

Partnership Name: Northwest WA Regional Tech Pipeline Program

Application Point of Contact: Dr. Steven Thomas, Interim Vice President for Instruction

Fiscal Agent: Whatcom Community College

1. Why are the partner organizations that are or will be included in this work the ones that came together to address educational attainment through place-based work in your region?

The “Northwest WA Regional Tech Pipeline Program” brings together proposed partners to address a critical need for improved postsecondary achievement, particularly among historically underserved student populations in the Northwest Washington region. The project will lay the groundwork for creation of a tech-focused cohort program for local students to reduce equity gaps in completion. Graduating high school students with a common interest in technology (computer science, computer information systems, cybersecurity AI, etc.) would enter community college as a cohort and build a sense of belonging through linked coursework in the mornings and paid tech internships in the afternoons. Industry would co-teach courses and facilitate internships. Students would enter affordable four-year pathways offered in our very own community college setting, including IT networking – cybersecurity and a computer science BS degree under development. By creating a cohort experience and offering paid internships, students will not need to seek part-time employment outside of the program – thus removing a significant barrier to completion – and will gain practical experience giving them a leg up in hiring upon graduation. Technology is a high demand field with unmet need in the region.

In the proposed development year for which funding is requested, the project will partner with Ferndale High School (FHS), a large rural school with many historically underserved students. FHS has expressed its enthusiasm to partner with Whatcom Community College (WCC) on this exciting pilot project. WCC is not only a state but national leader in technology education, leading both the Washington State Center of Excellence in Cybersecurity and also national grants including the National Cybersecurity Training and Education Center funded by the National Science Foundation and the Center of Academic Excellence in Cybersecurity funded by the National Security Agency. The Technology Alliance Group for Northwest Washington (TAG NW) said partnering with WCC and FHS is “right up our alley!” TAG NW will serve as a liaison between industry and the proposed program, help to align internships, and offer networking.

2. How is or will the partnership be structured?

WCC has partnership with FHS and TAG NW in the past, but not in this new way. WCC will serve as lead organization and fiscal agent for the partnership, building on its success in stewarding many grant-funded efforts. WCC will be responsible for overall grant leadership, meeting project milestones, budget management, and required reporting. The project will be housed in the instructional division of the college. The partnership team will consist of the identified contacts from WCC, FHS, and TAG NW:

Whatcom Community College (WCC): Dr. Steven Thomas, Interim Vice President for Instruction
Ferndale High School (FHS): Ravinder Dhillon, Principal
Technology Alliance Group for Northwest Washington (TAG NW): Crystal Garcia, Executive Director

The team will develop an MOU and convene an initial kick-off meeting in summer 2024 to review a timeline of grant activities and deliverables. The partnership team will meet at minimum every two months throughout the duration of the grant period. During meetings, the team will assess progress, make needed adjustments, and plan next steps. The partnership will be structured in a collaborative manner with joint decision making, which is necessary to ensure smooth project development and cohort recruitment for implementation in the following year.

WCC’s student services division currently works with FHS on a TRIO Upward Bound grant funded by the U.S. Department of Education and with TAG NW on several cybersecurity grants. The partners have a successful history of working together and look forward to this new proposed partnership.

3. How have or will the partner organizations learn from each other and the communities served, and how does or will the partnership incorporate this learning into ongoing work?

The proposed partnership offers great opportunities for learning. WCC will be able to share its tech program offerings and open doors to educational attainment for historically underserve high school students. Students will learn about opportunities for advising, a cohort experience, paid internships, and possibly scholarships. FHS will have a “pipeline” right to WCC, and as the program moves beyond the pilot effort in the coming years, so will other high schools in the region. Through the dedicated advisor, participating high schools and their students will learn about the application and admissions process, program requirements, and how to navigate financial aid and other WCC offices, such as access and disability services, the intercultural center, and more. Through FHS, the partnership will learn about the barriers students face to accessing postsecondary education and how to help alleviate them. TAG NW will educate the partnership on trends and needs of the local tech industry, as well as employers who are looking for interns or to possibly provide student scholarships. WCC will learn about employer needs and incorporate that into the tech pipeline program (e.g., skills and experience requested by employers, etc).

In terms of assessment, the program will conduct pre- and post-surveys and student focus groups to assess what students in the cohort program are aiming to achieve, what they are learning, and how to modify the program to reach their career and educational goals.

Already, the proposed partners are learning from each other through the proposal development process and have determined there is both great need and great enthusiasm for the cohort program proposed.

4. Who are the focal population(s) in your partnership’s work, and what assets do learners and families in these populations bring to their educational journeys?

The focal populations in the proposed partnership work are historically underserved students at FHS, an exceptionally large rural high school that also serves many Lummi Nation students. The school serves 1,363 students, 44.2% of whom are students of color according to the Washington State Office of Superintendent of Public Instruction (OSPI) Washington State Report Card. Nearly one-quarter of the student body is Hispanic/Latino (24.4%) and nearly half are low-income (46.4%). While 51.5% of students are proficient in science, proficiency levels are lower among historically underserved student populations (<30% for American Indian/Alaskan Native students, 34.3% for Hispanic/Latino students, and 43.0% for low-income students). A similar disparity exists for math proficiency (a low 25.2% overall, <13% for American Indian/Alaskan Native students, 14.3% for Hispanic Latino students, and 14.7% for low-income students), as well as English Language Arts proficiency (63.0% overall, 26.1% for American Indian/Alaskan Native students, 42.2% for Hispanic Latino students, and 45.8% for low-income students). Notably, the four-year graduation rate is 83.7% for students overall but lower among historically underserved student populations. (77.8% for American Indian/Alaskan Native students, 70.6% for Hispanic Latino students, and 78.1% for low-income students).

According to Washington State Education Research and Data Center (ERDC), approximately 32% of FHS graduates pursue a two-year college pathway and 18% pursue a four-year university. Among the 78.1% of low-income students who graduate high school, an estimated 40% enroll in postsecondary education. In contrast, among the 90.3% of non low-income students who graduate, approximately 60% enroll in postsecondary education, with a higher estimated proportion enrolled in four-year institutions. Clearly, among students who begin at FHS, a shrinking pool of historically underserved students is enrolling in college. But even bypassing dropout and graduation hurdles doesn’t mean these students who enroll in college will succeed. Hence, there is a clear need for a dedicated cohort program to recruit, support, and guide students toward a pathway to postsecondary achievement, in this case a tech degree.

Despite these challenges, the focal population brings many assets to their educational journey. According to FHS, students take a great deal of pride in their education. When surveyed to ask how to make their pride actionable in five words, students choose “perseverance, respect, integrity, dedication, and excellence.” According to FHS, “Our high school is the largest in the county.... We have a wonderfully diverse population fed by new immigrants from all over Asia and Europe, long time area residents, migrant families, and the culturally rich Lummi Nation. Ferndale is growing rapidly with over 11,000 residents, as is most of Whatcom County.... Ferndale High School will be a positive place that empowers each student and staff member to be a lifelong learner and a responsible citizen in an ever-changing world.... We value the opportunity to work together to personalize the learning experience, providing relevance and direction for students. We believe that all students want to be successful. We act on the understanding that any student will need extra support to succeed.”

5. What is the geographic region where the focal population(s) that would be served by this investment live?

In the program development year, the project will focus on FHS but has a larger vision for recruiting and folding in high schools from across the Northwest Washington region. During the development year, the dedicated program advisor will recruit additional high schools for participation. In the pilot implementation year, a cohort of students from FHS will participate in the program, with additional high schools joining the following year in a second cohort. In the future, the cohort model can be expanded to other sectors or focus areas beyond tech. The region served will be Northwest Washington, including Whatcom, Skagit, Snohomish, San Juan, and Island counties.

6. What are some of the systemic barriers that learners and families in your focal population(s) encounter?

Major systemic barriers that learners and families in the focal population encounter are poverty and low educational attainment. These statistics have worsened over the years, indicative of rural generational poverty, a cycle that the proposed program can help break by providing a guided pathway to college success through a cohort-based tech pipeline program.

According to Census records, the education attainment level for those 25 and older in the focal population is low and less than the state overall. Three-quarters (75%) of adults in the focal population have not earned a bachelor’s degree, suggesting the overwhelming majority of students live in first generation households. While low-income and student of color status are part of routine state data collection efforts, first generation status is not. Several rural Whatcom County high schools conducted surveys asking students to report their parents’ education level to identify their potential first generation students. The survey effort highlighted a significant lack of awareness among students about college within their own families and a troubling lack of communication within their home environments about college in the most general terms. Students cannot possibly receive the kind of support required to cultivate a college-going mentality if the schools – and the students themselves – don’t have a basic grasp of the families’ experience level with college. These schools, including FHS, reported low levels of parental engagement among underserved student populations. These low parental education and engagement levels go hand-in-hand with the cycle of rural generational poverty.

Far too many students in the focal population do not have the tools, resources, or guidance to help them achieve college success. The proposed program will aim to remedy this through the partnership proposed.

7. What work do you propose undertaking during the granting period?

In the development year proposed, the partnership will create the “Northwest WA Regional Tech Pipeline Program.” The partnership is requesting funding to lay the program groundwork, with pilot implementation planned the following year. The partnership will request subsequent funding for the pilot implementation year. The initial pilot cohort will begin the program in fall 2025 with approximately 10-12 students. Additional high schools in the region will be recruited to join the partnership during the development year and will be onboarded to the program the following year, with student recruitment occurring in early 2026. Full program launch will occur in fall 2026 with two cohorts serving multiple high schools. The model can be expanded to other sectors or areas of focus, including STEM, in the future. The program is modeled after the Academy of Math and Science at Normandale Community College developed by WCC’s college president, Kathi Hiyane-Brown. Students in that program are supported by industry-sponsored scholarships, paid internships, and donations to the college foundation.

At the beginning of the proposed partnership development year, WCC will hire a dedicated advisor who will oversee the program development period (summer 2024 through summer 2025), create the program application process and marketing materials (fall 2024 through winter 2025), review program applications (late spring 2025), and conduct program orientation (summer 2025). FHS graduating seniors with a common interest in technology – including computer science, computer information systems, cybersecurity, and AI – would apply to the program in early spring 2025 and enter WCC as a cohort in fall 2025. Priority will be given to historically underserved students. The dedicated advisor will work closely with FHS on student recruitment into the cohort program. FHS will help to advertise the opportunity, identify potential students for participation, and work with the college to support a smooth transition to the regional tech pipeline program from the high school setting.

Students who are accepted into the program will be expected to:

- Enroll full-time and participate in the program for two years
- Plan to earn a two-year technology-related degree (multiple available), with the option to pursue a four-year pathway at WCC
- Maintain a minimum GPA (to be determined in the development year)
- Attend monthly cohort meetings
- Attend monthly meetings with the dedicated advisor
- Engage in cohort extracurricular activities offered

The program will function like a learning community to build a sense of belonging through linked coursework in the mornings, paid tech internships in the afternoons, and events. The dedicated advisor will meet with each student monthly to evaluate progress and identify and address needs. Students in the cohort will have monthly cohort meetings and engage in extracurricular activities at least twice per quarter, such as team-building workshops, industry tours, guest speakers, and celebrations (e.g., half-way to graduation). TAG NW will help align students with internships, suggest industry representatives to co-teach classes at WCC, and connect students with potential employment after graduation. By creating a cohort experience and offering paid internships, students will not need to seek employment outside of the program and will gain practical experience giving them an advantage in hiring upon graduation. Beyond achieving their two-year degree, students would also be able to enter affordable four-year pathways offered at WCC, including IT networking – cybersecurity and a new computer science BS degree.

During the development year, the dedicated advisor will begin recruiting additional high schools in the region for participation in the program and will work with TAG NW and the WCC Foundation to identify potential industry sponsors for student scholarships.

8. How will this proposed work contribute to increasing educational attainment for the focal population(s) in your region?

The proposed partnership will work to reduce equity gaps in postsecondary achievement among historically underserved students by supporting high school graduates, initially from FHS, with an interest in technology through a cohort-based pipeline program at WCC. Students will be able to earn a two-degree technology-related degree and have the option to pursue a four-year degree at WCC. Based on the success of similar learning community model programs, the partnership expects students to achieve at high levels through the supports, sense of belonging, and hands-on training the program will offer. What truly distinguishes this proposed program and sets it up for success is its strong tie to local industry and job needs in the community. TAG NW will serve as a bridge between the tech industry and the program, leveraging its established relationships with local tech companies, tech professionals, and its professional influence to facilitate internships and mentorship opportunities to support the local career pipeline and economic development. This partner will provide training workshops and resources for WCC instructors and students, drawing on TAG NW's expertise in IT, cybersecurity, computer science, and more. They will facilitate networking events to connect program students with industry professionals and career opportunities. Students will leave the program with not only a postsecondary credential but also the real-world experience and connections that local tech employers seek in hiring new employees. The partnership expects that students graduating from the program will be highly successful in securing technology-related employment upon program completion.

In the future, the program will be expanded to additional high school in the region, contributing to even greater education attainment levels. The model can be applied beyond a tech focus to other areas as well. The program will work to secure industry sponsorships for student scholarships to eliminate or reduce tuition costs for participating students, helping to ensure success in the program and sustainability.