There is a huge gap between the number of jobs that are available in the central Puget Sound region and the number of individuals living here who are qualified to fill those jobs. And the gap is projected to grow. This mismatch hurts employers who are unable to recruit the workers they need to grow their businesses and it hurts people who want rewarding, well-paying careers.

The Central Puget Sound Higher Education Capacity Research Initiative analyzed the education-to-workforce pipeline, identified systemic gaps in higher education completion and job readiness, and is sparking conversations about what needs to be done so local people are not left behind. This first look at data is helping to address the question, needs and barriers of businesses to hire regional talent.

STUDY UNCOVERS REGIONAL SYSTEMIC GAPS

Co-principal investigators, Jenée Myers Twitchell and Ed Taylor of the University of Washington led the Central Puget Sound Higher Education Capacity Research Initiative. Twitchell and Taylor’s research team drew on national literature, regional studies and experts, and key education datasets to better understand what job openings are in King, Pierce and Snohomish counties, the education levels required for these jobs, average regional wages, and students’ post-secondary education pathways. Visualizations using Tableau helped enhance analysis and are now available on the project website (education.uw.edu/washingtonpathways).
The central Puget Sound region is expected to have more than 289,640 annual entry-level job openings paying more than $45,000/year. Most of these jobs will require at least some post-secondary education. In fact, 42% will require a bachelor’s degree. The need for individuals with science, technology, engineering and math (STEM) education and training is particularly strong in central Puget Sound.

If all high school graduates chose to go to a 2- or 4-year college in this region and graduated, there would still not be enough qualified candidates to fill the expected jobs in this region. On average, fewer than 12,000 central Puget Sound high school graduates annually enroll at an in-region institution. If all 12,000 completed their post-secondary education and all received degrees that met the demand of entry level job openings, this would only meet 30% of the region’s demand based on replacements and new job openings.

Graduates from school districts with higher levels of poverty and students of color, are less likely to enroll in 2- and 4-year educational institutions, particularly for bachelor’s degrees.

91% of students from central Puget Sound who go to 2-year schools attend schools within the region. But 66% of students from central Puget Sound who go to 4-year schools leave the region for post-secondary education.

Amongst students of color in the central Puget Sound region, 26% (of graduates) enrolled in a 2-year degree and 40% (of graduates) enrolled in a 4-year degree.

**REGIONAL JOB CREATION IS OUTPACING DEGREE PRODUCTION**

**REGIONAL SUPPLY VS. DEMAND**

(Annual averages, central Puget Sound)

**OUR REGION’S HIGH SCHOOL GRADUATES HAVE LIMITED HIGHER EDUCATION OPTIONS**

**STUDENTS OF COLOR**

| Students of color in the central Puget Sound region | 26% of graduates enrolled in a 2-year degree | 40% of graduates enrolled in a 4-year degree |

**PROJECTED ANNUAL JOB OPENINGS & SALARIES**

<table>
<thead>
<tr>
<th>Science, Technology, Engineering, &amp; Math (STEM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-STEM</td>
</tr>
<tr>
<td>STEM</td>
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</tbody>
</table>

**REGIONAL SUPPLY VS. DEMAND**

(Annual averages, central Puget Sound)

**Expected annual job openings**

**Students from region who could potentially complete post-secondary education in region**
THE POST-SECONDARY EDUCATION SYSTEM CAN’T KEEP UP

Between 2010 and 2016, the public 4-year institutions in King, Pierce, and Snohomish counties (UW Seattle, Tacoma, and Bothell), admitted about 62% of their students from the central Puget Sound region. In this same period, central Puget Sound students were underrepresented in STEM majors, with only 34% receiving STEM degrees, compared to 46% of enrolled international graduates, 38% of in-state out-of-region graduates and 36% of out-of-state graduates who earned STEM degrees.

High-demand bachelor’s degree programs in our region lack the capacity to keep up with economic growth. This deprives nearby residents and underrepresented students with a regional pathway to succeed. For example, the UW College of Engineering is only able to admit less than half of UW students who qualified to study engineering/computer science due to limited resources and enrollment slots.

Washington is in the top 10 of states in students completing an associate degree, but it is the lowest ranked of all 50 states in terms of students transferring to complete a bachelor’s degree. Only 22% of students at 2-year colleges and technical schools transfer to a 4-year college or university. This may be due to limited local transfer options and the small number of students who are completing the credentials that are needed to be accepted into admissions-competitive majors (e.g., engineering and nursing).

THE NURSING PIPELINE BOTTLENECK

Between 2010 and 2015, 5,122 students received an Associate’s of Nursing degree from a 2-year college or technical school located in King, Pierce, or Snohomish Counties. During the same time period, 4,185 Bachelor’s of Nursing degrees (BSN) were conferred. The three UW campuses produced 58% of nursing bachelor’s degrees, of those 55% (1,335) were earned by 2-year college transfer students. The remaining in-region institutions produced 1,758 BSN’s. At best, only 60% of AA nursing students could access classes in the region for earning a BSN.

INEQUITIES ARE LIMITING CAREER SUCCESS

Those who attend a high school in an area with a high poverty rate are less likely to earn a degree. For example, in the Tukwila School District, 72% of students are low-income and only 56% enroll in post-secondary programs. In Mercer Island School District, where only 3% of students are low-income, 84% enroll in post-secondary programs.

Race is strongly predictive of wages—there is a 35% gap in earnings for People of Color vs White and Asian Bachelor’s degree earners. White and Asian Bachelor’s degree holders are predicted to earn $1.40 per hour above the average. While People of Color will earn $.90 per hour above the average.

Degree type and field are predictive of earnings. Individuals with an associate degree earn more than those with a high school degree. In King County, Non-STEM jobs requiring an associate degree or certificate earn an average of $48,205, while STEM jobs requiring the same will earn an average wage of $53,508.
WHAT’S NEXT?

The Central Puget Sound Higher Education Capacity Study has shed light on the region’s complex and constrained education and workforce development environment. It is a good beginning but to ensure that this region remains competitive and local residents have a shot at great jobs, more needs to be done.

1 EMPLOYERS ARE ESSENTIAL PARTNERS

• Adapt employers’ recruiting to ensure they are fully tapping the regional talent pool. Increase awareness of employers’ hiring needs to align credential and degree programs with talent demand.

• Increase business participation in classroom activities, mentorships, registered apprenticeships, and other career-connected learning opportunities.

2 ADDITIONAL RESEARCH IS NEEDED

• Regional research is needed to identify high demand job opportunities and available educational opportunities to meet those needs. This will help inform state and regional policies, as well as necessary capacity building and funding.

3 OUR HIGHER EDUCATION SYSTEM NEEDS TO BE MORE EFFICIENT & EFFECTIVE

• Dramatically increase the number of regional bachelor’s degree “seats” including baccalaureate opportunities at community and technical colleges, and university satellite degree programs.

• Review admission policies and support for traditional freshmen and transfer students to reduce barriers in high demand fields.

The Seattle Region Partnership (SRP) is working to make sure people in the region can get the education, skills and opportunities they need to access the dramatically expanding middle-wage job opportunities. A multi-sector initiative of the Seattle Metropolitan Chamber of Commerce, Seattle Foundation, City of Seattle, and King County; SRP aims to streamline the way businesses connect to the region’s workforce, economic, and education systems. SRP partnered with the University of Washington to ensure the study focused on needs of the business and employer community. SRP serves a critical function of ensuring our partners are connecting to a regional talent pipeline, while simultaneously working to create a coordinated, equitable, and responsive workforce system.

To learn more about this study, visit www.seattlechamber.com/srp