



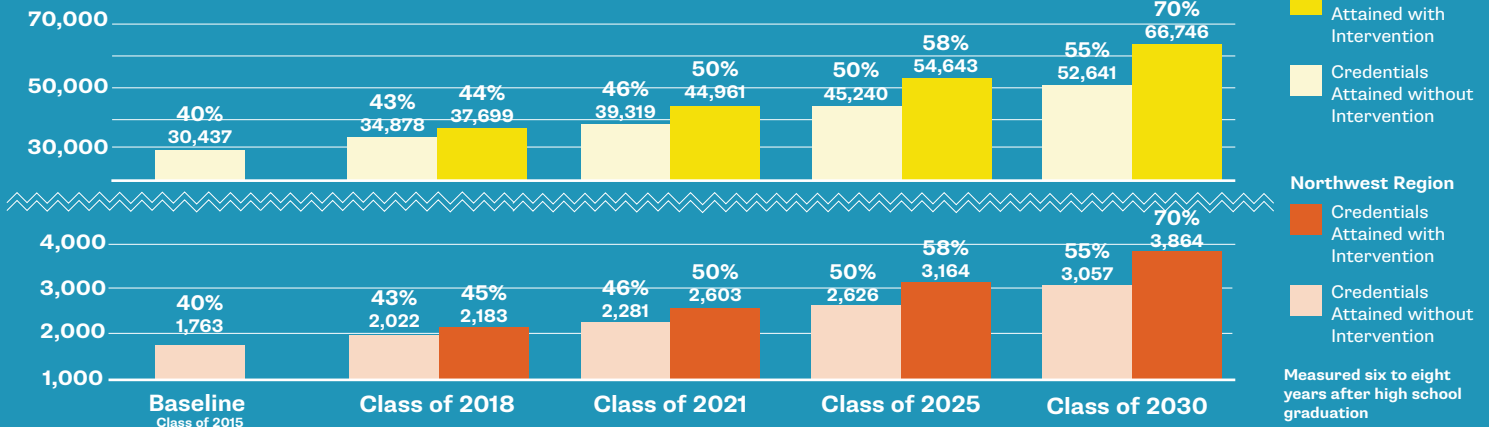
# STEM BY THE NUMBERS: NORTHWEST REGION



The Northwest Region is home to growing maritime, healthcare, engineering, and advanced manufacturing industries, spanning from Bellingham to Mount Vernon. The region is made up of 22 school districts, seven of which are members of the Skagit STEM Network. The Network's business, education, and community partners are working to close credential attainment gaps, especially for students of color, young women, and students from low-income families. They aim to increase the number of local students who become engineers, healthcare professionals, and maritime/construction apprentices, which have 2,096 annual projected openings combined over the next five years.

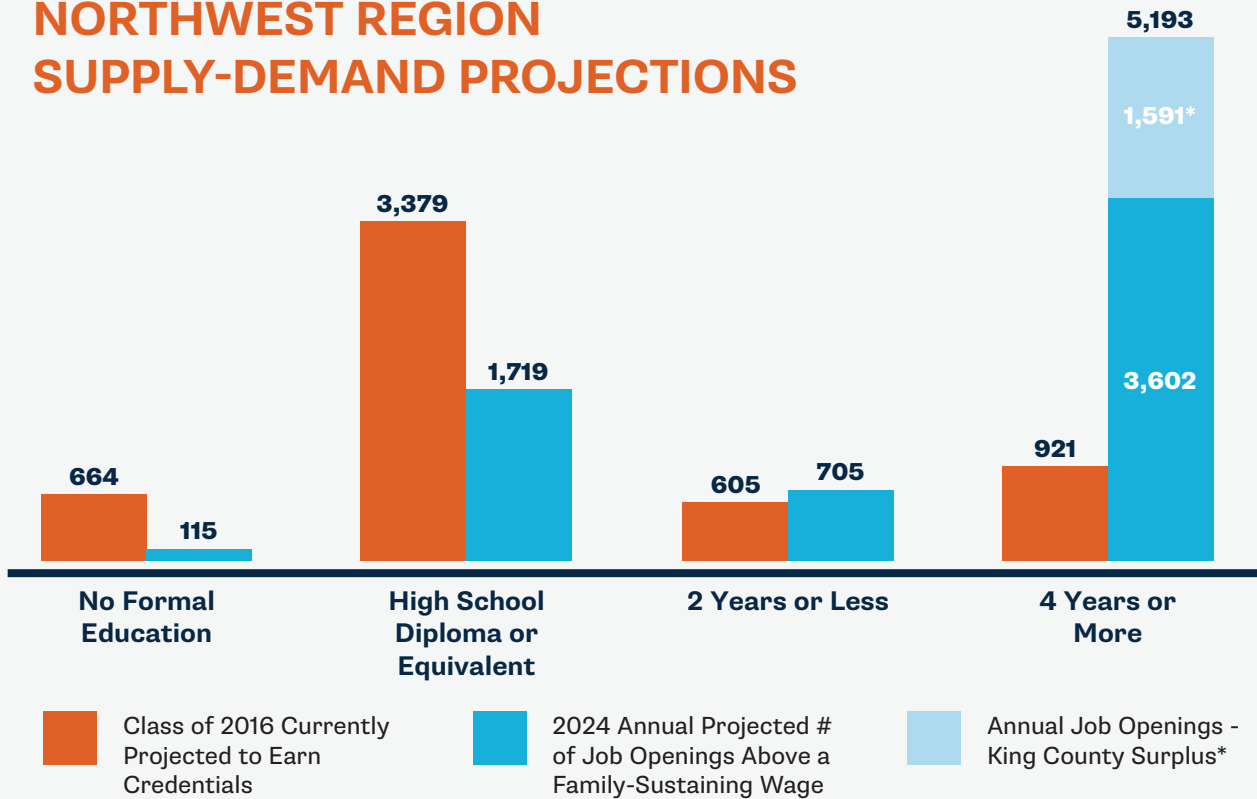


## 140 MORE CREDENTIALS PER YEAR = REGION ON TRACK



# THE OPPORTUNITY: A STRONG DEMAND FOR STEM TALENT

## NORTHWEST REGION SUPPLY-DEMAND PROJECTIONS



By supporting more students to be on track to earn a high-demand credential, the Northwest Region will ensure that up to 7,732 available family-sustaining jobs (those that pay a regionalized wage of \$36,000 or more a year) could be filled by local young adults.

\*Over the next 12 years, there will be a surplus of jobs in King County compared to the number of new, local, credentialed individuals in King County. That means that if other regions throughout the state only attended to their own regional job openings, King County would be sorely under-supplied by Washington state-originating kids. This surplus represents a proportion of the surplus jobs that could be supplied by students from the Northwest Region.



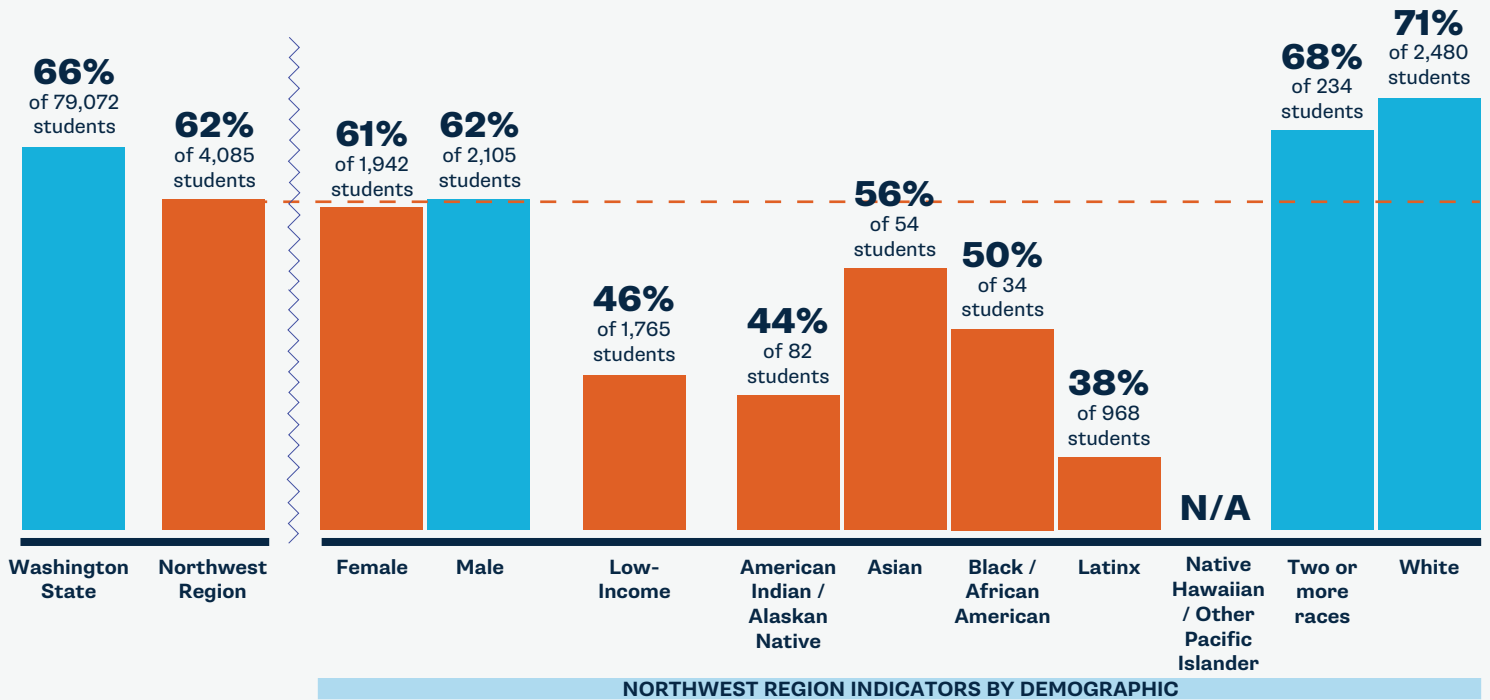
## STUDENTS LAND ON MARS

Students recently went to the surface of Mars right in their very own classroom. Conway Intermediate teacher Jason Rounds built a scaled Mars model out of paper mache, wire, and plywood so that students could design, code, and test their own Mars rovers using Spheros - programmable robotic spheres. Through the process, students discovered that their first design was rarely successful and that redesign was critical. How did students ultimately succeed? "Learning to listen to each other's ideas and work toward shared goals are crucial skills," said Rounds. Through the project, students learned both technical skills and the invaluable "soft skills" needed to prepare them for future creative thinking.

# NORTHWEST REGION K-12 STEM INDICATORS BY DEMOGRAPHIC

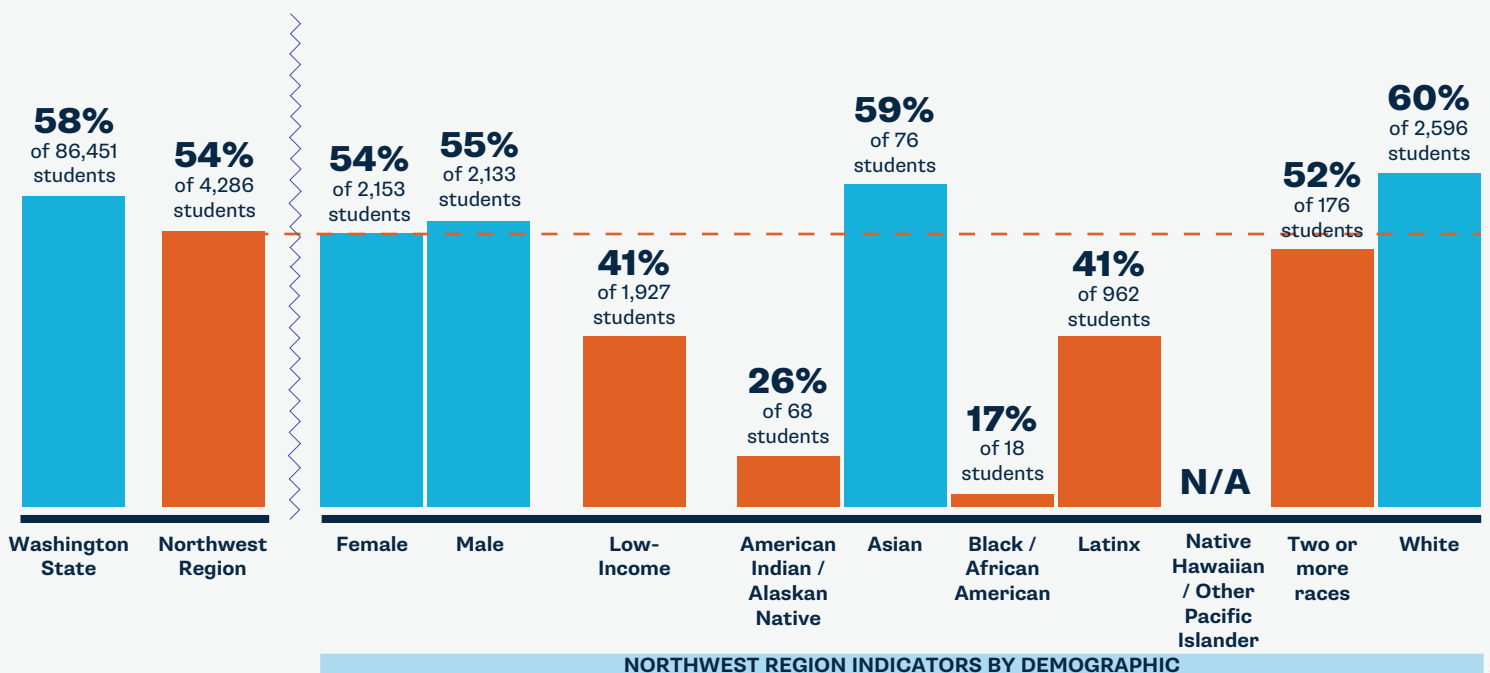
## KINDERGARTEN MATH READY (2018)

62% of 4,085 Northwest Region children entering kindergarten are math ready compared to 66% of 79,072 children statewide.



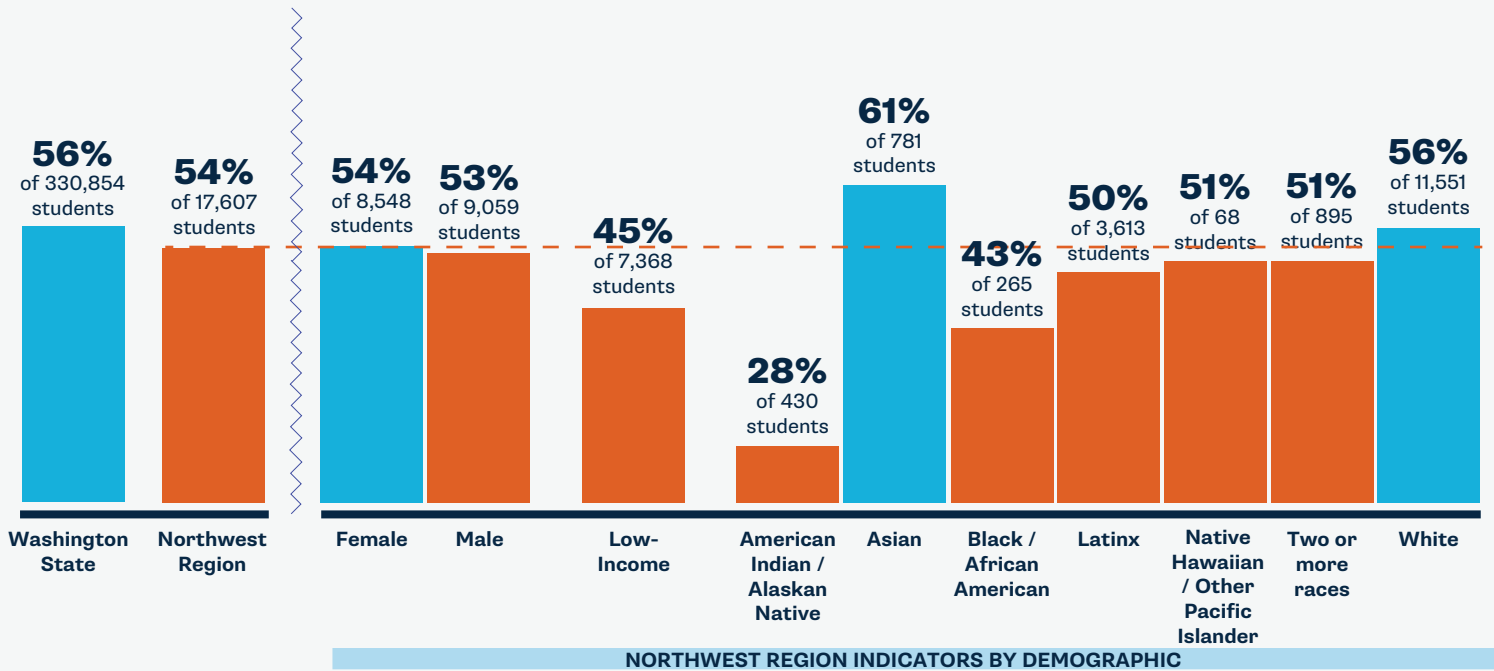
## 3RD GRADE MATH (2017)

54% of 4,286 of Northwest Region third graders meet grade level math standards compared to 58% of 86,451 third graders statewide.



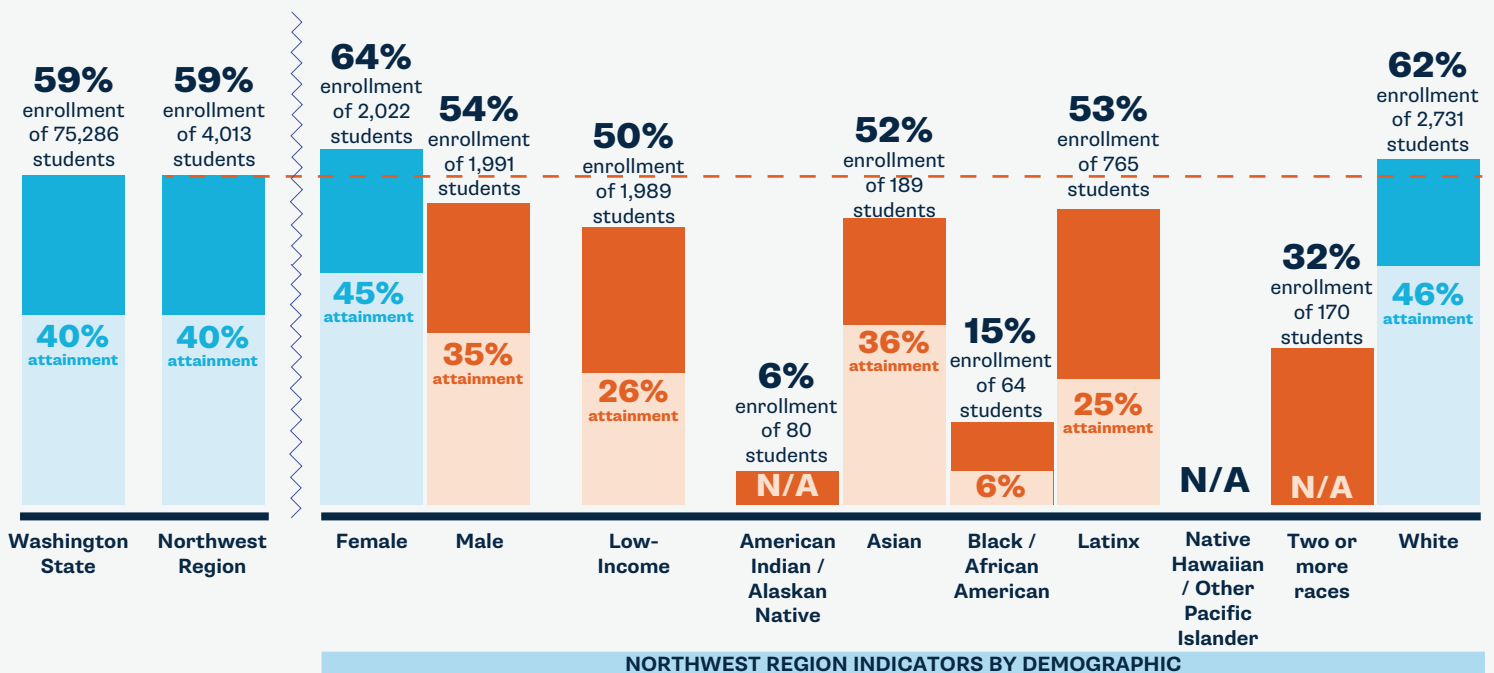
## DUAL CREDIT (2017 9-12TH GRADERS)

54% of 17,607 Northwest Region high schoolers complete at least one dual credit course compared to 56% of 330,854 youth statewide.



## CREDENTIAL ENROLLMENT/ATTAINMENT

59% of 4,013 of the originating ninth graders in the Northwest Region enroll in a postsecondary program and 40% 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](http://www.washingtonstem.org/STEMbythenumbers).

For more information about early STEM and career pathways work in the Northwest Region, contact Skagit STEM Network Director Michelle Judson, [mjudson@swsd.k12.wa.us](mailto:mjudson@swsd.k12.wa.us).

# NORTHWEST REGION STEM INDICATORS

## Ready for Kindergarten

While 62 percent of all Northwest 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

**62%** of Northwest Region children entering kindergarten are math ready

## K-8 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 Northwest Region third graders meet grade level math standards

## Secondary Pathways

While students in the Northwest 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

**54%** of Northwest 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, 59 percent enroll and 40 percent complete a credential. While Northwest 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

**59%** of the originating ninth graders in the Northwest Region enroll in a postsecondary program and 40 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.

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# REGIONAL TOP INDUSTRIES AND STEM JOBS

## ADVANCED MANUFACTURING PROFESSIONALS

Annual # of Openings: 210  
Credential: Certificate → Associate  
Average Regional Wage: \$54,436

## ENGINEERS

Annual # of Openings: 138  
Credential: Bachelor's  
Average Regional Wage: \$84,984

## MEDICAL ASSISTANTS

Annual # of Openings: 97  
Credential: Certificate → Associate  
Average Regional Wage: \$45,304

## CARPENTERS

(MARITIME & CONSTRUCTION)

Annual # of Openings: 502  
Credential: Apprenticeship  
Average Regional Wage: \$56,852

## SKAGIT STEM NETWORK HAS CONCRETE VALUE

“The Skagit STEM Network is proof that a collaborative approach between districts brings value and innovation to all.

As a result of our involvement in the Skagit STEM Network, the Concrete School District participated in STEM Like ME!, which brings STEM professionals into the classroom.

This experience has led to new STEM opportunities and course options – we will be offering middle school robotics and solar energy classes. We have partnered with Microsoft and TEALS to offer computer engineering. This will enable Concrete High students to partner directly with Microsoft professionals and pursue industry certifications.”

- Wayne Barrett, Concrete School District Superintendent



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.