

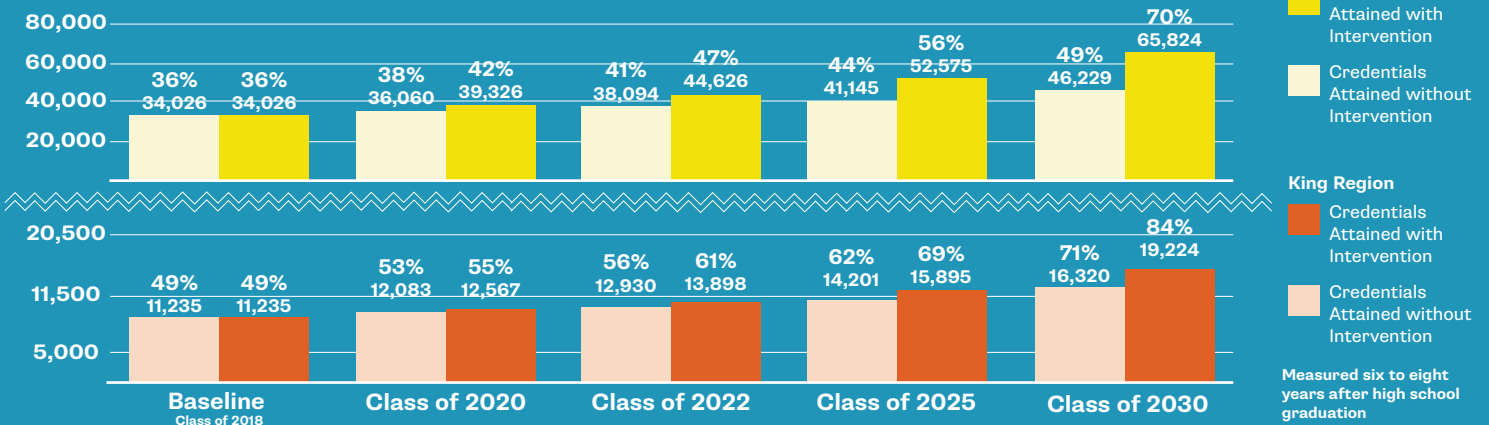


# STEM BY THE NUMBERS: KING COUNTY

King County is home to growing computer/information technology, healthcare, maritime, and construction industries, spanning from Bothell to Federal Way. The region is made up of 20 school districts supported by King County STEM partnerships. Washington STEM and its 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 healthcare professionals, software developers, and construction/maritime apprentices, which combined have 17,161 annual projected openings over the next five years.

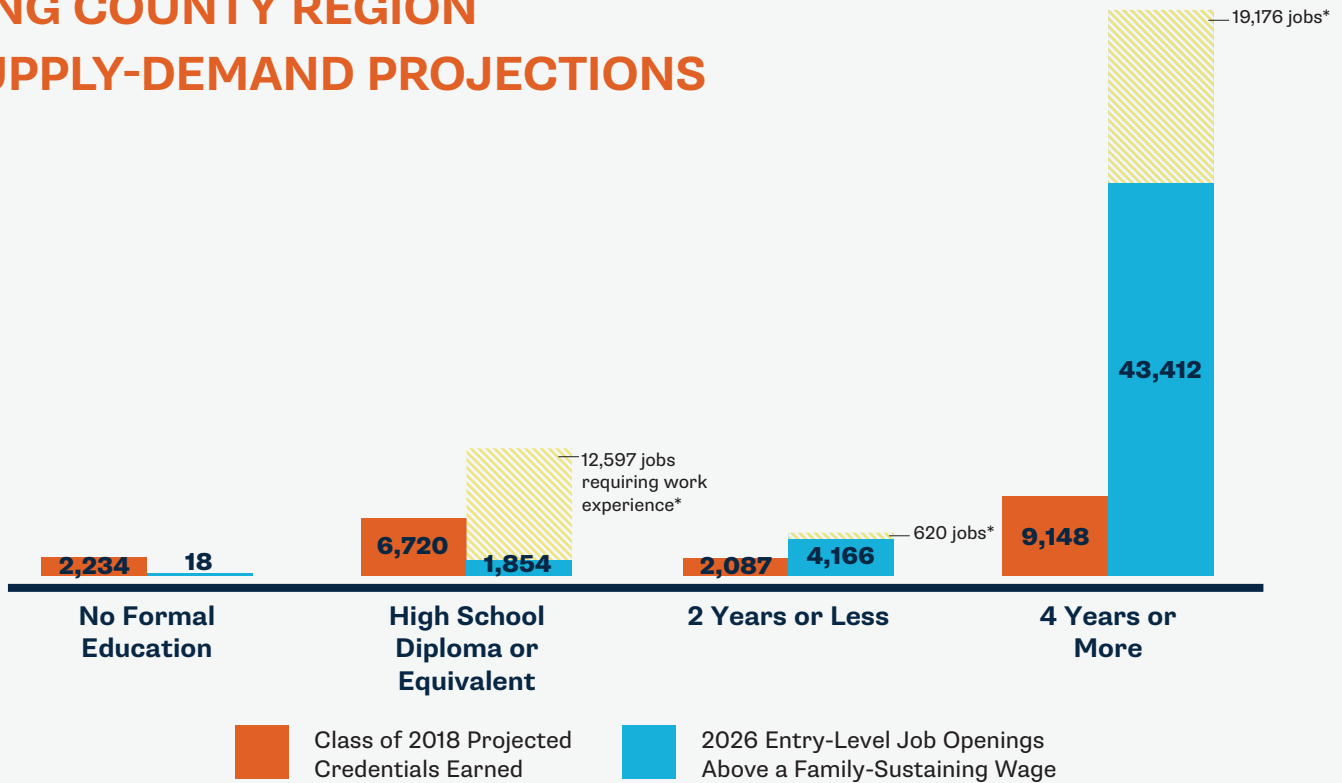


## 666 MORE CREDENTIALS PER YEAR = REGION ON TRACK



# THE OPPORTUNITY: A STRONG DEMAND FOR STEM TALENT

## KING COUNTY REGION SUPPLY-DEMAND PROJECTIONS



By supporting more students to be on track to earn a high-demand credential, King County partners and regional STEM Networks across the state will ensure that up to 49,450 family-sustaining\*\* jobs (those that pay a regionalized wage of \$58,746 or more a year) could be filled by local young adults.

\*Jobs requiring related work experience, and/or on-the-job training, would generally not be immediately available to high school graduates and be more competitive with a greater number of eligible applicants.

\*\*Family-sustaining regionalized wage is defined as the full-time wage needed to support a household of 2 adults (1 working) and 1 child, using the MIT Living Wage Calculator.



## REMOVING BARRIERS TO EARLY MATH IN KING COUNTY

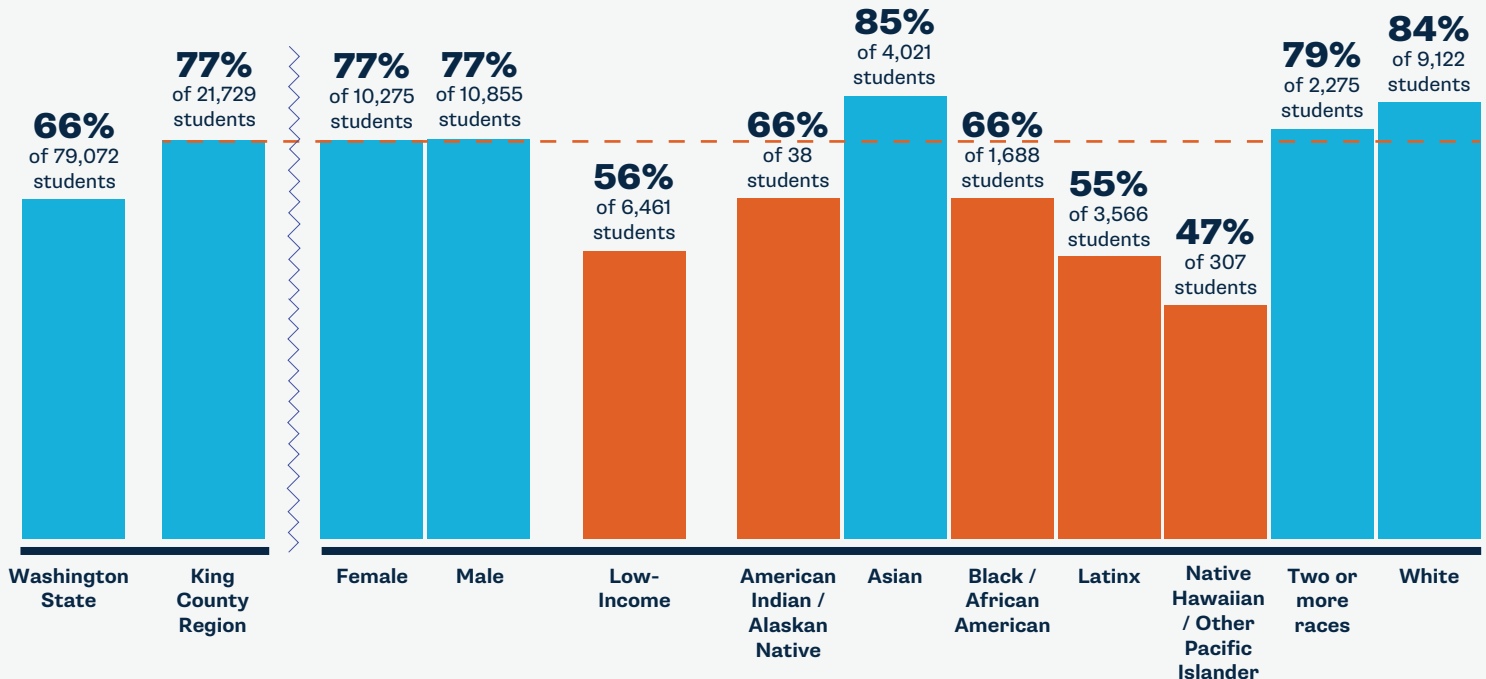
With support from the Bill and Melinda Gates Foundation, Washington STEM is working with the Puget Sound ESD, University of Washington, school districts, and community-based organizations in South King County on a community-wide approach to early math that focuses on removing structural barriers. Washington STEM shapes strategy as part of the Cross-Agency Core Team and leads the evaluation of the effort.

# KING COUNTY REGION K-12 STEM INDICATORS BY DEMOGRAPHIC

## KINDERGARTEN MATH READY (2018)

**77% of 21,729** King County Region children entering kindergarten are math ready compared to **66% of 79,072** children statewide.

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

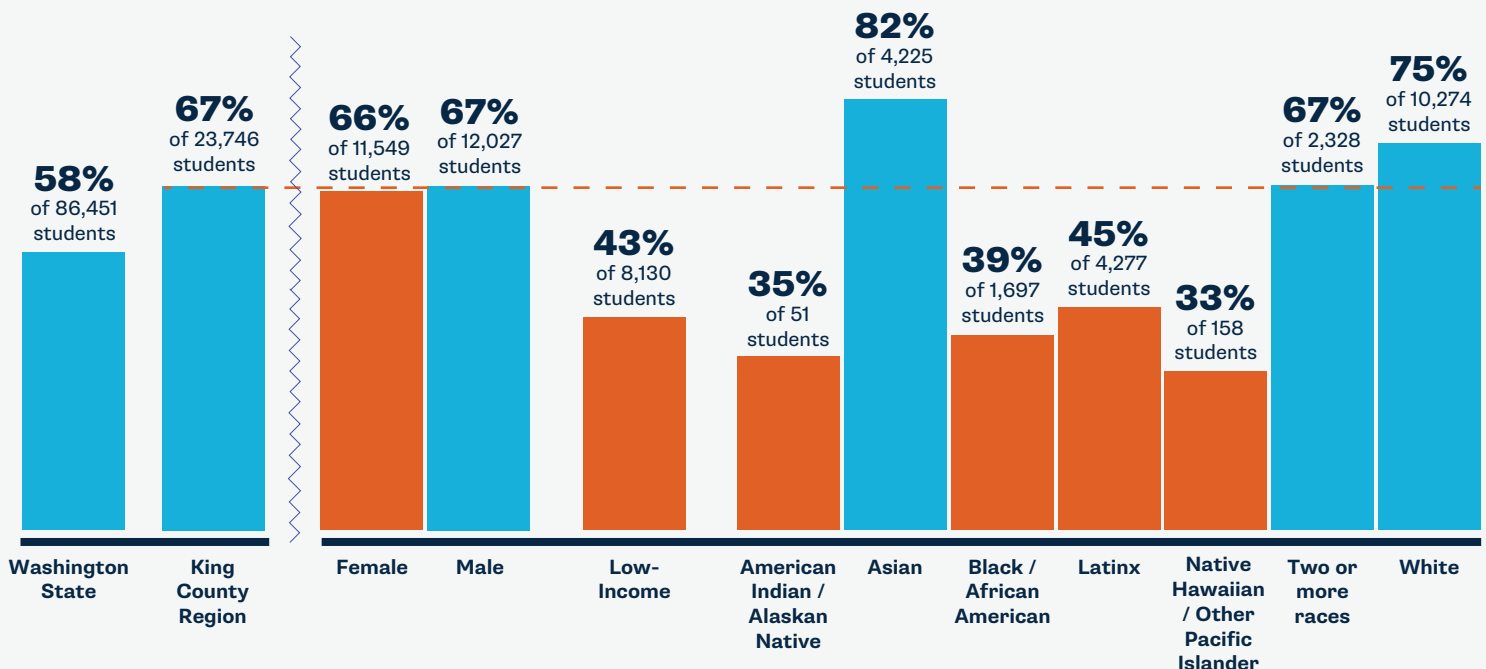


KING COUNTY REGION INDICATORS BY DEMOGRAPHIC

## 3RD GRADE MATH (2017)

**67% of 23,746** of King County Region third graders meet grade level math standards compared to **58% of 86,451** third graders statewide.

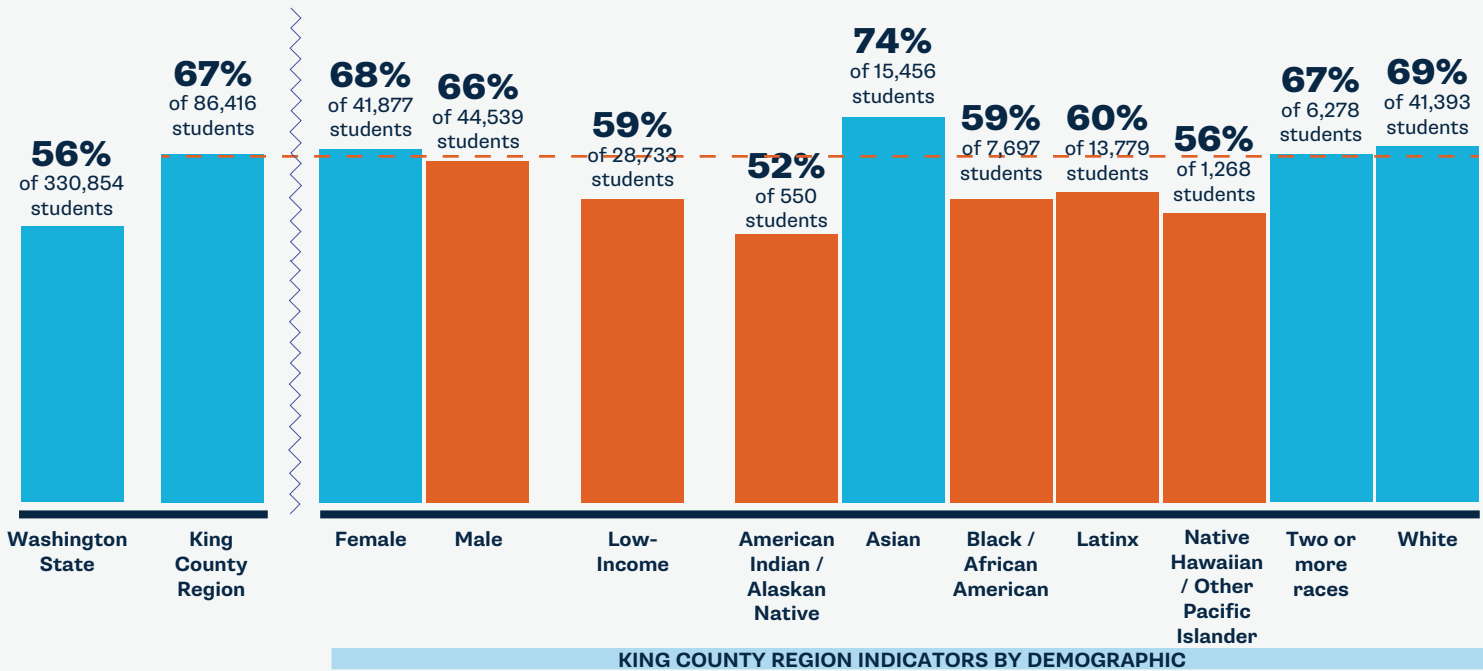
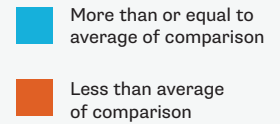
More than or equal to average of comparison  
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KING COUNTY REGION INDICATORS BY DEMOGRAPHIC

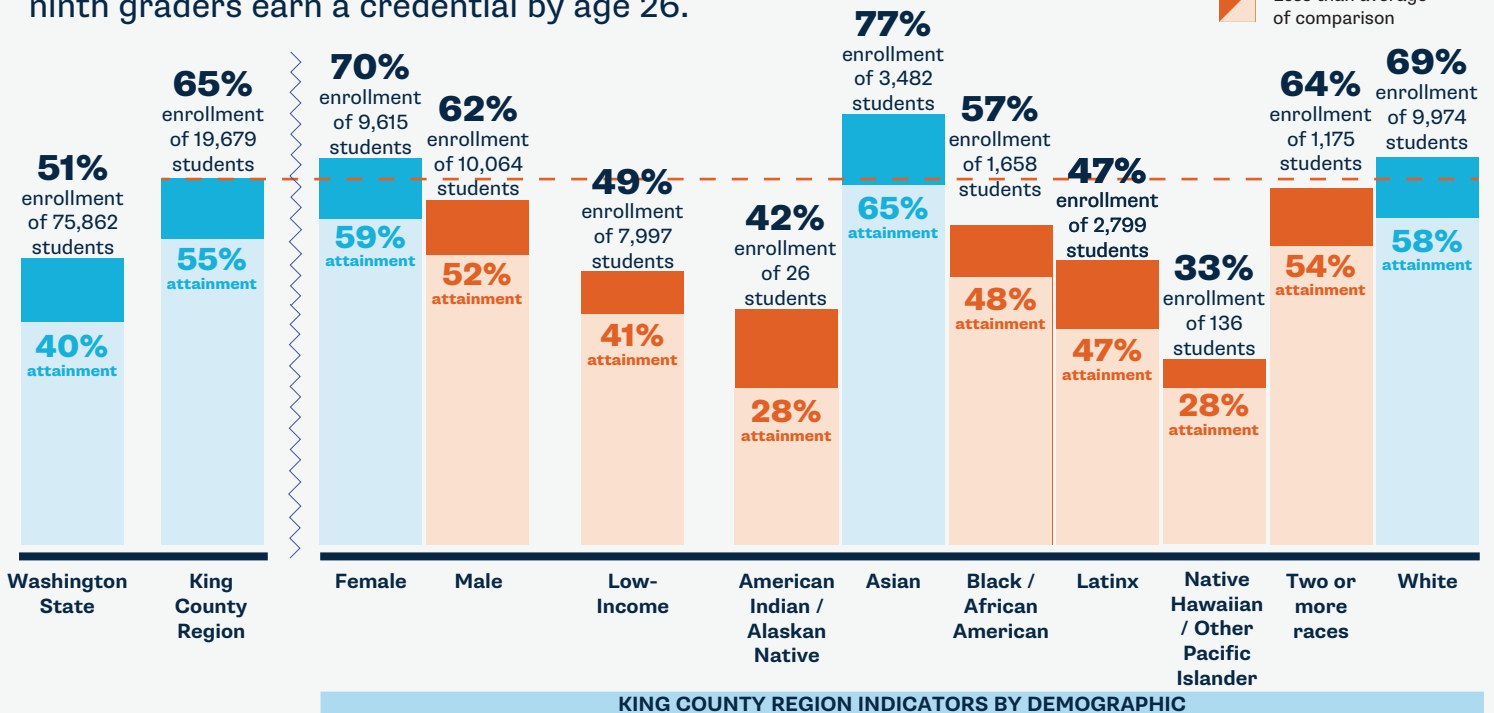
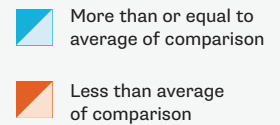
## DUAL CREDIT (2017 9-12TH GRADERS)

67% of 86,416 King County Region high schoolers complete at least one dual credit course compared to 56% of 330,854 youth statewide.



## CREDENTIAL ENROLLMENT/ATTAINMENT (CLASS OF 2016)

65% of 19,679 of the originating ninth graders in the King County Region enroll in a postsecondary program and 55% 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 King County, contact Afi Tengue (afi@washingtonstem.org) and Gilda Wheeler (gilda@washingtonstem.org).

# KING COUNTY REGION STEM INDICATORS

## Ready for Kindergarten

While 77 percent of all King 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

**77%** of King County Region children entering kindergarten are math ready

## K-12 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

**67%** of King County Region third graders meet grade level math standards

## Secondary Pathways

While students in the King 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

**67%** of King 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, 51 percent enroll and 40 percent complete a credential. While King 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

**65%** of the originating ninth graders in the King County Region enroll in a postsecondary program and 48 percent of those originating ninth graders earn a credential by age 55.



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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For more information about early STEM and career pathways work in King County, contact Afi Tengue ([afi@washingtonstem.org](mailto:afi@washingtonstem.org)) and Gilda Wheeler ([gilda@washingtonstem.org](mailto:gilda@washingtonstem.org)).



# REGIONAL TOP INDUSTRIES AND STEM JOBS

## SOFTWARE DEVELOPERS

Annual # of Openings: 9,271

Credential: Bachelor's

Average Regional Wage: \$126,114

## BIOTECHNICIANS

Annual # of Openings: 1,875

Credential: Associate's → Doctorate

Average Regional Wage:  
\$67,834 → \$132,690

## ELECTRICIANS

Annual # of Openings: 1,040

Credential: Apprenticeship

Average Regional Wage: \$73,675

## MEDICAL ASSISTANTS & NURSES

Annual # of Openings: 2,612

Credential: Certificate → Bachelor's

Average Regional Wage:  
\$58,529 → \$120,213

## SUPPORTING STRONG STEM EXPERIENCES

Through the Engineering Fellows program, Washington STEM co-leads with Washington MESA a program that pairs teachers from Kent and Seattle School Districts with engineering professionals to develop and implement industry-based design challenges in their classrooms. This early exposure to engineers and their work allows students to begin to imagine themselves in that profession.

Partnering with the Community Center for Education Results, we provide STEM resources and opportunities as part of DiscoverU week in King County. Students tour businesses, learn about career pathways, and participate in project-based learning throughout the week. This year, 1,800 south King County students went on worksite tours to over 30 workplaces, including Amazon, the Port of Seattle, and Kaiser Permanente. Exposure to these opportunities supports them in choosing the high school courses and postsecondary pathways that will prepare them for these 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.