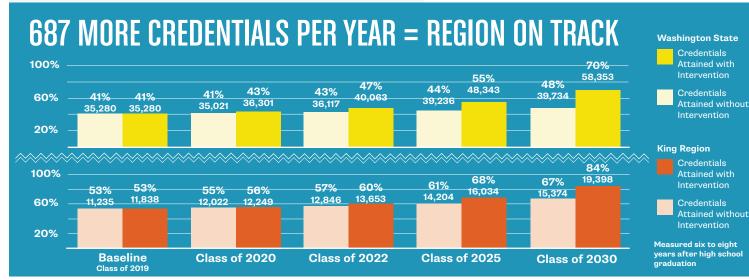


# STEM BY THE NUMBERS: KING COUNTY

King County is home to some of Washington's largest STEM industries. The region is served by Washington STEM and its cross-sector partners. By 2030, 87% of high-demand, family-sustaining wage jobs available in our region will require a postsecondary degree or credential; 67% of those jobs will be STEM or STEM literacy-based occupations. However, students in the King County Region are not equitably or adequately prepared to take advantage of these opportunities, with only 53% 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 Washington STEM's efforts in King County, visit www.washingtonstem.org.





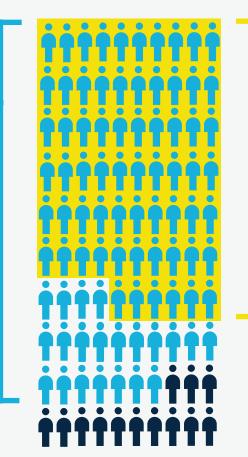
### THE OPPORTUNITY: A STRONG DEMAND FOR STEM TALENT

# 117,162 JOBS PAY A FAMILY WAGE\* IN THE KING COUNTY REGION

87%

(102,271) of family-wage\* jobs in this region require a credential.\*\*

- Credential\*\* and STEM Literacy Required
- Credential\*\*
  Required
- No Credential\*\*
  Required



67%

(78,153) of family-wage\* jobs in this region require a credential\*\* and STEM literacy.

12%

Current trends show local K-12 students will only fill 12% (12,022) of the family-wage jobs per year in the region that require a credential.\*\*

\*"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.



### ZENO SUMMER INSTITUTE

In mid-2019, the Zeno Summer Institute brought together educators, caregivers, and advocates for two days of workshops designed to build early math teaching strategies using culturally relevant ideas and methods, emphasizing the early learning knowledge that the families and communities already have. The institute also helped build relationships between caregivers, families, and community partners and supported Zeno's larger work to eliminate early learning gaps by providing tools and resources to communities of color.

# KING COUNTY 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**

**1** 35%

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

**\* † † 79%** 

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.

### **COLLEGE & CAREER PATHWAYS**

**14%** 

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

**★**↑ 71%

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

### K-12 STEM LEARNING

**†**† 61%

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

of third graders demonstrate the

of third graders 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.



teachers in our region are teachers of color, compared to 58% students of color





### **CREDENTIALS & EMPLOYMENT**



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.

**†**† 65%

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

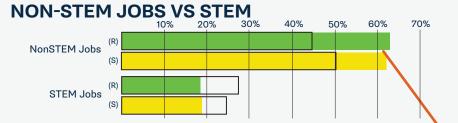
**†** † 52%

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

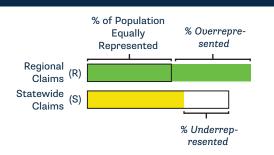
## **COVID-19 IMPACTS**

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.

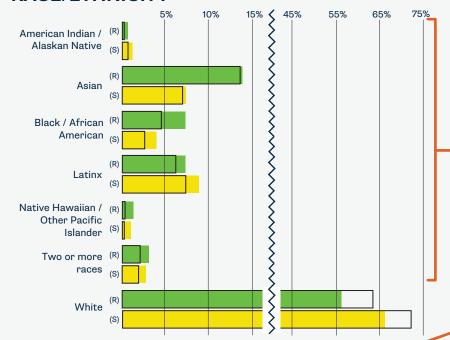
#### **UNEMPLOYMENT CLAIMS BY:**







#### RACE/ETHNICITY

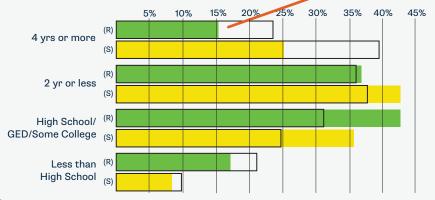


Individuals with non-STEM jobs were overrepresented in unemployment claims by 14%.

Communities of color in our region are overrepresented in unemployment claims by 8%, as compared to their white counterparts.

Individuals with a four-year college credential were significantly underrepresented in unemployment claims by more than 19%.

#### **EDUCATION ATTAINMENT**



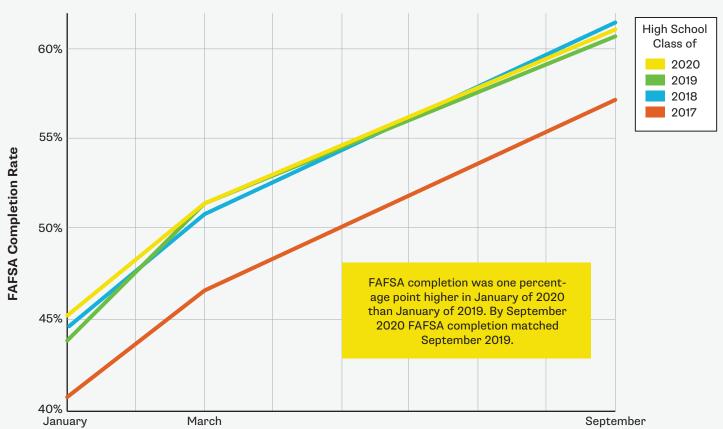
The disparities represented here among demographic groups are not representative of talent, intellect, or inherent ability. These unemployment claim disparities are indicative of how economic and educational systems have historically, and habitually, underserved and oppressed these communities.

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.

#### King County FAFSA Completion Rate by High School Cohort



FAFSA completion data provided by Washington Student Achievement Council.

Explore the data here: http://bit.ly/WSACfafsacompletion

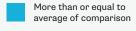
#### **DID YOU KNOW?**

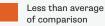
- Students experience a 25% increase in higher education enrollment and completion when they are made aware of financial aid by the time they're in high school and are awarded an aid package that meets their needs.
- Every \$1,000 a student from a low-income or working class background has to pay out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

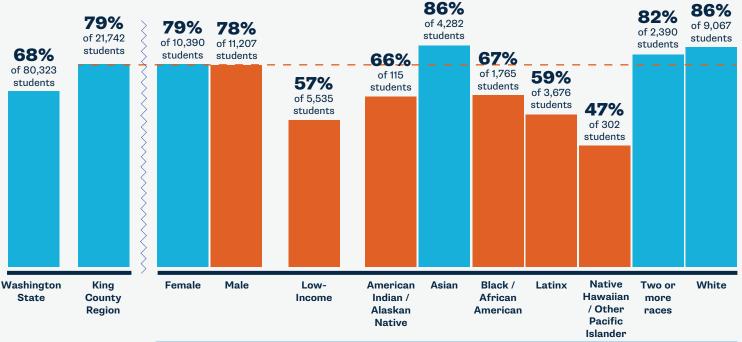
### KING COUNTY REGION K-12 STEM INDICATORS BY DEMOGRAPHIC

#### **KINDERGARTEN MATH READY (2019)**

**79% of 21,742** King County Region children entering kindergarten are math ready compared to **68% of 80,323** children statewide.



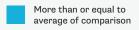


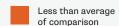


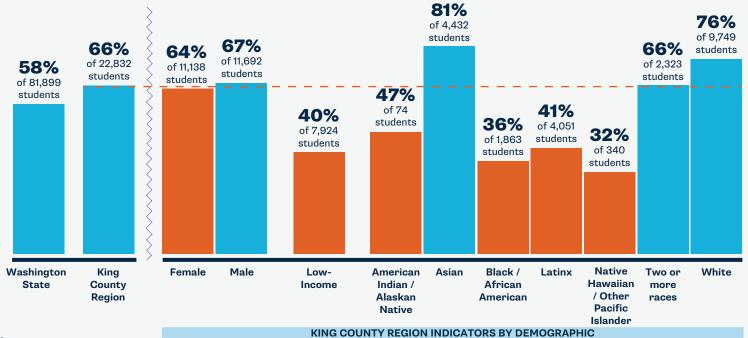
KING COUNTY REGION INDICATORS BY DEMOGRAPHIC

#### **3RD GRADE MATH (2019)**

66% of 22,832 King County Region third graders meet grade level math standards compared to 58% of 81,899 third graders statewide.

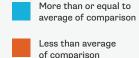


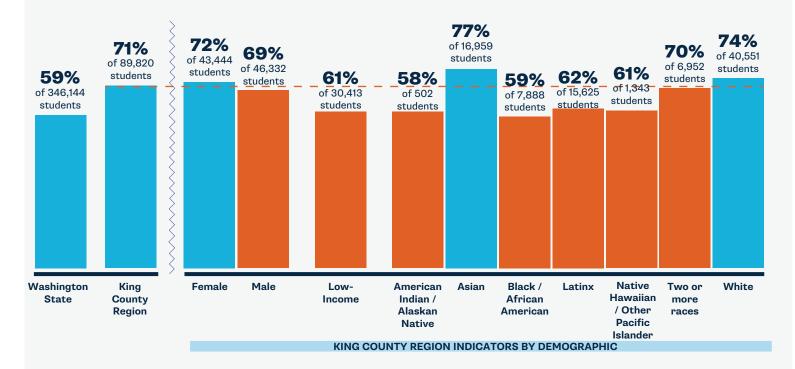




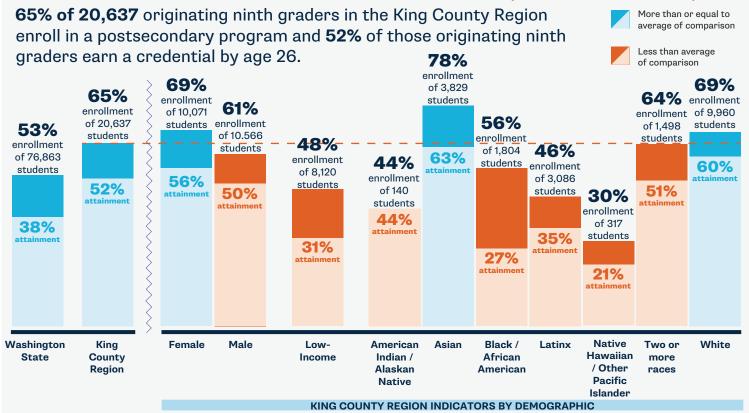
#### **DUAL CREDIT (2020 9-12TH GRADERS)**

71% of 89,820 King County Region high schoolers complete at least one dual credit course compared to 59% of 346,144 youth statewide.





#### **CREDENTIAL ENROLLMENT/ATTAINMENT (CLASS OF 2018)**



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

## REGIONAL TOP INDUSTRIES AND STEM JOBS

The following industries and jobs in the King 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.

	Software Developers	Industrial Engineers	Healthcare Professionals (RN & Medical Assistant)	Health Technologists and Technicians
Annual Number of Openings**	15,227	460	2,976	1,020
Oct. Insured Unemployment* Rate	0.0%	1.1%	1.1%	0.9%
Oct. Regional Insured Unemployment* Rate	3.3%			
Credential	Bachelor's	Bachelor's	Apprenticeship → Bachelor's	Certificate → Associate's
Average Regional Wage	\$112,403 <b>→</b> \$158,995	\$90,771 → \$139,713	\$48,557 <b>→</b> \$92,685	\$45,906 <b>→</b> \$102,370

<sup>\*</sup>Insured unemployment is a count of payments made to unemployment insurance claimants.

### **CHARTING YOUR PATH TO A HEALTHCARE CAREER**

The Healthcare Industry Leadership Table (HILT) hosted the "Charting Your Path to a Healthcare Career" event in late 2019. The event featured over 80 healthcare professionals and providers who shared their experiences with students, answered questions, and offered insight into the wide array of educational pathways leading to careers in the healthcare industry. Inclusivity, representation, and accessibility were the focus for professionals participating in the event. The number of Black, Brown, Indigenous, and female professionals in many healthcare careers is low (only 2% of physicians identify as Black women) and the event offered students a rare opportunity to meet and connect with a diverse group of professionals as they learned about career pathways.



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.

<sup>\*\*</sup>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.