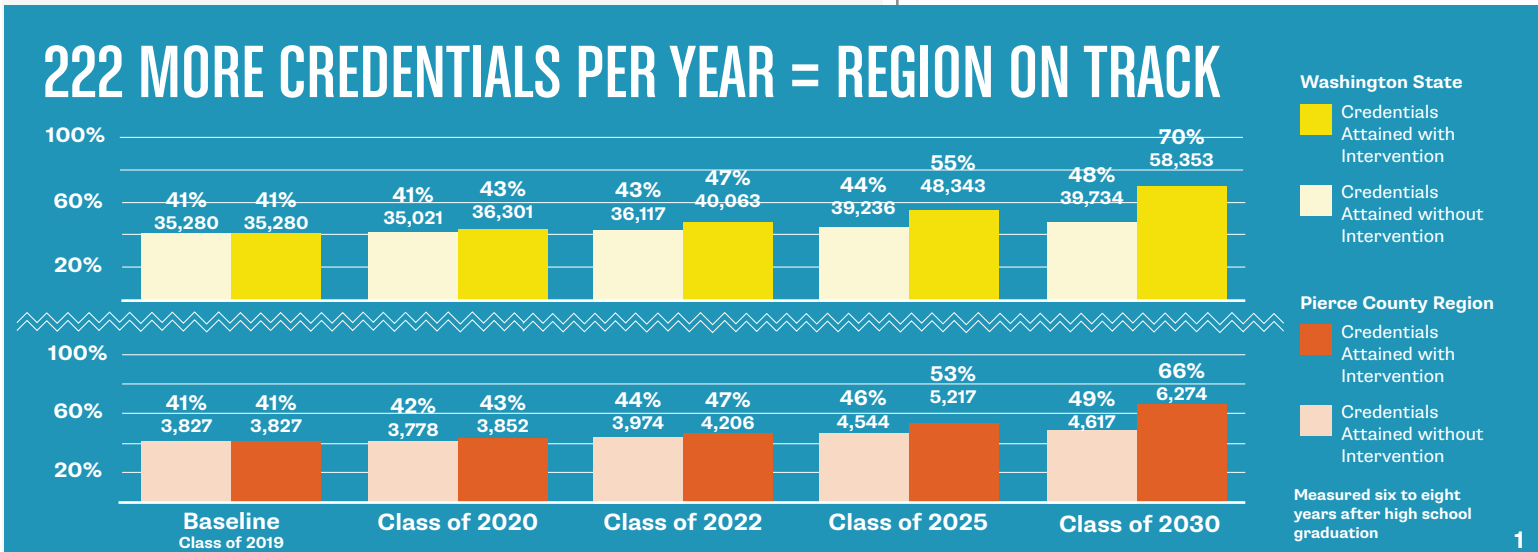
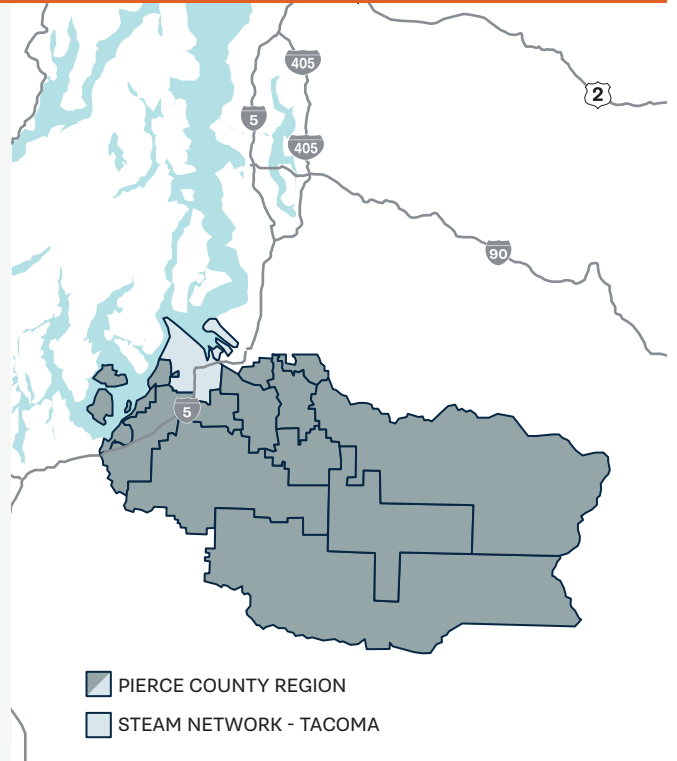




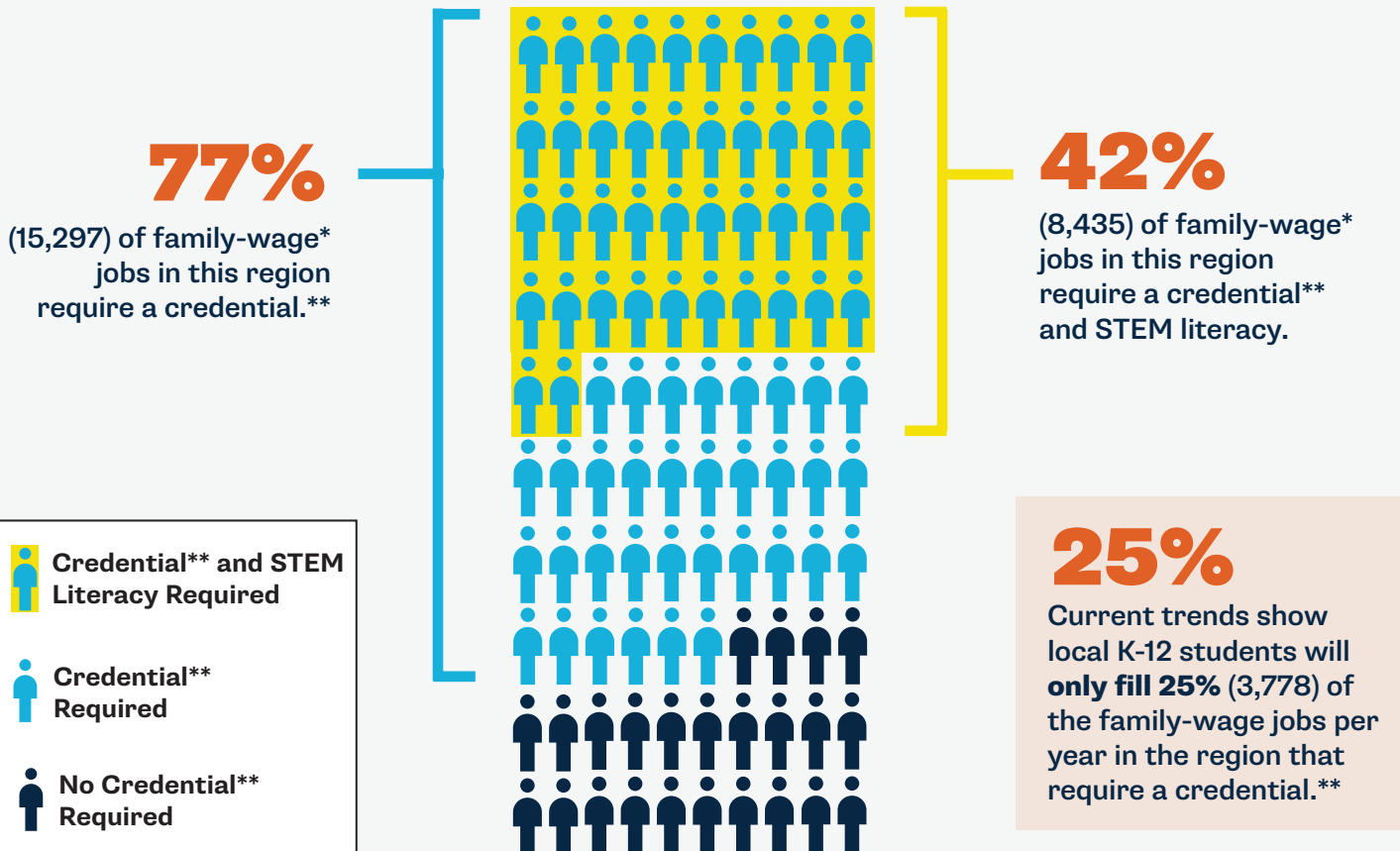
STEM BY THE NUMBERS: PIERCE COUNTY REGION

The Pierce County Region is home to historically robust STEM industries, spanning from healthcare to education, served by the Tacoma STEAM Network and its cross-sector partners. By 2030, 77% of high-demand, family-sustaining wage jobs available in our region will require a postsecondary degree or credential; 42% of those jobs will be STEM or STEM literacy-based occupations. However, students in the Pierce County Region are not equitably or adequately prepared to take advantage of these opportunities, with only 41% of the high school cohort of 2019 projected to be on track to attain postsecondary credential. We aim to close those gaps and increase the number of our local students who gain access to jobs that pay a family wage and have shown strong resilience during times of economic uncertainty. To learn more about the Tacoma STEAM Network, visit <https://graduatetacoma.org/steamlarning>.



THE OPPORTUNITY: A STRONG DEMAND FOR STEM TALENT

19,988 JOBS PAY A FAMILY WAGE* IN THE PIERCE COUNTY REGION



*"Family wage" and "family-wage jobs" are determined based on the assumption that two working adults are contributing to a household with two children (one infant and one child aged 5 to 12 years), using the statewide family-wage average from the University of Washington Self-Sufficiency Standard, 2020. For households with one adult and two children, the wage threshold is doubled.

** "Credential" refers to all forms of postsecondary education and training, including registered apprenticeships, 1-year certificates, 2-year degrees, and 4-year degrees.

Explore more Washington career and credential data at www.washingtonstem.org/labor-market.

BUILDING A PATHWAY TO CREDENTIALS

Demand for construction and trade professionals in Pierce County continues to grow. To expose more students to these careers, Greater Western Washington Pipe Trades/Local 26 with support from Tacoma STEAM Network, will host their High School Introduction to Pumping & Pipefitting (HIPP) program for the third year. This year, the Network is working to expand this opportunity for students from Tacoma Public Schools to get first-hand and/or virtual experience with welding, soldering, brazing, rigging, and more. Students earn 0.5 high school credits, OSHA 10 Certification, Scissor Lift Certification, and Certificate of Completion. HIPP's program is a true example of building a pathway to post-secondary opportunities.




PIERCE COUNTY REGION STEM INDICATORS




As Washington students move through our education systems, they interact with and are influenced by a wide range of factors that impact their likelihood of success in K-12, postsecondary, and beyond. The following graphic helps illustrate how our educational infrastructure is, or isn't, supporting Washington students.



EARLY LEARNING


 **24%** of children under 6 years old with all parents working are able to access quality-rated early learning


 **69%** of children demonstrate the math skills expected for their age

Not enough families are able to access quality-rated early learning due to the lack of systemic supports and capacity. Quality-rated early learning can lead to sustained positive outcomes for students, especially those from low-income households.




K-12 STEM LEARNING


 **52%** of fifth graders demonstrate the science skills and knowledge expected for their grade level


 **59%** of third graders demonstrate the math skills expected for their grade level

Students of all races have better educational outcomes if they are taught by racially diverse teachers; students of color see positive benefits if they are taught by teachers who look like them and have similar cultural backgrounds.

 **14%** teachers in our region are teachers of color, compared to 52% students of color

COLLEGE & CAREER PATHWAYS

 **73%** of schools offer dual credit courses in at least two STEM subjects (2018)
*does not include Running Start or CTE

 **73%** of high schoolers completed at least one dual credit course during high school


College credit completion that is accessible through high school is a strong indicator of success after high school. Students who can access STEM dual credit courses are more likely to go on to pursue a high-demand/STEM credential.




CREDENTIALS & EMPLOYMENT



 **79%** shortfall in postsecondary program availability

Over 70% of family-wage jobs in our state require a postsecondary credential (certificate, degree, or apprenticeship) but our postsecondary system lacks the capacity and support to meet credential demand. Explore more WA occupation data at www.washingtonstem.org/cori.

 **50%** of the 2018 high school cohort have enrolled in a postsecondary credential

 **35%** of the 2018 high school cohort is on track to earn a postsecondary credential by age 26



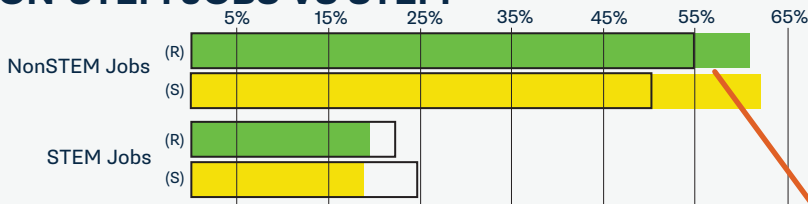
-  Systems Supports
-  Student Outcomes

COVID-19 IMPACTS

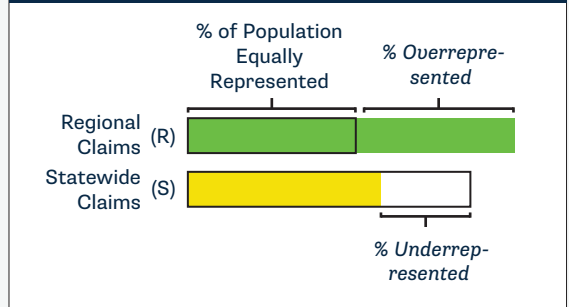
COVID-19 continues to have an outsized and ongoing impact on every community in our state and our region is no exception. However, those impacts have been felt disproportionately. When we look at the data, it's clear that communities of color have continued to see significant unemployment due to COVID-19, as compared to their white counterparts. Additionally, community members without any kind of post-high school credential have also seen dramatic unemployment impacts, further highlighting the need for continued education and credential attainment beyond high school.

UNEMPLOYMENT CLAIMS BY:

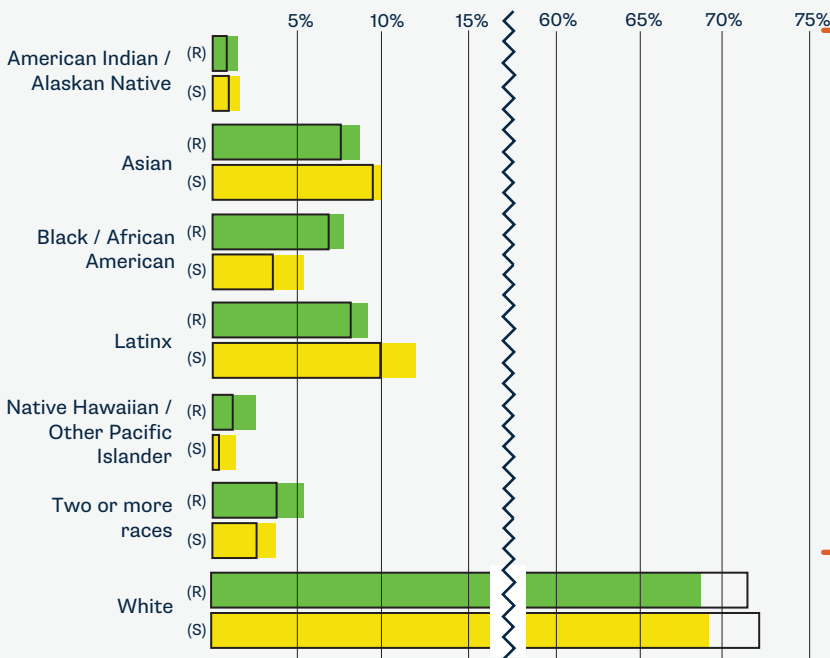
NON-STEM JOBS VS STEM



LEGEND: UNEMPLOYMENT CLAIMS



RACE/ETHNICITY

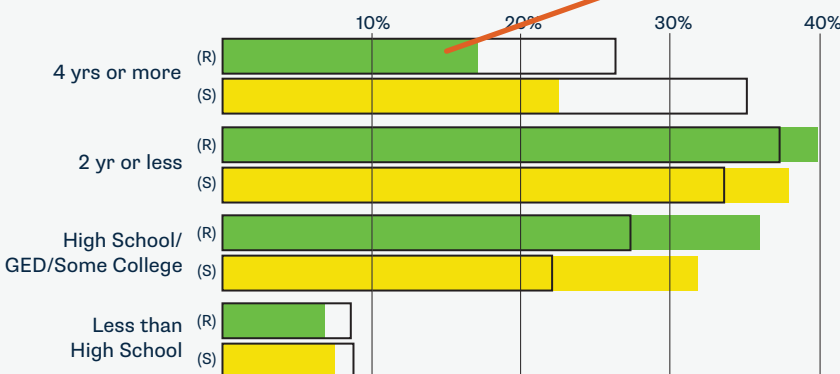


Individuals with non-STEM jobs were overrepresented in unemployment claims by 7%.

Communities of color in our region are overrepresented in unemployment claims by 6%, as compared to their white counterparts.

Individuals with a four-year college credential were significantly underrepresented in unemployment claims by more than 9%.

EDUCATION ATTAINMENT



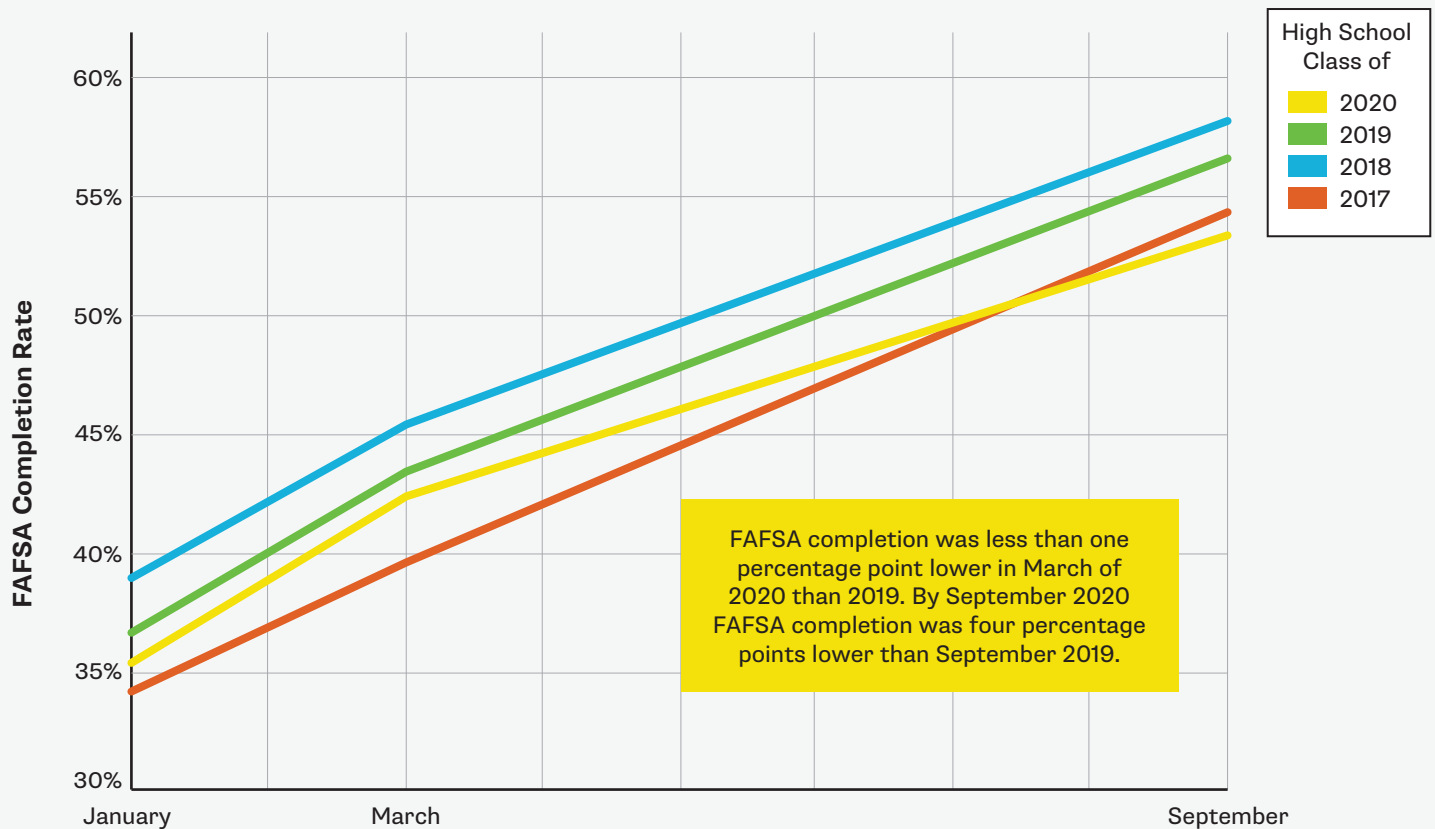
The disparities represented here among demographic groups are not representative of talent, intellect, or inherent ability. These unemployment claim disparities are indicative of how economic and educational systems have historically, and habitually, underserved and oppressed these communities.

Unemployment claims data from the week of May 23, 2020. Weeks prior to this date were potentially overstated due to fraudulent unemployment claims.

FINANCIAL AID

Financial aid, like the Free Application for Federal Student Aid (FAFSA) and the Washington Application for State Financial Aid (WASFA), is a critical component for success for any Washington student who chooses to pursue education after high school. Despite the critical importance of financial aid, and the generous packages available for students in our state, Washington is woefully behind in financial aid completion as compared to the rest of the U.S. Our regional networks and partners are working to increase financial aid application completion, which will help close pervasive gaps in higher education attainment.

Pierce County Region FAFSA Completion Rate by High School Cohort



FAFSA completion data provided by Washington Student Achievement Council.
Explore the data here: <http://bit.ly/WSACfafsacompletion>

DID YOU KNOW?

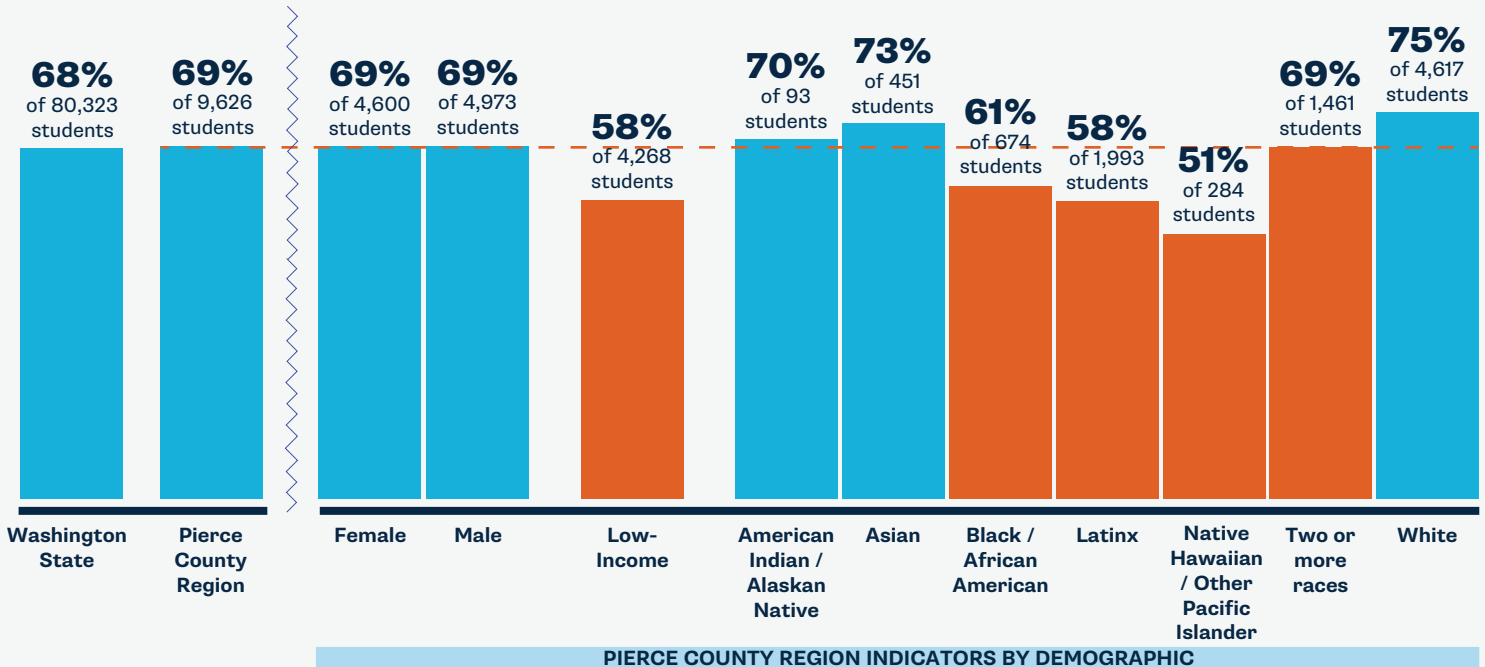
- Students experience a 25% increase in higher education enrollment and completion when they are made aware of financial aid by the time they're in high school and are awarded an aid package that meets their needs.
- Every \$1,000 a student from a low-income or working class background has to pay out of pocket reduces the probability of that student re-enrolling in college or university the following year by 16%.
- Students who are undocumented in Washington can access up to \$11,040 in state aid through the Washington Application for State Financial Aid (WASFA).
- Washington has several unique financial aid programs available to students: the Washington College Grant, the College Bound Scholarship, the Washington State Opportunity Scholarship, the WASFA, and more.
- Aid from the Washington College Grant can be used to support costs of apprenticeships, certificates, and two-year and four-year degree programs.

PIERCE COUNTY REGION K-12 STEM INDICATORS BY DEMOGRAPHIC

KINDERGARTEN MATH READY (2019)

69% of 9,626 Pierce County Region children entering kindergarten are math ready compared to **68% of 80,323** children statewide.

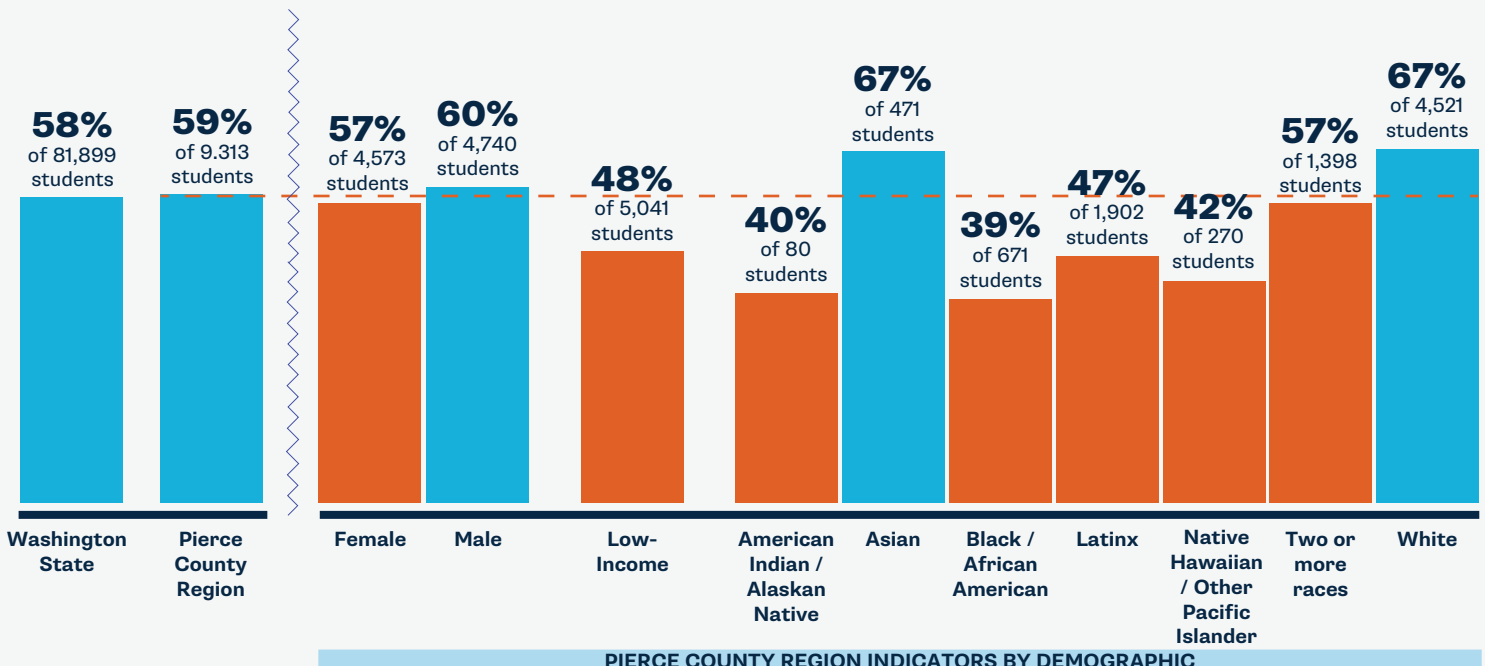
More than or equal to average of comparison
Less than average of comparison



3RD GRADE MATH (2019)

59% of 9,313 Pierce County Region third graders meet grade level math standards compared to **58% of 81,899** third graders statewide.

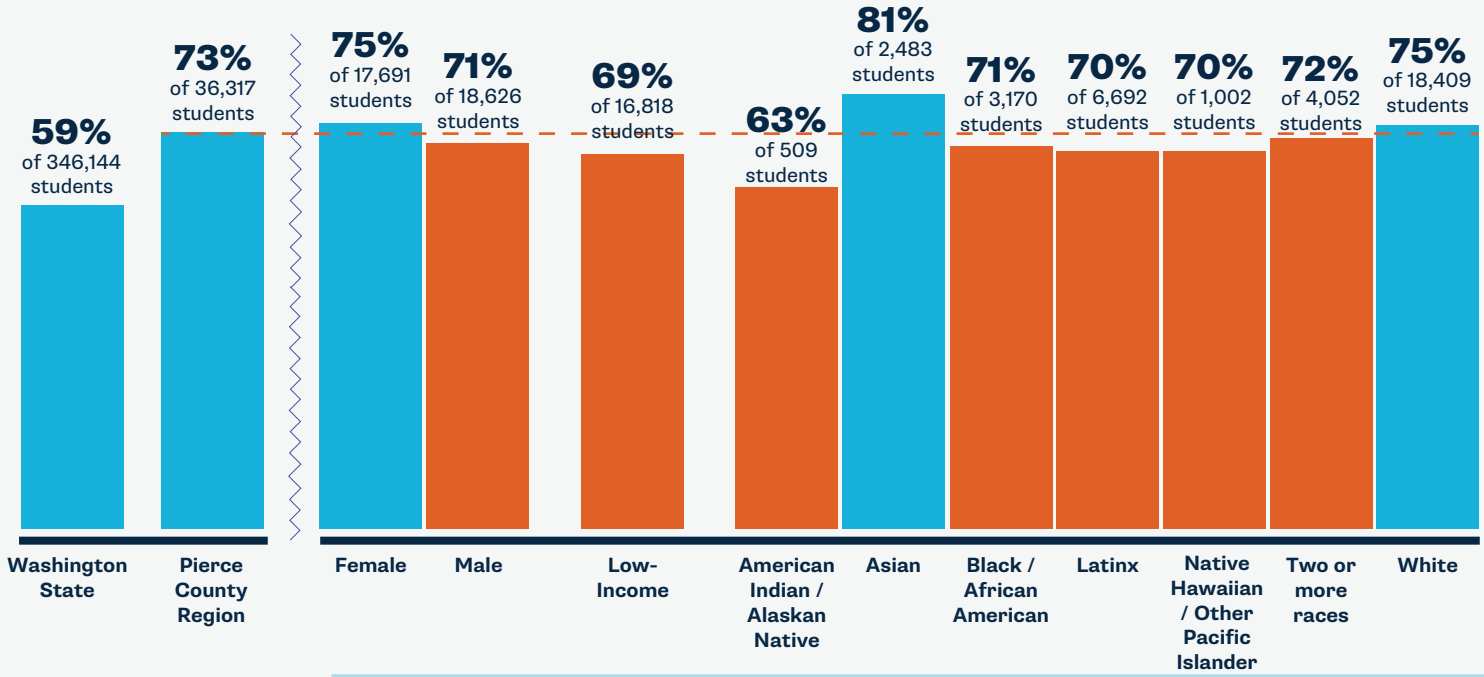
More than or equal to average of comparison
Less than average of comparison



DUAL CREDIT (2020 9-12TH GRADERS)

73% of 36,317 Pierce County Region high schoolers complete at least one dual credit course compared to 59% of 346,144 youth statewide.

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

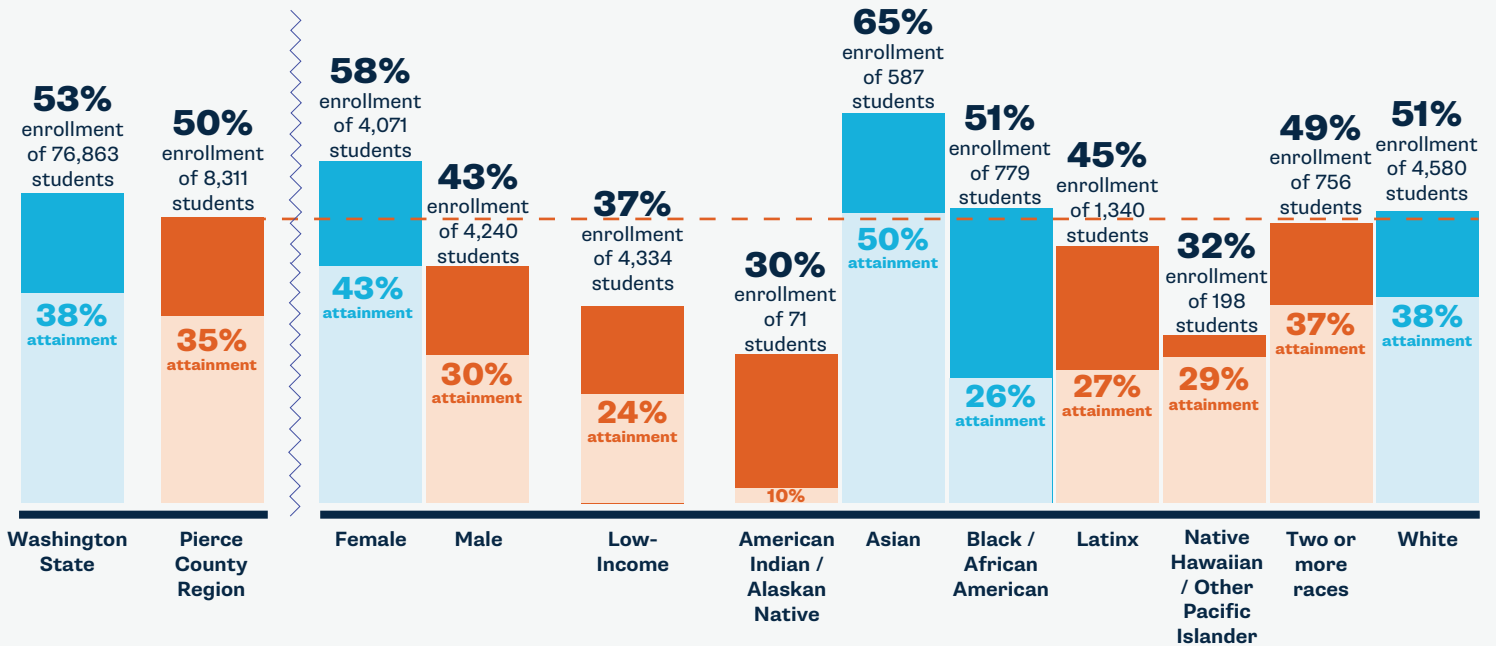


PIERCE COUNTY REGION INDICATORS BY DEMOGRAPHIC

CREDENTIAL ENROLLMENT/ATTAINMENT (CLASS OF 2018)

50% of 8,311 originating ninth graders in the Pierce County Region enroll in a postsecondary program and 35% of those originating ninth graders earn a credential by age 26.

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







PIERCE COUNTY REGION INDICATORS BY DEMOGRAPHIC

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

For more information about early learning and career pathways work in the Pierce County Region, contact Tacoma STEAM Network director Chanel Hall at steam@graduatetacoma.org.

REGIONAL TOP INDUSTRIES AND STEM JOBS

The following industries and jobs in the Pierce County Region continue to offer meaningful career opportunities for local students, and have shown strong resilience or have seen a strong rebound during the COVID-19 pandemic. Jobs like those listed below are examples of strong, family-sustaining wage occupations that can provide economic security amid uncertainty, while creating clear pathways for future growth. Explore more Washington labor market data at www.washingtonstem.org/labor-market.

	 Registered Nurse	 K-12 Teacher	 Information Technology Professional	 Life Sciences Professional
Annual Number of Openings**	883	866	419	316
Oct. Insured Unemployment* Rate	1.0%	0.6%	1.1%	0.5%
Oct. Regional Insured Unemployment* Rate	3.5%			
Credential	Bachelor's	Bachelor's	Bachelor's	Associate's → Doctorate
Average Regional Wage	\$75,733 → \$108,264	\$66,098 → \$77,753	\$101,287 → \$174,334	\$41,665 → \$145,496

*Insured unemployment is a count of payments made to unemployment insurance claimants.

**Annual number of entry level job openings created by workers who leave an occupation and need to be replaced or occupation growth. Openings do not include turnover.

MEET OUR FUTURE NASA ENGINEERS AND ASTRONAUTS

For the past two years, students in Tacoma-Pierce Country have been making small steps and giant leaps by taking on NASA inspired STEM challenges in partnership with University of Washington Tacoma Northwest Earth and Space Sciences Pipeline, and Tacoma South Sound MESA. Celebrating Apollo's 50th anniversary in 2018 and the preparation of Mars 2020 Rover in 2019, students tackled the recreation of each landing and use of rovers using drones and EV3 Legostorms. In addition, students had to "explore" life on Mars by collecting samples and analyzing them with methane detectors and microscopes. The Tacoma STEAM Network looks forward to continuing to expand these opportunities to expose students, especially students of color and girls, to aerospace and earth science careers.



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.

