LIFE SCIENCE WASHINGTON

CAREER CONNECT WASHINGTON

# Life Sciences Sector

## Summary of key themes, needs, and opportunities: June 2025

Prepared by Life Science Washington

**(1) What are the top 3-5 themes you hear from employers in your sector related to workforce development?**

The employers within the Life Science ecosystem shared details on the need for additional workforce programs and shared their commitment to collaborating with targeted programs to support credibility and viability of the programs to increase awareness and enrollment.

- **A major emphasis by companies and biomedical research institutions is on the need for real-world experience developed by working in labs or on production lines along with knowledge of business operations**. Many companies require several years of experience, for example, for lab technicians, clinical research associates or scientists. This is a challenge and significant barrier for those seeking entry into the industry and important to address through initiatives put forth in the recommendations section.
- **A consistent theme emerged around a major need for career awareness of the industrial life sciences industry**. Students, teachers, and parents are unaware of the breadth of state companies and career opportunities and talent pipelines are suffering from this lack of awareness.
- **There is a lack of clear education and training pathways, credentials, and skills needed for the diversity of jobs in the industry.** The education and workforce system needs to establish a greater diversity of credentials, experiential learning, and recognized pathways (modular layering of on- and off-ramps training) to enable various career paths in response to demand across a wide swath of life sciences employers.
- **There is a need to significantly expand the limited higher education and workforce programs recognized by industry** to meet demand. There are a handful of programs at several community colleges and universities that focus on life science careers, but not enough volume for industry to consider them a primary channel to meet demand.
- **Several barriers to sourcing talent from outside the state have been emphasized by industry** which are difficult to overcome in the short term, including high cost of living in Greater Seattle, perception of more limited opportunity within the state industry cluster, competition with higher-paying industries, and difficulty incorporating remote work models that are in high demand by top talent.

**(2a) What are the 3-6 occupations that employers in your sector indicate should be high-priority for workforce development to help meet their hiring needs?**

- Lab Research Technicians & Clinical Research Coordinators
- Biomanufacturing Technicians
- Quality Control Associate and Scientist

**(2b) Which career connected learning programs are effectively meeting the hiring needs of employers in your sector?**

- Shoreline Community College's Biotechnology Program (Career Launch Endorsed Program, King/Pierce)
- University of Washington, Seattle (King/Pierce)
- Fred Hutchinson Cancer Research Institute (King/Pierce)

**(2c) Which career connected learning programs could be adjusted, expanded, or scaled to other regions to meet the hiring needs of employers in your sector?**

- **Shoreline Community College's Biotechnology Program** is ideally suited to be tailored to and expanded in Eastern Washington University, Spokane Community College in partnership with a consortium of companies to develop industry focused curriculum. Jubilant Hollister-Stier (JHS) at Spokane recently built a third Biomanufacturing facility to meet the growing need for materials for Biomanufacturing. The new facility will require an additional 200 biomanufacturing talent over the next two years. JHS has invested in adapting Shoreline's 10-week Biomanufacturing certification, and are partnering with Community College of Spokane as it aligns well with the career connected learning strategies to bring Industry and workforce partners to solve the supply issue of the talent pool. Life Science Washington is committed to working with Shoreline Community College's Biotechnology Program in an advisory capacity to develop industry aligned curriculum. However, such career connected learning needs to be replicated and expanded to train entry-level talent as well as additional hands-on training across diverse regions in the state of Washington.
- **Fred Hutchinson Cancer Center's Lab Launch Program in partnership with Shoreline Community College** is a career endorsed certificate program that is part of the pilot program that reflects characteristics of the **Technical Residency** program proposed in life science sector strategy. Fred Hutch the lead employer is partnering with additional higher ed programs to increase the student pipeline as they recruit more research labs.

**(2d) Which career connected learning programs should be developed to meet the hiring needs of employers in your sector?**

- **Career Preparation** support is critical to the success of University of Washington Bothell's Center for Biotechnology Innovation and Training (CBIT) program to increase workforce needs for the region. The Sector Accelerator funding from CCW, has been critical to the program developing curriculum that is aligned with Industry needs. The *Industry-Faculty collaboration* is fruitful in supporting career connected learning as well as engagement of Industry to develop project-based learning to build workforce talent that is job ready. The program will focus on identifying other financial support to launch the on-campus internship program to create an inclusive on-campus internship opportunity for the student cohort.
- There is a growing need for Lab Technicians within the state. The ***Technical Residency* approach** which would be a structured 2-year program with the learner receiving education from a dedicated Biotechnology program like Shoreline Community College in partnership with a consortium of non-profit research organizations (like Fred Hutch, Benaroya Research Institute, Allen Institute, Institute of Systems Biology) providing hands-on experience to provide industry relevant, job

ready skills. This program will require an appropriate financial model to incentivize non-profit research institutes to scale this program and develop a large pool of lab technicians eligible for jobs in Industry and non-profit research institutes. The Enrollment funding model would be suited for such a program to incentivize non-profit research institutes to scale and sustain the program.

- A common theme that has been coming up is the *lack of awareness and directionality* for the Life Science Industry within K-12 and 2-year and 4-year programs. Extensive **Career Exploration** support is needed to increase career awareness and journey within Life Sciences. *Fund career navigator positions* at targeted higher education institutions to enhance career awareness and to help students understand and prepare for the diversity of career opportunities within the life science industry.

**(3) What are the top three efforts, initiatives, or investments that could meaningfully support the workforce development needs of employers in your sector?**

- **Expand and Scale Industry-Integrated Experiential Learning Programs** Washington's life sciences employers need immediate access to job-ready talent through comprehensive experiential learning that addresses specific skill gaps. Implementing on-campus industry-integrated internship models at institutions like UW Bothell and Shoreline Community College removes barriers for students needing hands-on experience while providing employers with pre-trained candidates. Companies should invest in Career Launch-endorsed programs that combine classroom learning with real-world application in critical areas like biomanufacturing, clinical research coordination, and laboratory operations. Shoreline Community College's Career Launch-Endorsed Biotechnology Program achieves over 90% job placement rates with employers such as Bristol Myers Squibb, Pfizer, and Sana Biotechnology demonstrating the effectiveness of structured industry partnerships that create direct talent pipelines. These programs will be scaled through maximizing their enrollment and geographical expansion.
- **Address Critical Skill Gaps Through Targeted Credentialing Programs** Life Science Washington identified nine high-demand/high-volume jobs offering high salaries, career mobility, and requiring post-secondary credentials including Lab and Research Technicians, Clinical Research Coordinators, Quality Control specialists, and Biomanufacturing Technicians. We will work with employers to support the development of stackable credentials and accelerated training models that enable both recent graduates and mid-career professionals to quickly acquire specialized competencies. Programs like Jubilant HollisterStier's 10-week Biomanufacturing Certificate, modeled after Shoreline's successful program and adapted to meet regional workforce needs provide scalable solutions that can be replicated across the state to address employer-specific skill shortages in regulatory affairs, data science, and quality assurance.
- **Build Strategic Industry-Education Partnership Networks** Long-term workforce sustainability requires employers to actively lead curriculum development and create sustainable talent pipelines. As the intermediary for the life sciences sector, Life Science Washington bridges the gap between employers who recognize the need for a strong talent pipeline but lack bandwidth to lead workforce initiatives, and higher education institutions that struggle with aligning programs and building sustained partnerships with industry. Employers are invested in formal advisory relationships with educational institutions, support employer-led training initiatives, and participate in

consortium approaches that standardize workforce development practices. Through strategic partnerships with Washington State Opportunity Scholarship (WSOS), employers can provide exclusive internships for underrepresented students, addressing barriers such as limited industry connections, financial constraints, and lack of access to regulated lab environments while building a more diverse and sustainable workforce pipeline that reduces long-term recruitment costs. Additionally, develop statewide cross-sector career exploration to increase STEM graduates in K-12.

**(4) What are the top 3-5 approaches you recommend to increase participation of underrepresented students in your sector's high priority occupations?**

- **Career awareness** at an early age is critical in reaching more diverse populations. Support is needed for Industry to develop Career Exploration pathways in partnership with school districts/regions and higher ed partners. There is an opportunity to introduce the Bristol Myers Squibb "You can be a Scientist" partnership with Seattle School districts, which has focused on tours, staff presentation and involvement. This program has not received Career Awareness funding support, and it is important to support industry-led initiatives to incentivize industry engagement.
- The lack of accessibility to industry, career awareness, wraparound support, mentorship, and expectation of fitting into the system has impacted representation of underserved and diverse communities in the life science industry. In the State of Washington, the Washington State Opportunity Scholars (WSOS) provides scholarships and support services to eligible candidates from underserved and underrepresented communities to pursue education and provide career guidance. We recommend that the WSOS model be expanded to **pilot an internship program** in the life science industry. We intend to recruit more companies to increase the internship opportunities for the WSOS scholars.
- Providing **wrap around support** like housing stipends for internships will be critical for individuals interested and qualified from regions outside of Seattle. Most of the Life Sciences companies are based in the Greater Seattle area, which means the high cost of living and lack of affordable housing adds a barrier for individuals from rural and underserved populations. While Industry is open to providing internships, additional wrap around support would reduce the barriers for qualified non-Seattle based talent.