



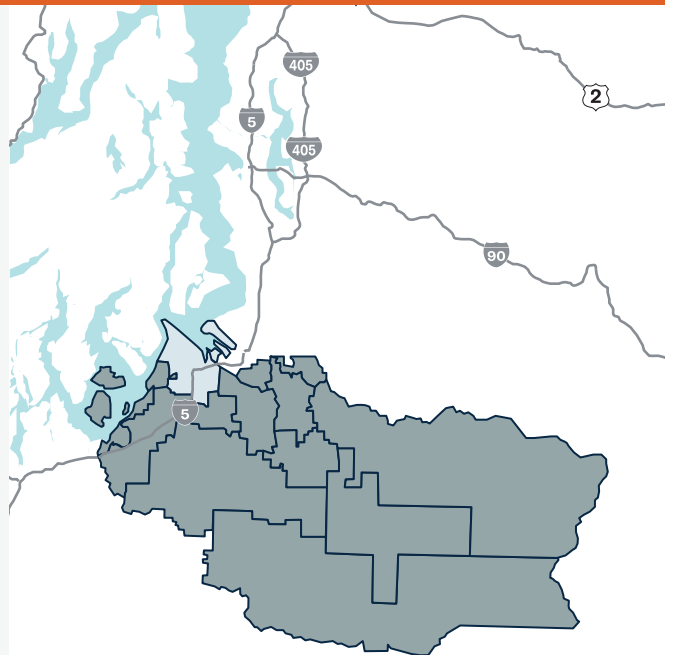
# STEM BY THE NUMBERS: PIERCE COUNTY REGION

The Pierce County Region is home to growing information and technology, health-care, K-12 education, and construction, spanning from Gig Harbor to Eatonville.



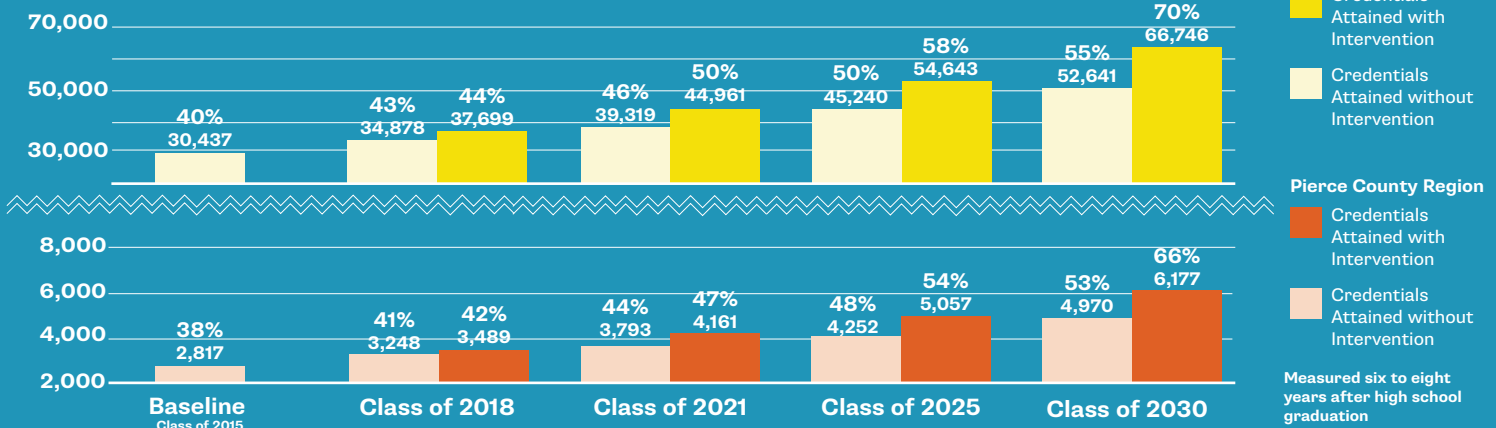
Every Child. One Community. Cradle to Career.

The region is made up of 14 school districts. Tacoma Public Schools is the largest district in the region and is served by the Tacoma STEAM 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 computer and IT professionals, construction and trades professionals, teachers, and healthcare professionals, which have 3,731 annual projected openings combined over the next five years.



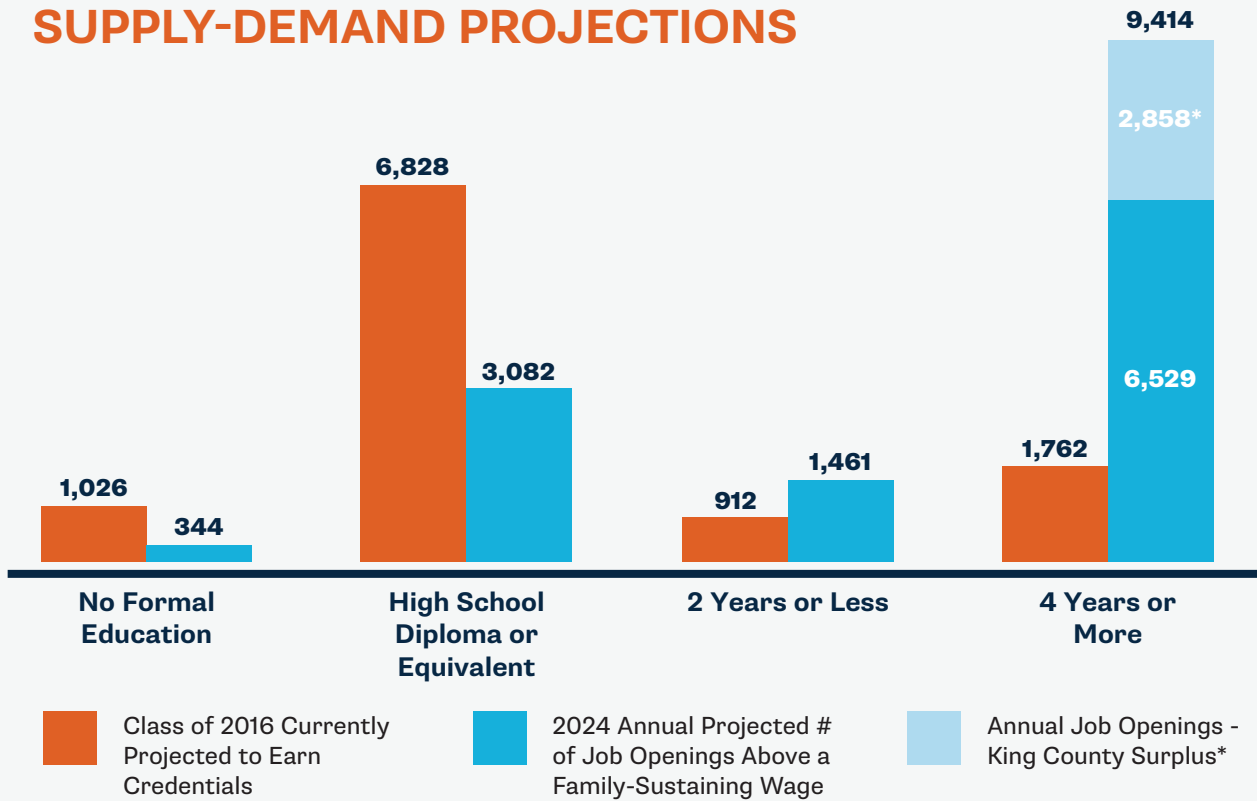
PIERCE COUNTY REGION  
STEAM NETWORK - TACOMA

## 224 MORE CREDENTIALS PER YEAR = REGION ON TRACK



# THE OPPORTUNITY: A STRONG DEMAND FOR STEM TALENT

## PIERCE COUNTY REGION SUPPLY-DEMAND PROJECTIONS



By supporting more students to be on track to earn a high-demand credential, the Pierce County Region will ensure that up to 11,416 available family-sustaining jobs (those that pay a regionalized wage of \$37,300 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 Pierce County Region.



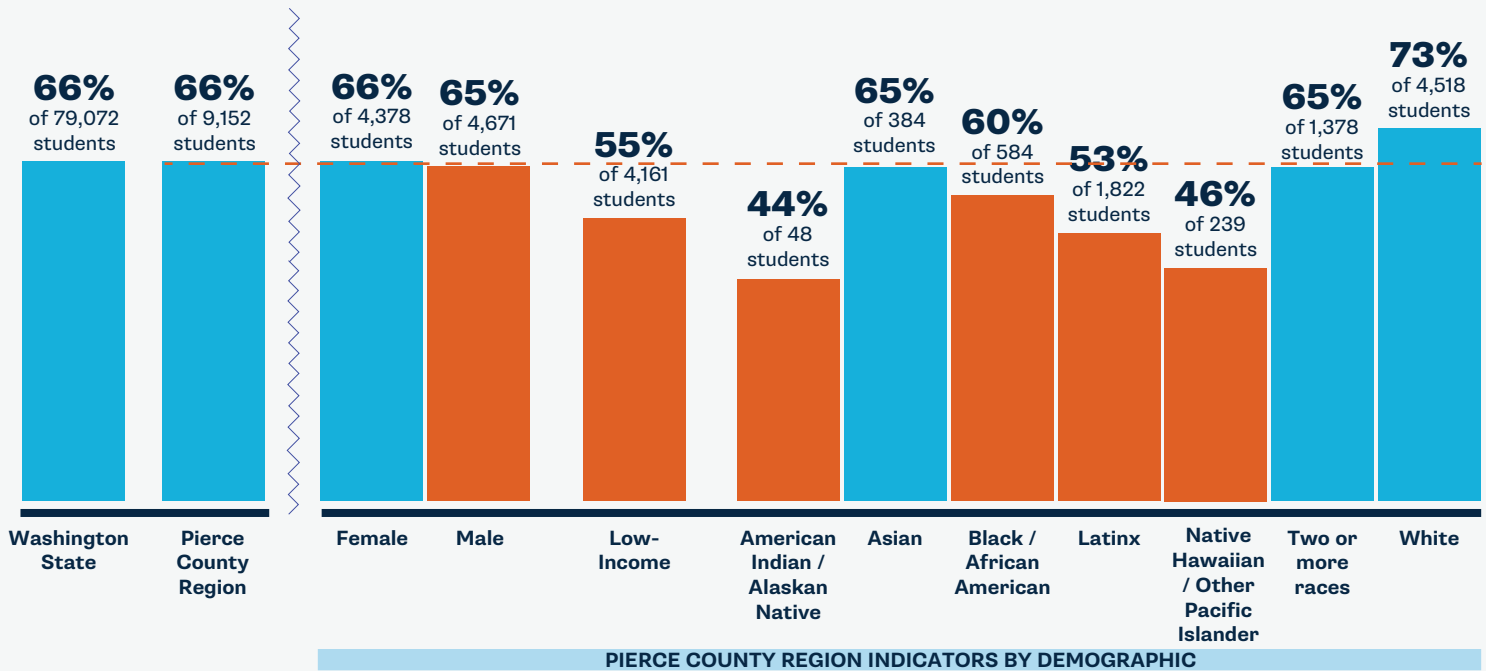
## CREATURES OF LIGHT STEAM FAMILY NIGHT

In October of 2017, the Tacoma STEAM Network, in partnership with Readiness Acceleration Innovation Network (RAIN), hosted its first STEAM Family Night at Franklin Elementary School called Creature of Light: Nature's Bioluminescence. The event drew more than 50 elementary students and families. Participants engaged in activities where they made their own glowing jellyfish crafts, built tasty models of DNA, heard from scientists, used glowing bacteria for research, decoded their own DNA, and learned how and why creatures produce natural light. In addition, each student received their own UV mini LED flashlight to use during various glow-in-the-dark activities during the STEAM night and at home!

# PIERCE COUNTY REGION K-12 STEM INDICATORS BY DEMOGRAPHIC

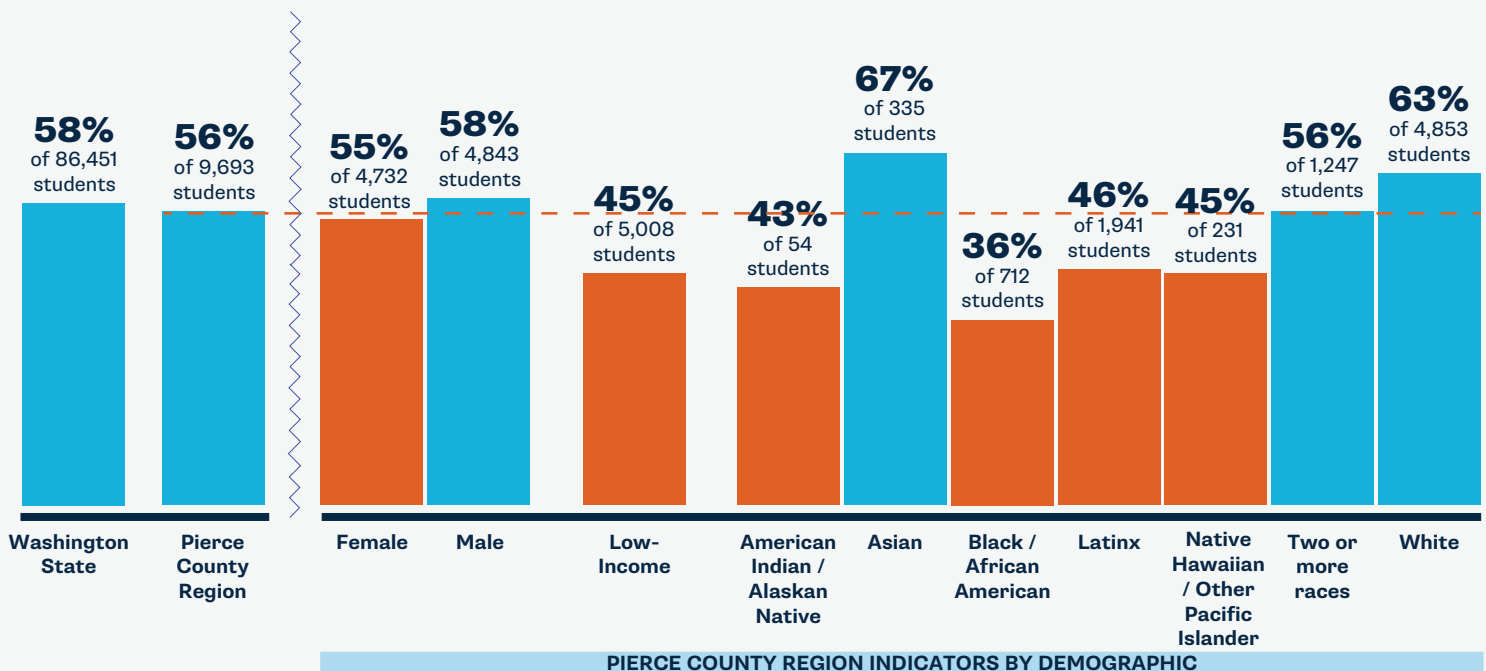
## KINDERGARTEN MATH READY (2018)

**66% of 9,152** Pierce County Region children entering kindergarten are math ready compared to **66% of 79,072** children statewide.



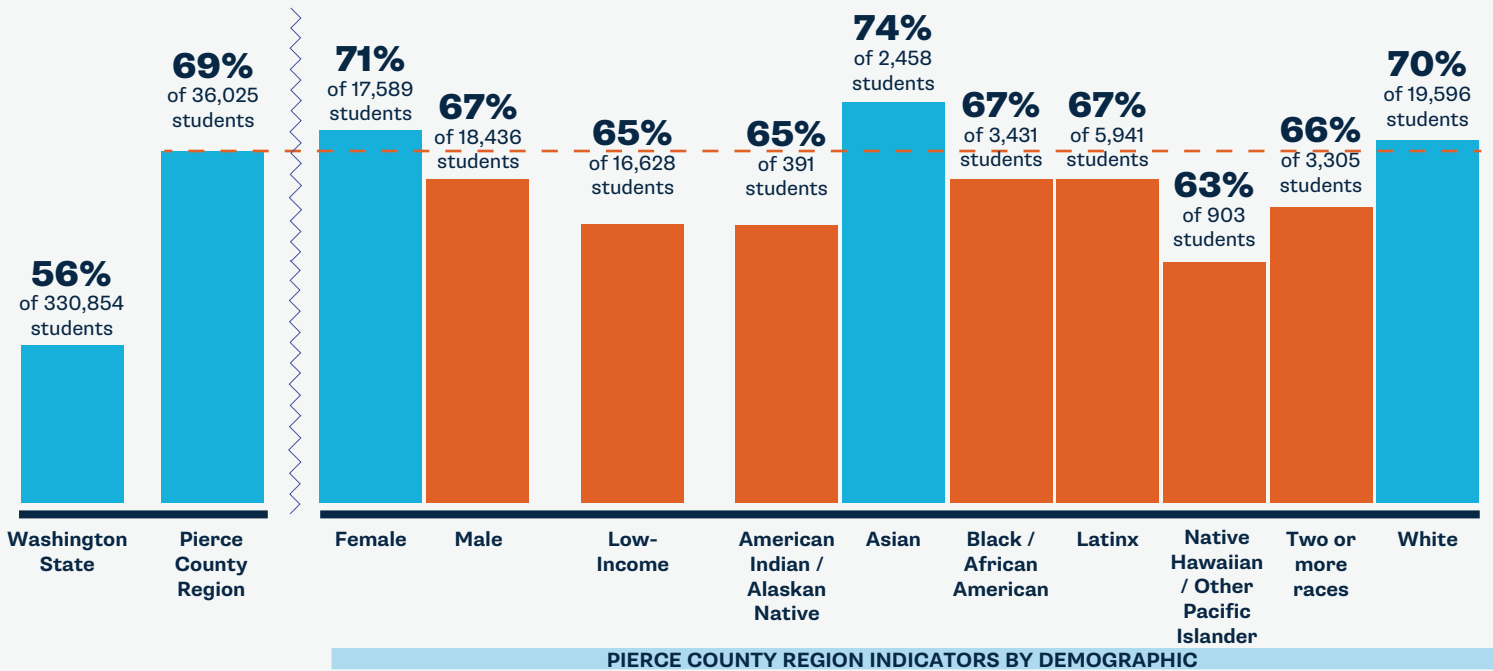
## 3RD GRADE MATH (2017)

**56% of 9,693** of Pierce County Region third graders meet grade level math standards compared to **58% of 86,451** third graders statewide.



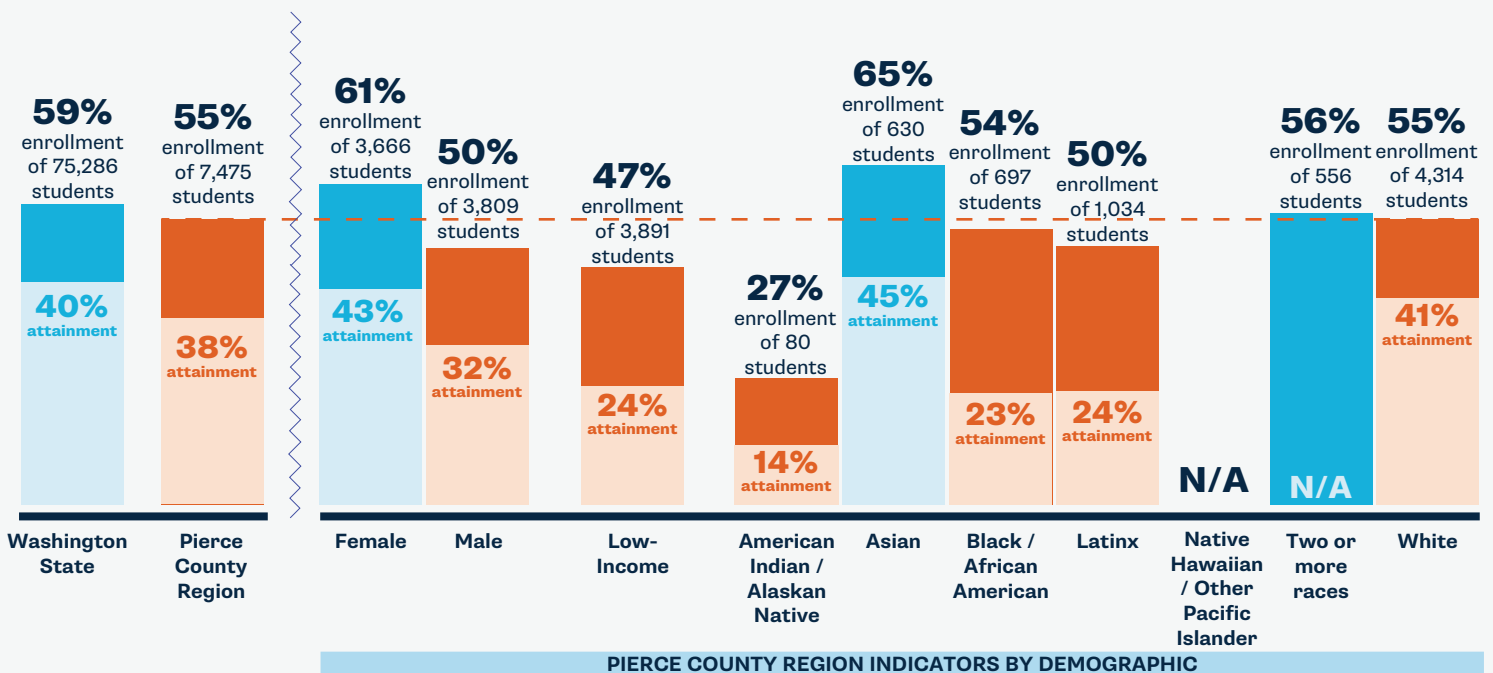
## DUAL CREDIT (2017 9-12TH GRADERS)

69% of 36,025 Pierce County Region high schoolers complete at least one dual credit course compared to 56% of 330,854 youth statewide.



## CREDENTIAL ENROLLMENT/ATTAINMENT

55% of 7,475 of the originating ninth graders in the Pierce County Region enroll in a postsecondary program and 38% 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 Pierce County Region, contact Tacoma STEAM Network director Chanel Hall at [steam@graduatetacoma.org](mailto:steam@graduatetacoma.org).

# PIERCE COUNTY REGION STEM INDICATORS

## Ready for Kindergarten

While 66 percent of all Pierce County 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 Pierce County 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

**56%** of Pierce County Region third graders meet grade level math standards

## Secondary Pathways

While students in the Pierce County 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

**69%** of Pierce County 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 Pierce County 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

**55%** of the originating ninth graders in the Pierce County Region enroll in a postsecondary program and 38 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

## MEDICAL ASSISTANTS & NURSES

Annual # of Openings: 1,255  
Credential: Certificate → Bachelor's  
Average Regional Wage: \$44,560 → \$83,887

## CONSTRUCTION & TRADES PROFESSIONALS

Annual # of Openings: 1,235  
Credential: Apprenticeship  
Average Regional Wage: \$61,547

## K-12 TEACHERS

Annual # of Openings: 727  
Credential: Bachelor's  
Average Regional Wage: \$63,028

## COMPUTER & IT PROFESSIONALS

Annual # of Openings: 466  
Credential: Certificate → Bachelor's  
Average Regional Wage: \$77,599

## THE CITY OF MAKERS

Tacoma is a city of makers. It hails from a legacy of makers ranging from manufacturers to artisans. The past 20 years have given rise to a burgeoning creative economy that was recognized by Etsy in 2016 with a Maker City designation. Because of this, the Tacoma STEAM Network is currently planning a Mini-Maker Faire to be hosted at the University of Washington Tacoma. Prioritizing equity, the Network partners have a focus on recruiting makers who are people of color as well as women. Tacoma hosts several events highlighting science, technology, engineering, arts, and math, including the Tacoma Arts Month and STEAM Network Family STEAM Nights. Our Mini-Maker Faire will be the exemplar of maker-infused events that will celebrate, amplify, and empower the do-it-yourself spirit that thrives in Tacoma.



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.

