for students underrepresented in STEM fields
- Residential bridge program, mentoring, workshops, and a student center

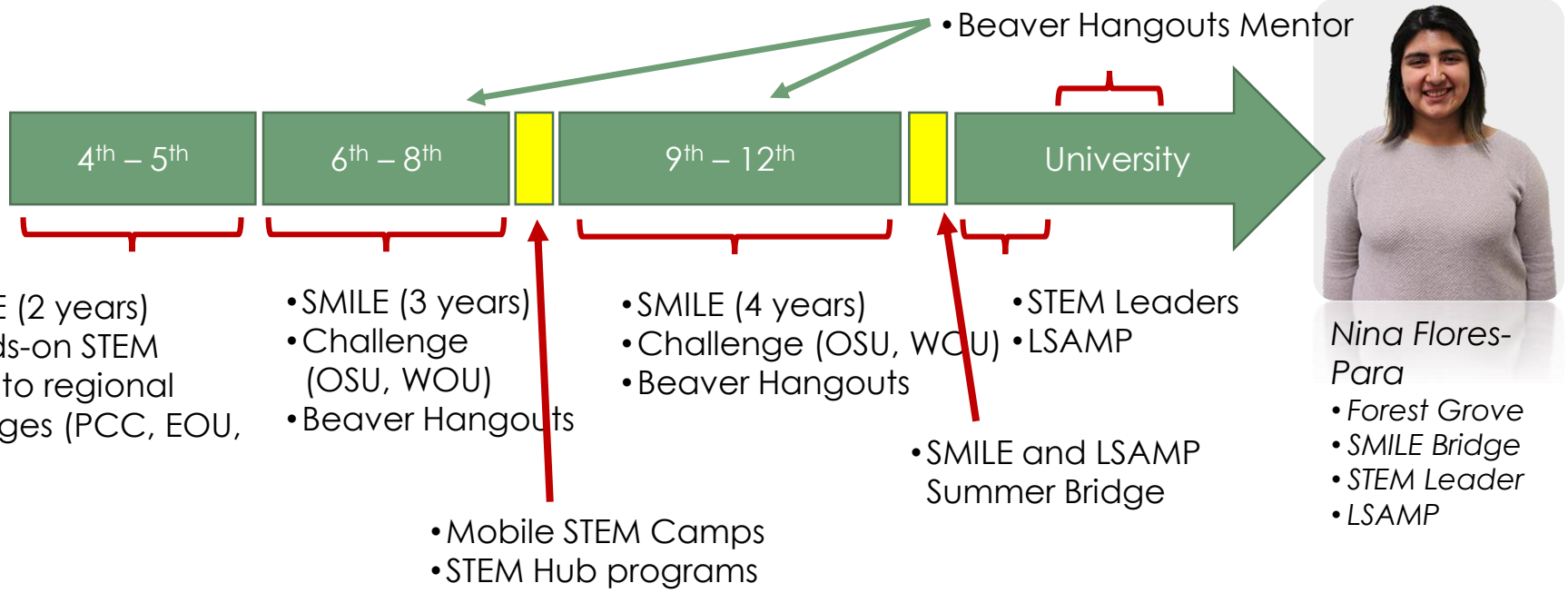
STEM Leaders

- NSF-funded program providing an orientation course, workshops, peer mentoring, and paid research experiences
- 152 students in three cohorts
- 93% - 98% retention rate in programs between 1st and 2nd years

STEM Leaders Alex Sanford with one-legged robot project

OSU Oregon State University Precollege Programs

EXAMPLE STEM PATHWAY TO HIGHER EDUCATION



OSU Oregon State University Precollege Programs

CONCLUSION

Through these partnerships, we are working together to build pathways to increase student access, equity, speed to certificate or degree, and graduate career success.