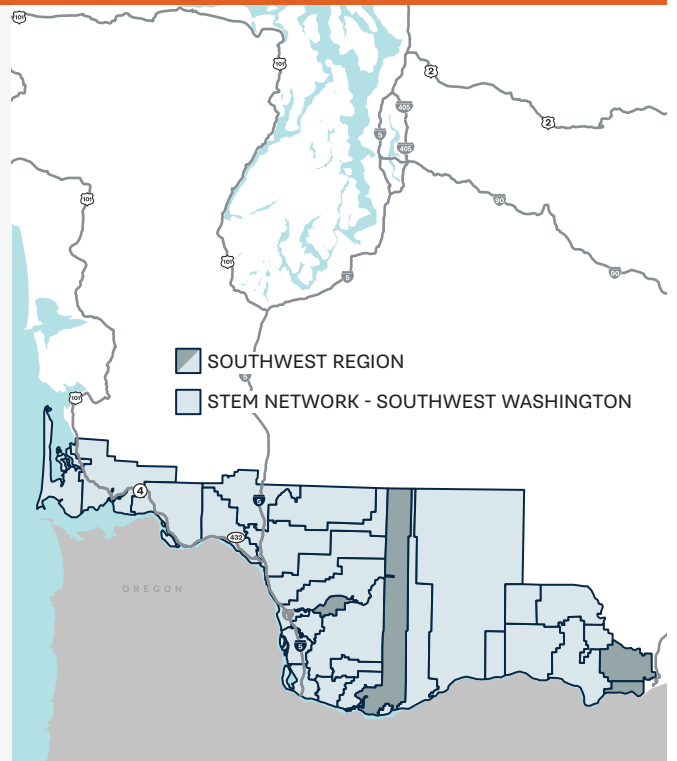




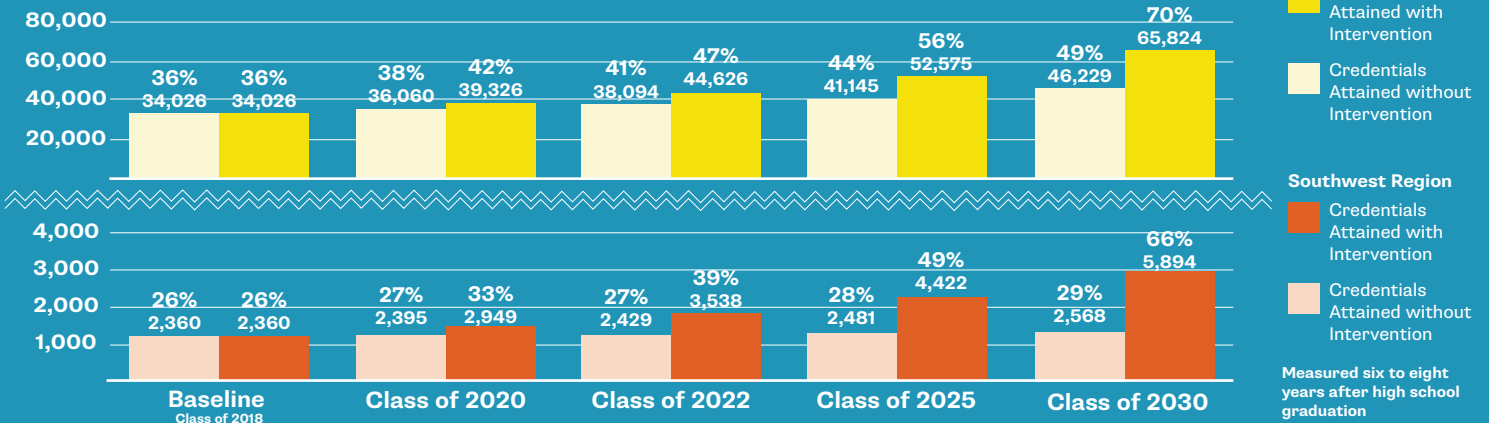
STEM BY THE NUMBERS: SOUTHWEST REGION

The Southwest Region is home to growing health-care, information technology, engineering, and advanced manufacturing industries, spanning from Long Beach to Vancouver. The region is made up of 30 school districts, 25 of which are members of the Southwest STEM Network. The Network's business, education, and community partners are working to close credential attainment gaps, especially for students of color and students from low-income families. They aim to increase the number of local students who become engineers, IT professionals, healthcare professionals, and manufacturing professionals, which combined have 1,693 annual projected openings over the next five years.

SOUTHWEST WASHINGTON
STEM NETWORK

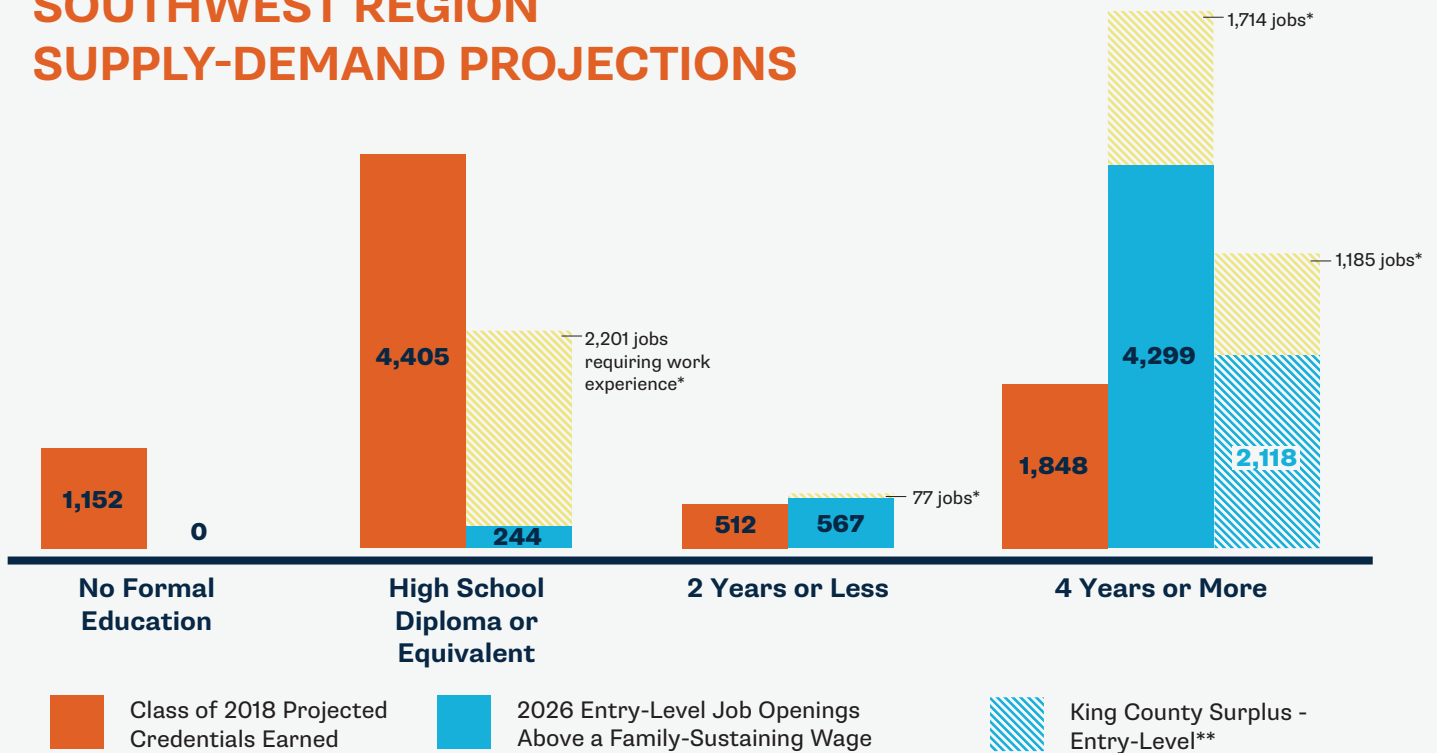


295 MORE CREDENTIALS PER YEAR = REGION ON TRACK



THE OPPORTUNITY: A STRONG DEMAND FOR STEM TALENT

SOUTHWEST REGION SUPPLY-DEMAND PROJECTIONS



By supporting more students to be on track to earn a high-demand credential, the Southwest STEM Network and its partners will ensure that up to 5,110 family-sustaining*** (those that pay a regionalized wage of \$50,047 or more a year) are available to local young adults looking to start their career in the Southwest Region.

*Jobs requiring related work experience, and/or on-the-job training, would generally not be immediately available to high school graduates and be more competitive with a greater number of eligible applicants.

** The King County surplus represents a proportion of the surplus jobs that could be supplied by students from the Southwest Region. The surplus is the result of fewer King County originating students than annual projected job openings in King County.

*** Family-sustaining regionalized wage is defined as the full-time wage needed to support a household of 2 adults (1 working) and 1 child, using the MIT Living Wage Calculator.

ADVANCED MANUFACTURING CAREER LAUNCH

Southwest Washington is home to many high-tech companies that offer lucrative careers. Eighty percent of these jobs require a postsecondary certification, credential, or degree; however, only a third of local high school graduates are on-track to meet this demand. We bring together students who have a talent or an aptitude with business partners, such as SEH America, to provide on-site training and real job skills through the Advanced Manufacturing Career Launch. Students spend two years with pay in the program learning at the silicon wafer plant and at Clark College potentially earning their associate degree for free.

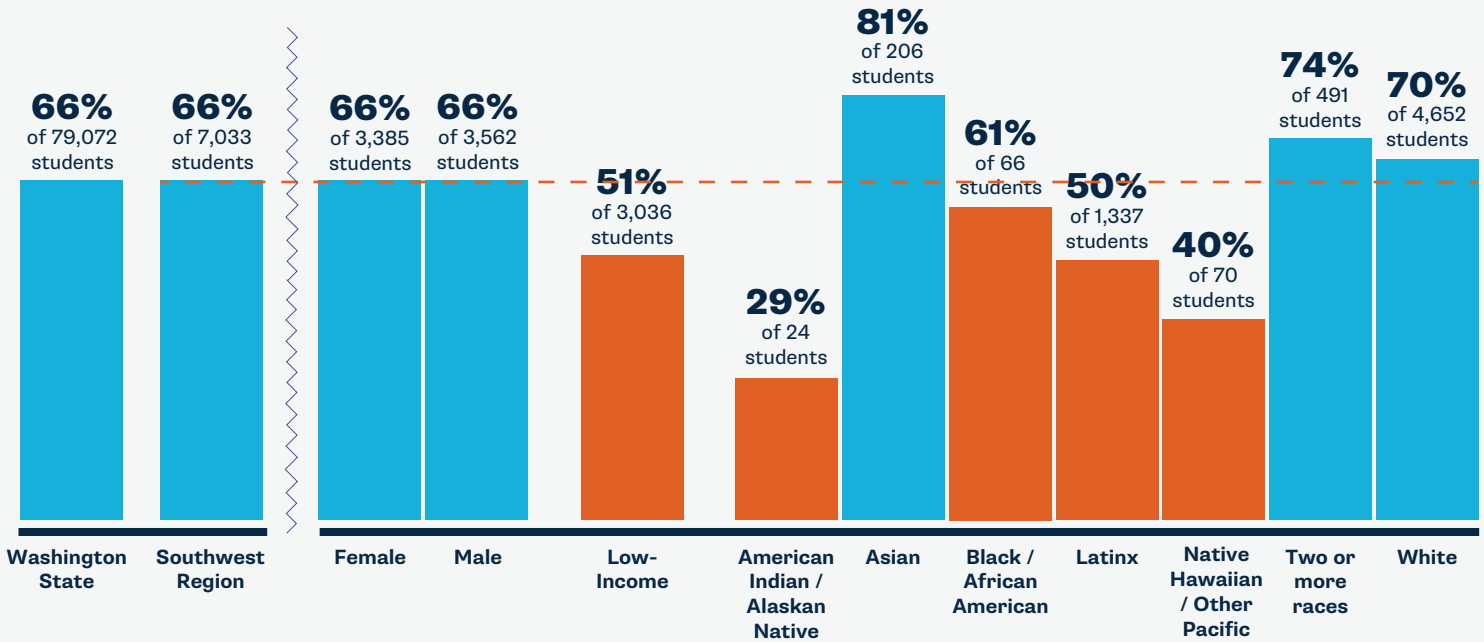


SOUTHWEST REGION K-12 STEM INDICATORS BY DEMOGRAPHIC

KINDERGARTEN MATH READY (2018)

66% of 7,033 Southwest Region children entering kindergarten are math ready compared to **66% of 79,072** children statewide.

More than or equal to average of comparison
Less than average of comparison

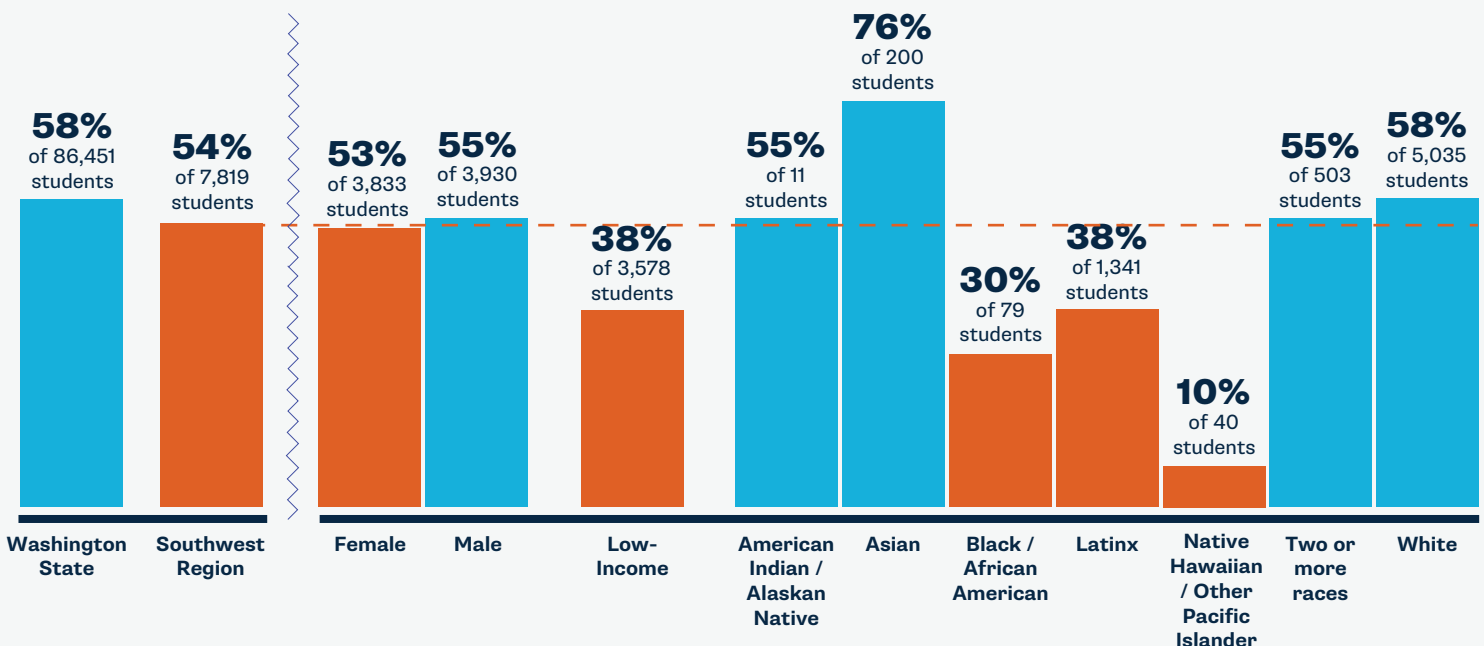


SOUTHWEST REGION INDICATORS BY DEMOGRAPHIC

3RD GRADE MATH (2017)

54% of 7,819 of Southwest Region third graders meet grade level math standards compared to **58% of 86,451** third graders statewide.

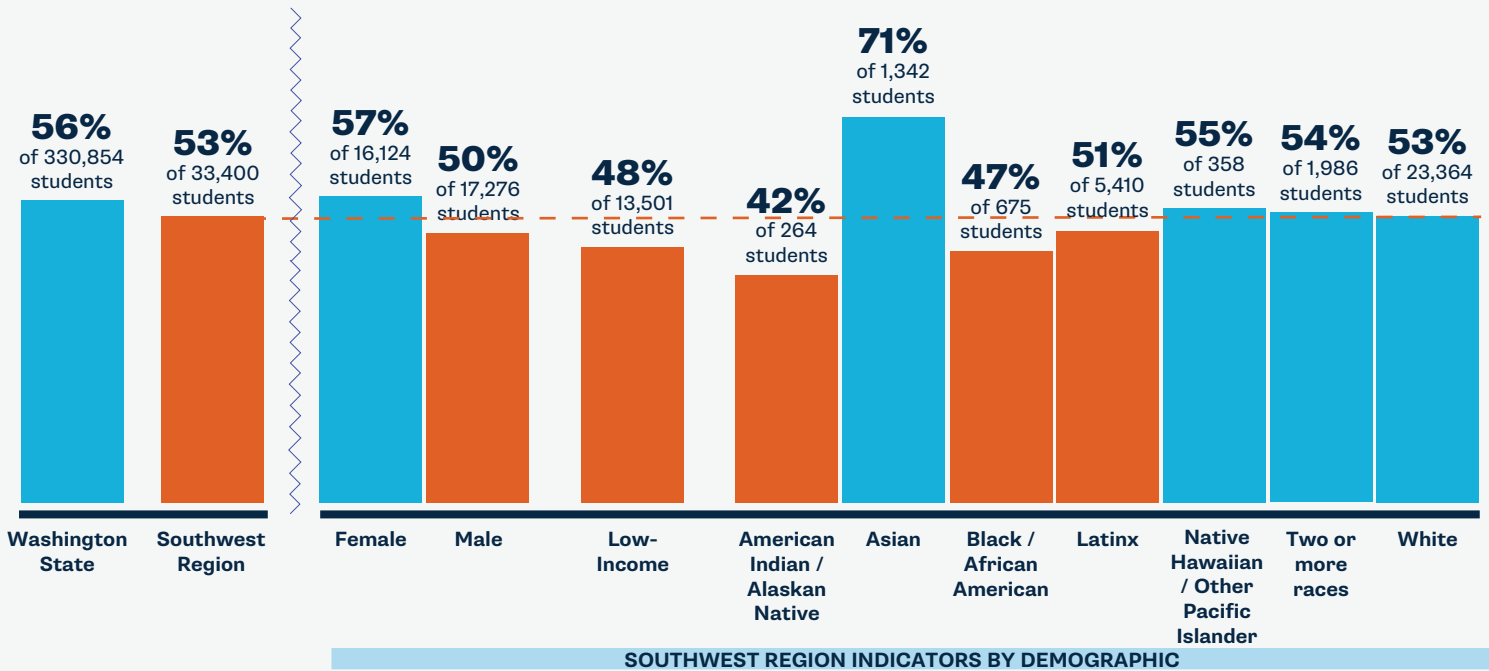
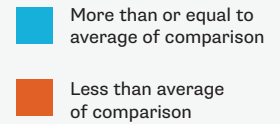
More than or equal to average of comparison
Less than average of comparison



SOUTHWEST REGION INDICATORS BY DEMOGRAPHIC

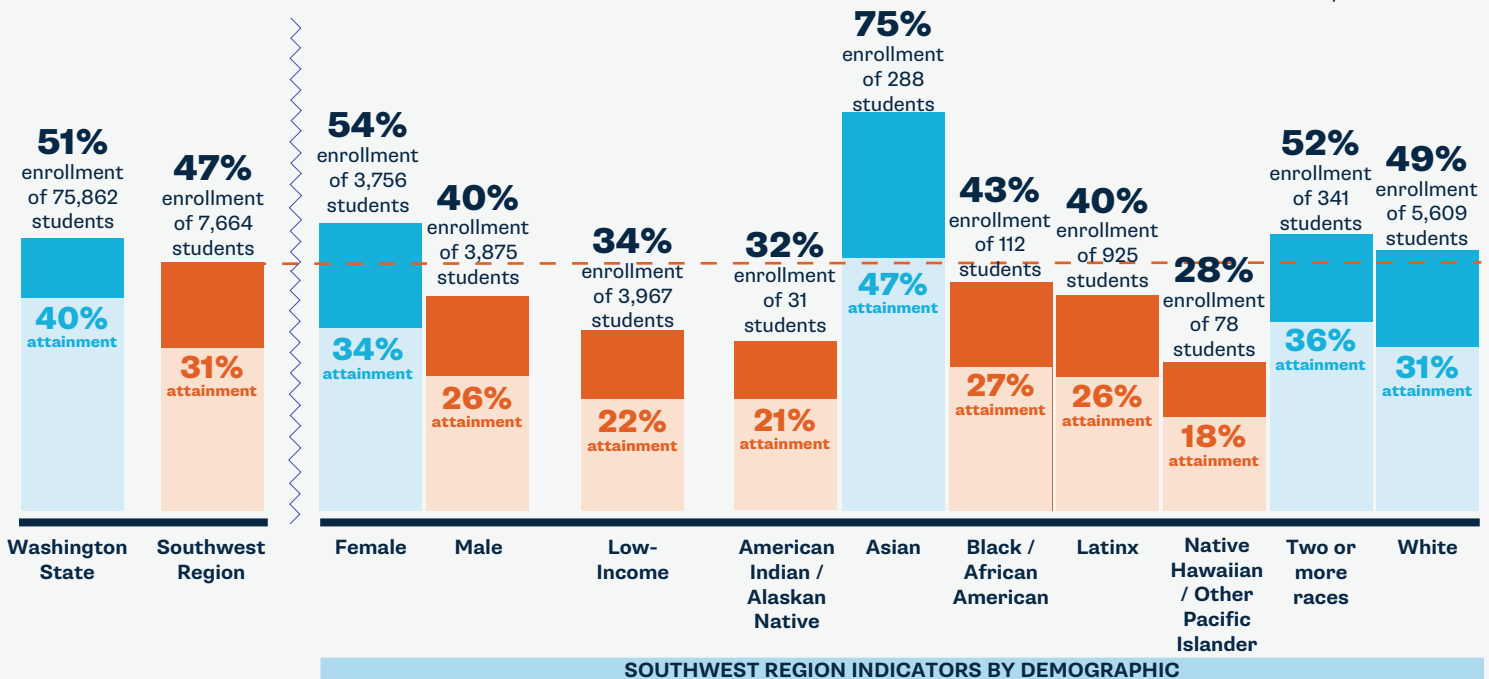
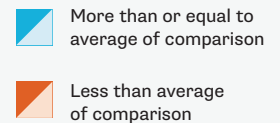
DUAL CREDIT (2017 9-12TH GRADERS)

53% of 33,400 Southwest Region high schoolers complete at least one dual credit course compared to 56% of 330,854 youth statewide.



CREDENTIAL ENROLLMENT/ATTAINMENT (CLASS OF 2016)

47% of 7,664 of the originating ninth graders in the Southwest Region enroll in a postsecondary program and 31% of those originating ninth graders earn a credential by age 26.



Data citations and region-by-region analyses will be posted at www.washingtonstem.org/STEMbythenumbers.

For more information about early STEM and career pathways work in the Southwest Region, contact Southwest STEM Network co-directors Ted Feller, ted.feller@swstemnetwork.org, and Vickei Hrdina, vickei.hrdina@esd112.org.

SOUTHWEST REGION STEM INDICATORS

Ready for Kindergarten

While 66 percent of all Southwest Region kids are math ready by kindergarten, high-quality early learning opportunities need to be more accessible to families of color and those that are lower-income to close math-readiness gaps.

TBD we are determining availability of high-quality early learning for families and supports for professionals in this region

66% of Southwest Region children entering kindergarten are math ready

K-12 STEM Learning

Between kindergarten and third grade, math-readiness and skills gaps widen for many students, which is correlated with success in related areas of study. School districts need resources and assistance to remove barriers and create opportunities in STEM for all students.

TBD we are determining the STEM indicators for each school district in this region in partnership with LASER

54% of Southwest Region third graders meet grade level math standards

Secondary Pathways

While students in the Southwest Region are overall less likely to complete dual credit** courses than their peers across the state, students of color and low-income students experience reduced access to and completion of these courses compared to their peers.

TBD we are determining availability of dual credit courses and career pathways programs by type and subject area in this region

53% of Southwest Region high schoolers complete at least one dual credit course

**Dual credit programs give students the opportunity to earn high school and college credit simultaneously. Completion of dual credit coursework is highly correlated with higher education enrollment and completion.

Credential Enrollment/Attainment

Of the originating ninth graders across the state, 51 percent enroll and 40 percent complete a credential. While Southwest Region students enroll and complete at comparable rates, the region is working to expand credential pathways capacity to close opportunity gaps for key student groups.

TBD we are determining local higher education and career training program capacity in this region

47% of the originating ninth graders in the Southwest Region enroll in a postsecondary program and 31 percent of those originating ninth graders earn a credential by age 26.



STEM by the Numbers is a series of regional reports which examines data that tells us about Washington students' access to credentials and family-sustaining jobs. Together with our partners, we are advocating for and developing regionalized, cross-sector, and longitudinal data. We highlight student outcomes above, and in future publications we will report on systems indicators, like high school course offerings and availability of STEM professional learning and supports.

Data citations and region-by-region analyses will be posted at www.washingtonstem.org/STEMbythenumbers.

For more information about early STEM and career pathways work in the Southwest Region, contact Southwest STEM Network co-directors Ted Feller, ted.feller@swstemnetwork.org, and Vickei Hrdina, vickei.hrdina@esd112.org.

REGIONAL TOP INDUSTRIES AND STEM JOBS

MEDICAL ASSISTANTS

Annual # of Openings: 162
Credential: Certificate → Associate's
Average Regional Wage:
\$50,494 → \$91,188

ENGINEERS

Annual # of Openings: 166
Credential: Bachelor's
Average Regional Wage:
\$84,410 → \$110,244

ADVANCED MANUFACTURING PROFESSIONALS

Annual # of Openings: 96
Credential: Apprenticeship
Average Regional Wage:
\$63,066 → \$66,174

COMPUTER AND IT PROFESSIONALS

Annual # of Openings: 589
Credential: Bachelor's
Average Regional Wage:
\$55,112 → \$124,999

MATH ANYWHERE! AND FOR EVERYONE!

Math Anywhere! is a community-based project which aims to create opportunities for playful mathematics in everyday spaces. In collaboration with businesses, we develop place-based prompts to inspire math thinking and invite conversation as families interact with everyday tasks – shopping, going to the movies, or going to the doctor. Engaging in mathematical moments outside of the classroom can help children develop positive math identities and can help adults reshape negative relationships with mathematics. Our initial work has brought math prompts to the library, restaurants, the movie screen, community events, and other community spaces. Our continued efforts are designed to expand current notions about what it means to do math, where and when we can engage in math, and who is considered math capable.



By 2030, Washington STEM and our statewide partners aim to **triple the number of students** of color, students from low-income and rural families, and young women who are on track to earn high-demand credentials and enter family-sustaining careers in the state.

