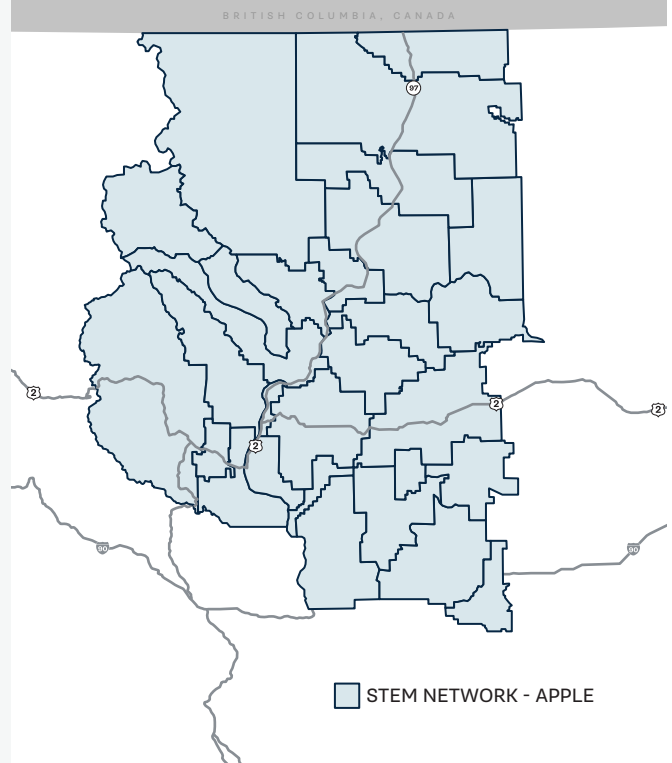


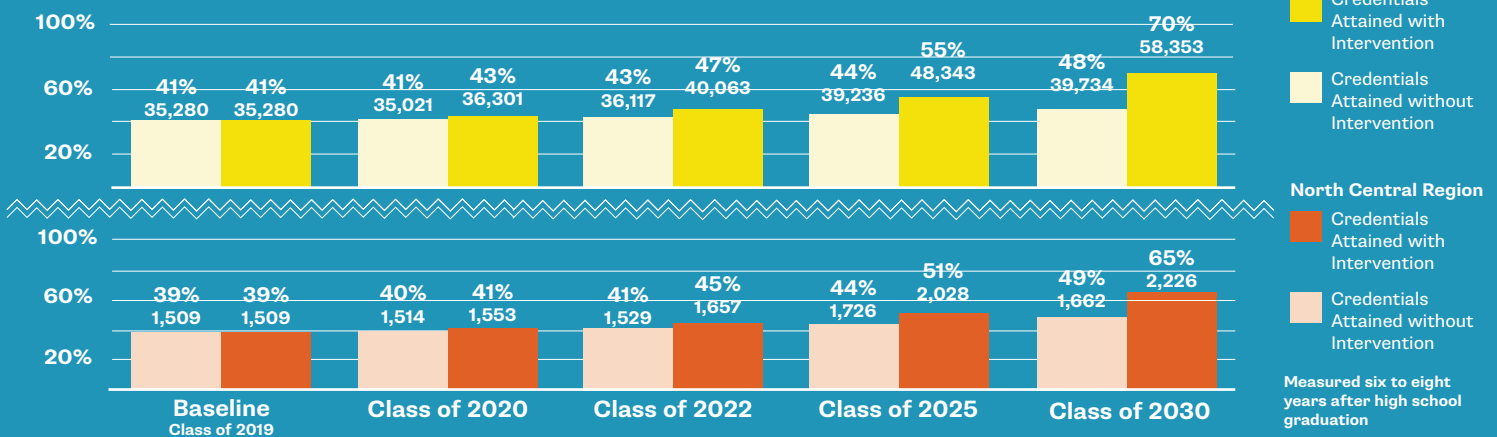


# STEM BY THE NUMBERS: NORTH CENTRAL REGION

The North Central Region is home to historically robust STEM industries, spanning from healthcare to construction, served by the Apple STEM Network and its cross-sector partners. By 2030, 78% of high-demand, family-sustaining wage jobs available in our region will require a postsecondary degree or credential; 43% of those jobs will be STEM or STEM literacy-based occupations. However, students in the North Central Region are not equitably or adequately prepared to take advantage of these opportunities, with only 39% of the high school cohort of 2019 projected to be on track to attain postsecondary credentials. 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 Apple STEM Network, visit <http://applestemnetwork.org>.

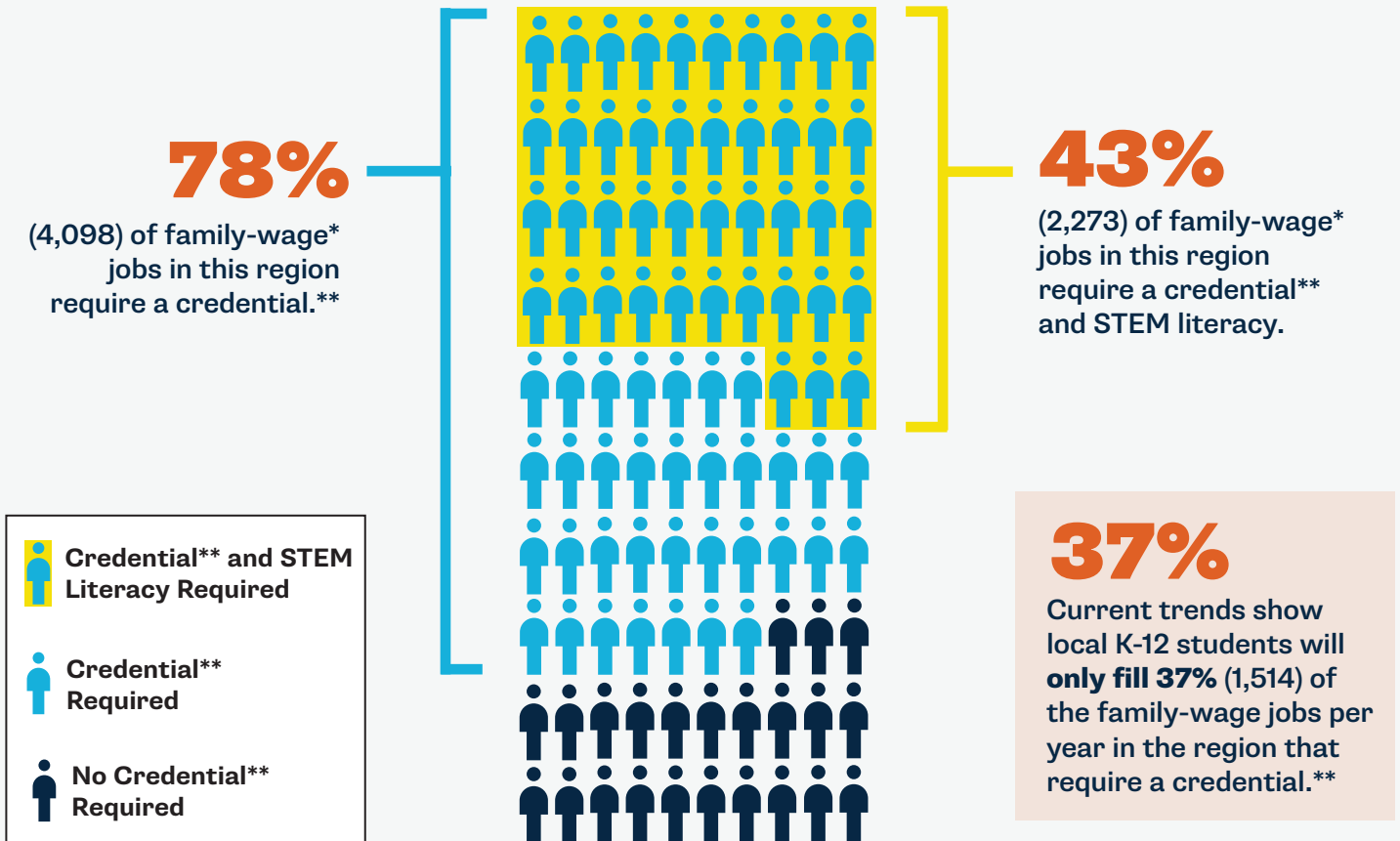


## 65 MORE CREDENTIALS = REGION ON TRACK



# THE OPPORTUNITY: A STRONG DEMAND FOR STEM TALENT

## 5,274 JOBS PAY A FAMILY WAGE\* IN THE NORTH CENTRAL 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](http://www.washingtonstem.org/labor-market).

## PATH TO FUTURE CAREERS IN TECH

North Central Washington has a growing number of tech jobs in fields like agriculture, energy, and healthcare. To increase the number of students with computer science and tech credentials, the Apple STEM Network has forged strategic partnerships with philanthropic partners like Microsoft and Code.org, who are providing support for rural schools to implement computer science courses for high school students. Regional postsecondary institutions have come together to build onto this foundational knowledge and are aligning their programs to provide students a regional path toward computer science credentials.




# NORTH CENTRAL 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

 **26%** of children under 6 years old with all parents working are able to access quality-rated early learning


 **55%** 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



 **41%** of fifth graders demonstrate the science skills and knowledge expected for their grade level


 **47%** 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.

 **10%** teachers in our region are teachers of color, compared to 53% students of color



## COLLEGE & CAREER PATHWAYS



 **48%** of schools offer dual credit courses in at least two STEM subjects (2018)  
\*does not include Running Start or CTE

 **57%** 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.


-  Systems Supports
-  Student Outcomes

## CREDENTIALS & EMPLOYMENT

 **31%** 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](http://www.washingtonstem.org/cori).

 **49%** of the 2018 high school cohort have enrolled in a postsecondary credential

 **33%** of the 2018 high school cohort is on track to earn a postsecondary credential by age 26

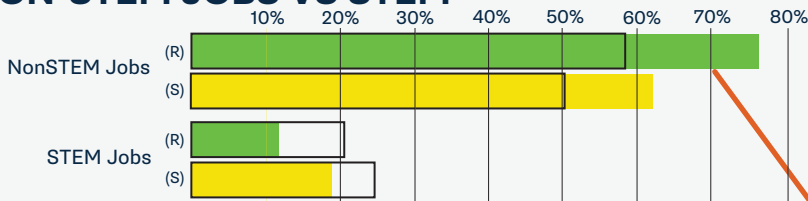
CONTINUED  
EDUCATION &  
CREDENTIALS

# COVID-19 IMPACTS

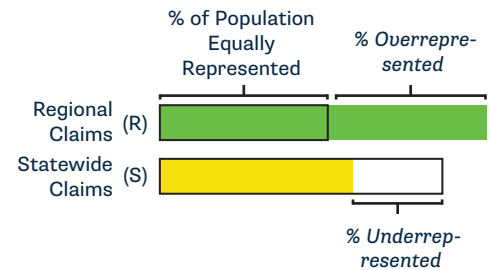
COVID-19 continues to have an outsized and ongoing impact on every community in our state and our region is no exception. However, those impacts have been felt disproportionately. When we look at the data, it's clear that communities of color have continued to see significant unemployment due to COVID-19, 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:

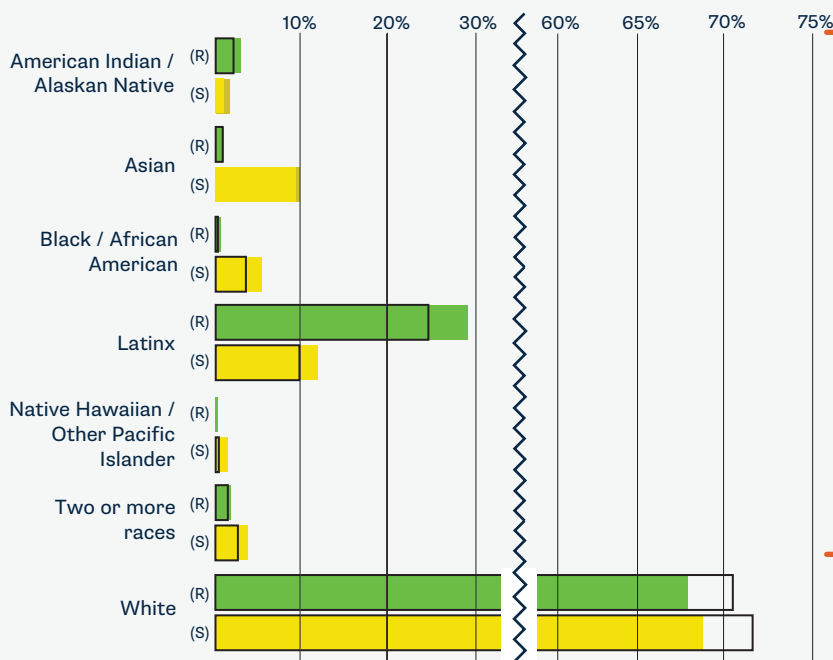
### NON-STEM JOBS VS STEM



### LEGEND: UNEMPLOYMENT CLAIMS



### RACE/ETHNICITY

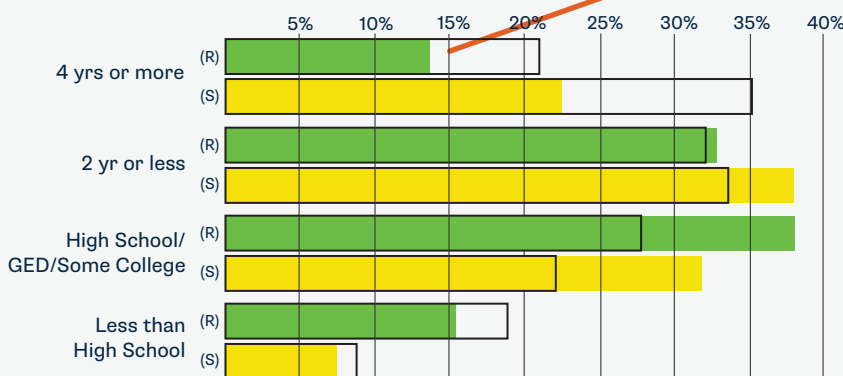


Individuals with non-STEM jobs were overrepresented in unemployment claims by 17%.

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 7%.

### EDUCATION ATTAINMENT



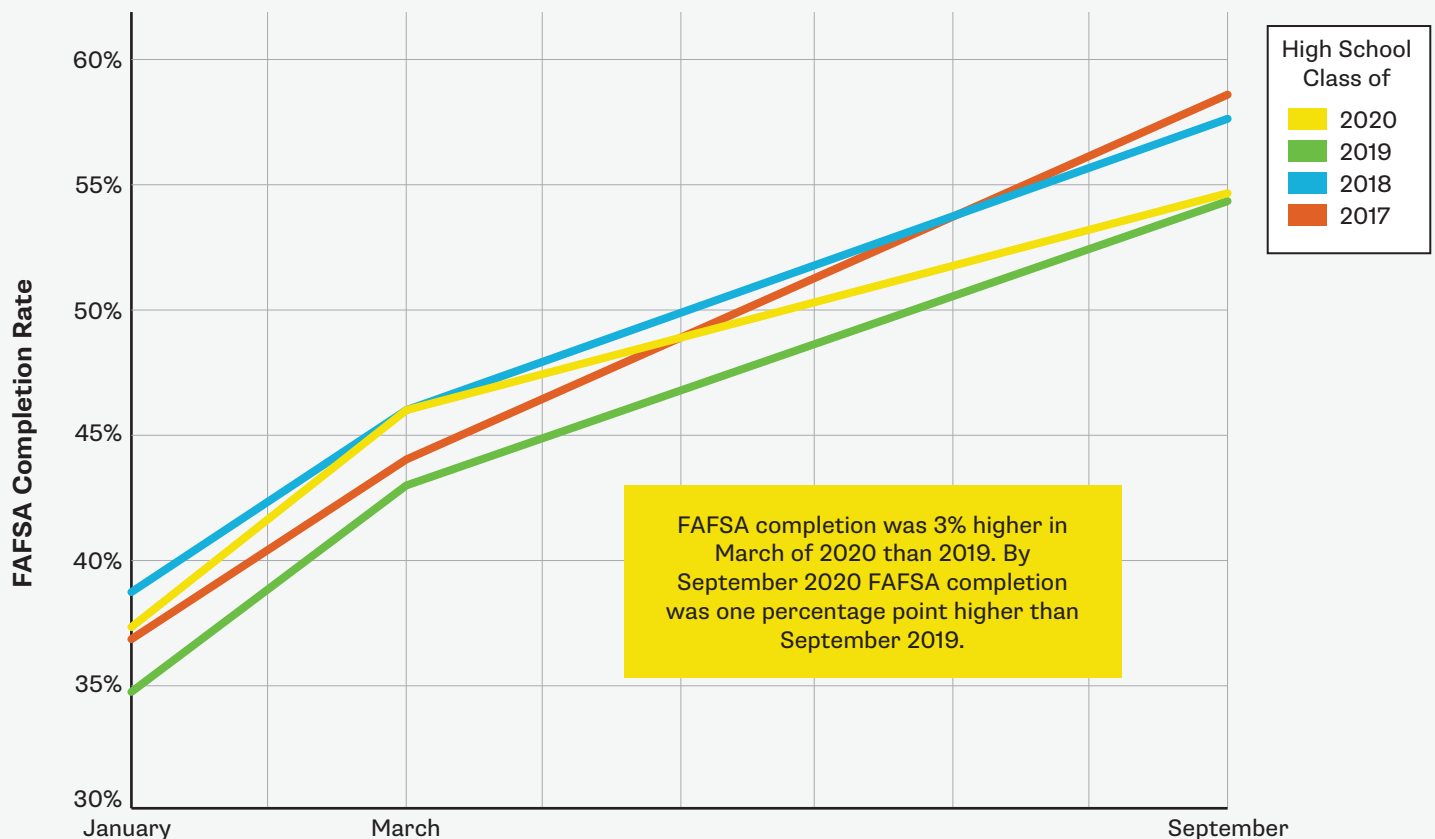
The disparities represented here among demographic groups are not representative of talent, intellect, or inherent ability. These unemployment claim disparities are indicative of how economic and educational systems have historically, and habitually, underserved and oppressed these communities.

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.

### North Central 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?

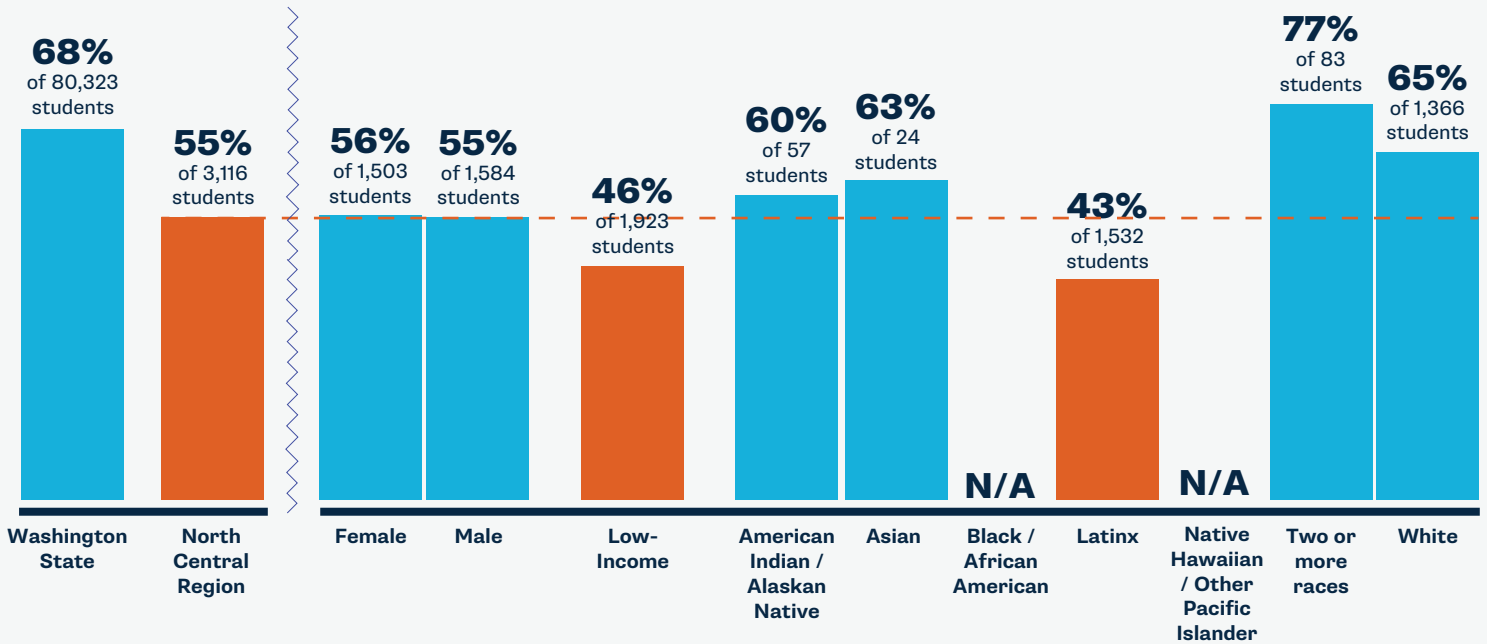
- Students experience a 25% increase in higher education enrollment and completion when they are made aware of financial aid by the time they're in high school and are awarded an aid package that meets their needs.
- Every \$1,000 a student from a low-income or working class background has to pay out 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.

# NORTH CENTRAL REGION K-12 STEM INDICATORS BY DEMOGRAPHIC

## KINDERGARTEN MATH READY (2019)

56% of 3,116 North Central 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

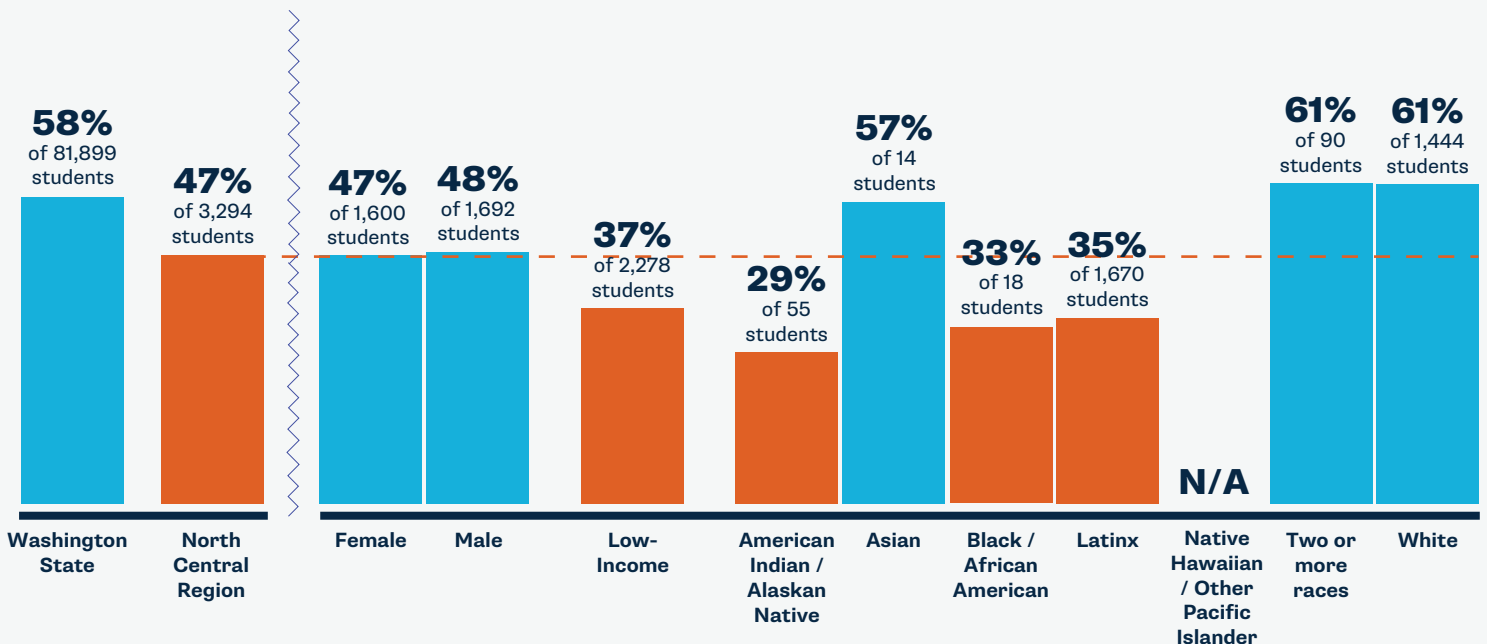


NORTH CENTRAL REGION INDICATORS BY DEMOGRAPHIC

## 3RD GRADE MATH (2019)

47% of 3,294 North Central 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

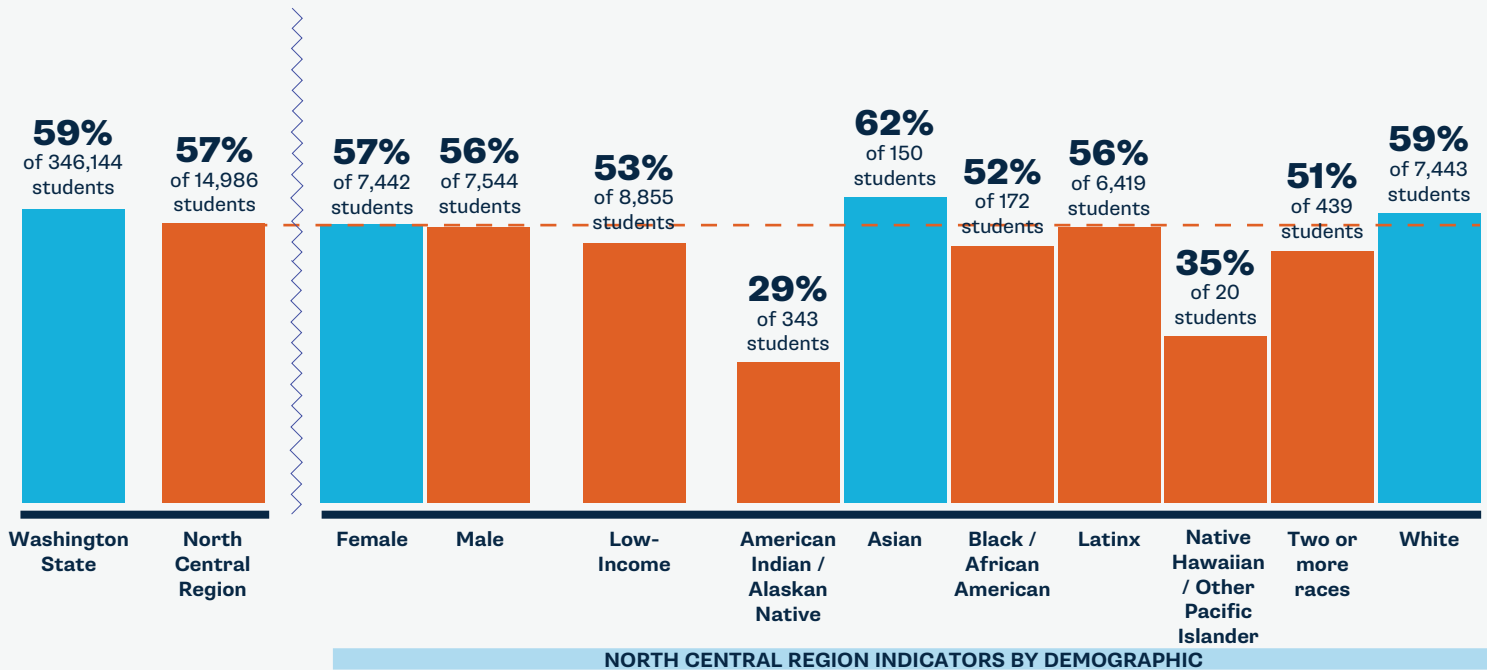


NORTH CENTRAL REGION INDICATORS BY DEMOGRAPHIC

## DUAL CREDIT (2020 9-12TH GRADERS)

57% of 14,986 North Central Region high schoolers complete at least one dual credit course compared to 59% of 346,144 youth statewide.

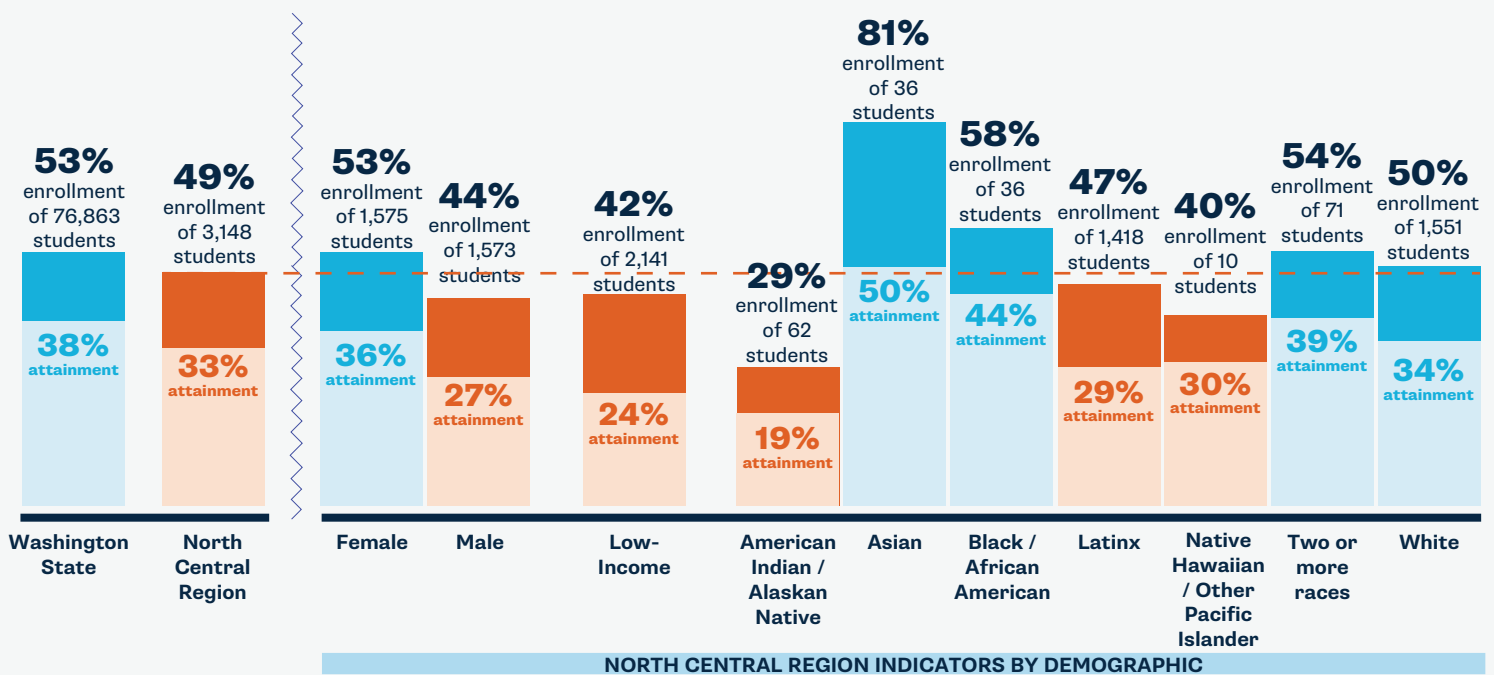
- More than or equal to average of comparison
- Less than average of comparison



## CREDENTIAL ENROLLMENT/ATTAINMENT (CLASS OF 2018)

49% of 3,148 originating ninth graders in the North Central Region enroll in a postsecondary program and 33% of those originating ninth graders earn a credential by age 26.

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







Data citations and region-by-region analyses are posted at [www.washingtonstem.org/STEMbythenumbers](http://www.washingtonstem.org/STEMbythenumbers).

or more information about early learning and career pathways work in the North Central Region, contact Apple STEM Network director contact Sue Kane at [suek@ncesd.org](mailto:suek@ncesd.org).

# REGIONAL TOP INDUSTRIES AND STEM JOBS

The following industries and jobs in the North Central 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](http://www.washingtonstem.org/labor-market).

	 <b>Healthcare Support</b>	 <b>K-12 Teacher</b>	 <b>Healthcare Professionals</b> (RN & Medical Assistant)	 <b>Construction Trades</b>
<b>Annual Number of Openings</b>	346	334	318	276
<b>Oct. Insured Unemployment* Rate</b>	0.4%	0.1%	0.1%	1.2%
<b>Oct. Regional Insured Unemployment* Rate</b>	2.2%			
<b>Credential</b>	Certificate → Bachelor's	Bachelor's	Apprenticeship → Bachelor's	Apprenticeship
<b>Average Regional Wage**</b>	\$33,157 → \$66,394	\$62,148 → \$68,213	\$38,704 → \$87,867	\$49,100 → \$80,379

\*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.

## CAREER CONNECTED LEARNING IN NORTH CENTRAL WASHINGTON

North Central Washington is home to many underrepresented groups in STEM professions. In this region, great emphasis is placed on equity in connecting all students to STEM learning, early and often, with hands-on experiences to spark interest. The Apple STEM Network is dedicated to ensuring that students have access to development opportunities and career paths that leverage the unique attributes and perspectives of our youth to meet the needs of the future. Led by GWATA and NCESD, the Apple STEM Network works through strategic partnerships with regional educators, employers, the North Central WDC, WorkSource, Wenatchee Valley College, Big Bend Community College, AJAC, the Grant County Economic Development Council, the North Central Economic Development District, the Ports of Chelan, Douglas and Moses Lake, and many others in our region to expand these opportunities for students.



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.